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GOVERNMENT OF TELANGANA



**COMMON SCHEDULE OF RATES  
AS PER  
T.S STANDARD DATA  
FOR THE YEAR 2022-23  
(Effective from 1<sup>st</sup> June 2022)**

**BOARD OF CHIEF ENGINEERS**

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# MASTER INDEX

S.No	Description	Page No.	
		From	To
1	Part-I ( Irrigation & CAD Works)	01	20
2	Part-II ( Road & Bridge Works)	21	33
3	Part-III ( Building Works)	34	373
4	Part-IV ( Public Health Works)	374	467
5	Annexure-Latest GO's -Seigniorage Charges	468	

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**Office of the Engineer-in-Chief (Admn)  
I&CAD Dept., Errum Manzil, Hyderabad**

**Proc.No. ENC/Admn/Dy.EnC/EE(Tech)/DEE-1/AEE-1/SoR 2022-23/Vol.I Dt:22.06.2022**

**Sub:** Schedule of Rates as per Telangana Revised Standard Data for the year 2022-23 -Irrigation & CAD works(Part-I), Road & Bridge Works (Part-II), Building Work Items(Part-III) and Public Health Items (Part-IV)-Approved-Printing & Communication of SoRs - Reg.

**Ref:** 1) G.O.Ms.No.49,I&CAD (PW:Reforms)Dept., dt:02.03.2009  
2) The Commissioner, Labour Dept.Lr. No H1/1733/2022 Dt.29.04.2022  
3) Minutes of Board of Chief Engineers (BOCEs) meeting on finalization of Schedule of Rates 2022-23 held on 25.05.2022.  
4) ENC (PH) Lr.No.146/ AEE-4/T2/Sor/2022-23 Dt.18.05.2022  
5) ENC (NH & Bldgs) R&B Dept Lr. No: DEE-II/AEE-10/Bldgs/SoR-2022-23 Dt.25-05-2022.  
6) ENC(SR,CRN&PPP)R&BDeptLr No.5040/EE(R)/DEE1/AEE1/2022Dt.19.05.2022.

**-::oOo::-**

The Government have approved Revised Standard Data vide ref 1<sup>st</sup> cited. The Schedule of Rates as per Telangana Revised Standard Data for the year 2022-23 is approved based on the following.

The Engineer-in-Chief (Admn), I&CAD Dept., has furnished the draft rates proposed for Labour Rates and Basic data for Irrigation Items Part-I of Common SoR for the year 2022-23.

The Engineer-in-Chief (SR,CRN&PPP), R&B Dept has furnished the draft Schedule of rates for the Part-II of Common SoR for Roads & Bridge items for the year 2022-23.

The Engineer-in-Chief (NH & Bldgs), R&B Dept has furnished the draft Building Schedule of rates for the Part-III of Common SoR for Civil, Plumbing & Electrical items for the year 2022-23.

The Engineer-in-Chief (PH), PH&ME Dept has furnished Part-IV of Common SoR for Public Health works items and Public Health Materials for the year 2022-23.

The draft schedule of rates for the year 2022-23 as furnished by the Engineer-in-Chief (admn), I&CAD Dept., Engineer-in-Chief (NH&Bldgs), R&B Dept., Engineer-in-Chief (SR ,CRN & PPP), R&B Dept., Engineer-in-Chief (PH), PH&ME Dept were discussed in detail and finalized in the annual Board of Chief Engineers meeting held on 25.05.2022 at 04.00 PM in BOCE's Conference hall, Jalasoudha, I&CAD Dept., Hyderabad.

The approved basic rates are applicable to the datas as per Revised Standard Data approved by the Government vide G.O.1<sup>st</sup> cited.

The Government vide G.O. MS.No.15 T.R&B(R-1) Department Dt: 24.12.2014 have issued orders for adoption of MoRTH data by all Engineering Departments of Telangana

State in respect of Road and Bridge works, with prevailing Standard Schedule of Rates in preparation of estimates. The Government approval is necessary to adopt any other data.

The lead & lift charges are common to all Engineering Departments. The detailed calculations are incorporated in the Lead & lift chapter in the I&CAD Works (Part-I) of Telangana Revised Standard Data.

One hard copy & compact disc containing Schedule of Rates is here with communicated.

No other items other than the items communicated by this office shall be introduced in the SoR.

The Heads of Department and Officers mentioned below are authorized to print the Schedule of Rates for the year 2022-23. The unauthorized printing & selling of the SoR is strictly prohibited. The Schedule of Rates for 2022-23 will be in force until the new SoR comes in to force.

Any discrepancies found (or) corrections required in SoR 2022-23 may be brought to the notice of the undersigned for issuing necessary corrigendum/ addendum.

The revised rates will come into force from 1st June of 2022.

The receipt of the proceedings may be acknowledged.

**Encl: SoR 2022-23 containing Part-I (Irrigation & CAD works), Part-II (Road & Bridge works) Part-III (Buildings works) and Part-IV (Public Health works)**

Sd/- G.Anil Kumar; Dt:22.06.2022  
Engineer-in-Chief(Admn)  
Irrigation & CAD Department and  
Chairman, Board of Chief Engineers

- I. Copy submitted to the Special Chief Secretary to Govt., I&CAD Dept., 6<sup>th</sup> Floor, B.R.K. Bhavan, Hyderabad for favour of information.
- II. Copy Communicated to the following Heads of Departments along with Enclosures for information.
  1. Engineer-in-Chief (NH & Buildings), Roads & Buildings Department.
  2. Engineer-in-Chief (SR, CRN & PPP), Roads & Buildings Department
  3. Engineer-in-Chief (P.H.), PH & ME Department.
  4. Engineer-in-Chief (P.R.), Panchayat Raj Department.
  5. Engineer-in-Chief (RWS) R W S & S, Department.
  6. Schedule of Rates 2022-23 & Standard data, Part-1 (Irrigation & CAD works) placing in Web site of Irrigation & CAD Department for favour of information and necessary action.

- III. Copy to the Superintending Engineer, Irrigation Circle, Irrigation & CAD Department, Red Hills, Hyderabad for necessary action
- IV. Copy communicated to the DEE (computers) with a request place the Proceedings in I& CAD department website for wide publicity.

Sd/- G.Anil Kumar; Dt: 22.06.2022  
Engineer-in-Chief(Admn)  
Irrigation & CAD Department and  
Chairman, Board of Chief Engineers

**ANNEXURE- A**

1. The SPIU (Irrigation), Centre for Good Governance (CGG), Hyderabad has developed software package linking the basic input data of Irrigation with approved data of Irrigation work items.
2. The lead and lift charges are common to all Engineering Departments. The detailed calculations are incorporated in the Lead & Lift charges chapter in the I&CAD works (Part-1) of Telangana Revised standard data.
3. The estimate sanctioning authority shall physically verify each and every Irrigation work item data incorporated in the estimate with basic input data before sanction of the estimate. Any lapses or arithmetic errors arising in the sanction of data's / estimate due to adoption of the software package lies entirely on the concerned estimate sanctioning authority only.
4. Any discrepancies / corrections required for improper basic input data appearing in the approved data's of Irrigation work items in the software package and hard copy of SoR & Standard data's (part-1) may be brought to the notice of undersigned for issuing corrections.
5. Estimate Sanction Authority shall examine the Components/Materials/Items proposed for arriving finished rate in the Data. Any Items Components/ Materials/ Items not required for that work, can be deleted by the Estimate Sanctioning Authority while according the approval to Datas.

Sd/- G.Anil Kumar; Dt:22.06.2022  
Engineer-in-Chief(Admn)  
Irrigation & CAD Department and  
Chairman, Board of Chief Engineers

**Preamble  
(SoR 2022-23)  
Common to all Engineering  
Departments**



## **PREAMBLE**

### **1. AREA ALLOWANCES:**

#### **A) CORPORATIONS & MUNICIPALITIES:**

1. a). 25% extra over the basic rates on labour component of works is allowed in all Municipal Corporation Limits of Telangana except Greater Hyderabad (up to a belt of 12 Kms. from Municipal Corporation limits) and other corporations as notified by the Government from time to time.
- b). 40% extra over the basic rates on labour component of works is allowed in Greater Hyderabad (up to a belt of 12 Km from Municipal Corporation limits).
2. 20% extra over basic rates on labour component of works is allowed in all District Headquarters and the remaining Municipal limits (up to a belt of 12 Kms from Municipal limits).

#### **B) JAIL COMPOUNDS:**

20% extra is allowed over labour rates for the works in the Jail compounds. Only equivalent number of Man Mazdoor shall be provided in the Jail premises and no women Mazdoor are allowed inside.

#### **C) INDUSTRIAL AREA:**

20% over basic rates on labour component of works is allowed for works situated within 10km belt of Industrial area of Jeedimetla, in Malkajgiri District, Lingampally, Tandur, Ibrahimpatnam and Kothuru in Ranga Reddy District, Patancheru, Ramachandrapur in Sangareddy District, Bibinagar in Yadadri-Bhongiri District, Wadepally in Nalgonda District, Nagapally (Centenary Colony, Begumpet "X" roads), Takkalapally, Ramagundam and Godavarikhani in Peddapally District, Manchiryal, Mandamarri, Bellampalli in Manchiryal District, Sarpaka, Kothagudem, Paloncha and Manguguru in Bhadradi-Kothagudem district, Singareni Collieries area limits in Khammam and Bhadradi-Kothagudem, Jayashankar-Bhoopalpally and Mulugu districts.

#### **D) AGENCY / TRIBAL AREAS:**

1. 25% extra is allowed for the works located within the interior Agency / Tribal limits, i.e. for the works located within & upto 16 KMs from any all-weather route inside Agency / Tribal.
2. 40% extra is allowed for the works located within the interior Agency / Tribal limits, i.e. for the works located beyond 16 KMs from any all-weather route inside Agency / Tribal.

#### **NOTE:**

- a) No extra percentage is permissible in respect of Forest produce such as Bamboo, Rellu grass and for all materials obtained from outside the Agency / Tribal.

- b) *The extra percentage under Agency / Tribal areas allowance may be allowed on the labour component and on the labour charges in the rates for conveyance of materials.*
- c) *The extra percentage on cost of materials in Agency / Tribal areas can be allowed on the labour component only, if they are manufactured in the Agency / Tribal areas itself except Forest produce.*

#### **E) GHAT ROADS:**

For Ghat Roads and other roads steeper than 1 in 20, the length of the road may be taken as 1.5 times the existing length of the road for the purpose of leads only for conveyance of materials based on the certificate for the Ghat Road given by the Superintending Engineer concerned.

**Foot Note:** *Under compelling circumstances, the concerned Chief Engineer can adopt the equivalent length of road as 2 ½ times of actual length.*

#### **Note:**

**Area allowances:** *If more than one area allowance (such as those) for (1) Municipalities (2) Agency / Tribal areas (3) Industrial areas are applicable for a particular situation, only the maximum out of the allowable percentages is to be allowed.*

### **3. EXCAVATION OF TRIAL TRENCHES, TRIAL PITS AND EXCAVATION IN RESTRICTED PLACES:**

#### **a). TRENCHES:**

- 1) Trenches of not more than 2 meters in width : 25% extra

#### **b). TRIAL PITS:**

- 1) Up to 2 Meters depth : 25% extra
- 2) 2 Meters to 4 Meters depth : 50% extra
- 3) 4 Meters to 6 Meters depth : 75% extra
- 4) 6 Meters to 8 Meters depth : 100% extra
- 5) 8 Meters to 9 Meters depth : 150% extra
- 6) More than 9 Meters depth : 200% extra

#### **c) EXCAVATION IN RESTRICTED PLACES: -**

- 1) Foundation of Buildings : 75% extra
- 2) For Pipe line where the depth is less than 1.5 times the width-75% extra : 75% extra
- 3) For pipe lines where the depth is 1.5 times or more than the width : 120% extra
- 4) Silt removal in restricted areas such as U.T's., Culverts and Syphons. : 120% extra
- 5) Excavation of field channels : 75% extra



- 6) For narrow trenches not more than 2 meters in : 75% extra  
width and depth not less than twice the width  
and for excavation of road boundary drains,  
model sections of canals.
- 7) High berm cutting of not more than 150 mm : 50% extra  
average thickness and sectioning for roads

**Note:** 1) *The extra percentage is allowed over Common item for all earth works (COM-MWRK-Manual Works) for corresponding soil and Standard data items. It includes the charges for all lifts and initial lead but does not include dewatering charges if any in respect of all the items under (A) and (B) above.*

- 2) *The above extra percentages in respect of excavation in hard rock for restricted places are to be allowed for (2/3)<sup>rd</sup> of the cost and shall not to be allowed in respect of items involving blasting component which may be taken as (1/3)<sup>rd</sup> of the cost.*

### **3. MANUFACTURED SAND:**

As per GO Ms No 37 Industries and Commerce (Mines-I) Dept., dated 29.05.2018, the Government have directed all the Engineering Works Departments to use Manufactured Sand (Rock sand) and natural river sand in the ratio of 50:50 in all the mixes of Cement concrete and in the items of works where sand is used earlier, to reduce the burden on Natural Resources and to make the sustainable ecosystem. Accordingly, the Manufactured Sand/Rock Sand shall be substituted proportionately in respective data items.

### **4. FLY ASH BRICKS:**

As per recommendations of Board of Chief Engineers dated 11.11.2016, and MoEF & CC amended Notification No S.O 254(E), dated 25.01.2016 all Engineering Departments shall mandatorily adopt Fly ash bricks and other Fly ash based products in Buildings and other allied works proposed within 100 Km radius of fly ash generating Coal/Lignite based Thermal Power plants in Telangana.

### **5. CONVEYANCE OF BITUMEN (BULK AND PACKED)**

Packed Bitumen	---	Rs 2.25 per Km/MT
Bulk Bitumen	---	Rs 2.00 per Km/MT (Round the trip)

### **6. SEIGNIORAGE CHARGES**

**Note:** *The rates of the materials indicated in the SoR are exclusive of Seigniorage Charges.*

Appropriate Seigniorage Charges for relevant materials as fixed by the Government from time to time shall be kept in Part-II of Schedule-A i.e., under reimbursable items as recommended by the Board of Chief Engineers.

The concerned Technical sanctioning authority should ensure that the relevant Seigniorage charges of work items shall be reconciled separately duly excluding from the data, so that, the Seigniorage charges are not affected by quoted Tender percentage.

## **7. G S T (Goods & Service Tax):**

The GST (Goods & Service Tax) on **Works Contract** shall be implemented as per orders of the Government from time to time. At present, GST @ 5% on Works Contract where in earth work component is 75% or more and for all other works GST @ 12% will be applicable.

### **GUIDE LINES**

- 1) The Schedule of Rates (**SoR**) is formulated under four Parts, which are applicable to all the Engineering Departments and other Organizations under the control of Telangana State Government.

**PART -1:** Irrigation& CAD (Dam and Allied Works, Canals and Allied Works, Canal C.D. Works, Tunnels and Allied Works, Preliminary and Maintenance Works, Hydraulic Gates and allied works and Leads and Lifts applicable to all Departments.

**PART -2:** Roads and Bridges

**PART -3:** Buildings including Electrical Works

**PART -4:** Drinking Water Supply and Public Health (Only for works done by manual means)

## **2) Brief description of item of work:**

Brief description of the item of work to cover all important aspects of the work included in the Data. On reading the description of the item, the user should be in a position to assess the various cost components involved in the work.

## **3) Data for assessing quantities:**

The data reflects various assessments / assumptions made in arriving at the quantities of materials, machinery, labour and other in-puts. In case of plants and equipment the output of main plant is worked out and the requirement of all other inputs and assessed to match the output of the main plant. Cycle time of operations is the criteria for assessing the output of equipment. Generally, the equipment manufacturers furnish the output of machinery under ideal conditions of working. Suitable job and management efficiency factors are considered while working out the average output of machinery under field conditions. In case of combination of machinery and manpower, the assessment of manpower shall match the output of machinery.

Though cycle time of operations is the criteria for hourly / daily out-put of machinery work-force, the actual progress of work depends on several other factors such as power interruptions, minor break-downs, time for meals and other needs of work-force, stray rains

etc. Therefore, it is the general practice to consider 50 minutes as the actual working time per hour for working out the hourly / daily out-put of machinery / work-force. CWC / BIS guide-lines stipulate the actual working hours for the purpose of equipment planning and utilisation. The daily out-put is computed duly considering the actual available working time and feedback from the field.

- For gate and hoist works, it is the general practice to specify the quantity of work in terms of number of sets of embedded parts / gates. The requirement of machinery and work-force for cutting, bending, fabrication, erection, painting etc., is assessed to commensurate with the task involved.
- The data for gates and E.M. Parts is arrived per Metric Tonne (MT) quantity.
- The data for Hoists and Gantry Cranes is worked out on the basis of capacity in tonnage.

4. **The lead and lift charges** provided in SoR are generally applicable and common to all Engineering Departments. Any item which is not covered in this part, the rates as provided in the data of the relevant works may be adopted in preparation of estimates.

5. **Input Basic Materials** needed for all works are listed and incorporated in the data. The requirements are analyzed and the specifications adopted shall confirm to Standards published by the BIS.

- The labour and material rates will be communicated by the Board of Chief engineers.
- Unless otherwise specified, all material rates shall be exclusive of GST.
- For Sand, Gravel, Murrum, Stones, Coarse Aggregates etc, the rates are ex-quarry/Stock yard, adding loading charges by machinery / manual means and idle hire charges of machinery as per table under chapter “conveyance or lead and lift charges”, as applicable.
- For AC sheets, GI sheets, Hume pipes, wood and stone slabs, the rates are to be taken prevailing at major commercial centre near project area. The lead charges, as applicable are to be added in preparing estimates
- For Steel and Cement, the rates are delivery at site excluding GST.
- The specifications of the aggregates for sizes and gradation and its adoption shall be as per IS 383.

6. **The Labour** component in the data is mentioned for unit work.

- No allowance towards labour importation and labour amenities added extra as they are included in the recommended overheads.
- On Labour Component: Certain additional allowances are added extra to the wages of labour (i.e. only on labour component in the work item) in the form of percentage, as recommended by the Government/Board of chief engineers due to statutory and other provisions.

**7) Hire Charges of Machinery:** The machinery and /or group of machinery for items of works and their output has been worked out based on the availability of machinery generally in the market and working in the field successfully, duly considering cycle time, idle time, operator efficiency, type of work etc.

- The hire charge of a machinery / equipment is worked out based on the guidelines published by CWC and BIS codes.
- For the other machinery not covered by the list, the R&B and other users may adopt hire charges as recommended by the MORTH.

## **8) Lead Charges**

- a. The high level committee has recommended to adopt, for conveyance by head load, a minimum lead of 50 meters and additional lead up to 150 meters in the intervals of 50 meters. Beyond 150 meters' lead, only machinery rates are to be adopted.
- b. The basic work item rates provided in the Standard Data & Schedule of rates include 50 m or 1 km as initial lead and no lead charges shall be allowed where the source of material is within the initial lead specified in item rate. Additional lead charges shall be allowed for the lead exceeding initial lead specified in the item rate. The Guidelines may be followed regarding adding Lead charges as given against each chapter.
- c. For the materials where the basic rates are mentioned as "Quarry Rates" in the SoR, which includes initial lead of 1.00km lead charges are to be added for the lead distances from the approved quarries as applicable
- d. The lead charges per unit quantity for conveyance of the materials are worked out, and included in the schedule of rates in increment of 50 m for head load and in increment of 1 km for mechanical mode.
- e. The rates for lead charges by head load up to 150 meters and by machinery up to 5 km, shall be cumulative and inclusive of lead charges for preceding lead. For lead beyond 5 km, the lead charges shall be worked out on per km basis.

## **9. Loading and Unloading Charges for Materials**

The following features are considered:

- a. Loading and unloading charges are not payable for conveyance by head load.
- b. Loading and unloading charges are not payable for conveyance by mechanical means, for disposal of excavated material unless specified.
- c. The rates for unloading of materials except earth, sand, gravel, coarse aggregate, rubble, size stone and cut stone, are inclusive of stacking wherever applicable.

## **10. Lift Charges:**

- a. The data includes initial lift charges of 3.0 meters, for materials conveyance by head load, Additional leads in the interval of 1.0 meters are worked out, as additional labour input and incorporated in the chapter on "Lead and lifts"

- b. Where the conveyance / lifting of material is done by mechanical means, lift charges shall not be considered, as the cycle time of operation of the machine includes lifts involved.
- c. The data and rates for lift charges is cumulative and are inclusive of rates for preceding lifts also.

#### **11. Wastage of Materials**

- a) **Cement:** No wastage allowance is recommended towards the quantity of cement used in works, as the wastage is already included in the input and in major works bulk quantities are used.
- b) **Steel:** The wastage of steel @ 2.5% is allowed for gates and allied structures. For RCC works the wastage is @2.5% for the reinforcement rods above 36mm dia. and @ 5% for rods below 36mm dia. including overlaps, if they are not welded. If welding is adopted for the reinforcement rods even for below 36mm dia, 2.5% of wastage is only recommended.

**12. In Respect of RCC Works,** the rate for cement concrete for 1 cum is worked out separately for all grades based on Indian Standards. The rate of Reinforcement steel per MT is calculated separately and to be added in the estimates of RCC works as a separate item.

**13. Soil Classification:** The Committee recommended to allow uniform classification of soils for all Departments and data is worked out accordingly.

- 1. All soils
- 2. Marshy soil
- 3. Ordinary rock (Not Requiring Blasting),
- 4. Hard rock
  - a. Hard Rock (Requiring Blasting)
  - b. Hard Rock (Controlled Blasting)
  - c. Removable by Chiseling (Blasting Prohibited)

#### **14. Use of Super Plasticizers and Admixtures:**

Concrete admixtures such as Air-Entraining Agent (AEA) / Water reducing agent can be used advantageously for better quality concrete. The high level committee has recommended to adopt for super plasticizers and admixtures at 0.4% on cement for concrete work as per MORTH standards for batching plants.

#### **15. Contractors overheads, profit and other provisions:**

- a) The provisions allowed in G.O.Ms.No.94, I&CAD, dated 01.07.03, need not be added separately for the items covered in the contractor overhead charges.
- b) For all Road & Bridge works Overheads & Contractors profit shall be allowed as specified in the **MoRTH** Standard Data Book.

- c) Overheads and Contractor's profit @ 13.615% shall be allowed in the data which includes labour importation and amenities etc. as mentioned below.

**The overhead charges include the following elements:**

- i. Site accommodation, setting up plant, access road, water supply, electricity and general site arrangements.
- ii. Office furniture, equipment and communications
- iii. Expenditure on:
  - a. Corporate office of contractor
  - b. Site supervision
  - c. Documentation and "as built" drawings
- iv. Mobilisation/ De-Mobilisation of resources
- v. Labour camps with minimum amenities and transportation to work sites.
- vi. Light vehicles for site supervision including administrative and managerial requirements.
- vii. Laboratory equipment and quality control including field and laboratory testing.
- viii. Minor T & P and survey instruments and setting outworks, including verification of line, dimensions, trial pits and bore holes, where required.
- ix. Watch and ward
- x. Traffic management during construction
- xi. Expenditure on safeguarding environment
- xii. Sundries
- xiii. Financing Expenditure

**16. Role of Central Competent Agency For Schedule Of Rates (Board Of Chief Engineers)**

- a) The Board of Chief Engineers under the Chairman ship of Engineer-in- Chief, (Administration) I&CAD Department is the competent authority to finalize and recommend the Schedule of Rates applicable for all Engineering Departments. The Board has to assess and incorporate only the three basic inputs required to generate unit work item rates as below.

**1. Basic rates of labour:**

Wages of labour commonly required in execution of works has to be arrived and incorporated in the schedule of rates (**Basic input of Labour wages**), without adding extra towards area allowances (like municipality allowance, tribal area and ghat road allowances etc, which shall be added to the rates where applicable in the form of separate percentage as explained in the preceding paras. The rates shall be the prevailing daily rates in the State and shall not be less than the minimum wages fixed by the Government from time to time.

## **2. Materials Rates:**

The basic input material rates common to all departmental works are listed out and incorporated (in the chapter “Basic inputs”) The material specifications adopted shall confirm to Standards published by the BIS.

The Prevailing market rates for all basic input materials shall be obtained from the major commercial centers near the project areas. Average of the rates, ignoring freak rates, shall be reckoned as the prevailing market rate excluding all taxes viz., GST.

For sand, gravel, murrum, stones, aggregates etc., the rates are ex-quarry/stock yard including loading charges and idle hire charges. For steel, Cement, AC sheets, GI sheets, Hume pipes, wood and stone slabs, the rates prevailing at major commercial centre near project area has to be adopted.

## **3. Use Rate of Machinery:**

The third parameter for incorporation in the Basic Inputs, is the use rate of machinery. To arrive at the use rate of machinery, the inputs to be incorporated are

- i. The list and capital cost of machinery required to be used in the construction activity, The rate has to be obtained from major manufacturers and outlet sources and the rate shall be the current market price excluding all taxes and duties i.e G.S.T etc. and including freight charges.
  - ii. The prevailing fuel charges of petrol and diesel are ascertained and average rate adopted
  - iii. Borrow rate of interest as fixed by the Government/competent authority be indicated.
  - iv. For the other machinery not covered by the list, the R&B and other users may adopt hire charges as recommended by the MORTH
- b) The Chairman, Board of Chief Engineers(BOCEs) or competent authority appointed by the Government, based on the approved basic inputs, load the above three basic parameters in the software program. The unit rate of all works including hire charges of all machinery will be generated automatically for adoption.

**The Chairman, BOCEs shall communicate the uniform Schedule of rates arrived from Standard Data, to all users for uniform and direct adoption in all infrastructure Departments, as applicable.**

Sd/- G.Anil Kumar; Dt:22.06.2022  
Engineer-in-Chief(Admn)  
Irrigation & CAD Department and  
Chairman, Board of Chief Engineers





**PART-I**  
**IRRIGATION & CAD**  
**WORKS**



**BASIC DATA  
FOR  
IRRIGATION WORK ITEMS**

# PART-1 INDEX

## IRRIGATION & CAD WORKS

Sl. No.	Description	Page No	
		From	To
1	Irrigation Work Items	01	11
2	Labour Rates	12	15
3	Hire Charges	16	17
4	Conveyance Charges of Materials	18	20

**SCHEDULE OF RATES  
BASIC DATA FOR  
IRRIGATION WORK ITEMS  
FOR THE YEAR 2022-23  
STATEMENT OF RATES FOR MATERIALS**

**General Guide Lines for Revising Rates of Materials**

1. Average of the prevailing market rates, ignoring freak rates, shall be the criteria for fixing market rates for materials.
2. The rates for materials is exclusive of seigniorage charges wherever applicable.
3. The rates for materials, except those for which lead charges are admissible as per the statement of lead charges, shall be for all leads.
4. The rates provided for useful rubble / stone chips from excavation shall be at dump yard

Sl. No.	Description of material	Unit	Scheduled Rates
1	Acetylene gas	cum	386.00
2	Asphalt 80/100 Grade	Kg	52.00
3	Binding wire	Kg	71.00
4	Burnt stone slab 10 cm thick	sqm	298.00
5(a)	Ordinary Portland Cement (43/53 GRADE) *(Note: As per Monthly rate fixed by SubCommittee)	tonne	*5600.00
5(b)	Portland Pozzolona cement *(Note as per monthly rate fixed by committee)	tonne	*5500.00
5(c)	Portland Slag Cement *(Note as per monthly rate fixed by sub-committee)	tonne	*5400.00
6	Chequered plate	Kg	68.00
7	Coarse aggregate 10-4.75 mm(excluding Seigniorage charges)	cum	768.00
8	Coarse aggregate 20-10 mm(excluding Seigniorage charges)	cum	1000.00
9	Coarse aggregate 40-20 mm(excluding Seigniorage charges)	cum	899.00
10	Coarse aggregate 80-40 mm(excluding Seigniorage charges)	cum	568.00
	<i>The aggregate rates mentioned above (from Sl.No.7 to Sl.No.10) are exclusive of Seigniorage charges but including blasting charges of Rs.90/cum and 25% machine crushing charges. However, if the metal is obtained from hand broken, the blasting and crushing charges shall be deducted. The aggregate shall be HB Stone of Granite, Dolomite, Dolerite and Trap. (Quartzite and Basalt with aggregate impact of less than 20)</i>		
11	Coir brush	Each	51.00
12	Copper sheet 16 SWG	kg	690.00
13	Coursed rubble stone 30 x 30 x 45 cm(excluding Seigniorage charges)	Each	30.00
14	Coursed rubble stone 30 x 30 x 60 cm(excluding Seigniorage charges)	Each	36.00
15	Curing Compound	Ltr	143.00
16	D - cord	Rm	10.00
17	Delay - noiseless trunk	Each	18.00
18	Detonating fuse coil	Rm	9.00
19	Detonating shock tube / Cord relays	Rm	37.00

Sl. No.	Description of material	Unit	Scheduled Rates
20	Detonator delay type	Each	19.00
21	Detonator electric	Each	12.00
22	Detonator ordinary	Each	10.00
23	Empty cement bag	Each	7.00
24	Explosive ANFO	kg	67.00
25	Explosive ANFO high strength booster	kg	78.00
26	Explosive small dia ( Kelvex-220 or equivalent)	kg	83.00
27 (a)	Fine aggregate/ sand(un-screened) for Concrete & Filtering items) (excluding Seigniorage charges)	cum	630.00
27 (b)	Fineaggregate/Sand(unscreened)for filling and blindage (excluding Seigniorage charges)	cum	630.00
28	Fine aggregate /Sand (Screened) for Mortar ,Plastering items and Sand blasting items (excluding Seigniorage charges)	cum	830.00
29	Geo-textile ( filter fabric ) 160 gsm	sqm	42.00
30	Geo-textile ( filter fabric ) 200 gsm	sqm	50.00
31	Geo-textile ( filter fabric ) 250 gsm	sqm	59.00
32	G I Pipe 100 mm dia B Class	Rm	850.00
33	G I Pipe 15 mm dia A class	Rm	107.00
34	G I pipe 25 mm dia A class	Rm	162.00
35	G I pipe 40 mm dia B class	Rm	274.00
36	G I pipe 50 mm dia A class	Rm	312.00
37	G I Pipe 80 mm dia B Class	Rm	561.00
38	G.I Bolts / Nuts and Washers	kg	99.00
39 (a)	G.I sheet ( plain )	tonne	64774.00
39 (b)	G.I sheet ( Corrugated )	tonne	64532.00
40	Hariyala turfing sods	sqm	43.00
41	Hectometer stone one line dressed	Each	351.00
42	Hemp yarn	kg	85.00
43	Honne wood planks	cum	66440.00
44	Hume pipe with collar 150 mm dia	Rm	351.00
45	Hume pipe with collar 300 mm dia	Rm	600.00
46	J- Bolts 30 cm long	Each	48.00
47	Jungle wood planks	cum	29484.00
48	Khandki stone 15 to 20 cm height	Each	18.00
49	Khandki stone 20 to 25 cm height	Each	21.00
50	Khandki stone 25 to 30 cm height	Each	24.00
51	Kilometer stone one line dressed	Each	525.00
52	LDPE sheet ( Geo membrane ) 500 micron thick	sqm	108.00
53	LDPE sheet ( Geo membrane ) 750 micron thick	sqm	149.00
54	LDPE sheet ( Geo membrane ) 1000 micron thick	sqm	195.00
55	M S Bolts / Nuts / Washers	kg	85.00
56	Murum(including loading charges <b>but excluding</b> Seigniorage charges )	cum	255.00
57	Oxalic acid	Ltr	90.00
58	Oxygen gas	cum	56.00
59	PVC sealing strip	Rm	51.00

Sl. No.	Description of material	Unit	Scheduled Rates
60	PVC water stopper 310 mm wide	Rm	437.00
61	PVC pipe of 100 mm dia	Rm	172.00
62*	Reinforcement steel (HYSD/TMT ) from Primary steel producers like TATA, SAIL, VSP, JSW, Jindal Panther, AF STAR TMT/MS LIFE TMT, RADHA TMT, SUGNA TMT *(Note: As per Monthly rate fixed by Sub-Committee)	tonne	*77,000.00
63	Resin bond Cement capsule	Each	56
64	Rough stone 20 x 20 x 75 cm ( Including Loading charges <b>but excluding</b> Seigniorage Charges)	Each	41
65(a)	Shahabad stone slab polished (including loading charges <b>but excluding</b> Seigniorage charges)	sqm	284
65(b)	Shahabad stone slab non polished (including loading charges <b>but excluding</b> Seigniorage charges)		232
66	Stone chips (at dump yard/Spoil)(including loading charges <b>but excluding</b> Seigniorage charges)	cum	227
67	Stone chips ( at quarry )(including loading charges <b>but excluding</b> Seigniorage charges)	cum	540
68	Structural steel angle / channel / beam / bars *(Note: As per Monthly rate fixed by Sub-Committee)	tonne	*69,000
69	Structural steel plate / flats (including loading charges) *(Note: As per Monthly rate fixed by Sub-Committee)	tonne	*83,000
70	Super Plasticizer (Conplast RP-264 or equivalent )	kg	64.00
71	Synthetic Enamel paint 1st quality	Ltr	228.00
72	Synthetic adhesive ( Resin + Hardener )	Kg	330.00
73	Tar felt joint filler board 12 mm thick	sqm	390.00
74	Tar felt joint filler board 20 mm thick	sqm	597.00
75	Through stones 20 x 20 x 30 to 45 cm (including loading charges <b>but excluding</b> Seigniorage charges)	Each	29.00
76	Through stones 25 x 25 x 45 to 60 cm long (including loading charges <b>but excluding</b> Seigniorage charges)	Each	53.00
77	Through stones 30 x 30 x 65 to 75 cm long (including loading charges <b>but excluding</b> Seigniorage charges)	Each	80.00
78	Un-coursed rubble stones ( at dump yard /Spoil) (including loading charges <b>but excluding</b> Seigniorage charges)	cum	218.00
79	Un-coursed rubble stones ( at quarry )( including loading charges <b>but excluding</b> Seigniorage charges)	cum	419.00
80	Water proofing compound	kg	108.00
81	Welding electrodes 4 mm dia	Each	13.00
82	Wire brush	Each	44.00
83	Wire mesh 20 gauge	sqm	238.00
84	Zinc chromate red oxide primer paint	Ltr	172.00
85	inorganic zinc silicate	Ltr	505.00
86	solvent less coal tar epoxy paint	Ltr	230.00
87	Zinc phosphate primer	Ltr	184.00
88	Allkyd based iron oxide paint	Ltr	160.00
89 (a)	a) Cost of hdpe (75mm dia) (6 kg/cm <sup>2</sup>	Rm	190.00
89 (b)	b) light black MS casing pipe 80mm dia (4mm thick)	Rm	639.00

Sl. No.	Description of material	Unit	Scheduled Rates
90	welded steel wire fabric 100X100X5 mm size	Kg	181.00
91	Protective Mastic	Ltr	449.00
92	Solventless coal tar epoxy (brown)	Ltr	230.00
93	Excavation of drain with Excavator	cum	48.00
94	Crushed stone sand/Rock sand 4.75mm to 2.36 mm as per IS 383 (1970) (excluding Seigniorage charges)	Cum	596.00
95	Fly ash conforming to IS: 3812 ( Part II & I)	Cum	75.00
96	Benching old embankment slopes 0.45 X 0.45 M	RM	8.00
97	Laying of Sand Bags in the stipulated places including cost of empty cement bag, sand, thread, stitching charges and labour charges etc., with 13.615% overhead charges and contractors profit.	per bag	37.00
98	Rough stone for revetment 225mm thick ( including Loading charges but excluding Seigniorage charges)	cum	228.00
99	Eradication of Weed growth from Drains, Canals by spraying Chemicals	sqm	3.00
100	Thinner	Ltr	87.00
101	Credit for excavated rock found suitable for use	Cum	222.00
102	Earth Cost or compensation for earth taken from private land (Excluding Seigniorage Charges)	Cum	72.00

**\*(Note: As per Monthly rate fixed by Sub-Committee) -May 2022 Month Rate**



**MATERIALS FOR GATES & HOISTS**  
**FOR THE YEAR 2022-23**

**GUIDE LINES**

1. For cast steel / Alloy steel / Forged steel / Bronze, aluminum alloy components the rates shall be inclusive of cost of basic metal for these components, casting / forging charges, machining charges and applicable excise duty on finished alloy component.
2. For other materials the rates shall be prevailing market rates.

Sl. No.	Description of material	Unit	Scheduled Rates
1	Alloy steel ( IS : 1570-carbon steel ) shafts	Kg	252.00
2	Alloy steel ( IS : 1570-stainless steel ) pins	Kg	430.00
3	Bolt / Nut / Washer ( hot dipped galvanized )	Kg	123.00
4	Bolt / Nut / Washer ( stainless steel )	Kg	321.00
5(a)	Bronze (IS:305)bearings/bushes	Kg	968.00
5(b)	Aluminum alloy(IS:305)bearings/bushes	Kg	375.00
6	Cast iron blocks	Kg	90.00
7	Cast steel drums / gears	Kg	248.00
8	Cast steel pinions	Kg	228.00
9	Cast steel wheels / pulleys / hubs / rollers / retainers	Kg	188.00
10	Chemical for de-greasing/ derusting/phosphate coating	Ltr	158.00
11	Coal tar epoxy paint	Ltr	222.00
12	Forged steel hooks / shackles	Kg	259.00
13	MS pipe 200 / 300 mm dia	Kg	174.00
14	MS pipe 32 mm dia	Rm	194.00
15	MS pipe 25 mm dia	Rm	165.00
16(a)	Rubber bottom seal ( IS : 11855 ) 120 X 16 mm	Rm	827.00
16(b)	Rubber bottom seal ( IS : 11855 ) 120 X 20 mm	Rm	919.00
17(a)	Rubber side seal ( music note type Teflon claded ) ( IS : 11855 ) 36 113 X 14 mm	Rm	1,586.00

Sl. No.	Description of material	Unit	Scheduled Rates
17(b)	Rubber side seal ( music note type Teflon claded ) ( IS : 11855 ) 36 125 X 16 mm	Rm	2,160.00
18(a)	Rubber side seal ( music note type uncladed ) ( IS : 11855 ) 36 113 X 14 mm	Rm	1,438.00
18(b)	Rubber side seal ( music note type uncladed ) ( IS : 11855 ) 36 125 X 16 mm	Rm	2,020.00
19	Rubber side seal Z-type ( IS : 11855 )	Rm	1,989.00
20(a)	Rubber corner seal ( Teflon claded ) ( IS : 11855 ) 36 113 X 14 mm	Each	3,087.00
20(b)	Rubber corner seal ( Teflon claded ) ( IS : 11855 ) 36 125 X 16 mm	Each	3,780.00
21(a)	Rubber corner seal ( un claded ) ( IS : 11855 ) 36 113 X 14 mm	Each	2,608.00
21(b)	Rubber corner seal ( un claded ) ( IS : 11855 ) 36 125 X 16 mm	Each	3,376.00
22	Stainless steel plates / flats	Kg	298.00
23	Welding electrode 4 mm dia x 450 mm ( radiographic low hydrogen )	Each	22.00
24	Welding electrode 4 mm dia x 450 mm ( stainless steel )	Each	27.00
25	Wire rope 6x37 constn ( IS : 2266 )	Kg	234.00
26	Zinc	Kg	216.00
27	Zinc rich ( zinc content : 90 % ) epoxy primer	Ltr	662.00

**DETAILS OF CAPITAL COST OF MACHINERY / EQUIPMENT**  
**GUIDE LINES FOR FIXING CAPITAL COST OF MACHINERY / EQUIPMENT**  
**FOR THE YEAR 2022-23**

1. The Capital cost of machinery / equipment shall be for new machinery / equipment and shall be inclusive of all taxes, duties, other levies.
2. The cost of transport vehicles / equipment shall be exclusive of cost of tyres and tubes.
3. The cost of drill rods / drill bits / air hose / water hose / road tax / insurance charges and other consumable accessories shall not be included in the capital cost.
4. In cases, where the current capital cost of machinery / equipment could not be collected through enquiries, the capital cost considered for previous year may be updated on the basis of average percentage increase / decrease in the index for machinery published in the R.B.I Bulletin.

Sl. No.	Description of material	Unit	Scheduled Rates
1	Agitator car / Transit mixer 2 cum ( excluding tyres )	Each	24,21,845.00
	tyres and tubes 6 sets		1,07,085.00
2	Air compressor 5 cmm electric	Each	7,81,085.00
3	Air compressor 7 cmm diesel	Each	10,29,285.00
4	Air compressor 7 cmm electric	Each	10,16,180.00
5	Air compressor 8.5 cmm diesel	Each	11,66,455.00
6	Air compressor 8.5 cmm electric	Each	12,05,565.00
7	Air compressor 15 cmm electric	Each	15,17,360.00
8	Angle Dozer 90 hp	Each	58,30,830.00
9	Batching plant 0.5 cum with accessories	Each	13,73,400.00
10	Batching plant 2 x 1.00 cum with accessories	Each	45,94,590.00
11	Batching plant 2 x 1.50 cum with accessories	Each	59,35,890.00
12	Bending machine	Each	5,83,610.00
13	Clamp shell and hoisting ropes	Each	34,300.00
14	Concrete bucket 1.5 cum	Each	60,015.00
15	Concrete hand mixer 45/30 ltr	Each	18,815.00
16	Concrete mixer 300/200 ltr(diesel)	Each	1,70,890.00
17	Concrete mixer 300/200 ltr ( electric )	Each	1,69,205.00
18	Concrete mixer 600/400 ltr(diesel)	Each	2,78,935.00
19	Concrete mixer 600/400 ltr ( electric )	Each	2,73,160.00
20	Concrete paver 100 Sqm / hr	Each	25,21,440.00
21	Convey mucker ( excluding tyres )	Each	41,63,215.00
	tyres and tubes 6 sets		1,01,745.00
22	Core drilling machine	Each	12,10,295.00
23	Diesel generating set 30 KVA	Each	5,51,050.00
24	Diesel generating set 50 KVA	Each	8,11,125.00
25	Diesel Loco 45 hp	Each	22,43,035.00
26	Dewatering pump 5 hp diesel	Each	38,580.00
27	Dewatering pump 5 hp electric	Each	28,580.00
28	Dewatering pump 10 hp diesel	Each	66,190.00
29	Dewatering pump 10 hp electric	Each	61,085.00
30	Dewatering pump 20 hp diesel	Each	2,11,150.00
31	Dewatering pump 20 hp electric	Each	1,19,240.00
32	Drifter	Each	11,60,915.00

Sl. No.	Description of material	Unit	Scheduled Rates
33	Drilling jumbo ( excluding tyres )	Each	13,90,500.00
	tyres and tubes 6 sets		1,01,490.00
34	Dumper 4.5 cum ( excluding tyres )	Each	16,61,000.00
	tyres and tubes 6 sets		1,00,635.00
35	Geophysical Ele.resistivity meter	Each	5,40,855.00
36	Grouting pump	Each	1,59,695.00
37	Guniting / sand blasting equipment	Each	3,10,770.00
38	Ice plant with accessories 30 t / day	Each	27,78,300.00
39	Jack hammer	Each	75,190.00
40	Needle vibrator 40 mm petrol	Each	17,035.00
41	Needle vibrator 40 mm electric	Each	15,890.00
42	Needle vibrator 60 mm petrol	Each	17,950.00
43	Needle vibrator 60 mm electric	Each	17,590.00
44	Planing machine 4 m stroke	Each	8,24,725.00
45	Plate shearing machine up to 12 mm	Each	5,16,690.00
46	Pneumatic placer 0.5 cum	Each	6,54,160.00
47	Pneumatic tamper	Each	95,425.00
48	Pug cutting machine	Each	19,875.00
49	Pusher leg	Each	56,780.00
50	Road roller diesel 10 t	Each	10,05,795.00
51	Shovel 0.50 cum 75 hp	Each	39,14,000.00
52	Shovel 0.85 cum 110 hp	Each	67,23,840.00
53	Stationery derrick crane 5 t	Each	6,88,145.00
54	Tipper 5 cum ( excluding tyres )	Each	19,27,235.00
	tyres and tubes 6 sets		99,500.00
55	Tipping tub 1.5 cum	Each	2,83,355.00
56	Tower crane 5 tonne	Each	83,04,995.00
57	Transformer 250 KVA	Each	4,96,410.00
58	Truck 10 t ( excluding tyres )	Each	17,03,365.00
	tyres and tubes 6 sets		1,01,490.00
59	Truck mounted derrick crane 5 t ( excluding tyres )	Each	24,91,650.00
	tyres and tubes 6 sets		1,00,635.00
60	Upright drilling machine	Each	65,225.00
61	Ventilation fan 20 hp	Each	2,92,330.00
62	Vibratory pad foot roller 8 t	Each	31,15,030.00
63	Wagon drill	Each	6,98,695.00
64	Water tanker 8000 ltr (excluding tyres)	Each	15,62,770.00
	tyres and tubes 6 sets		1,00,635.00
65	Welding set	Each	51,440.00
66	Winch 35 hp electric	Each	4,18,610.00
67	Hydraulic Truck Crane 30T	Each	1,65,46,950.00
	tyres and tubes 6 sets		2,12,960.00
68	Hydraulic Truck Crane 16T	Each	1,07,16,120.00
	tyres and tubes 6 sets		2,21,495.00
69	Heavy Duty Airless Spray Painting Equipment	Each	5,27,235.00

**ACCESSORIES TO MACHINERY / EQUIPMENT**  
**FOR THE YEAR 2022-23**

Sl. No.	Description of material	Unit	Scheduled Rates
1	Casing shoe bit	Each	10,325.00
2	Diamond core bit BX size	Each	11,080.00
3	Diamond core bit NX size	Each	12,515.00
4	Double tube core barrel	Each	14,605.00
5	Extension drill rod with coupling sleeve	Rm	2,395.00
6	Jack hammer drill rod 1.5 m	Each	5,390.00
7	Jack hammer drill rod 2.5 m	Each	6,505.00
8	Nozzle for Guniting / sand blasting gun	Each	785.00
9	Paving Cylinder	Each	28,620.00
10	Rails 30R ( 30 kg / m )	tonne	54,230.00
11	Reamer shell	Each	5,625.00
12	T.C. Cross bit 50 mm dia	Each	5,180.00
13	T.C. Cross bit 75 mm dia	Each	11,415.00
14	T.C. Cross bit 100 mm dia	Each	13,160.00
15	Tyres and Tubes for truck	Set	17,465.00
16	Wire rope 16 mm dia	Rm	275.00

**OTHER COSTS ON MATERIAL / MACHINERY / EQUIPMENT**  
**FOR THE YEAR 2022-23**

1. The rate provided for 'SUNDRIES' (Lump sum provision for unquantified inputs in the data rates ) shall be updated on the basis of general percentage increase / decrease in the market rates or on the basis of R.B.I 'All Commodity' index.
2. The rate for structural steel fabrication shall include cost of all materials (except structural steel), machinery, labour and one coat of primer painting.
3. Demand charges and electric power charges shall be as per prevailing APCPDCL tariff.
4. Rate of interest on capital cost shall be as approved by Government or other competent authority.

Sl No.	DESCRIPTION OF MATERIAL	UNIT	Scheduled Rate
1	Air hose 25 mm dia	Rm	181.00
2	Air hose 50 mm dia	Rm	270.00
3	Demand charges (HT-I : General-11 KVA category) on power supply	KVA / month	435.00
4	Diesel	Ltr	97.82
5	<b>Electric power (HT-VIII Category) including tax (1.5 times of the Tariff of HT-I(A): General-11 KVA category)</b>	Kwhr	11.00
6	Excise duty on Gates / Hoist supplies	%	0.00
7	Insurance charges on machinery	% / annum	0.00
8	Interest on capital cost	% / annum	9%
9	Lubricants	Ltr	240.00
10	Petrol	Ltr	109.66
11	Rivets	Kg	103.00
12	Road tax on transport vehicles	Rs./annum	R.T.A
13	Shalimastic sealing compound	Kg	106.00
14	Shutter oil	Ltr	40.00
15	Structural steel fabrication	Kg	35.00
16	Sundries ( Lump sum for un quantified inputs )	LS	26.00
17	Water hose ( pressure ) 20 mm dia	Rm	175.00
18	Steel wedges	LS	18.00
19	Elbows / Nipple / Plugs etc.,	LS	22.00
20	Soldering materials	LS	19.00
21	Steam circulation arrangement	LS	20.00
22	Fuel charges ( gas for heating )	LS	20.00
23	Vulcanizing materials	LS	22.00
24	Gas cutting set ( 2 No's 15 m hose and nozzle unit )	Each	15870.00
25	Grease	Kg	276.00
26	Welding holder set ( cable / holder / gloves / mask etc )	Each	8935.00
27	Use rate of ropes	LS	175.00

**MATERIALS FOR GATES AND HOISTS**  
**FOR THE YEAR 2022-23**

Sl. No.	Description of material	Unit	Scheduled Rates
1	Worm reducers	Each	2,34,280.00
2	Electric motor 20 hp(Double Shaft)	Each	1,11,240.00
3	Electric motor 17.5 hp(Double Shaft)	Each	80,330.00
4	Electric motor 12.5 hp(Double Shaft)	Each	67,770.00
5	Electric motor 5 hp(Double Shaft)	Each	32,670.00
6	Electric motor 3 hp (Double Shaft)	Each	21,610.00
7	Electric motor 2 hp (Double Shaft)	Each	12,730.00
8	Floating shaft 300 mm dia	Kg	210.00
9	Manual operating system	Each	30,340.00
10	Gate position indicator	Each	2,25,040.00
11	Ele-magnetic brake	Each	35,690.00
12	Electric cable / switch / control panel etc	LS	61,620.00
13	Wire rope sockets	Each	5,350.00





# LABOUR RATES



## **LABOUR RATES** **FOR THE YEAR 2022-23**

<b>Sl. No.</b>	<b>Category of Worker</b>	<b>Scheduled Rates for the Year 2022-23 (Rs)</b>
<b>I.</b>	<b>SKILLED CATEGORY:</b>	
1	Bar bender	685.00
2	Black smith / Tin smith / Rivetor	575.00
3	Blaster	685.00
4	Carpenter Cl- I	685.00
5	Electrician ( Licensed )	660.00
6	Fitter Cl- I	660.00
7	Floor Polisher / Tile Layer	575.00
8	Foreman	675.00
9	Gauge reader	570.00
10	Maistry / Work Inspector with Non-technical Qualification SSLC/SSC/HSC	685.00
11	Mason Cl- I / Brick layer Cl- I	580.00
12	Mechanic Cl- I	605.00
13	Operator Air compressor / DG set	605.00
14	Operator Batching plant	665.00
15	Operator Bus/Ambulance/ Lorry/ Tanker	665.00
16	Operator Concrete / Asphalt mixer	615.00
17	Operator Concrete / Asphalt paver	615.00
18	Operator Concrete pump / Placer/ ice plant	615.00
19	Operator Core drilling machine	665.00
20	Operator Crane/ Tower crane/ Cable way	665.00
21	Operator Drilling jumbo / Loco / Winch	605.00
22	Operator Grouting/ Guniting/ Shotcreting	605.00
23	Operator Jackhammer/Pneumatic tamper	605.00
24	Operator Pump / Ventilation fan	605.00
25	Operator Lathe/Drilling/Shearing machine	665.00
26	Operator Bending / Planing machine	605.00
27	Operator Road roller	670.00
28	Operator Shovel / Scraper / Dozer	670.00
29	Operator Spillway / Sluice gate	615.00
30	Operator Crusher / Conveyor / Mucker	615.00
31	Operator Tipper / Dumper / Transit mixer	665.00
32	Operator Concrete vibrator	615.00
33	Operator Vibratory plain / pad foot roller	610.00

Sl. No.	Category of Worker	Scheduled Rates for the Year 2022-23 (Rs)
34	Operator Wagon drill / Drifter	665.00
35	Painter Cl- I	665.00
36	Plumber / Pipe fitter	675.00
37	Sarang / Khalasi	605.00
38	Spun pipe moulder	610.00
39	Stone chiseller Cl- I / Stone cutter Cl- I	610.00
40	Struct. steel Fabricator / Marker / Erector	695.00
41	Welder / Gas Cutter	615.00
42	Welder (X-ray quality)	665.00
43	caulker	665.00
44	Bore Mechanic	665.00
45	Plumber Class-I	675.00
<b>II.</b>	<b>SEMI SKILLED CATEGORY:</b>	
1	Asphalt Sprayer / Boiler attendant	550.00
2	Bhisti	550.00
3	Boatman with boat	550.00
4	Carpenter Cl- II / Erector shuttering	550.00
5	Cartman with double bullock cart	605.00
6	Cartman with single bullock cart	550.00
7	Chavali / Navagani	550.00
8	Crowbarman / Jumper man	550.00
9	Fitter Cl- II	550.00
10	Gang man / Head / Survey mazdoor	550.00
11	Gardener / Trained mali	550.00
12	Helper Air compressor / DG set	550.00
13	Helper Batching plant	550.00
14	Helper Blasting	550.00
15	Helper Bus/ Ambulance/ Lorry/ Tanker	550.00
16	Helper Bending/Shearing/Planing machine	550.00
17	Helper Carpenter	550.00
18	Helper Concrete / Asphalt mixer	550.00
19	Helper Concrete / Asphalt paver	550.00
20	Helper Core drilling machine	550.00
21	Helper Crane/ Tower crane/ Cable way	550.00
22	Helper Drilling jumbo / Loco / Winch	550.00
23	Helper Fitter / Fabrication/Electrician	550.00

Sl. No.	Category of Worker	Scheduled Rates for the Year 2022-23 (Rs)
24	Helper Grouting/ Guniting/ Shotcreting	550.00
25	Helper Jack hammer / Pneumatic tamper	550.00
26	Helper Laboratory / Instrumentation	550.00
27	Helper Road roller	550.00
28	Helper Shovel / Scraper / Dozer	550.00
29	Helper Crusher / Conveyor / Mucker	550.00
30	Helper Tipper / Dumper/ Transit mixer	550.00
31	Helper Vibrator	550.00
32	Helper Vibratory plain/ pad foot roller	550.00
33	Helper Wagon drill/ Drifter	550.00
34	Lineman Electric / Telephone	550.00
35	Mason Cl- II / Brick layer Cl-II	550.00
36	Mechanic Cl- II	550.00
37	Painter Cl- II	550.00
38	Patkari / Neeraganti / Sowdy	550.00
39	Stone Chiseller Cl- II	550.00
40	Stone breaker / Hammer man	550.00
41	Valve man / Canal sluice operator	550.00
42	Plumber Class-II	550.00
43	Sewer Cleaner	550.00
<b>III.</b>	<b>UN-SKILLED CATEGORY:</b>	
1	Cement / Asphalt handling mazdoor	520.00
2	Civic worker	520.00
3	Man mazdoor	520.00
4	Woman mazdoor	520.00
5	Watchman	520.00
<b>IV.</b>	<b>OTHER CATEGORY:</b>	
1	Care-taker / conductor / Lift Attender	550.00
2	Cook / Mess man	550.00
3	Dhobi	550.00
4	Diploma Engineer / Surveyor	985.00
5	Diver with headgear	665.00
6	Graduate / Laboratory Assistant	685.00
7	Graduate Engineer/ Geologist	1,250.00
8	Horticulture Assistant / Photographer	605.00
9	ITI certificate holder / Tracer / Printer	695.00

Sl. No.	Category of Worker	Scheduled Rates for the Year 2022-23 (Rs)
10	Literate mazdoor	520.00
11	Stenographer / Computer Operator	725.00
12	Telephone / Wireless Operator	675.00
13	Typist / Job Typist	675.00
14	CAD operator with Diploma in Engineering/General degree with CAD certificate	985.00
15	Jeep Driver	645.00
16	Data Processing Operator	870.00
17	Laboratory Chemist with M.Sc/B.sc Chemistry having Computer Knowledge./ Laboratory Microbiologist with M.Sc / B .Sc Microbiology or B.Sc with BZC having Computer Knowledge.	985.00

**Note:-**

1. The wage should not be less than the minimum wages of schedule of employment, subject to out turn.
2. 25% extra over the corresponding Labour rates in respect of the work to be done during night time subject to issue of certificate accordingly by the concerned estimate sanctioning authority for providing in the data and by concerned Executive Engineer in charge of the work for payment. The night time allowance is applicable only to the works done under all Municipality limits only.

# HIRE CHARGES





**HIRE CHARGES OF MACHINERY**  
**FOR THE YEAR 2022-23**

Sl. No	Description of machinery	Unit	Hire charge in Rs	Fuel charge in Rs	Crew Charge in Rs.	Total in Rs
1	2	3	4	5	6	7
1	Agitator car / Transit mixer 2 cum	Hour	826.80	1479.50	379.10	2685.40
2	Air compressor 5 cmm ( electric )	Hour	111.10	332.30	225.20	668.60
3	Air compressor 7 cmm ( diesel )	Hour	247.50	1210.50	288.30	1746.30
4	Air compressor 7 cmm ( electric )	Hour	144.50	443.10	225.20	812.80
5	Air compressor 8.5 cmm ( diesel	Hour	280.50	1513.20	288.30	2082.00
6	Air compressor 8.5 cmm ( electric)	Hour	171.40	553.90	225.20	950.50
7	Air compressor 15 cmm ( electric)	Hour	137.80	1230.90	240.20	1608.90
8	Angle Dozer 90 hp	Hour	1746.80	1035.00	317.20	3099.00
9	Batching plant 0.5 cum( 6 cum/hr)	Hour	118.10	147.70	454.80	720.60
10	Batching plant 2 x 1.00 cum(15 cum/hr)	Hour	395.10	443.10	454.80	1293.00
11	Batching plant 2 x 1.50 cum(50 cum/hr)	Hour	510.50	541.60	454.80	1506.90
12	Bending machine 3000 x 12 mm	Hour	42.20	147.70	180.20	370.10
13	Clamp shell and hoisting ropes	Hour	6.20	0.00	0.00	6.20
14	Concrete bucket 1.5 cum	Hour	16.30	0.00	0.00	16.30
15	Concrete hand mixer 45 / 30 ltr	Hour	6.40	0.00	0.00	6.40
16	Concrete mixer 300 / 200 ( diesel)	Hour	58.40	134.50	302.90	495.80
17	Concrete mixer 300 / 200 ltr ( electric)	Hour	57.80	49.20	302.90	409.90
18	Concrete mixer 600 / 400 ( diesel)	Hour	95.30	269.00	302.90	667.20
19	Concrete mixer 600 / 400 ltr ( electric	Hour	93.30	98.50	302.90	494.70
20	Concrete paver 100 sqm / hr	Hour	348.60	0.00	581.60	930.20
21	Convey mucker	Hour	853.40	342.70	242.30	1438.40
22	Core drilling machine	Hour	330.60	403.50	379.10	1113.20
23	Diesel generating set 30 KVA	Hour	68.70	1076.00	180.20	1324.90
24	Diesel generating set 50 KVA	Hour	101.20	1614.00	180.20	1895.40
25	Diesel Loco 45 hp	Hour	380.60	907.90	225.20	1513.70
26	Dewatering pump 5 hp ( diesel )	Hour	9.30	134.50	151.00	294.80
27	Dewatering pump 5 hp ( electric )	Hour	3.20	49.20	113.20	165.60
28	Dewatering pump 10 hp ( diesel )	Hour	15.90	269.00	151.00	435.90
29	Dewatering pump 10 hp ( electric	Hour	6.90	98.50	113.20	218.60
30	Dewatering pump 20 hp ( diesel )	Hour	50.80	538.00	151.00	739.80
31	Dewatering pump 20 hp ( electric	Hour	13.40	196.90	113.20	323.50
32	Drifter	Hour	330.10	0.00	473.90	804.00
33	Drilling jumbo	Hour	385.70	72.60	240.20	698.50
34	Dumper 4.5 cum	Hour	642.60	677.90	303.30	1623.80
35	Geophysical Electric resistivity meter	Hour	107.90	0.00	0.00	107.90

36	Grouting pump	Hour	36.30	49.20	360.40	445.90
37	Guniting / sand blast equipment	Hour	117.60	0.00	300.30	417.90
38	Ice plant & accessories 30 t / day	Hour	185.50	1403.20	181.70	1770.40
39	Jack hammer	Hour	21.40	0.00	450.50	471.90
40	Needle vibrator 40 mm ( petrol )	Hour	6.30	30.20	218.00	254.50
41	Needle vibrator 40 mm ( electric )	Hour	5.90	9.80	218.00	233.70
42	Needle vibrator 60 mm ( petrol )	Hour	6.60	45.20	218.00	269.80
43	Needle vibrator 60 mm ( electric )	Hour	6.50	14.80	218.00	239.30
44	Planing machine 4 m stroke	Hour	114.00	147.70	288.30	550.00
45	Plate shearing machine upto 12 mm	Hour	46.80	196.90	189.50	433.20
46	Pneumatic placer 0.5 cum	Hour	185.60	0.00	119.90	305.50
47	Pneumatic tamper	Hour	21.70	0.00	360.40	382.10
48	Pug cutting machine	Hour	7.60	4.90	0.00	12.50
49	Pusher leg	Hour	12.90	0.00	0.00	12.90
50	Road roller diesel 10 t	Hour	219.80	1210.50	304.50	1734.80
51	Shovel 0.50 cum 75 hp	Hour	993.20	807.00	317.20	2117.40
52	Shovel 0.85 cum 110 hp	Hour	1706.20	1479.50	317.20	3502.90
53	Stationery derrick crane	Hour	83.70	0.00	0.00	83.70
54	Tipper 5 cum	Hour	504.80	508.40	236.90	1250.10
55	Tipping tub 1.5 cum	Hour	72.60	0.00	0.00	72.60
56	Tower crane 5 tonne	Hour	876.20	256.00	252.70	1384.90
57	Transformer 250 KVA	Hour	5226.10	0.00	0.00	5226.10
58	Truck 10 t	Hour	460.40	508.40	236.90	1205.70
59	Truck mounted derrick crane 5 t	Hour	623.10	508.40	236.90	1368.40
60	Upright drilling machine/Grinder	Hour	24.80	49.20	259.40	333.40
61	Ventilation fan 20 hp	Hour	11.90	196.90	39.10	247.90
62	Vibratory pad foot roller 8 t	Hour	1364.80	1748.50	361.90	3475.20
63	Wagon drill	Hour	190.80	0.00	379.10	569.90
64	Water tanker 8000 ltr	Hour	430.40	508.40	236.90	1175.70
65	Welding set	Hour	16.00	118.20	0.00	134.20
66	Winch 35 hp ( electric )	Hour	137.40	241.30	360.40	739.10
67*	Tractor with 2T roller	Hour	0.00	0.00	0.00	512.00
68	Hydraulic Truck Crane 30T	Hour	3318.80	118.80	715.10	4152.70
69	Hydraulic Truck Crane 16T	Hour	2237.40	75.00	715.10	3027.50
70	Heavy Duty Airless Spray Painting Equipment	Hour	127.70			127.70

**\*Part-II -R&B(SR, CRN&PPP) Hire Charges Item No.11 Data**

# CONVEYANCE CHARGES OF MATERIAL



## **LEAD/LIFT/LOADING & UNLOADING CHARGES** **FOR THE YEAR 2022-23**

### **LEAD, LIFT, LOADING AND UNLOADING CHARGES FOR MATERIALS**

1. For total lead up to 150 m (including initial lead) lead charges by head load only shall be adopted irrespective of mode of conveyance.
2. For total lead exceeding 150 m conveyance by mechanical means only shall be adopted irrespective of mode of conveyance.
3. The rates for loading at quarry including idle hire charges of trucks and hire charges per for each kilometre and up to 5 km are cumulative and inclusive of total charges for preceding lead.
4. Unless otherwise specified lead charges for Earth / Sand / Gravel / Aggregates and Stones are for loose volume and not for compacted or in-situ volume.
5. The rates for lift charges, lead charges, hire charges are cumulative and inclusive of rates for preceding lift, lead and hire charges
6. Lift charges are not payable where conveyance of materials is by mechanical means to final placing point.
7. Loading and unloading charges are not payable for conveyance by head load.
8. Loading charges are not payable for conveyance by mechanical means for disposal of excavated materials beyond initial lead of 50 m wherever specified.
9. Loading and unloading charges are not payable for conveyance by mechanical means for disposal of excavated materials beyond initial lead of 1 km wherever specified.
10. The rates for unloading of materials except earth, sand, gravel, coarse aggregate, rubble, size stone and cut stone are inclusive of stacking.
11. Hire charges are per 1KM for tippers and trucks for transport of materials from work site to dump yard and other places are cumulative & includes previous km up to 5 kms.
12. The lead & lift charges are inclusive of contractor's profit and overhead charges of 13.615%
13. ***During the BoCE meeting held on 26.05.2016, it is observed that the in some of the estimates, Lead charges are being added directly to the material basic rates for arriving the finished item rate. In view of that, the BoCE has instructed to see that while arriving the finished item rate the lead charges are to be added to the material basic rates only after deducting the provision of Contractor's Profit and Overhead charges.***

#### **COM-LDLFT-1**

##### **A. (Lead) Conveyance Charges for materials by head load**

Sl No.	Total distance ( Total lead includes initial lead )	Earth / Sand /Gravel / Murrum/ Lime/ Surki/ Size stone / Cut stone Rubble / Coarse aggregate Rs/Cum	Cement / Reinforcement steel / Structural steel Rs / tonne	PCC slab/ Shahbad slab / CC block/ BS slab/ Late-rite / Wood Rs / cum
1	2	3	4	5
1	Total lead upto 50 m (covered by item rate)	initial lead	initial lead	initial lead
2	Total lead upto 100 m	84.40	49.20	107.40
3	Total lead upto 150 m	168.80	98.50	214.80

#### **Notes:**

1. No loading or unloading charges are admissible for conveyance by head load.
2. For total lead exceeding 150 m conveyance charges by mechanical means only shall be adopted irrespective of mode of conveyance.
3. The Lead Charges are inclusive of 13.615% Contractor Profit and Overhead charges

**COM-LDLFT-2**

**B. (Lead) Conveyance charges for machinery per kilometer for transporting materials by tippers and trucks excluding loading, unloading and idle hire charges of machinery.**

**( No loading and unloading charges allowed for machinery loading and unloading )**

Sl No.	Distance	(Lead) charges for trucks and tippers for Earth / Sand /Gravel / Murrum/ Lime/ Surki/ per cu.meter	(Lead) charges for trucks and tippers for Rubble/Size stones/ Cut Stones/ Coarse aggregate per cu.meter	(Lead) charges for trucks and tippers for Cement/ Steel/ RCC poles/ AC & GI sheets/ Packed materials/ tonne	(Lead) charges for trucks and tippers per cu.meter for PCC slabs/ Shahabad slabs/ CC & Laterite blocks/ Wood/ cum	(Lead) charges for trucks and tippers per cu.meter for water/ 1000 litres	(Lead) charges for trucks per 1000 Nos. of Bricks
1	2	3	4	5	6	7	8
1	Lead upto 1 km	42.60	41.10	25.70	60.40	25.00	68.50
2	Lead upto 2 km	59.70	57.50	36.00	84.60	35.10	95.90
3	Lead upto 3 km	79.50	79.50	49.70	117.00	46.80	127.90
4	Lead upto 4 km	96.60	96.60	60.40	142.00	56.80	155.30
5	Lead upto 5 km	113.60	113.60	71.00	167.10	66.80	182.60
6	for Every km beyond 5 km upto 30 km	17.00	17.00	10.70	25.10	10.00	27.40
7	for Every km beyond 30 km	14.20	14.20	8.90	20.90	8.30	22.80

**Note: The Lead Charges are inclusive of 13.615% Contractor Profit and Overhead charges**

**COM-LDLFT-3**

**C. LOADING AND UNLOADING CHARGES BY MANUAL MEANS (idle hire charges of trucks are not added)**

Sl No.	Description of item	Earth / Sand /Gravel / Murrum/ / Surki/ Rs / cum	Rubble/ size stone/ cut stone/ Coarse aggregate,Lime in Rs/cum	cement in Rs/tonne	steel in Rs./tonne	brick work Rs/1000 No
1	2	3	4	5	6	7
1	Loading	28.00	56.00	0.00	92.40	110.70
2	Unloading	14.00	28.00	0.00	92.40	110.70

**Note: The Lead Charges are inclusive of 13.615% Contractor Profit and Overhead charges**

**COM-LDLFT-4****D. LOADING AND UNLOADING CHARGES BY MANUAL MEANS (including idle hire charges of trucks)**

Sl No.	Description of item	Earth / Sand /Gravel Murrum/ / Surki/ Rs / cum	Rubble/ size stone/ cut stone/ Coarse aggregate,Lime in Rs/cum	cement in Rs/tonne	steel in Rs./tonne	brick work Rs/1000 No
1	2	3	4	5	6	7
1	Loading	152.50	180.50	0.00	229.40	247.70
2	Unloading	55.30	90.25	0.00	229.40	247.70

**COM-LDLFT-5****E. LOADING AND UNLOADING CHARGES BY MECHANICAL MEANS (including idle hire charges of trucks)**

Sl No.	Description of item	Earth / Sand /Gravel Murrum/ / Surki/ Rs / cum	Rubble/ size stone/ cut stone/ Coarse aggregate,Lime in Rs/cum
1	2	3	4
1	Loading	70.50	132.90
2	Unloading	21.40	21.40

**Note:** The Lead Charges are inclusive of 13.615% Contractor Profit and Overhead charges

**COM-LDLFT-6****F. LIFT CHARGES FOR MATERIALS BY HEAD LOAD**

Sl No.	Total lift ( Total lift includes initial lift )	Earth / Sand /Gravel Murrum/ Lime / Surki/ Size stone / Cut stone Rubble / Coarse aggregate Rs / cum	Cement / Reinforcement steel /Structural steel Rs / tonne	PCC slab/ Shahbad slab / CC block/ BS slab / Laterite / Wood Rs / cum
1	2	3	4	5
1	Total lift upto 3 m (covered by item rate)	Initial lift	Initial lift	Initial lift
2	For Every 1.00 Lift beyond initial lift of 3 meters	9.80	7.10	13.10





**PART-II**  
**ROADS & BRIDGES WORKS**

# PART-II INDEX

## Roads & Bridge Works

S.No.	Description	Page No	
		From	To
1	Labour Rates	21	22
2	Material & Work Items	23	29
3	Hire Charges	30	32
4	Road Safety Interventions item rates	33	33

**LABOUR RATES**

Sl. No	S.S. Item No.	Description	Unit (Per)	Scheduled Rate	Remarks
1	2	3	4	5	6
<b>(A) SKILLED WORKMEN</b>					
		<b>First Class</b>			
1	a	stone cutter	Day	<b>610</b>	As per I&CAD (S.No.39)
2	b	Mason Cl-I/Brick Layer	Day	<b>580</b>	As per I&CAD (S.No.11)
3	c	Carpenter	Day	<b>685</b>	As per I&CAD (S.No.4)
4	d	Painter	Day	<b>665</b>	As per I&CAD (S.No.35)
5	e	Plumber	Day	<b>675</b>	As per I&CAD (S.No.36)
6	f	Welder	Day	<b>615</b>	As per I&CAD (S.No.41)
7	g	Fitter	Day	<b>660</b>	As per I&CAD (S.No.6)
8	h	Electrician	Day	<b>660</b>	As per I&CAD (S.No.5)
9	1	Cook	Day	<b>550</b>	As per I&CAD (S.No.2) Other Category
10	2	Mechanic	Day	<b>605</b>	As per I&CAD (S.No.12)
12	6	Blaster(licensed)	Day	<b>685</b>	As per I&CAD (S.No.3)
13	3	Barbender	Day	<b>685</b>	As per I&CAD (S.No.1)
14	7	Tipper and Heavy Vehicle Driver above 12 T	Day	<b>665</b>	As per I&CAD (S.No.15)
15		Road Roller Driver (7.5 T to 12 T)	Day	<b>670</b>	As per I&CAD (S.No.27)
		<b>Operator</b>			
16		Concrete Mixer	Day	<b>615</b>	As per I&CAD (S.No.16)
17		Vibrator	Day	<b>615</b>	As per I&CAD (S.No.32)
18		Jack Hammer	Day	<b>605</b>	As per I&CAD (S.No.23)
19		Driller	Day	<b>665</b>	As per I&CAD (S.No.34)
20	11	Pump operator	Day	<b>605</b>	As per I&CAD (S.No.24)
21	13	Wireless Operator	Day	<b>675</b>	As per I&CAD (S.No.12) Other Category
22	15	Jeep Driver	Day	<b>645</b>	As per I&CAD (S.No.15) Other Category
23	16	Work Inspector with I.T.I qualification	Day	<b>695</b>	As per I&CAD (S.No.9) Other Category
24	17	Work Inspector with LCE, LME, L.E.E qualification	Day	<b>985</b>	As per I&CAD (S.No.4) Other Category
25	18	Work Inspector with B.E (Civil Mechanical and Electrical qualification	Day	<b>1250</b>	As per I&CAD (S.No.7) Other Category
26	19	Work Inspector with Non-technical qualification SSLC/SSC/HSC	Day	<b>685</b>	As per I&CAD (S.No.10)
27	27 a(i)	Typist/Job Typist	Day	<b>675</b>	As per I&CAD (S.No.13) Other Category
28	a (ii)	Computer operator	Day	<b>725</b>	As per I&CAD (S.No.11) Other Category
29	b	"CAD Operator with Diploma in Engineering /General degree with CAD certificate"	Day	<b>985</b>	As per I&CAD (S.No.14) Other Category
<b>(B) SEMI -SKILLED WORKMEN</b>					
		<b>SECOND CLASS</b>			
30	1	Mason	Day	<b>550</b>	As per I&CAD (S.No.35) Semi-Skilled
31	b	Brick Layer and Stone Cutter	Day	<b>550</b>	As per I&CAD (S.No.35)

Sl. No	S.S. Item No.	Description	Unit (Per)	Scheduled Rate	Remarks
1	2	3	4	5	6
					Semi-Skilled
32	c	Carpenter	Day	550	As per I&CAD (S.No.4) Semi-Skilled
33	d	Painter	Day	550	As per I&CAD (S.No.37) Semi-Skilled
34	10	Telephone Operator	Day	675	As per I&CAD (S.No.12) Other Category
35	13	Hammer Man	Day	550	As per I&CAD (S.No.40) Semi-skilled
36	1	Head Mazdoor (Mukaddar)	Day	550	As per I&CAD (S.No.10) Semi Skilled
<b>(C) UNSKILLED WORKMEN</b>					
37	2	Man Mazdoor	Day	520	As per I&CAD (S.No.3) Un-Skilled
38	3	Watch Man	Day	520	As per I&CAD (S.No.5) Un-Skilled
39	5	Woman Mazdoor	Day	520	As per I&CAD (S.No.4) Un-Skilled
	<b>Note :</b> Whenever unskilled workmen are engaged for cleaning of Sewers & Septic Tanks, they may be paid double of the above wages.				
<b>(D) OTHER CONVEYANCE ITEMS</b>					
40	1	Single bullock with driver and cart	Day	550	As per I&CAD (S.No.6) Semi Skilled
41	3	Bullock pair with driver and cart	Day	605	As per I&CAD (S.No.5 ) Semi Skilled
42	6	Nava with crew	Day	550	As per I&CAD (S.No.3) Semi Skilled

**Note:**

1. The wage should not be less than the minimum wages of schedule of employment, subject to out turn.
2. 25% extra over the corresponding labour rates in respect of the work to be done during night time subject to issue of certificate accordingly by the concerned estimate sanctioning authority for providing in the data and by concerned Executive Engineer in charge of the work for payment. The night time allowance is applicable only to the works done under Greater Hyderabad Municipal Corporation and Greater Warangal Municipal Corporation limits only.

**MATERIAL RATES**

Sl. No	S.S. Item No.	Description	Unit	Scheduled Rate	Remarks
1	2	3	4	5	6
		<b>(A) STONE AND ROAD MATERIALS</b>			
		<b>ROUGH STONE QUARRIED INCLUDING WEDGING, BREAKING, BURNING, SPLITTING</b>			
1	22.a	For R.R Masonry Work (other than Granite, Dolomite and Trap	1 cum	167	
2	b.i	For SS Revetment work 225 mm	1 cum	167	
3	b.ii	For SS Revetment work 300 mm	1 cum	172	
4	b.iii	For SS Revetment work 450 mm	1 cum	142	
5	c	Jeddy Stone above 450 mm to 600 mm	1 cum	197	
6	d i.	Laterite for revetment 225 mm	1 cum	123	
7	d II.	Laterite for revetment 300 mm	1 cum	144	
8	d.iii	Granite for revetment 225 mm	1 cum	161	
9	d.iv	Granite for revetment 300 mm	1 cum	163	
		<b>Note:-</b> Only when other than granite is not available			
10	e	Laterite for masonry	1 cum	142	
11	f	Cyclopean stones above 0.2 cum	1 cum	265	
12	g	For R.R.Masonry works ( granite, dolomite and trap variety) including loading & unloading	1 cum	263	
13		NOTE:- For items 22(a) to 22© ,22d.iii,22d.iv 22(f) and 22(g) add extra Rs /cum, wherever quarrying is done by blasting	1 cum	90	
		<b>COURSED RUBBLE STONE QUARRYING WEDGING, BREAKING, BURNING AND SPLITTING FOR SS FIRST SORT WORKS</b>			
14	23.a	Granite, dolomite and trap	1 cum	274	
15	b	For other varieties	1 cum	197	
16	27	Granite stone slabs for culverts, lintels and copings (3 faces dressed coarsed rubble masonry)	1 cum	1806	
17		<b>NOTE:-</b> For items 23(a), 23(b) and 27 add extra Rs. Per Cum, wherever quarrying is done by blasting	1 cum	90	
18	28	Bond stones ( 600 x 200 x 200 mm )	each	32	
19	b	Chainage stones and Centre line stones (750x150x150xmm)	each	39	
	29 (a)	Kilometers stones ( 1100 x 370 x 250 mm)	each	Based on detailed analysis as per MoRTH Data	
	b	5th Kilometers stones ( 1520 x 520 x 250 mm)	each		
	30 (a)	Hectometers stones ( 900 x 200 x 200 mm)	each		
20	31	Demarcation Stones ( 900 x 150 x 150 mm)	each	74	
21	32.a	Guard Stones ( 1200 x 200 x 200 mm )	each	107	
22	b	Guide Stones ( 800 x 150 x 150 mm )	each	74	
23	c	Carving letters and figures in stone up to 100 mm size	each	9	
24	d	Carving letters and figures in stone above 100 mm size	each	10	
		<b>HARD BROKEN STONE OF GRANITE, TRAP</b>			

Sl. No	S.S. Item No.	Description	Unit	Scheduled Rate	Remarks
1	2	3	4	5	6
		<b>AND DOLERITE FREE FROM DUST OBTAINED BY QUARRYING, WEDGING, BREAKING, BURNING AND SPLITTING .</b>			
25	33.a	- do - 6mm size (IS383,1970)	1 cum	800	
26	b	- do - 10mm size (IS383,1970)	1 cum	950	
27	c	- do - 12mm size (IS383,1970)	1 cum	1050	
28	d	- do - 20mm size (IS383,1970)	1 cum	1100	
29	e	- do - 25mm size (IS383,1970)	1 cum	1090	
30	f	- do - 40mm size (IS383,1970)	1 cum	903	
31	g	- do - 50mm size (IS383,19705)	1 cum	650	
32	h	- do - 60mm size (IS383,1970)	1 cum	540	
33	i	- do - 65mm size (IS383,1970)	1 cum	490	
34	j	- do - 75mm size (IS383,1970)	1 cum	440	
35	k	- do - 75 to 100mm size (IS383,1970)	1 cum	440	
36		<b>NOTE:- The above items from 33 a to 33 f the rates are inclusive of Rs.90/- blasting Charges and 25% Machine crushing charges. Items from 33g to 33k are including of only blasting charges</b>		90	
37				25%	
38		(3) Deduct Rs. /- per cum if the metal or rubble is obtained from surface stone and boulders.		10.52	
39		(4) Add Rs. /- per cum for selection of stones and boulders from excavated spoil dumps for items 33 a to 33 k, when this addition of Rs. /- per Cum is allowed deduction of Rs. /- per Cum mentioned under Note (3) above should invariably be made.		18.41	
		<b>SOFT BROKEN STONE SCREENED AND FREE FROM DUST</b>			
40	33.l	- do - 40 mm size ( IS383,1970 )	1 Cum	129	
41	33.m	- do - 50 mm size ( IS383,1970 )	1 Cum	116	
42	33.n	- do - 60 mm size ( IS383,1970 )	1 Cum	91	
43	33.o	- do - 65 mm size ( IS383,1970 )	1 Cum	81	
44	33.p	- do - 75 mm size ( IS383,1970 )	1 Cum	76	
		<b>HARD BROKEN STONE OF GRANITE TRAP DOLERITE AND DOLAMITE FREE FROM DUST OBTAINED BY QUARRYING WEDGING, BREAKING, BURNING AND SPLITTING (QUARTZITE AND BASALT WITH AGGREGATE IMPACT OF LESS THAN 20)</b>			
45	33a	-do- 2.36 mm to 5 mm size ( IRC, MORTH & MORD)	1 cum	700	
	b	-do- 5 mm to 7 mm size ( IRC, MORTH & MORD)	1 cum	800	
46	c	-do- 9.5 mm to 11.2 mm size ( IRC, MORTH & MORD)	1 cum	950	
47	d	-do- 12mm to 14 mm size ( IRC, MORTH & MORD)	1 cum	1050	
48	e	-do- 19 mm to 22 mm size ( IRC,MORTH & MORD )	1 cum	1100	

Sl. No	S.S. Item No.	Description	Unit	Scheduled Rate	Remarks
1	2	3	4	5	6
49	f	-do- 25 mm to 27 mm size ( IRC,MORTH &MORD )	1 cum	1090	
50	g	-do- 40 mm to 45 mm size ( IRC , MORTH &MORD)	1 cum	903	
51	h	-do- 50 mm to 55 mm size ( IRC,MORTH & MORD )	1 cum	650	
52	i	-do- 60 mm to 63 mm size ( IRC, MORTH &MORD)	1 cum	540	
53	j	-do- 65 mm size ( IRC ,MORTH &MORD )	1 cum	490	
54	k	-do- 75 mm size ( IRC,MORTH &MORD)	1 cum	440	
55	1	<b>NOTE:- The above items from 33 a to 33 g the rates are inclusive of Rs.90/- blasting Charges and 25% Machine crushing charges. Items from 33h to 33k are including of only blasting charges</b>	1 cum	90	
56	2		1 cum	25%	
57	3	(3) Deduct Rs. /- per cum if the metal or rubble is obtained from surface stone and boulders.	1 cum	10.52	
58	4	(4) Add Rs. /- per cum for selection of stones and boulders from excavated spoil dumps for items 33 a to 33 k, when this addition of Rs. /- per Cum is allowed deduction of Rs. /- per Cum mentioned under Note (3) above should invariably be made.	1 cum	18.41	
		<b>HARD BROKEN STONE OTHER THAN GRANITE SUCH AS QUARTZ, QUARTZ-NAPA AND BASALT SCREENED AND FREE FROM DUST</b>			
59	33.q	- do - 10 mm size (IS383,1970)	1 Cum	404	
60		-do- 9.5 mm to 11.2 mm size ( IRC,MORTH & MORD )	1 Cum	404	
61	r	- do - 12 mm size (IS383,1970)	1 Cum	378	
62		-do- 12mm to 14 mm size ( IRC , MORTH & MORD )	1 Cum	378	
63	s	- do - 20 mm size (IS383,1970)	1 Cum	306	
64		-do- 19 mm to 22 mm size ( IRC,MORTH & MORD )	1 Cum	306	
65	t	- do - 25 mm size (IS383,1970)	1 Cum	300	
66	u	- do - 40 mm size (IS383,1970)	1 Cum	178	
67		-do- 40 mm to 45 mm size ( IRC , MORTH & MORD)	1 Cum	178	
68	v	- do - 50 mm size (IS383,1970)	1 Cum	157	
69		-do- 50 mm to 55 mm size ( IRC,MORTH &MORD)	1 Cum	157	
70	33.w	- do - 65 mm size (IS383,1970)	1 Cum	149	
71		-do- 60 mm to 65 mm size ( IRC, MORTH &MORD)	1 Cum	149	
72	x	- do - 75 mm size (IS383,1970)	1 Cum	122	
73		- do - 75 mm size ( IRC ,MORTH & MORD)	1 Cum	122	
74	y	- do - 75 to 100 mm size (IS383,1970)	1 Cum	96	
75		- do - 75 to 100 mm ( IRC, MORTH & MORD)	1 Cum	96	

Sl. No	S.S. Item No.	Description	Unit	Scheduled Rate	Remarks
1	2	3	4	5	6
		<b>OTHER ITEMS</b>			
76	33.z <sub>1</sub>	Laterite 40 to 75 mm ( ring)	1 Cum	106	
77	z2	kankar, hard broken kankar 40 to 75 mm ( ring )	1 Cum	78	
78	z3	Soling stone of 150 mm size of granite, trap and Dolomite varieties.	1 Cum	99	
79		<b>NOTE:-</b> (1) Add extra for items to 33(z3) Rs /- Per cum, wherever quarrying is done by blasting. (2) Wherever controlled blasting is resorted to the Chief Engineer concerned shall approve the observed data in support of SS item No. 22 a to 22 c , 22g, 23	1 Cum	90	
80	z4	Soling stone of 150 mm size other than granite variety	1 Cum	69	
81	z5	Soling Stone laterite, Kankar 150mm, surface stone	1 Cum	43	
82	z6	Field picked metal unbroken 20 mm size	1 Cum	57	
83	z7	- do - 25 mm size	1 Cum	44	
84	z8	- do - 40 mm size	1 Cum	51	
85	z9	- do - 50 mm size	1 Cum	44	
86	z10	- do - 60 mm size	1 Cum	37	
87	z11	- do - 80 mm size	1 Cum	33	
88		<b>NOTE:-</b> Add Rs. /- Per Cum for selection of stone and boulders from excavated spoil dumps for items 33 (Q) TO 33 Z , when this addition of Rs. /- Per cum is allowed deduction of Rs. /- per cum should invariably be made towards the metal or rubble if it is obtained from surface stone and boulders.			
89	34	<b>Gravel</b>	1 Cum	108	
90	35 a	Quarry rubbish	1 Cum	85	
91	b	HBG Stone Chips 2.36mm and below	1 Cum	540	As per I&CAD Sl.No.67
		<b>NOTE: Add 25% extra per cum for item 91(b) if the metal is obtained by machine crushing excluding cost of blasting</b>			
92	36.a	Sand for mortar, ceiling coat including washing screening etc.,	1 Cum		1& CAD
93	36.b	Sand for Concrete	1 Cum		1& CAD
94	36.c	Sand for filling and blindage	1 Cum		1& CAD
95	37	Clay for puddle and masonry Items 38 (a) to 39 (h) As per local prevailing rates based on competitive quotations.	1 Cum	36	
		<b>(C) LIME AND CEMENT</b>			
96	40 to 41(c)				
97	42	Cement	Metric Tonne		
		<b>NOTE: (1) The rate is material at site ( No conveyance</b>			



Sl. No	S.S. Item No.	Description	Unit	Scheduled Rate	Remarks
1	2	3	4	5	6
		charges to be allowed) 2)As per the rates applicable to the District. 3) Least of the (1) and (2 ) above may allowed 4) The price of cement will be reviewed and fixed on monthly basis as per G.O.Ms.No.94 T,R&B Dept Dt16-4-2008 and rates will be communicated separately.			
98	42.a	Labour for mixing cement mortar	1 Cum	Based on detailed analysis as per MoRTH Data	
99	b	Mixing of cement mortar by machine	1 Cum		
100	c	Grinding lime mortar or Surkhi mortar	1 Cum		98
101	d	Shell lime slaked and screened	1 Cum		982
102	e	White cement	1 Kg.	Building SSR	
		(D) MORTARS			
103	43 to 45	Items 43 to 45		deleted	
		(E) METAL AND IRON WORKS			
104		Mild steel rods 6mm dia.	One Metric Tonne	Monthly Rates will be communicated by Govt.	
105		Mild steel flats	One Metric Tonne		
106		Mild Steel, Structural Steel, I.e., Angles, Channels and I sections.	One Metric Tonne		
107		High Yield Strength Deformed Bars	One Metric Tonne		
108		Mild Steel Plates	One Metric Tonne		
		NOTE: (1) The rate are inclusive of sales tax. 2) As per the rates applicable to the District. 3) Least of the (1) and (2 ) above may allowed 4) The prices of steel will be reviewed and fixed on monthly basis as per G.O.Ms.No.94 T,R&B Dept, Dt 16-4-2008 and rates will be communicated separately.			
		III RATES OF WORKS			
		(A) CLEARING SITE			
109	1.a	Clearing heavy Jungle	1 Sqm	Based on detailed analysis as per MoRTH Data	
110	b	Clearing light Jungle	1 Sqm		
111	c	Clearing Scrub Jungle	1 Sqm		
112	d	Clearing Juliflora (Prosafis) jungle including up-rooting and removing of Juliflora stumps.	1 Sqm	4	
113	2.a.i	Cutting and removing Palmyrah trees including stacking of girth 30 to 100 cm.	Each	20	
114	ii	- do - 100 to 200 cm.	Each	46	
115	2.b.i	Uprooting and removing Palmyrah stumps including stacking of girth 30 to 100 cm.	Each	48	

Sl. No	S.S. Item No.	Description	Unit	Scheduled Rate	Remarks
1	2	3	4	5	6
116	ii	- do - 100 to 200 cm.	Each	51	
117	2.c.i	Cutting and removing date trees including stacking of girth 30 to 100 cm	Each	25	
118	ii	- do - 100 to 200 cm	Each	36	
119	d.i	Uprooting and removing stumps of date trees including stacking of girth 30 to 100 cm.	Each	25	
120	ii	- do - 100 to 200 cm	Each	32	
121	e i	Cutting and removing other kind of trees including stacking of girth 30 to 100 cm	Each	32	
122	ii	- do - 100 to 200 cm	Each	48	
123	iii	- do - above 200 cm	Each	78	
124	f.i	Uprooting and removing stumps of other kind of trees including stacking of girth 30 to 100 cm.	Each	25	
125	ii	- do - 100 to 200 cm	Each	34	
126	iii	- do - above 200 cm	Each	43	
127	3.a	Uprooting and clearing prickly pear jungle	1 Sq.m	2	
128	b	- do - under 2.5 meters height including burning and burying as directed.	1 Sq.m	3.19	
129	c	- do - over 2.5 meters height including burning and burying with an initial lead of conveyance	1 Sq.m	3.63	
130	4.a	Removing of natchu, goobi, thooti etc., from drains, channels including clearance if not more than 1 metre depth of water with an initial lead of 10 metres and lift of 2 metres.	1 Sq.m	1.98	
131	b.i	Clearing alchi, tilla	1 Sq.m	3.96	
132	b.ii	Removal of Jammu	1 Sq.m	3.41	
133	c.i	Removal of imponea, cornea	1 Sq.m	3.74	
134	c.ii	Removal of water hyacinth up to 30 cm thick.	1 Sq.m	3.85	
135	c.iii	- do - more than 30 cm thick	1 Sq.m	5.28	
136	d	Removal of natchu, goobi, thooti etc., for every extra lead or lift over the initial lead or lift.	1 Sq.m	1.43	
		<b>(B) DISMANTLING</b>			
	5	<b>DISMANTLING, CLEARING AWAY MATERIALS USEFUL FOR REUSE.</b>			
137	n.(i)	Dry rough stone revetment for aprons and stacking within 40 metres	1 cum	64.90	
		<b>(C) QUARRYING AND BLASTING</b>			
138	6	Blasting and removing hard granite measured in solid	1 cum	Based on detailed analysis as per MoRTH Data	
	7	<b>Drilling holes in hard granite or sheet rock</b>			
	a)	<b>Manually ( Hand)</b>			
139	i)	20 mm dia meter	1 RM	130	
140	ii)	25 mm dia meter	1 RM	136	
141	iii)	36 mm dia meter	1 RM	157	
	b)	<b>Pneumatic Compressor</b>			

Sl. No	S.S. Item No.	Description	Unit	Scheduled Rate	Remarks
1	2	3	4	5	6
142	I)	20 mm dia meter	1 RM	146	
143	ii)	25 mm dia meter	1 RM	158	
144	iii)	36 mm dia meter	1 RM	173	
	8	<b>Grouting the holes with neat cement slurry excluding cost of steel</b>			
145	I)	20 mm dia meter	1 RM	92	
146	ii)	25 mm dia meter	1 RM	116	
147	iii)	36 mm dia meter	1 RM	144	
271		Jute Rope	Mtr	9	
272		De bonding Strips	Mtr	11	
273		Selent	Ltr	73	
274		Ply sheet 125 micron	1 Sqm	19	
275		Rural water	1 kl	80	
276		Urban water	1 kl	108	

**HIRE CHARGES FOR MACHINERY**

Sl. No.	Description		Unit	Scheduled Rate	Remarks
	Machine	Activity		( Rupees)	
1	2	3	4	5	6
1	Dozer( D 80 )	Spreading	Per Hour		As per I&CAD S.No 8
		Cutting			
		Cleaning			
2	Dozer( D 50 )	Spreading Cutting Cleaning	Per Hour	1934	
3	Mortor Grader	Clearing	Per Hour	3962	
		Spreading			
		GSB			
		WMM			
4	Hydraulic Excavator	Soil Ordinary	Per Hour		As per I&CAD S.No.52
		Soil Marshy			
		Soil unsuitable			
5	Front end loader	Soil loading	Per Hour	2028	
		Aggregate loading	Per Hour		
6	Tipper- 5.5 Cum	Transportation of soil, GSB,WMM, Hot mix etc	Per Hour		As per I&CAD S.No.54
			Per tonne	9	
7	Vibratory roller 8 tonne	Earth/Soil, GSB,	Per Hour		As per I&CAD S.No.62
		WMM			
8	Smooth wheeled roller 8 tonne	Soil compaction ,BM compaction	Per Hour		As per I&CAD S.No.50
9	Water tanker 8 Kilolitre	Water transport	Per Hour		As per I&CAD S.No.64
10	Water tanker 6 Kilolitre	Water transport	Per Hour	769	
11	Tractor	Pulling	Per Hour	512	
12	Tractor with rotavator	Scarifying	Per Hour	520	
13	Tractor with ripper attachment	Scarifying	Per Hour	625	
14	Air Compressor	General purpose	Per Hour		As per I&CAD S.No.2
15	Wet mix plant 60 TPH	Wet mix	Per Hour	2028	
16	Mechanical broom Hydraulic	Surface cleaning	Per Hour	440	
17	Bitumen Pressure Distributor	Applying bitumen tack coat	Per Hour	1846	
18	Emulsion Pressure Distributor	Applying emulsion tack coat	Per Hour	1059	
19	Hot mix Plant -100- 120 TPH capacity	DBM/BM/SDC	Per Hour	38683	
		/Premix			
20	Hot mix Plant - 40-60 TPH capacity	DBM/BM/SDC	Per Hour	30141	
		/Premix			
21	Paver Finisher Hydrostatic with sensor control 100 TPH	DBM/BM/SDC	Per Hour	3770	
		/Premix			

Sl. No.	Description		Unit	Scheduled Rate	Remarks
	Machine	Activity		( Rupees)	
1	2	3	4	5	6
22	Paver finisher Mechanical 100	Paving of WMM, paving of DLC	Per Hour	2771	
23	Hydraulic Chip Spreader	Surface dressing	Per Hour	3163	
	Tandem Road roller	Rolling of Asphaltic surface	Per Hour	2028	
24	Pneumatic Road roller	Rolling of Asphaltic surface	Per Hour	1581	
25	Pot-Hole repair machine	Repair of pot-holes	Per Hour	1041	
	Bitumen boiler oil fired	Bitumen Spraying	Per Hour	257	
26	GSB Plant 50 Cum	Producing GSB	Per Hour	1408	
27	Mastic Cooker	Mastic wearing coat	Per Hour	80	
28	Batching and Mixing Plant (a) 30 Cum capacity	Concrete mixing	Per Hour	1518	
	(b) 15 - 20 Cum capacity	Concrete mixing	Per Hour		As per I&CAD S.No.10
29	Transit mixer	Transportation of concrete mix	Per Hour		As per I&CAD S.No.1
30	Concrete pump of 45 and 30 cum	Pumping of Concrete	Per Hour	989	
31	Cranes				
	(a) 80 tonnes	Lifting purpose	Per Hour	1443	
	(b) 35 tonnes			975	
	(c) 3 tonnes			433	
	(d)Crane with grab bucket 0.75 cum	Well foundation	Per Hour	2661	
	(e)Crane with grab bucket 1 cum	Well foundation	Per Hour	4352	
32	Concrete bucket	For pouring concrete	Per Hour		As per I&CAD S.No.14
33	Kerb casting machine	Kerb making	Per Hour	383	
34	Concrete mixer	Concrete mixing	Per Hour		As per I&CAD S.No.18
	(a)0.28 cum				
	(b) 1.0 cum	Concrete mixing	Per Hour	800	
35	Piling rig with bantonite pump	0.75 m dia to 1.20 m dia boring attachment	Per Hour	6745	
36	Concrete paver finisher with 40 HP motor	Paving of concrete surface	Per Hour	3573	
37	Integrated stone crusher	Crushing of spalls 100 TPH	Per Hour	10733	
		Crushing of spalls 200 TPH	Per Hour	22630	
38	Pre stressing jack with pump and access	Stressing of steel wires/ stands	Per Hour	174	
39	Generator				
	250 KVA	Generation of	per hour	2279	

Sl. No.	Description		Unit	Scheduled Rate	Remarks
	Machine	Activity		( Rupees)	
1	2	3	4	5	6
	125 KVA	electric energy	per hour	1626	
	100 KVA		per hour	1387	
	30 KVA		per hour		As per I&CAD S.No.23
40	Pneumatic sinking of Plants	Pneumatic sinking of wells	Per K.m.	69	
41	Truck 5.5 cum per 10 tonnes	Material transport	Per Km.		As per I&CAD S.No.58
42	Road marking machine	Road marking	Per Hour	136	
43	Mobile slurry seal equipment	Mixing and laying slurry seal	Per Hour	1387	
44	Plate compacter	For compacting in medians	Per Hour	59	
45	Drilling equipment	For drilling	Per Hour		As per A69:179I&CAD S.No.22

**Note:**

*The above hire charges of machinery & plant includes crew, oils, conveyance of machinery to site and all other incidental charges.*

**Road Safety Interventions Item Rates**

Sl. No	Description	Unit	Rate for the Year (2022-23)
1	3MM Aluminium composite material (ACM) Sheet (Having minimum 0.30mm thick Aluminium on both sides) confirming to IRC 67-2012 & MoRTH Specification No.805 etc.	Sqm	1809.00
	a) For Caution / Warning sign boards of size 600mm Triangle, 600mm Circle		
	b) For facility / information sign boards of size 600mm x 800mm.		
	c) For object marker of size 300mm Triangle.		
	d) For Hazard Marker of size 300mm x 900mm		
2	4MM Aluminium composite material (ACM) Sheet having 0.40 mm thick Aluminium ..... on both sides confirming to IRC 67-2012 & MoRTH Specification No. 805 etc.	Sqm	2157.00
	a) For Caution / Warning sign boards of size 900mm Triangle.		
	b) For Junction boards of size 1050mm x 1500mm Rectangular		
	c) For Junction boards of size 1500mm x 1200mm Rectangular		
3	Prismatic Retro Reflective sheeting type XI confirming to IRC 67-2012 & MoRTH Specification No. 805 etc.	Sqm	7512.00
	a) For caution / warning sign boards 600mm & 900 mm triangle, 600mm dia. and 900mm dia. circular		
	b) Informatory sign boards 600mmx800mm		
	c) object marker 300 mm Triangle		
	d) Hazard marker 300mmx900mm		
	e) Junction boards 1050mmx1500mm & 1500mmx1200mm rectangular		
4	Thermoplastic paint confirming to IRC-35 and MoRTH specification.	per Kg.	148.00
	Glass beads confirming to IRC-35 and MoRTH specification	per Kg.	123.00
5	AFP Sheet as per MoRTH specification confirming to IRC35	SqFt	779.00
6	Median Marker Double sided confirming to MoRTH specification	Each	315.00
7	DELINEATORS single sided Conforming to MoRTH Specification	Each	2047.00
	DELINEATORS Double Sided	Each	2381.00
8	RPM (STUDS) Conforming to MoRTH Specification.	Each	218.00
9	RPM Drilling cost including materials, machinery & labour.	Each	59.50
10	Median Marker drilling cost including materials, machinery & labour.	Each	101.00
11	RPM fixing Cost, epoxy materials etc.	Each	78.00
12	Median Marker fixing cost epoxy with 4nails and materials etc.	Each	167.00
13	Flexible Median Marker : Conforming to IRC 67 & 79, Including cost of all materials, epoxy, Machinery, labour, fixing at site for finished item of work.	Each	240.00
14	Standard Metal Delineators: Conforming to IRC 67 & 79, Including cost of all materials, epoxy, Machinery, labour, fixing at site for finished item of work.	Each	1200.00





# **PART-III**

## **BUILDING WORKS**



## **PREAMBLE**

### **1.0 INTRODUCTION**

- i. The process of the update of Telangana Buildings-SoR: 2022-23 has commenced as per usual procedure by inviting quotations from Manufacturers and Suppliers. In continuation with the regular practice, indices from WPI (Wholesale Price Index) for the year 2021-22 and CIDC (Construction Industry Development Council) for the year 2020-21 were collected.
- ii. Similarly, Labour Rates for the year 2022-23 as finalized by the Board of Chief Engineers and as recommended by the Department of Labour, Government of Telangana were examined.
- iii. Meetings were conducted with the members of Builders' Association of India (Telangana chapter) to receive the feedback, certain market trends and data on need for updating the SoR rates for the year 2022-23.
- iv. The indices were examined with respect to the indices, market trends furnished by BAI, trend of tenders and quotations that were received from the vendors.

The process of update of the Telangana Buildings-SoR: 2022-23 is explained below.

### **2.0 PRICE INDEX AND LABOUR RATES**

- i. The Cost Indices for building construction are obtained from the publications of the CIDC (Construction Industry Development Council) for the period 2020 and 2021. <http://www.cidc.in/publications6.html>. Wholesale Price Index (WPI) Data for all materials for the year 2021-22 is obtained from <https://eaindustry.nic.in/>.
- ii. The wages for labour and other skilled, semi-skilled workforce approved and published by the Government of Telangana for the 2022-23 is obtained and compared with that of the previous year.
- iii. The market and the price indices were found to be volatile and fluctuating. The base prices of the materials impacted by the variation due to HSD/ Petrol is considered. Similarly, the impact of international price variations due to recent developments were also discussed.

### **3.0 QUOTATION ITEMS**

Requests for inclusion of new items have been examined with respect to the market trends, technological changes, need for use and general practices. Certain modifications were necessitated to the existing items as per the suppliers/ manufacturer's recommendations. For those items where specific quotations from the manufacturers, suppliers or vendors are received, lowest quoted rates are considered. Annexure II contains the list of new items/ specifications proposed for inclusion in the Buildings SoR:2022-23. List of corrections/ modifications/ changes in the existing specifications or existing brand names are included in Annexure III. Further, list of new brands that are proposed for inclusion in Buildings SoR:2022-23 is appended in Annexure IV. New or modified data items in Annexure - V

### **4.0 APPLICABILITY OF COMMON SoR - 2022-23**

The rates of labour, common materials & work items, Public Health items, conveyance rates of materials & hire charges approved and published in Common SoR-2022-23 remain applicable. The specifications, stipulations & all other conditions of Common-SoR other than those specified in this context remain applicable.

**5.0 OTHER GUIDELINES AND AMENDMENTS TO DATA ITEMS**

- i. Specific recommendations were received from the suppliers/ manufacturers on adoption of Non-SoR rates or Catalogue rates, which are not included in the present SoRs and will be treated as supplemental items during the execution of work in the following manner:
  - a. Supply of all Vitreous chinaware porcelain items such as Indian Water Closets, European WCs both wall hung and floor mounted, Wash Hand Basins, Urinals etc., Catalogue items (Non SoR items) - 15 - 25% discount on MRP.
  - b. Supply of CP Fittings such as Taps, Stopcocks etc., Catalogue items - 20% discount on MRP.
  - c. For all other supply items, which are procured as Non-SoR items, 20% discount may be operated on the MRP/ Catalogue prices obtained from the suppliers/ dealers/ manufacturers.
  - d. It is recommended to allow usual provisions such as Contractor's Profit & Over Heads - CPOH (13.615%) and Tender Premium as applicable.
  - e. It is recommended to adopt contractor's profit & Over Heads-CPOH provision in the rate analysis of Estimates pertaining to structural repairing, retrofitting work and all maintenance works @ 10.615% OHCP.
- ii. It is recommended to continue to allow 15% allowance on the labour charges for the works which are taken up in VVIP areas such as Hon'ble Governor's residence, Hon'ble Chief Minister's residence, Hon'ble Chief Justice residence, Hon'ble High-court, and Secretariat where VVIP presence imposes restrictions on labour mobilization, movement, working manner, including material mobilization.
- iii. The above allowances may be added in the rate-analysis of sanctioned estimates to arrive at the budget requirements/ contract values/ agreement rates.
- iv. The estimate preparing and sanctioning authorities are requested to invariably enclose (i) quarry maps showing the shortest distance from the work site to the quarry from where materials are proposed to be carted and (ii) certificates of quality, quantity, and availability of materials in the identified quarries, for all those lead items of estimate at the time of technical sanctions.
- v. Hire charges for Mechanical Lift of materials, scaffolds and other items have been appended to this section. Estimate preparing authorities are requested to note that these mechanical charges are to be adopted for high rise buildings. If the mechanical lift charges are adopted irrespective of number of floors, then the manual lift charges need not be considered.
- vi. Mechanical lift charges for scaffolding, bricks, stones, tiles and TMT bars are appended along with data items for Post Tensioning and lock-set activity as per the need and necessity.

Sd/-P.Ravinder Rao Dt.25.05.2022  
Engineer-in-Chief, (NH& Buildings),  
Roads & Buildings

**NEW DATA ITEMS - MODIFICATIONS TO DATA ITEMS****ANNEXURE-V****1. Mechanical Lift charges for Floors 1 to 30 (Using Multi -Functional Material Tower Hoist (Wire Rope) 1-3 ton capacity)- Winch (Hire charges as per common SoR)**

Sl No	Item of work	Unit of item of work	Number of Floors						Unit
			1 to 5	6 to 10	10 to 15	16 to 20	21 to 25	26 to 30	Winch hire charges
1	Lifting of Bricks/Masonry Blocks	cum	0.128	0.190	0.263	0.351	0.455	0.578	Hours
2	Lifting of Tiles/ Flooring stones	Sqm	0.070	0.081	0.095	0.110	0.127	0.147	Hours
3	Lifting Scaffolds for RCC Members (excluding concrete pumping charges )								
A	LINTELS	Cum	0.222	0.269	0.324	0.387	0.461	0.547	Hours
B	CHAJJAS - SUNSHADES	Sqm	0.034	0.041	0.050	0.060	0.071	0.084	Hours
C	COLUMNS	Cum	0.312	0.378	0.455	0.544	0.648	0.768	Hours
D	BEAMS	Cum	0.261	0.317	0.381	0.456	0.543	0.644	Hours
E	SLABS - Up to 150 mm thick	Sqm	0.030	0.036	0.043	0.052	0.062	0.073	Hours
F	SLABS - above 150 mm - Up to 300 mm	Sqm	0.030	0.037	0.044	0.053	0.063	0.075	Hours
G	SLABS - above 300 mm thick	Sqm	0.032	0.039	0.046	0.056	0.066	0.078	Hours
H	WAFFLE SLABS (Rib Beams with Slabs)	Sqm	0.108	0.130	0.157	0.188	0.224	0.265	Hours
I	PERGOLA SLABS (Only Rib Beams)	Sqm	0.075	0.091	0.110	0.132	0.157	0.186	Hours
J	ARCH BEAMS - up to 1.5 M Span	Cum	0.297	0.360	0.434	0.519	0.618	0.732	Hours
K	ARCH BEAMS - above 1.5 M Span	Cum	0.301	0.365	0.440	0.526	0.626	0.742	Hours
L	DOMES SLABS	Cum	0.480	0.582	0.701	0.839	0.999	1.184	Hours
M	HELICAL STAIRCASES	Sqm	0.037	0.044	0.053	0.064	0.076	0.090	Hours
N	Shear Walls, RCC & Water tank Walls	Sqm	0.061	0.074	0.089	0.106	0.127	0.150	Hours
4	Lifting Scaffolds for masonry works	Cum	0.026	0.031	0.038	0.045	0.054	0.064	Hours
5	Lifting Scaffolds for plastering works	Sqm	0.026	0.031	0.038	0.045	0.054	0.064	Hours
6	Lifting of TMT or HYSD Bars	MT	0.133	0.173	0.219	0.274	0.339	0.414	Hours

**Note:** If the above mechanical lift charges are adopted, then the manual lift charges need not be considered.

**2. Design and execution of post tensioning work**

Design and execution of post tensioning work, including supplying, laying of HT tendon strands, decoiling, the strands, cutting to the required lengths, laying of HT strands in sheathing (GI corrugated ducts 0.3mm thick) jointing with couplers and inserting the strands, profiling, fixing live end anchorages, making dead end anchorages, including flowering the strands, fixing tendon support bars, supervising the fixing of antibursting reinforcement, stressing the cables using hydraulic jack, end trimming, grouting the cables, with cement slurry, mixed with admixtures with required tools, plants, and machineries, and consumables etc., including all leads, lifts, coordination, with the posttensioning agency, preparation of drawings, obtaining approval from the Engineer-in-Charge with supply of approved grade tendons but excluding the cost of concrete, reinforcement steel, shuttering, anchors, sheathing duct etc.,

Note: 1	(Standard mass of HT Strand as per IS:14268 (1995) is 1102 Kgs/ KM per 15.2 mm - 7-Ply strand, total 5 strands laid in a duct of 16.459 M long) Therefore number of sheathing ducts per 1 MT = $1000/(1.102*16.459*5) = 11$ Ducts							
Note: 2	(Observed Area = 16490 Sqm and overall PT weight 82.39 MT, which is 4.99 Kgs of PT steel per 1 sqm area) 1 MT of PT Steel can cover $(1000/4.99 \text{ Kgs}) = 200.4$ Sqm of area							
Note: 3	(Total 2880 Man-days observed for 16490 Sqm of slab, which works out to $(200.4*2880/16490) = 35$ Man-days							
		UNIT	1	MT	Rate	per	Unit	Amount
Category	Source	Specification	Qty	Unit				
Material	Monthly Price Variation item - BoCE	Cost of HT tendon strands (15.2 mm nominal dia - 7-ply) as per Table 1, class-II of IS-14268 (1995) - (Considering 2% wastage)	1.02	MT		1	MT	
	As per Buildings-SoR	PVC couplers for wedge and GI corrugated sheathing	11	Nos		1	Ea	
Stressing Charges	As per Common SoR	Hydraulic power pack with jack (stressing jack - mono-pull, category - single piston of 30-ton, self-locking with nose of stroke 200-mm) - (Pre stressing jack with pump and access)	24	Hrs		1	Hr	
	Accessories	SS Pressure gauge (Glycerin filled) S.No. KPGF 1150637, 4"dia 1/2 BSP Bottom connection with accuracy of +/- 1.6% FSD						
Grouting Charges	TBSC-Q.V-02	GP2 or any approved filling materials in RCC slabs for closing of live end pocket patch @ 3 Kgs/ per end	33.00	Kgs		1	Kgs	
	AS per SoR	Cement - (observed consumption - 1.2 Bags of cement per duct) $((11*16.5*22/28*0.09*0.09)*1500*50\% \text{ slurry}*75\% \text{ volume})$	649.75	Kgs		1	Kgs	
	TBSC-Q.V-01	CEBEX -100 chemical or any approved chemical as per design (for 50kg of cement 225 gms of ceebex chemical is mixed with 18 to 20 lit of water) for grouting tendons - Grouting to strands will be done using pressure grout machine and after completion of grouting, cutting of inlet and outlet pipes	2.924	Kgs		1	Kgs	
	As per SoR	Water charges	1.00	KL		1	KL	
	TBSC-S.I-02	Power Saw Cutter - Hand Operated - Hire charges for Cutting of tendon edges	12.00	Hrs		1	Hr	
Man power	CMM-002	Black smith / Tin smith / Rivetor - 2 per shift	35	days		1	day	
	CMM-087	Light mazdoor - 2 per shift	35	days		1	day	

	CMM-091	Site Engineer - Diploma	1.5	days	1	day	
		Site Engineer - Graduate	1.5	days	1	day	
	MAA	Applicable Municipal Area Allowance					
	<b>Sub-Total</b>						
Design Charges		Designing of PT structures using patented software on Sub-total	10%				
		Applicable Overheads and Contractor's profit on Sub-total	10.615% Or 13.615%				
	<b>Total</b>						

### 3. RATE ANALYSIS FOR LOCK-SET ACTIVITY

Providing structural repairing works with lock-set connections to the existing RCC structure, including drilling holes as required and supplying and inserting the TMT reinforcement bars of specified diameter (excluding the cost of TMT reinforcement bars), profiling, fixing anchorages to 10Ø (10-Dia) length, fixing support bars, supervising the fixing of reinforcement, filling the holes with cement slurry, mixed with approved make admixtures with required tools, plants, and machineries, and consumables etc., including all leads, lifts, coordination, with the structural designs, preparation of drawings, obtaining approval from the Engineer-in-Charge with supply of approved grade chemical admixture but excluding the cost of reinforcement steel etc.,

<b>A. 25 mm dia hole with 20 mm dia bar</b>							
Diameter of the hole to be drilled for fixing lock-set			25	mm			
Diameter of the reinforcement bar for lock-set			20	mm			
Unit (Lock-set activity 200 mm long)			1	Each			
Drilling Charges	TBSC-R.I-51	Making holes in existing RCC up to 150 mm thick deep	1.000	No	1	Ea	
Grouting Charges	AS per SoR	Cement	0.053	Kgs	1	Kgs	
	TBSC-Q.III-03	Two Parts system of Epoxy Bonding adhesive Conforming to ASTM-C 881 or equivalent	0.037	Kgs	1	Kgs	
	CMM-	Water charges	0.035	KL	1	KL	
Man power	CMM-002	Black smith / Tin smith / Rivetor	0.100	days	1	day	
	CMM-010	Semi-skilled Gangman / Head / Survey mazdoor	0.100	days	1	day	
	CMM-087	Light mazdoor	0.100	days	1	day	
		Applicable Municipal Area Allowance					
		Applicable Overheads and Contractor's profit	10.615% Or 13.615%				
		Rate for 25 mm dia hole and 20 mm bar lock-set - 1 each					

### B. 20 mm dia hole with 18 mm dia bar

Diameter of the hole to be drilled for fixing lock-set			20	mm			
Diameter of the reinforcement bar for lock-set			18	mm			
Unit (Lock-set activity 180 mm long)			1	Each			
Drilling Charges	TBSC-R.I-51	Making holes in existing RCC up to 150 mm thick deep	1.000	No	1	Ea	
Grouting Charges	AS per SoR	Cement	0.016	Kgs	1	Kgs	
	TBSC-Q.III-03	Two Parts system of Epoxy Bonding adhesive Conforming to ASTM-C 881 or equivalent	0.011	Kgs	1	Kgs	

	CMM-	Water charges	0.011	KL		1	KL	
Man power	CMM-002	Black smith / Tin smith / Rivetor	0.100	days		1	day	
	CMM-010	Semi-skilled Gangman / Head / Survey mazdoor	0.100	days		1	day	
	CMM-087	Light mazdoor	0.100	days		1	day	
		Applicable Municipal Area Allowance						
		Applicable Overheads and Contractor's profit	10.615% Or 13.615%					
		Rate for 20 mm dia hole and 18 mm bar lock-set - 1 each						



# PART-III INDEX

## Building Works

S.No.	Description	Page No	
		From	To
1	Civil Items	34	166
2	Plumbing Items	167	213
3	Electrical Items	214	373

# CIVIL ITEMS

**INDEX FOR CIVIL ITEMS OF THE TELANGANA BUILDING SOR 2022-23**

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
<b>A</b>	<b>SECTION</b>	<b>BRICKS &amp; BUILDING BLOCKS</b>		
		(Excluding taxes, cost of conveyance, unloading & stacking)		
<b>I</b>	<b>SUB-SECTION</b>	<b>ORDINARY CLAY BRICKS</b>		
1	TBSC-A.I-01	Common burnt clay bricks of class as per Table-1 of IS:1077-1992 Non-Modular or traditional size 23 x 11 x 7 cm	Each	9.00
2	TBSC-A.I-02	Common burnt clay bricks of class as per Table-1 of IS:1077-1992 Modular or traditional size 19 x 9 x 9 cm	Each	10.00
<b>II</b>	<b>SUB-SECTION</b>	<b>FLY-ASH CEMENT/LIME SOLID BLOCKS</b>		
3	TBSC-A.II-01	Fly ash cement/lime solid blocks with compressive strength of 75 kg/sq.cm - IS:12894-1990 - CLASS - 7.5 290 x 225 x 140 mm	Each	30.00
4	TBSC-A.II-02	Fly ash cement/lime solid blocks with compressive strength of 75 kg/sq.cm - IS:12894-1990 - CLASS - 7.5 290 x 200 x 140 mm	Each	27.00
5	TBSC-A.II-03	Fly ash cement/lime solid blocks with compressive strength of 75 kg/sq.cm - IS:12894-1990 - CLASS - 7.5 290 x 150 x 140 mm	Each	26.00
6	TBSC-A.II-04	Fly ash cement/lime solid blocks with compressive strength of 75 kg/sq.cm - IS:12894-1990 - CLASS - 7.5 290 x 112/100 x 140 mm	Each	18.00
7	TBSC-A.II-05	Fly ash cement/lime solid blocks with compressive strength of 75 kg/sq.cm - IS:12894-1990 - CLASS - 7.5 225 x 100 x 60 mm	Each	11.00
8	TBSC-A.II-06	Fly ash cement/lime solid blocks with compressive strength of 75 kg/sq.cm - IS:12894-1990 - CLASS - 7.5 145 x 225 x 140 mm	Each	20.00
9	TBSC-A.II-07	Fly ash cement/lime solid blocks with compressive strength of 75 kg/sq.cm - IS:12894-1990 - CLASS - 7.5 145 x 200 x 140 mm	Each	15.00
10	TBSC-A.II-08	Fly ash cement/ lime solid blocks with compressive strength of 50 kg/sq.cm - IS:12894-1990 - CLASS - 5 290 x 225 x 140 mm	Each	32.00
11	TBSC-A.II-09	Fly ash cement/ lime solid blocks with compressive strength of 50 kg/sq.cm - IS:12894-1990 - CLASS - 5 290 x 200 x 140 mm	Each	25.00
12	TBSC-A.II-10	Fly ash cement/ lime solid blocks with compressive strength of 50 kg/sq.cm - IS:12894-1990 - CLASS - 5 290 x 150 x 140 mm	Each	26.00
13	TBSC-A.II-11	Fly ash cement/ lime solid blocks with compressive strength of 50 kg/sq.cm - IS:12894-1990 - CLASS - 5 290 x 112/100 x 140 mm	Each	14.00
14	TBSC-A.II-12	Fly ash cement/ lime solid blocks with compressive strength of 50 kg/sq.cm - IS:12894-1990 - CLASS - 5 225 x 100 x 60 mm	Each	9.00
15	TBSC-A.II-13	Fly ash cement/ lime solid blocks with compressive strength of 50 kg/sq.cm - IS:12894-1990 - CLASS - 5 145 x 225 x 140 mm	Each	15.50
16	TBSC-A.II-14	Fly ash cement/ lime solid blocks with compressive strength of 50 kg/sq.cm - IS:12894-1990 - CLASS - 5 145 x 200 x 140 mm	Each	14.50
<b>III</b>	<b>SUB-SECTION</b>	<b>AUTOCCLAVED CONCRETE BLOCKS</b>		
17	TBSC-A.III-01	Supply of Aerated (Cellular) Autoclaved Concrete Blocks conforming to IS:2185 (Part-3) - 1984 and IS:6441-1972 of Compressive strength 3 N/mm <sup>2</sup> (landing cost - including cost of conveyance, loading & unloading) 600 x 200 x 100 mm	Each	61.00
18	TBSC-A.III-02	Supply of Aerated (Cellular) Autoclaved Concrete Blocks	Each	

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		conforming to IS:2185 (Part-3) - 1984 and IS:6441-1972 of Compressive strength 3 N/mm <sup>2</sup> (landing cost - including cost of conveyance, loading & unloading) 600 x 200 x 150 mm		90.00
19	TBSC-A.III-03	Supply of Aerated (Cellular) Autoclaved Concrete Blocks conforming to IS:2185 (Part-3) - 1984 and IS:6441-1972 of Compressive strength 3 N/mm <sup>2</sup> (landing cost - including cost of conveyance, loading & unloading) 600 x 200 x 200 mm	Each	120.00
20	TBSC-A.III-04	Supply of Aerated (Cellular) Autoclaved Concrete Blocks conforming to IS:2185 (Part-3) - 1984 and IS:6441-1972 of Compressive strength 3 N/mm <sup>2</sup> (landing cost - including cost of conveyance, loading & unloading) 600 x 200 x 230 mm	Each	137.00
<b>B</b>	<b>SECTION</b>	<b>NATURAL FLOORING STONES</b>		
		(Excluding taxes, cost of conveyance, unloading & stacking)		
<b>I</b>	<b>SUB-SECTION</b>	<b>LOCALLY AVAILABLE FLOORING STONES</b>		
21	TBSC-B.I-01	Shahabad / Tandur Rough Stone slabs of all sizes up to 25 mm in thickness	1 Sqm	107.00
22	TBSC-B.I-02	Shahabad / Tandur Rough Stone slabs of all sizes between 25 mm - 40 mm thickness	1 Sqm	139.00
23	TBSC-B.I-03	Polished Shahabad/ Tandur stone slabs of all sizes between 15 - 18 mm thickness	1 Sqm	270.00
24	TBSC-B.I-04	Kadapa slabs of 40 mm thick of all sizes	1 Sqm	107.00
25	TBSC-B.I-05	Kadapa slabs of 50 mm thick of all sizes	1 Sqm	124.00
26	TBSC-B.I-06	Polished black Kadapa slabs of all sizes between 15 - 18 mm thickness	1 Sqm	154.00
27	TBSC-B.I-07	Polished black Kadapa slabs of all sizes between 25 - 30 mm thickness	1 Sqm	185.00
28	TBSC-B.I-08	Polished White Bethamcherla (marble type) stone of all sizes and between 22-25 mm thickness	1 Sqm	429.00
29	TBSC-B.I-09	Polished Coloured Bethamcherla (marble type) stone of all sizes and between 22-25 mm thickness	1 Sqm	306.00
<b>II</b>	<b>SUB-SECTION</b>	<b>NATURAL FLOORING STONES - MARBLE</b>		
30	TBSC-B.II-01	Polished Marble slabs of Dongari/ Adanga/ Marodh/ Rajgangpur etc., variety of thickness between 16 mm to 20 mm of sizes from 600 mm to 900 mm	1 Sqm	740.00
31	TBSC-B.II-02	Polished Marble slabs of Dongari/ Adanga/ Marodh/ Rajgangpur etc., variety of thickness between 16 mm to 20 mm of sizes up to 600 mm	1 Sqm	598.00
32	TBSC-B.II-03	Polished Marble slabs of any variety and gang saw cut (Such as Dongari/ Adanga/ Marodh/ Rajgangpur etc) 16 mm to 20 mm (average) thick ( 0.610 M width of any length)	1 Sqm	1,015.00
33	TBSC-B.II-04	Polished Marble Tiles of 8 - 10 mm thickness of all sizes and varieties	1 Sqm	484.00
<b>III</b>	<b>SUB-SECTION</b>	<b>NATURAL FLOORING STONES - GRANITE</b>		
34	TBSC-B.III-01	High Polished Granite 16 to 18 mm thick up to 8'-00 (2.43 M) other than black/ premium colours	1 Sqm	3,486.00
35	TBSC-B.III-02	High Polished Granite 16 to 18 mm thick up to 8'-00 (2.43 M) other than black and regular colours	1 Sqm	3,030.00
36	TBSC-B.III-03	High Polished Granite 16 to 18 mm thick up to 8'-00 (2.43 M) black	1 Sqm	2,576.00
37	TBSC-B.III-04	Granite stone tiles 8 mm thick (mirror polished of all shades)	1 Sqm	1,182.00
<b>C</b>	<b>SECTION</b>	<b>WALL &amp; FLOOR TILES</b>		
		(Excluding taxes but including cost of loading, cost of conveyance, unloading & stacking)		

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
<b>I</b>	<b>SUB-SECTION</b>	<b>NON-PORCELAIN CERAMIC FLOOR TILES</b>		
38	TBSC-C.I-01	Supply of Non-skid red or white full body Ceramic floor tiles of size 300 x 300 mm and thickness between 7-8 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	315.00
39	TBSC-C.I-02	Supply of Non-skid red or white full body Ceramic floor tiles of size 400 x 400 mm and thickness between 7-8 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	326.00
40	TBSC-C.I-03	Supply of Non-skid red or white full body Ceramic floor tiles of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	510.00
41	TBSC-C.I-04	Supply of Non-skid red or white full body Ceramic floor tiles of scratch free-stain free and scratch free-Nano finish of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	510.00
42	TBSC-C.I-05	Supply of red or white body pressed/ rectified Ceramic floor tiles High Glossy of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	475.00
43	TBSC-C.I-06	Supply of red or white body Ceramic floor tiles High Glossy of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	570.00
<b>II</b>	<b>SUB-SECTION</b>	<b>PORCELAIN VITRIFIED FLOOR TILES</b>		
44	TBSC-C.II-01	Supply of ordinary soluble salt porcelain vitrified tiles screen printed and polished of size 400 x 400 mm and thickness between 8-9 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	
45	TBSC-C.II-02	Supply of soluble salt/ stain free porcelain vitrified tiles screen printed and polished of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	443.00
46	TBSC-C.II-03	Supply of Nano polished /stain free soluble salt/ stain free porcelain vitrified tiles screen printed of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	443.00
47	TBSC-C.II-04	Supply of Nano polished soluble salt/ stain free porcelain vitrified tiles screen printed of size 800 x 800 mm and thickness between 9-11 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	525.00
48	TBSC-C.II-05	Supply of Double charged / multi charged stain free full body porcelain vitrified tiles with double layer pigment of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	578.00
49	TBSC-C.II-06	Supply of Double charged / multi charged stain free full body porcelain vitrified tiles with double layer pigment of size 800 x 800 mm and thickness between 9-11 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1	1 Sqm	630.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		to 15) of any colour and finish in all shades and designs		
50	TBSC-C.II-07	Supply of Double charged / multi charged stain free full body porcelain vitrified tiles with double layer pigment of size 1000 x 1000 mm and thickness between 12-15 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	735.00
51	TBSC-C.II-08	Supply of digital / polished glazed full body porcelain vitrified tiles with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 800 x 800 mm and thickness between 9-11 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	683.00
52	TBSC-C.II-09	Supply of digital / polished glazed full body porcelain vitrified tiles with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 900 x 900 mm and thickness between 9-11 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	840.00
53	TBSC-C.II-10	Supply of digital / polished glazed full body porcelain vitrified tiles with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 1000 x 1000 mm and thickness between 12-15 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	1,050.00
54	TBSC-C.II-11	Supply of digital / polished glazed full body porcelain vitrified tiles with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 1200 x 600 mm and thickness between 12-15 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	788.00
55	TBSC-C.II-12	Supply of full body heavy duty industrial variety porcelain vitrified tile of size 300 x 300 / 200 x 100 mm and thickness between 10-12 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	500.00
56	TBSC-C.II-13	Supply of full body heavy duty industrial variety / tact porcelain vitrified tile of size 300 x 300 / 200 x 100 mm and thickness between 12-15 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	700.00
57	TBSC-C.II-14	Supply of full body heavy duty industrial variety porcelain vitrified tile of size 300 x 300 / 200 x 100 mm and thickness between 18-20 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	1,300.00
58	TBSC-C.II-15	Supply of full body heavy duty industrial variety porcelain vitrified tile of size 400 x 400 mm and thickness between 10 -12 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	600.00
59	TBSC-C.II-16	Supply of full body heavy duty industrial variety porcelain vitrified tile of size 600 x 600 mm and thickness between 10 - 12 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	800.00
60	TBSC-C.II-17	Supply of Nano polished /stain free Twin white vitrified tiles of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630	1 Sqm	550.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		(Parts 1 to 15) of any colour and finish in all shades and designs		
61	TBSC-C.II-18	Supply of polished /stain free Full Body vitrified tiles of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of Specific colour and finish in all shades and designs	1 Sqm	800.00
62	TBSC-C.II-19	Supply of Double charged / multi charged stain free vitrified tiles with double layer pigment of size 600 x 1200 mm and thickness between 8-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	750.00
63	TBSC-C.II-20	Supply of double charged Matt Full Body vitrified tiles of size 600 x 1200 mm and thickness between 8-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of Specific colour and finish in all shades and designs	1 Sqm	1,025.00
64	TBSC-C.II-21	Supply of digital / polished glazed vitrified tiles Glossy/Matt with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 600 X 600 mm and thickness between 8-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	600.00
65	TBSC-C.II-22	Supply of digital / polished glazed vitrified tiles with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 1200 x 1200 mm and thickness between 9-11 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	1,450.00
66	TBSC-C.II-23	Supply of digital / polished glazed vitrified tiles with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 800 x 1600 mm and thickness between 9-11 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	1,450.00
67	TBSC-C.II-24	Supply of digital / polished glazed vitrified tiles with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 1200 x 1800 mm and thickness between 9-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	1,700.00
68	TBSC-C.II-25	Supply of Nano polished /stain free Twin white vitrified tiles of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	660.00
69	TBSC-C.II-26	Supply of polished /stain free Full Body vitrified tiles of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of Specific colour and finish in all shades and designs	1 Sqm	960.00
70	TBSC-C.II-27	Supply of Double charged / multi charged stain free vitrified tiles with double layer pigment of size 600 x 1200 mm and thickness between 8-10 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 sqm	900.00
71	TBSC-C.II-28	Supply of double charged Matt Full Body vitrified tiles of size 600 x 1200 mm and thickness between 8-10 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of Specific colour and finish in all shades and designs	1 Sqm	1,230.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
72	TBSC-C.II-29	Supply of digital / polished glazed vitrified tiles Glossy/Matt with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 600 X 600 mm and thickness between 8-10 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	720.00
73	TBSC-C.II-30	Supply of digital / polished glazed vitrified tiles with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 1200 x 1200 mm and thickness between 9-11 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	1,740.00
74	TBSC-C.II-31	Supply of digital / polished glazed vitrified tiles with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 800 x 1600 mm and thickness between 9-11 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	1,740.00
75	TBSC-C.II-32	Supply of digital / polished glazed vitrified tiles with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 1200 x 1800 mm and thickness between 9-10 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	2,040.00
III	SUB-SECTION	<b>CERAMIC WALL TILES</b>		
76	TBSC-C.III-01	Supply of glazed red or white full body ceramic wall tiles of size 200 x 300 mm / 245 mm x 325 mm / 250 mm x 375 mm and thickness 6 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	315.00
77	TBSC-C.III-02	Supply of glazed red or white full body ceramic wall tiles of size 300 x 450 mm / 320 mm x 400 mm and thickness 6 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	420.00
78	TBSC-C.III-03	Supply of glazed red or white full body ceramic wall tiles of size 300 x 600 mm and thickness between 6-8 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	578.00
79	TBSC-C.III-04	Supply of red or white body ceramic wall tiles of size 250 x 375 mm and thickness 6 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	450.00
IV	SUB-SECTION	<b>PORCELAIN WALL TILES</b>		
80	TBSC-C.IV-01	Supply of glazed full body porcelain wall tiles of size 300 x 600 mm with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and thickness between 6-8 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	750.00
81	TBSC-C.IV-02	Supply of digital / polished glazed full body porcelain wall tiles of size 300 x 600 mm with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and thickness between 6-8 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	750.00



Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
82	TBSC-C.IV-03	Supply of digital / polished glazed full body porcelain highlighter wall tiles of size 300 x 600 mm with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and thickness between 6-8 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	750.00
83	TBSC-C.IV-04	Supply of screen printed glazed full body porcelain wall tiles of size 300 x 600 mm with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and thickness between 6-8 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	750.00
84	TBSC-C.IV-05	Supply of glazed full body porcelain wall tiles of size 400 x 600 mm with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and thickness between 6-8 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	Deleted
85	TBSC-C.IV-06	Supply of glazed full body porcelain wall tiles of size 600 x 800 mm with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and thickness between 7-9 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	Deleted
86	TBSC-C.IV-07	Supply of glazed full body porcelain premium plain design highlighter combination floor and wall tiles set with floor tiles of thickness 14-16 mm and wall tiles of thickness 8-10 mm but excluding highlighters 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	Deleted
87	TBSC-C.IV-08	Supply of glazed full body porcelain premium plain design highlighter combination floor and wall tiles set with floor tiles of thickness 14-16 mm and wall tiles of thickness 8-10 mm but including highlighters 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	Deleted
88	TBSC-C.IV-09	Providing and fixing wall dado with epoxy emulsion grout/ synthetic/ resin based adhesive in specified thick and pointing with specified colour epoxy grout excluding cost of tiles	1 Sqm	373.00
89	TBSC-C.IV-10	Providing and fixing wall dado with cement based adhesive in specified thick and pointing with specified colour epoxy grout excluding cost of tiles	1 Sqm	192.00
90	TBSC-C.IV-11	Providing and fixing flooring with full depth jointing and pointing to the Vitrified/ Ceramic Tile flooring in specified thick for tiles of any sizes with epoxy emulsion grout/ synthetic / resin adhesive in width of 3-5 mm with Nylon spacers excluding cost of tiles.	1 Sqm	373.00
91	TBSC-C.IV-12	Providing and fixing flooring with full depth jointing and pointing to the Vitrified/ Ceramic Tile flooring in specified thick for tiles of any sizes with cement based adhesive in width of 3-5 mm with Nylon spacers excluding cost of tiles .	1 Sqm	189.00
92	TBSC-C.IV-13	Providing and fixing flooring with full depth jointing and pointing to the Marble/ Granite flooring for any sizes with epoxy emulsion grout/ synthetic / resin based adhesive in width of 3-5 mm excluding cost of tiles.	1 Sqm	742.00
93	TBSC-C.IV-14	Providing and fixing flooring with full depth jointing and pointing to the Marble/ Granite flooring for any sizes with cement based adhesive in width of 3-5 mm	1 Sqm	376.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		excluding cost of tiles.		
<b>V</b>	<b>SUB-SECTION</b>	<b>GLASS MOSAIC TILES</b>		
94	TBSC-C.V-01	Supply of glazed full body glass mosaic tiles of 20 x 20 x 4 mm thick in specified pattern 1st Quality of any colour and design	1 Sqm	1,301.00
95	TBSC-C.V-02	Providing Glass Mosaic tiles using specified pattern fixing in specified thick epoxy emulsion grout of epoxy resins and filler powder of approved colour grout including all taxes excluding cost of tiles	1 Sqm	293.00
96	TBSC-C.V-03	Providing Glass Mosaic tiles using specified pattern fixing in specified thick cementitious powder mix cement grout and approved colour grout including all taxes excluding cost of tiles	1 Sqm	113.00
<b>VI</b>	<b>SUB-SECTION</b>	<b>WALL CLADDING TILES</b>		
97	TBSC-C.VI-01	Supply of glazed full body porcelain tiles for external cladding purposes of any size and thickness between 6-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	578.00
98	TBSC-C.VI-02	Supply of glazed red or white full body ceramic tiles for external cladding purposes of any size and thickness between 5-7 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	504.00
99	TBSC-C.VI-03	Supply of glazed red or white full body ceramic tiles for external cladding purposes of any size and thickness between 10-12 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	546.00
100	TBSC-C.VI-04	Supply of glazed red or white full body ceramic tiles for external cladding purposes of any size and thickness between 18-20 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	Deleted
<b>VII</b>	<b>SUB-SECTION</b>	<b>TERRAZZO FLOOR TILES (PLAIN &amp; CHEQUERED)</b>		
101	TBSC-C.VII-01	Supplying precast terrazzo tiles conforming to IS: 13801 using marble aggregates of size 10 mm , sand, marble powder, white cement pigments etc., with terrazzo topping not less than 6 mm of tiles overall size not less than 20 mm thick white shades.	1 Sqm	275.00
102	TBSC-C.VII-02	Supplying precast terrazzo plain tiles conforming to IS: 13801 using marble aggregates of size 10 mm , sand, marble powder, white cement pigments etc., with terrazzo topping not less than 6 mm of tiles overall size not less than 20 mm thick any coloured shades.	1 Sqm	292.00
103	TBSC-C.VII-03	Supplying precast terrazzo chequered tiles conforming to IS: 13801 using marble aggregates of size 10 mm , sand, marble powder, white cement pigments etc., with terrazzo topping not less than 6 mm of tiles overall size not less than 20 mm thick of any coloured shades.	1 Sqm	300.00
<b>VIII</b>	<b>SUB-SECTION</b>	<b>CEMENT CONCRETE FLOOR TILES (PLAIN &amp; CHEQUERED)</b>		
104	TBSC-C.VIII-01	Supplying plain Cement Concrete general purpose tiles conforming to IS: 13801 using aggregates, cement, pigments of size 300 x 300 mm and thickness 20 mm of any shades.	1 Sqm	258.00
105	TBSC-C.VIII-02	Supplying Chequered Cement Concrete heavy duty tiles conforming to IS: 13801 using aggregates, cement, pigments of size 300 x 300 mm and thickness 20 mm of any shades.	1 Sqm	271.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
106	TBSC-C.VIII-03	Supplying plain Cement Concrete general purpose tiles conforming to IS: 13801 using aggregates, cement, pigments of size 300 x 300 mm and thickness 25 mm of any shades.	1 Sqm	275.00
107	TBSC-C.VIII-04	Supplying Chequered Cement Concrete heavy duty tiles conforming to IS: 13801 using aggregates, cement, pigments of size 300 x 300 mm and thickness 25 mm of any shades.	1 Sqm	288.00
108	TBSC-C.VIII-05	Supplying plain Cement Concrete general purpose tiles conforming to IS: 13801 using aggregates, cement, pigments of size 400 x 400 mm and thickness 25 mm of any shades.	1 Sqm	300.00
109	TBSC-C.VIII-06	Supplying Chequered Cement Concrete heavy duty tiles conforming to IS: 13801 using aggregates, cement, pigments of size 400 x 400 mm and thickness 25 mm of any shades.	1 Sqm	315.00
110	TBSC-C.VIII-07	Supply of high strength Cement Concrete plain Step tiles with edge half rounded and grooved conforming to IS: 13801 using aggregates, cement, pigments of regular colour, design and of 25 mm thickness	1 Sqm	449.00
111	TBSC-C.VIII-08	Supply of high strength Cement Concrete terrazzo/pre-polished/ chequered Step tiles with edge rounded and grooved conforming to IS: 13801 using aggregates, cement, pigments of any premium colour, design and of 25 mm thickness	1 Sqm	472.00
112	TBSC-C.VIII-09	Supply of COOL ROOF SRI TILES 300x300 mm and thickness 8mm 1st quality conforming to IS:4457:2007, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	525.00
113	TBSC-C.VIII-10	Supply of COOL ROOF SRI TILES 300x300 mm and thickness 10mm 1st quality conforming to IS:4457:2007, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	600.00
114	TBSC-C.VIII-11	Supply of COOL ROOF SRI TILES 400x400 mm and thickness 10mm 1st quality conforming to IS:4457:2007, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	700.00
<b>IX</b>	<b>SUB-SECTION</b>	<b>PRE-CAST CONCRETE BLOCKS FOR PAVING</b>		
115	TBSC-C.IX-01	Supply of precast concrete blocks for paving of M-30 grade and thickness not less than 50 mm for Non-traffic areas conforming to IS 15658:2006 in all shapes and designs as per the manufacturer's specification	1 Sqm	320.00
116	TBSC-C.IX-02	Supply of precast concrete blocks for paving of M-35 grade and thickness not less than 60 mm for Light traffic areas conforming to IS 15658:2006 in all shapes and designs as per the manufacturer's specification	1 Sqm	345.00
117	TBSC-C.IX-03	Supply of precast concrete blocks for paving of M-40 grade and thickness not less than 80 mm for Medium traffic areas conforming to IS 15658:2006 in all shapes and designs as per the manufacturer's specification	1 Sqm	494.00
118	TBSC-C.IX-04	Supply of precast concrete blocks for paving of M-50 grade and thickness not less than 100 mm for Heavy traffic areas conforming to IS 15658:2006 in all shapes and designs as per the manufacturer's specification	1 Sqm	544.00
119	TBSC-C.IX-05	Supply of precast concrete blocks for paving of M-55 grade and thickness not less than 120 mm for very heavy traffic areas conforming to IS 15658:2006 in all shapes and designs as per the manufacturer's specification	1 Sqm	619.00
120	TBSC-C.IX-06	Labour charges for laying & fixing of precast concrete blocks for paving of all grades, any thickness, all sizes & shapes including all labour charges for loading & unloading, laying to desired lines and levels complete	1 Sqm	232.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		excluding cost of cement, sand, water, electricity etc		
<b>X</b>	<b>SUB-SECTION</b>	<b>VINYL FLOORING</b>		
121	TBSC-C.X-01	Vinyl Flooring Sheets/ tiles having a nominal total thickness of 2 mm with a wearing surface impregnated polyurethane homogeneous mixture of PVC, Plasticizers, Urethane, color pigments with wearing resistance and Fire Resistance as per standards	1 Sqm	887.00
122	TBSC-C.X-02	Vinyl Composition Floor Tiles of size 305 mm x 305 mm having an overall thickness of 2.0mm with a wearing surface impregnated polyurethane homogeneous mixture of PVC, Plasticizers, Urethane, color pigments with wearing resistance and Fire Resistance as per standards	1 Sqm	608.00
123	TBSC-C.X-03	Vinyl Flooring Sheets or tiles having a nominal total thickness of 1.5 mm with a wearing surface impregnated polyurethane homogeneous mixture of PVC, Plasticizers, Urethane, color pigments with wearing resistance and Fire Resistance as per standards	1 Sqm	442.00
<b>D</b>	<b>SECTION</b>	<b>TIMBER &amp; ROOFING MATERIALS</b>		
		(Excluding taxes but including cost of loading, cost of conveyance, unloading & stacking)		
		Note: Before proposing the Teak Wood Items, the estimating authorities shall obtain prior approval from the competent authority		
<b>I</b>	<b>SUB-SECTION</b>	<b>MEDIUM TEAK WOOD</b>		
124	TBSC-D.I-01	Medium Teak Wood scantlings: up to 2.0 M	1 cum	82,331.00
125	TBSC-D.I-02	Medium Teak Wood scantlings: 2.0 to 3.0 M	1 cum	91,479.00
126	TBSC-D.I-03	Medium Teak Wood scantlings: above 3.0 M	1 cum	100,628.00
127	TBSC-D.I-04	Medium Teak Wood Planks: any thickness	1 cum	164,661.00
<b>II</b>	<b>SUB-SECTION</b>	<b>BEST TEAK WOOD</b>		
128	TBSC-D.II-01	Best Teak Wood scantlings: up to 2.0 M	1 cum	141,792.00
129	TBSC-D.II-02	Best Teak Wood scantlings: 2.0 to 3.0 M	1 cum	150,940.00
130	TBSC-D.II-03	Best Teak Wood scantlings: above 3.0 M	1 cum	160,088.00
131	TBSC-D.II-04	Best Teak Wood Planks: any thickness	1 cum	178,384.00
<b>III</b>	<b>SUB-SECTION</b>	<b>BURMA TEAK WOOD</b>		
132	TBSC-D.III-01	Burma Teak Wood scantlings: up to 2.0 M	1 cum	194,837.00
133	TBSC-D.III-02	Burma Teak Wood scantlings: 2.0 to 3.0 M	1 cum	200,402.00
134	TBSC-D.III-03	Burma Teak Wood scantlings: above 3.0 M	1 cum	210,780.00
135	TBSC-D.III-04	Burma Teak Wood Planks: any thickness	1 cum	228,238.00
<b>IV</b>	<b>SUB-SECTION</b>	<b>ASSAM TEAK WOOD</b>		
136	TBSC-D.IV-01	Assam Teak Wood scantlings: any length	1 cum	52,232.00
137	TBSC-D.IV-02	Assam Teak Wood Planks: any thickness	1 cum	75,737.00
<b>V</b>	<b>SUB-SECTION</b>	<b>SAL/ COUNTRY WOOD</b>		
138	TBSC-D.V-01	Sal Wood scantlings: any length	1 cum	50,775.00
139	TBSC-D.V-02	Sal Wood Planks: any thickness	1 cum	67,700.00
<b>VI</b>	<b>SUB-SECTION</b>	<b>ROOFING MATERIAL</b>		

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
140	TBSC-D.VI-01	A.C sheet Corrugated 6 mm thick	1 Sqm	246.00
141	TBSC-D.VI-02	A.C sheet plain 4 m thick	1 Sqm	177.00
142	TBSC-D.VI-03	A.C sheet plain 6 m thick	1 Sqm	185.00
143	TBSC-D.VI-04	Plain or Corrugated Galvanized iron sheets as per IS 277 (0.1 mm to 0.8 mm thickness)	1 kg	68.00
144	TBSC-D.VI-05	Supply of Pre-painted Galvalume Trapezoidal Profile Roofing sheets with 0.50mm thickness, Coating: Alu-Zinc coating AZ150 GSM. Tensile Strength: 550 MPA. Paint coating: Regular Modified Polyester painting. Painting Thickness (Top): 18 to 20 Microns, (Bottom): 5 to 7 Microns. Sheet Width: 1.020, Length: Maximum 12 Meters with Regular Range Colours	1 Sqm	434.00
145	TBSC-D.VI-06	Supply of Pre-painted Galvalume Trapezoidal Profile Roofing sheets with 0.47mm thickness, Coating: Alu-Zinc coating AZ150 GSM. Tensile Strength: 550 MPA. Paint coating: Regular Modified Polyester painting. Painting Thickness (Top): 18 to 20 Microns, (Bottom): 5 to 7 Microns. Sheet Width: 1.020, Length: Maximum 12 Meters with Regular Range Colours	1 Sqm	422.00
146	TBSC-D.VI-07	Supply of Pre-painted Galvanized Trapezoidal Profile Roofing sheets with 0.50mm thickness, Coating: Zinc coating Z120 GSM. Tensile Strength: 300 MPA. Paint coating: Regular Modified Polyester painting. Painting Thickness (Top): 18 to 20 Microns, (Bottom): 5 to 7 Microns. Sheet Width: 1.020, Length: Maximum 12 Meters with Regular Range Colours	1 Sqm	380.00
147	TBSC-D.VI-08	Supply of Pre-painted Galvanized Trapezoidal Profile Roofing sheets with 0.47mm thickness, Coating: Zinc coating Z120 GSM. Tensile Strength: 300 MPA. Paint coating: Regular Modified Polyester painting. Painting Thickness (Top): 18 to 20 Microns, (Bottom): 5 to 7 Microns. Sheet Width: 1.020, Length: Maximum 12 Meters with Regular Range Colours	1 Sqm	357.00
148	TBSC-D.VI-09	Supply of Roof Accessories medium size: Ridge, Barge Cap, Corner Trim, L-Flashing, Down Pipes, Gutter etc., with 0.50mm thick, Width: 0.585, Length: Maximum 2½ Meters	1 RM	291.00
149	TBSC-D.VI-10	Supply of Roof Accessories medium size: Ridge, Barge Cap, Corner Trim, L-Flashing, Down Pipes, Gutter etc., with 0.47mm thick, Width: 0.585, Length: Maximum 2½ Meters	1 RM	260.00
150	TBSC-D.VI-11	Supply of fibre reinforced corrugated sheets 6 mm thick(Non asbestos) in compliance with Type-A Category -C class-7 of IS 14871 for roofing	1 Sqm	358.00
151	TBSC-D.VI-12	Supply of pre painted fibre reinforced corrugated sheets 6mm thick(Non asbestos) in compliance with Type-A Category -C class-7 of IS 14871 for roofing	1 RM	425.00
152	TBSC-D.VI-13	75 mm long screws -	1 Each	7.00
153	TBSC-D.VI-14	G.I scam bolts & nuts	1 Each	8.00
154	TBSC-D.VI-15	G.I bolts & nuts	1 Each	8.00
155	TBSC-D.VI-16	G.I 'J' bolts 8 mm Diameter	1 Each	12.00
156	TBSC-D.VI-17	G.I Washers	1 Each	4.00
157	TBSC-D.VI-18	Limpet washers (for scam & 'J' bolts)	1 Each	4.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
158	TBSC-D.VI-19	Bitumen washers	1 Each	4.00
159	TBSC-D.VI-20	Supply of UV resistant multi-wall polycarbonate sheets for roofing of any colour - 6 mm thick	1 Sqm	1,427.00
160	TBSC-D.VI-21	Aluminium universal glazing set 40 mm wide for jointing and fixing polycarbonate sheets	1 RM	145.00
161	TBSC-D.VI-22	Providing 10mm thick UV resistant multiwall polycarbonate sheets fixed to the purlins with aluminum universal glazing set 40mm wide for jointing and fixing sheets and 14 size self-drilling screws with neoprene washer. Side laps are stitched with self-tapping / drilling screws. End laps are to be sealed with 25x3 mm Butyl tape including cost and conveyance of all materials and labour charges, overheads and contractor's profits , etc. complete for finished item of work	1 Sqm	2,316.00
162	TBSC-D.VI-23	Supply of Galvanized Roofing Deck sheets with 0.80mm - 2mm thickness, Coating: Zinc coating Z125 / Z275/ Z 500 GSM. Yield Strength: E250. crest to crest width 130 mm length 12 metres : profile width 982mm and profile depth 44mm CR steel as per IS-513 HR steel as per IS 1079 and Galvanised Steel as per IS 277	1 kg	120.00
<b>E</b>	<b>SECTION</b>	<b>STEEL MATERIALS</b>		
		(Excluding taxes but including cost of loading, cost of conveyance, unloading & stacking)		
<b>I</b>	<b>SUB-SECTION</b>	<b>MILD STEEL MATERIALS</b>		
163	TBSC-E.I-01	Supply & fixing of Rolling shutter made of 80 x 1.25 mm machine rolled CRCA laths, interlocked together through their entire length and jointed together at the ends by end-locks, mounted on specially designed pipe shaft of 50mm Diameter nominal bore MS B class pipe with brackets, plates, guide channels, stoppers, bottom locking plates and arrangements for inside & outside locking with push-pull operations including cost of hood cover and springs complete, painted with one coat of approved steel primer, locks, ball bearings, all accessories etc complete for finished item of work as per special Spec: 1108	1 Sqm	4,431.00
164	TBSC-E.I-02	Supplying & fixing collapsible steel shutters with vertical, double channel of 20 x10x2 mm of 100 mm centre ,Bracers with flat iron 40x40x6 mm with 38 mm Diameter steel pulleys, the top, bottom and side vertical frames of the collapsible gate with 65x65mmx8mm MS Angle and middle guide rail at site height with 65mmx8mm MS flat for the pulleys to guide and fixed with necessary hold fasts, bolts, nuts, rivets, locking arrangements, stoppers, handles, all accessories all fixtures and painted with one coat of approved steel primer etc., complete for finished item of work as per special Spec 1105	1 Sqm	3,876.00
165	TBSC-E.I-03	Expanded metal sheets as per IS-412-1962- Light Weight- 25 mm(SWM)x75 mm (LWM)3.25 mm Wide and 1.25 mm thick	1 Sqm	179.00
166	TBSC-E.I-04	Expanded metal sheets as per IS-412-1962- Light Weight- 20 mm(SWM)x60 mm(LWM) 2.50 mm Wide and 1.25 mm thick	1 Sqm	179.00
167	TBSC-E.I-05	Expanded metal sheets as per IS-412-1962- Light Weight- 20 mm(SWM)x50 mm(LWM) 2.50 mm Wide and 1.25 mm thick	1 Sqm	179.00
168	TBSC-E.I-06	Expanded metal sheets as per IS-412-1962- Medium Weight-25 mm(SWM)x75 mm(LWM) 3.25 mm Wide and 1.60 mm thick	1 Sqm	244.00
169	TBSC-E.I-07	Expanded metal sheets as per IS-412-1962- Medium	1 Sqm	

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		Weight-20 mm(SWM)x60 mm(LWM) 2.50 mm Wide and 1.60 mm thick		244.00
170	TBSC-E.I-08	Expanded metal sheets as per IS-412-1962- Medium Weight-20 mm(SWM)x50 mm(LWM) 2.50 mm Wide and 1.60 mm thick	1 Sqm	244.00
171	TBSC-E.I-09	Expanded metal sheets as per IS-412-1962- Heavy Weight-25 mm(SWM)x75 mm(LWM) 3.25 mm Wide and 2.24 mm thick	1 Sqm	279.00
172	TBSC-E.I-10	Expanded metal sheets as per IS-412-1962- Heavy Weight-20 mm(SWM)x60 mm(LWM) 2.50 mm Wide and 2.24 mm thick	1 Sqm	279.00
173	TBSC-E.I-11	Expanded metal sheets as per IS-412-1962- Heavy Weight-20 mm(SWM)x50 mm(LWM) 2.50 mm Wide and 2.24 mm thick	1 Sqm	279.00
174	TBSC-E.I-12	Rabbit wire mesh (chicken mesh) of not less than 30 gauge	1 Sqm	22.00
175	TBSC-E.I-13	Country Nails	1 Kg	70.00
176	TBSC-E.I-14	Wire Nails	1 Kg	70.00
177	TBSC-E.I-15	Supply of Structural Steel hollow Tubular sections conforming to IS 1161-2014 including loading, transportation and unloading charges	1 Kg	75.00
178	TBSC-E.I-16	Supply of Structural Steel hollow Square & Rectangular sections conforming to IS 4923-1997 including loading, transportation and unloading charges	1 Kg	75.00
179	TBSC-E.I-17	Supply of Cold Rolled Close Annealed - CRCA Sheets with base material conforming to IS:513 - 2008 for Door / Window/ Glazing frames as per IS:4351 - 2003 and galvanized sections/ profiles as per IS:277 - 2003 and Furniture sheets (CR1 to CR5) including all loading, transportation and unloading charges	1 Kg	75.00
<b>II</b>	<b>SUB-SECTION</b>	<b>GALVANIZED STEEL MATERIALS</b>		
180	TBSC-E.II-01	Supplying Galvanized Steel Barbed wire conforming to IS 278 - 1978 : Type A - IOWA Type Designation as per standard specification	1 Kg	102.00
181	TBSC-E.II-02	Supplying Galvanized Steel Barbed wire conforming to IS 278 - 1978 : Type B - Glidden Type Designation as per standard specification	1 Kg	102.00
182	TBSC-E.II-03	Galvanized Iron fly proof wire mesh of not less than 20 gauge	1 Sqm	265.00
183	TBSC-E.II-04	Hot dipped Galvanized Iron Chain link mesh 8 gauge - (4.0 mm) as per IS: 2721-1979: 2"x2" (50 mm x 50 mm) - 8 Gauge	1 Sqm	581.00
184	TBSC-E.II-05	Hot dipped Galvanized Iron Chain link mesh 8 gauge - (4.0 mm) as per IS: 2721-1979: 2½"x2½" (63 mm x 63 mm) - 8 Gauge	1 Sqm	460.00
185	TBSC-E.II-06	Hot dipped Galvanized Iron Chain link mesh 8 gauge - (4.0 mm) as per IS: 2721-1979: 3"x3" (76 mm x 76 mm) - 8 Gauge	1 Sqm	393.00
186	TBSC-E.II-07	Hot dipped Galvanized Iron Chain link mesh 8 gauge - (4.0 mm) as per IS: 2721-1979: 4"x4" (102 mm x 102 mm) - 8 Gauge	1 Sqm	293.00
187	TBSC-E.II-08	Hot dipped Galvanized Iron Chain link mesh 8 gauge - (4.0 mm) as per IS: 2721-1979 - PVC Coated - 2"x2" (50 mm x 50 mm) - 8 Gauge	1 Sqm	701.00
188	TBSC-E.II-09	Hot dipped Galvanized Iron Chain link mesh 8 gauge - (4.0 mm) as per IS: 2721-1979 - PVC Coated - 2½"x2½" (63 mm x 63 mm) - 8 Gauge	1 Sqm	581.00
189	TBSC-E.II-10	Hot dipped Galvanized Iron Chain link mesh 8 gauge - (4.0 mm) as per IS: 2721-1979 - PVC Coated - 3"x3" (76 mm x 76 mm) - 8 Gauge	1 Sqm	480.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
190	TBSC-E.II-11	Hot dipped Galvanized Iron Chain link mesh 8 gauge - (4.0 mm) as per IS: 2721-1979 - PVC Coated - 4"x4" (102 mm x 102 mm) - 8 Gauge	1 Sqm	374.00
III	SUB-SECTION	<b>STAINLESS STEEL MATERIALS</b>		
191	TBSC-E.III-01	Stainless Steel Tubes, sections, plates, sheets & pipes of all sizes & Diameters for - 304 Grade	1 Kg	434.00
192	TBSC-E.III-02	Stainless steel fly proof wire mesh of not less than 20 gauge	1 Sqm	585.00
F	SECTION	<b>GLASS MATERIALS</b>		
		(Excluding taxes but including cost of loading, cost of conveyance, unloading & stacking)		
I	SUB-SECTION	<b>PLAIN GLASS PANES</b>		
193	TBSC-F.I-01	Plain Float Glass 4 mm thick	1 Sqm	448.00
194	TBSC-F.I-02	Plain Float Glass 5 mm thick	1 Sqm	568.00
195	TBSC-F.I-03	Plain Float Glass 6 mm thick	1 Sqm	704.00
196	TBSC-F.I-04	Plain Float Glass 8 mm thick	1 Sqm	946.00
197	TBSC-F.I-05	Plain Float Glass 10 mm thick	1 Sqm	996.00
198	TBSC-F.I-06	Plain Float Glass 12 mm thick	1 Sqm	1,194.00
II	SUB-SECTION	<b>PIN HEADED GLASS PANES</b>		
199	TBSC-F.II-01	Pin headed Glass 4 mm thick	1 Sqm	336.00
200	TBSC-F.II-02	Pin headed Glass 5 mm thick	1 Sqm	437.00
III	SUB-SECTION	<b>TINTED GLASS PANES</b>		
201	TBSC-F.III-01	Tinted - Bronze/ Green Glass 4 mm thick	1 Sqm	523.00
202	TBSC-F.III-02	Tinted - Bronze/ Green Glass 5 mm thick	1 Sqm	654.00
203	TBSC-F.III-03	Tinted - Bronze/ Green Glass 6 mm thick	1 Sqm	783.00
204	TBSC-F.III-04	Tinted - Bronze/ Green Glass 8 mm thick	1 Sqm	1,122.00
205	TBSC-F.III-05	Tinted - Bronze/ Green Glass 10 mm thick	1 Sqm	1,307.00
206	TBSC-F.III-06	Tinted - Bronze/ Green Glass 12 mm thick	1 Sqm	1,569.00
207	TBSC-F.III-07	Reflective - Bronze/Green/Grey/Blue/Gold Glass 4mm thick	1 Sqm	600.00
208	TBSC-F.III-08	Reflective - Bronze/Green/Grey/Blue/Gold Glass 5mm thick	1 Sqm	750.00
209	TBSC-F.III-09	Reflective - Bronze/Green/Grey/Blue/Gold Glass 6mm thick	1 Sqm	900.00
210	TBSC-F.III-10	Reflective - Bronze/Green/Grey/Blue/Gold Glass 8mm thick	1 Sqm	1,600.00
211	TBSC-F.III-11	Reflective - Bronze/Green/Grey/Blue/Gold Glass 10mm thick	1 Sqm	2,000.00
212	TBSC-F.III-12	Reflective - Bronze/Green/Grey/Blue/Gold Glass 12mm thick	1 Sqm	2,400.00
IV	SUB-SECTION	<b>FROSTED/ GROUND GLASS PANES</b>		
213	TBSC-F.IV-01	Frosted / Ground Glass 4 mm thick	1 Sqm	603.00
214	TBSC-F.IV-02	Frosted / Ground Glass 5 mm thick	1 Sqm	759.00
V	SUB-SECTION	<b>TOUGHENED GLASS PANES</b>		
215	TBSC-F.V-01	Toughened Plain Glass 5 mm (including Glass)	1 Sqm	



Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
				<b>909.00</b>
216	TBSC-F.V-02	Toughened Plain Glass 6 mm (including Glass)	1 Sqm	<b>1,049.00</b>
217	TBSC-F.V-03	Toughened Plain Glass 8 mm (including Glass)	1 Sqm	<b>1,400.00</b>
218	TBSC-F.V-04	Toughened Plain Glass 10 mm (including Glass)	1 Sqm	<b>1,677.00</b>
219	TBSC-F.V-05	Toughened Plain Glass 12 mm (including Glass)	1 Sqm	<b>1,956.00</b>
<b>VI</b>	<b>SUB-SECTION</b>	<b>HERMETICALLY SEALED PANES - (Rates for following items are with 5 mm thick toughened clear float glass, rates for other glasses can be derived from adding/deducting the difference of cost of selected glass)</b>		
220	TBSC-F.VI-01	Supplying and fixing of hermetically Sealed Insulated (IGU) Double Glazed Glass Unit (DGU) with 5 mm thick toughened Clear Glass both sides and hollow aluminium spacer bar frames where frame is bent at 90 degree angle and assembled with only one joint, called a bent frame filled with desiccant of appropriate grade molecular sieve desiccant of adsorption capacity by weight, 20-30% by weight, capacity to dry air down to an extremely low PPMv level, <100 ppm (%RH) fixed to the glasses of specified thickness and quality with primary and secondary sealants of Poly ISO Butylene, or Butyl, primary sealant and Silicone and Polysulfide secondary sealants, to help fixing the IGU at the time of assembly and protect the gas filled spaces from moisture vapor penetration, chemical attack from cleaning fluids and glazing products, and liquid water penetration due to rain or condensation complete for Type I - Dry Air Insulated - Regular IGU	1 Sqm	<b>3,151.00</b>
221	TBSC-F.VI-02	Supplying and fixing of hermetically Sealed Insulated (IGU) Double Glazed Glass Unit (DGU) with 5 mm thick toughened Clear Glass both sides and hollow aluminium spacer bar frames where frame is bent at 90 degree angle and assembled with only one joint, called a bent frame filled with desiccant of appropriate grade molecular sieve desiccant of adsorption capacity by weight, 20-30% by weight, capacity to dry air down to an extremely low PPMv level, <100 ppm (%RH) fixed to the glasses of specified thickness and quality with primary and secondary sealants of Poly ISO Butylene, or Butyl, primary sealant and Silicone and Polysulfide secondary sealants, to help fixing the IGU at the time of assembly and protect the gas filled spaces from moisture vapor penetration, chemical attack from cleaning fluids and glazing products, and liquid water penetration due to rain or condensation complete for Type II - Inert gases such as argon, krypton, and xenon - IGU	1 Sqm	<b>3,167.00</b>
222	TBSC-F.VI-03	Supplying and fixing of hermetically Sealed Insulated (IGU) Double Glazed Glass Unit (DGU) using 5 mm thick toughened Clear Glass both sides and hollow aluminium spacer bar frames where frame is bent at 90 degree angle and assembled with only one joint, called a bent frame filled with desiccant of appropriate grade molecular sieve desiccant of adsorption capacity by weight, 20-30% by weight, capacity to dry air down to an extremely low PPMv level, <100 ppm (%RH) fixed to the glasses of specified thickness and quality with primary and secondary sealants of Poly ISO Butylene, or Butyl, primary sealant and Silicone and Polysulfide secondary	1 Sqm	<b>3,399.00</b>

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		sealants, to help fixing the IGU at the time of assembly and protect the gas filled spaces from moisture vapor penetration, chemical attack from cleaning fluids and glazing products, and liquid water penetration due to rain or condensation complete for Type III - Vacuum sealed IGU		
223	TBSC-F.VI-04	Providing low-emissivity coating for energy efficiency, high-performance glass with low U value, for recommended RHG, SRI, SHGC, and VLT as per green building - GRIHA/ LEED stipulations, for any thickness of glass (Extra on base glass cost)	1 Sqm	500.00
<b>G</b>	<b>SECTION</b>	<b>PAINTS &amp; POLISHES</b>		
		(Excluding taxes but including cost of loading, cost of conveyance, unloading & stacking)		
<b>I</b>	<b>SUB-SECTION</b>	<b>PRIMERS, FILLERS &amp; BASES</b>		
224	TBSC-G.I-01	Supply of water based Cement Primer of Interior Grade-1	1 Kg	173.00
225	TBSC-G.I-02	Supply of water based Cement Primer of Exterior Grade-2	1 Kg	221.00
226	TBSC-G.I-03	Supply of wall putty of White Cement or Polymer or Cement based	1 Kg	41.00
227	TBSC-G.I-04	Acrylic spray plaster in paste form made with specially selected inert mineral fillers, antifungal agents to protect the material the acrylic binding medium used gives good surface adhesion any grade	1 Kg	33.00
228	TBSC-G.I-05	Supply of Red Oxide Primer Paint for iron works of Grade -1	1 Lit	149.00
229	TBSC-G.I-06	Supply of Zinc Chromate Yellow Oxide Primer paint for iron works	1 Lit	236.00
230	TBSC-G.I-07	Supply of Wood Primer	1 Lit	167.00
231	TBSC-G.I-08	Supply of Metal paste (Putty) for steel works	1 Kg	167.00
232	TBSC-G.I-09	Supply of Putty for wood work (Powder chalk)	1 Kg	167.00
233	TBSC-G.I-10	Supply of White Lead	1 Kg	120.00
234	TBSC-G.I-11	Supply of Synthetic clear Varnish	1 Lit	167.00
235	TBSC-G.I-12	Supply of Spirit	1 Lit	118.00
236	TBSC-G.I-13	Supply of Linseed Oil	1 Lit	67.00
237	TBSC-G.I-14	Supply of thinner for melamine polish/ French polish	1 Lit	154.00
238	TBSC-G.I-15	Supply of thinner for Poly-urethane polish	1 Lit	314.00
239	TBSC-G.I-16	Supply of French Polish	1 Lit	217.00
240	TBSC-G.I-17	Supply of ready made Wax Polish	1 Kg	658.00
241	TBSC-G.I-18	Supply of wood adhesive compound	1 Kg	259.00
242	TBSC-G.I-19	Supply of anti-corrosive grade - 1 bitumen paint of black colour	1 Lit	594.00
243	TBSC-G.I-20	Acrylic coarse spray plaster to cover undulations in paste form made with specially selected inert mineral fillers, antifungal agents to protect the material the acrylic binding medium used gives good surface adhesion interior grade	1 Kg	18.00
244	TBSC-G.I-21	Supply of coarse wall putty of grey cement or polymer or	1 Kg	

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		cement based to cover exterior undulations		50.00
245	TBSC-G.I-22	Supply of base coat as primer for natural textures and natural stone based paints - Exterior grade	1 Kg	67.00
II	SUB-SECTION	<b>LIME, DISTEMPERS &amp; CEMENT PAINTS</b>		
246	TBSC-G.II-01	Supply of paint grade lime for white / colour wash	1 Kg	27.00
247	TBSC-G.II-02	Supply of Dry Powder Distemper	1 Kg	51.00
248	TBSC-G.II-03	Supply of acrylic based Oil Bound washable Distemper	1 Kg	63.00
249	TBSC-G.II-04	Supply of Water proof Cement paint	1 Kg	60.00
III	SUB-SECTION	<b>EMULSION BASED PAINTS</b>		
250	TBSC-G.III-01	Supply of acrylic emulsion paint interior grade having VOC (Volatile Organic Compound) content less than 30 grams/ Lit.	1 Lit	225.00
251	TBSC-G.III-02	Supply of acrylic emulsion paint exterior grade with silicon additives having VOC (Volatile Organic Compound) content less than 30 grams/ Lit.	1 Lit	236.00
252	TBSC-G.III-03	Supply of acrylic emulsion paint weather proof water-based, modified acrylic with silicon additives exterior grade having VOC (Volatile Organic Compound) content less than 30 grams/ Lit.	1 Lit	260.00
253	TBSC-G.III-04	Supply of acrylic emulsion paint interior premium grade having VOC content less than 50gm/lit	1 Lit	263.00
254	TBSC-G.III-05	Supply of semi glossy acrylic emulsion paint exterior premium grade with silicon additives having VOC content less than 50gm/lit	1 Lit	373.00
255	TBSC-G.III-06	Supply of natural stone based high UV resistant topcoat exterior emulsion paint	1 Kg	82.00
IV	SUB-SECTION	<b>SOLVENT BASED PAINTS</b>		
256	TBSC-G.IV-01	Supply of solvent based latex paint having VOC (Volatile Organic Compound) content less than 30 grams/ Lit.	1 Lit	283.00
257	TBSC-G.IV-02	Supply of synthetic polymer luxury plastic emulsion / solvent based luster paint of superior grade having VOC (Volatile Organic Compound) content less than 30 grams/ Lit.	1 Lit	495.00
V	SUB-SECTION	<b>OIL BASED ENAMEL PAINTS</b>		
258	TBSC-G.V-01	Supply of ready mixed Synthetic Enamel in all shades Grade - I / Polyurethane full gloss Enamel (IS - 13213) paints having VOC (Volatile Organic Compound) content less than 30 grams/ Lit.	1 Lit	289.00
259	TBSC-G.V-02	Supply of ready mixed Synthetic Enamel / Epoxy enamel (IS - 14209) paints in all shades Grade - II having VOC (Volatile Organic Compound) content less than 30 grams/ Lit.	1 Lit	221.00
VI	SUB-SECTION	<b>TEXTURE PAINTS</b>		
260	TBSC-G.VI-01	Exterior grade Texture ready mixed paint with sand texture added sand particles Acrylic copolymers and mineral compounds, bactericides and various additives having VOC (Volatile Organic Compound) content less than 30 grams/ Lit.	1 Kg	43.00
261	TBSC-G.VI-02	Exterior grade Texture ready mixed plaster made with natural minerals - granite flakes/ marble flakes/ powder, sand and other carefully selected and sieved minerals in an acrylic binding medium having VOC (Volatile Organic Compound) content less than 30 grams/ Lit.	1 Kg	55.00
262	TBSC-G.VI-03	Exterior grade natural textures ready mixed plaster made with natural mineral - granite flakes/marble flakes/powder, sand and other carefully selected and sieved minerals in an acrylic binding medium	1 Kg	80.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
263	TBSC-G.VI-04	Exterior grade natural textures in roller finish ready mixed plaster made with natural mineral - marble powder sand and other carefully selected and sieved minerals in an acrylic binding medium	1 Kg	83.00
<b>VII</b>	<b>SUB-SECTION</b>	<b>SPECIAL PAINTS</b>		
264	TBSC-G.VII-01	Supply of Melamine Polish	1 Lit	365.00
265	TBSC-G.VII-02	Supply of Interior Grade Poly-Urethane Polish	1 Lit	743.00
266	TBSC-G.VII-03	Supply of Exterior Grade Poly-Urethane Polish	1 Lit	907.00
267	TBSC-G.VII-04	Supply of grade-1 aluminium paint	1 Lit	297.00
<b>H</b>	<b>SECTION</b>	<b>PARTICLE BOARDS</b>		
		(Excluding taxes but including cost of loading, cost of conveyance, unloading & stacking)		
<b>I</b>	<b>SUB-SECTION</b>	<b>MELAMINE FACED PLAIN PARTICLE BOARD</b>		
268	TBSC-H.I-01	Melamine faced Single Deco Plain Particle Board- 8 mm thick conforming to IS 3129	1 Sqm	686.00
269	TBSC-H.I-02	Melamine faced Single Deco Plain Particle Board- 12 mm thick conforming to IS 3129	1 Sqm	779.00
270	TBSC-H.I-03	Melamine faced Single Deco Plain Particle Board- 18 mm thick conforming to IS 3129	1 Sqm	902.00
271	TBSC-H.I-04	Melamine faced Single Deco Plain Particle Board- 25 mm thick conforming to IS 3129	1 Sqm	1,023.00
272	TBSC-H.I-05	Melamine faced Single Deco Plain Particle Board- 35 mm thick conforming to IS 3129	1 Sqm	1,699.00
273	TBSC-H.I-06	Melamine faced Twin Deco Plain Particle Board- 8 mm thick conforming to IS 3129	1 Sqm	791.00
274	TBSC-H.I-07	Melamine faced Twin Deco Plain Particle Board- 12 mm thick conforming to IS 3129	1 Sqm	902.00
275	TBSC-H.I-08	Melamine faced Twin Deco Plain Particle Board-18 mm thick conforming to IS 3129	1 Sqm	1,044.00
276	TBSC-H.I-09	Melamine faced Twin Deco Plain Particle Board-25 mm thick conforming to IS 3129	1 Sqm	1,156.00
277	TBSC-H.I-10	Melamine faced Twin Deco Plain Particle Board-35 mm thick conforming to IS 3129	1 Sqm	2,172.00
<b>II</b>	<b>SUB-SECTION</b>	<b>INSULATING PARTICLE BOARDS</b>		
278	TBSC-H.II-01	Natural Colour-Insulating Board - 12 mm thick conforming to IS 3348	1 Sqm	257.00
279	TBSC-H.II-02	Natural Colour-Insulating Board - 18 mm thick conforming to IS 3348	1 Sqm	378.00
280	TBSC-H.II-03	Natural Colour-Insulating Board - 25 mm thick conforming to IS 3348	1 Sqm	483.00
281	TBSC-H.II-04	White Insulating Board - 12 mm thick conforming to IS 3348	1 Sqm	312.00
282	TBSC-H.II-05	White Insulating Board - 18 mm thick conforming to IS 3348	1 Sqm	446.00
283	TBSC-H.II-06	White Insulating Board - 25 mm thick conforming to IS 3348	1 Sqm	397.00
<b>III</b>	<b>SUB-SECTION</b>	<b>MEDIUM DENSITY FIBRE BOARDS</b>		
284	TBSC-H.III-01	Medium Fibre Board: Interior Grade - 6 mm thick conforming to IS 15932	1 Sqm	418.00
285	TBSC-H.III-02	Medium Fibre Board: Interior Grade - 8 mm thick conforming to IS 15932	1 Sqm	474.00
286	TBSC-H.III-03	Medium Fibre Board: Interior Grade - 12 mm thick conforming to IS 15932	1 Sqm	634.00
287	TBSC-H.III-04	Medium Fibre Board: Interior Grade - 15 mm thick conforming to IS 15932	1 Sqm	805.00
288	TBSC-H.III-05	Medium Fibre Board: Interior Grade - 18 mm thick conforming to IS 15932	1 Sqm	899.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
289	TBSC-H.III-06	Medium Fibre Board: Interior Grade - 25 mm thick conforming to IS 15932	1 Sqm	1,275.00
290	TBSC-H.III-07	Medium Fibre Board: Interior Grade - 30 mm thick conforming to IS 15932	1 Sqm	1,540.00
291	TBSC-H.III-08	Medium Fibre Board: Interior Grade - 35 mm thick conforming to IS 15932	1 Sqm	1,682.00
292	TBSC-H.III-09	Medium Fibre Board: Exterior Grade - 6 mm thick conforming to IS 15932	1 Sqm	568.00
293	TBSC-H.III-10	Medium Fibre Board: Exterior Grade - 8 mm thick conforming to IS 15932	1 Sqm	661.00
294	TBSC-H.III-11	Medium Fibre Board: Exterior Grade - 12 mm thick conforming to IS 15932	1 Sqm	876.00
295	TBSC-H.III-12	Medium Fibre Board: Exterior Grade - 15 mm thick conforming to IS 15932	1 Sqm	1,100.00
296	TBSC-H.III-13	Medium Fibre Board: Exterior Grade - 18 mm thick conforming to IS 15932	1 Sqm	1,230.00
297	TBSC-H.III-14	Medium Fibre Board: Exterior Grade - 25 mm thick conforming to IS 15932	1 Sqm	1,640.00
298	TBSC-H.III-15	Medium Fibre Board: Exterior Grade - 30 mm thick conforming to IS 15932	1 Sqm	2,042.00
299	TBSC-H.III-16	Medium Fibre Board: Exterior Grade - 35 mm thick conforming to IS 15932	1 Sqm	2,411.00
300	TBSC-H.III-17	MDF Board: Plain-Interior - 9 mm thick conforming to IS 15932	1 Sqm	384.00
301	TBSC-H.III-18	MDF Board: Plain-Interior - 12 mm thick conforming to IS 15932	1 Sqm	436.00
302	TBSC-H.III-19	MDF Board: Plain-Interior - 18 mm thick conforming to IS 15932	1 Sqm	539.00
303	TBSC-H.III-20	MDF Board: Plain-Interior - 25 mm thick conforming to IS 15932	1 Sqm	647.00
304	TBSC-H.III-21	MDF Board: Plain-Interior - 30 mm thick conforming to IS 15932	1 Sqm	984.00
305	TBSC-H.III-22	MDF Board: Plain-Interior - 35 mm thick conforming to IS 15932	1 Sqm	1,163.00
306	TBSC-H.III-23	MDF Board: Plain-Exterior - 9 mm thick conforming to IS 15932	1 Sqm	501.00
307	TBSC-H.III-24	MDF Board: Plain-Exterior - 12 mm thick conforming to IS 15932	1 Sqm	539.00
308	TBSC-H.III-25	MDF Board: Plain-Exterior - 18 mm thick conforming to IS 15932	1 Sqm	706.00
309	TBSC-H.III-26	MDF Board: Plain-Exterior - 25 mm thick conforming to IS 15932	1 Sqm	886.00
310	TBSC-H.III-27	MDF Board: Plain-Exterior - 30 mm thick conforming to IS 15932	1 Sqm	1,163.00
311	TBSC-H.III-28	MDF Board: Plain-Exterior - 35 mm thick conforming to IS 15932	1 Sqm	1,342.00
312	TBSC-H.III-29	MDF Board: Interior-One Side Laminated -9 mm thick conforming to IS 15932	1 Sqm	600.00
313	TBSC-H.III-30	MDF Board: Interior-One Side Laminated -12 mm thick conforming to IS 15932	1 Sqm	679.00
314	TBSC-H.III-31	MDF Board: Interior-One Side Laminated -18 mm thick conforming to IS 15932	1 Sqm	789.00
315	TBSC-H.III-32	MDF Board: Interior-One Side Laminated -25 mm thick conforming to IS 15932	1 Sqm	886.00
316	TBSC-H.III-33	MDF Board: Interior-One Side Laminated -30 mm thick conforming to IS 15932	1 Sqm	1,281.00
317	TBSC-H.III-34	MDF Board: Interior-One Side Laminated -35 mm thick conforming to IS 15932	1 Sqm	1,367.00
318	TBSC-H.III-35	MDF Board: Exterior-One Side Laminated -9 mm thick conforming to IS 15932	1 Sqm	689.00
319	TBSC-H.III-36	MDF Board: Exterior-One Side Laminated -12 mm thick	1 Sqm	

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		conforming to IS 15932		775.00
320	TBSC-H.III-37	MDF Board: Exterior-One Side Laminated -18 mm thick conforming to IS 15932	1 Sqm	877.00
321	TBSC-H.III-38	MDF Board: Exterior-One Side Laminated -25 mm thick conforming to IS 15932	1 Sqm	1,025.00
322	TBSC-H.III-39	MDF Board: Exterior-One Side Laminated -30 mm thick conforming to IS 15932	1 Sqm	1,367.00
323	TBSC-H.III-40	MDF Board: Exterior-One Side Laminated -35 mm thick conforming to IS 15932	1 Sqm	1,451.00
324	TBSC-H.III-41	MDF Board: Interior-Both Side Laminated -9 mm thick conforming to IS 15932	1 Sqm	685.00
325	TBSC-H.III-42	MDF Board: Interior-Both Side Laminated -12 mm thick conforming to IS 15932	1 Sqm	775.00
326	TBSC-H.III-43	MDF Board: Interior-Both Side Laminated -18 mm thick conforming to IS 15932	1 Sqm	886.00
327	TBSC-H.III-44	MDF Board: Interior-Both Side Laminated -25 mm thick conforming to IS 15932	1 Sqm	1,113.00
328	TBSC-H.III-45	MDF Board: Interior-Both Side Laminated -30 mm thick conforming to IS 15932	1 Sqm	1,367.00
329	TBSC-H.III-46	MDF Board: Interior-Both Side Laminated -35 mm thick conforming to IS 15932	1 Sqm	1,451.00
330	TBSC-H.III-47	MDF Board: exterior-Both Side Laminated -9 mm thick conforming to IS 15932	1 Sqm	775.00
331	TBSC-H.III-48	MDF Board: exterior-Both Side Laminated -12 mm thick conforming to IS 15932	1 Sqm	877.00
332	TBSC-H.III-49	MDF Board: exterior-Both Side Laminated -18 mm thick conforming to IS 15932	1 Sqm	1,036.00
333	TBSC-H.III-50	MDF Board: exterior-Both Side Laminated -25 mm thick conforming to IS 15932	1 Sqm	1,132.00
334	TBSC-H.III-51	MDF Board: exterior-Both Side Laminated -30 mm thick conforming to IS 15932	1 Sqm	1,434.00
335	TBSC-H.III-52	MDF Board: exterior-Both Side Laminated -35 mm thick conforming to IS 15932	1 Sqm	1,537.00
<b>IV</b>	<b>SUB-SECTION</b>	<b>CEMENT BONDED PLAIN &amp; PARTICLE BOARDS</b>		
336	TBSC-H.IV-01	Cement Bonded Board conforming to IS:14862-2000 - 4mm Thick	1 Sqm	163.00
337	TBSC-H.IV-02	Cement Bonded Board conforming to IS:14862-2000 - 6mm Thick	1 Sqm	233.00
338	TBSC-H.IV-03	Cement Bonded Board conforming to IS:14862-2000 - 8mm Thick	1 Sqm	299.00
339	TBSC-H.IV-04	Cement Bonded Board conforming to IS:14862-2000 - 10mm Thick	1 Sqm	343.00
340	TBSC-H.IV-05	Cement Bonded Board conforming to IS:14862-2000 - 12mm Thick	1 Sqm	429.00
341	TBSC-H.IV-06	Cement Bonded Board conforming to IS:14862-2000 - 14mm Thick	1 Sqm	478.00
342	TBSC-H.IV-07	Cement Bonded Board conforming to IS:14862-2000 - 16mm Thick	1 Sqm	544.00
343	TBSC-H.IV-08	Cement Bonded Board conforming to IS:14862-2000 - 18mm Thick	1 Sqm	616.00
344	TBSC-H.IV-09	Cement Bonded Board conforming to IS:14862-2000 - 20mm Thick	1 Sqm	653.00
345	TBSC-H.IV-10	Cement bonded particle board conforming to IS 14276-6 mm thick	1 Sqm	249.00
346	TBSC-H.IV-11	Cement bonded particle board conforming to IS 14276- 8 mm thick	1 Sqm	340.00
347	TBSC-H.IV-12	Cement bonded particle board conforming to IS 14276-10 mm thick	1 Sqm	421.00
348	TBSC-H.IV-13	Cement bonded particle board conforming to IS 14276-12 mm thick	1 Sqm	506.00
349	TBSC-H.IV-14	Cement bonded particle board conforming to IS 14276-	1 Sqm	

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		16 mm thick		667.00
350	TBSC-H.IV-15	Cement bonded particle board conforming to IS 14276-20 mm thick	1 Sqm	828.00
351	TBSC-H.IV-16	Cement bonded particle board conforming to IS 14276-25 mm thick	1 Sqm	1,055.00
352	TBSC-H.IV-17	Cement bonded particle board conforming to IS 14276-30 mm thick	1 Sqm	1,258.00
353	TBSC-H.IV-18	Cement bonded particle board conforming to IS 14276-40 mm thick	1 Sqm	1,655.00
354	TBSC-H.IV-19	Pre-laminated cement bonded particle board-6 mm thick	1 Sqm	589.00
355	TBSC-H.IV-20	Pre-laminated cement bonded particle board-8 mm thick	1 Sqm	636.00
356	TBSC-H.IV-21	Pre-laminated cement bonded particle board- 10 mm thick	1 Sqm	683.00
357	TBSC-H.IV-22	Pre-laminated cement bonded particle board- 12 mm thick	1 Sqm	747.00
358	TBSC-H.IV-23	Pre-laminated cement bonded particle board- 16 mm thick	1 Sqm	830.00
359	TBSC-H.IV-24	50 mm thick SOLID WALL PANEL Sandwich panels made of light weight FRACC non-asbestos fibre reinforced cement concrete	1 Sqm	1,087.00
360	TBSC-H.IV-25	75 mm thick SOLID WALL PANEL Sandwich panels made of light weight FRACC non-asbestos fibre reinforced cement concrete	1 Sqm	1,305.00
<b>J</b>	<b>SECTION</b>	<b>PLYWOODS, LAMINATES &amp; VENEERS</b>		
		(Excluding taxes but including cost of loading, cost of conveyance, unloading & stacking)		
<b>I</b>	<b>SUB-SECTION</b>	<b>MOISTURE RESISTANT (MR) GRADE</b>		
361	TBSC-J.I-01	3 Ply - 4 mm thick Plywood conforming to IS:303 MR Grade	1 Sqm	414.00
362	TBSC-J.I-02	5 Ply - 6 mm thick Plywood conforming to IS:303 MR Grade	1 Sqm	457.00
363	TBSC-J.I-03	5 Ply - 8 mm thick Plywood conforming to IS:303 MR Grade	1 Sqm	536.00
364	TBSC-J.I-04	5 Ply - 9 mm thick Plywood conforming to IS:303 MR Grade	1 Sqm	536.00
365	TBSC-J.I-05	9 Ply - 12 mm thick Plywood conforming to IS:303 MR Grade	1 Sqm	673.00
366	TBSC-J.I-06	9 Ply - 15 mm thick Plywood conforming to IS:303 MR Grade	1 Sqm	991.00
367	TBSC-J.I-07	9 Ply - 18 mm thick Plywood conforming to IS:303 MR Grade	1 Sqm	970.00
<b>II</b>	<b>SUB-SECTION</b>	<b>BOILING WATER RESISTANT (BWR) GRADE</b>		
368	TBSC-J.II-01	3 Ply - 4 mm thick Plywood conforming to IS:303 BWR Grade	1 Sqm	473.00
369	TBSC-J.II-02	5 Ply - 6 mm thick Plywood conforming to IS:303 BWR Grade	1 Sqm	554.00
370	TBSC-J.II-03	5 Ply - 8 mm thick Plywood conforming to IS:303 BWR Grade	1 Sqm	690.00
371	TBSC-J.II-04	5 Ply - 9 mm thick Plywood conforming to IS:303 BWR Grade	1 Sqm	653.00
372	TBSC-J.II-05	9 Ply - 12 mm thick Plywood conforming to IS:303 BWR Grade	1 Sqm	853.00
373	TBSC-J.II-06	9 Ply - 15 mm thick Plywood conforming to IS:303 BWR Grade	1 Sqm	1,223.00
374	TBSC-J.II-07	9 Ply - 19 mm thick Plywood conforming to IS:303 BWR Grade	1 Sqm	1,227.00
<b>III</b>	<b>SUB-SECTION</b>	<b>VENEERED DECORATIVE PLYWOOD</b>		
375	TBSC-J.III-01	3 Ply-4 mm thick One side Teak Veneered Decorative Plywood conforming to IS:1328	1 Sqm	612.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
376	TBSC-J.III-02	5 Ply - 6 mm thick One side Teak Veneered Decorative Plywood conforming to IS:1328	1 Sqm	796.00
377	TBSC-J.III-03	5 Ply - 9 mm thick One side Teak Veneered Decorative Plywood conforming to IS:1328	1 Sqm	1,021.00
378	TBSC-J.III-04	9 Ply - 12 mm thick One side Teak Veneered Decorative Plywood conforming to IS:1328	1 Sqm	1,299.00
379	TBSC-J.III-05	5 Ply - 9 mm thick Both sides Teak Veneered Decorative Plywood conforming to IS:1328	1 Sqm	1,331.00
380	TBSC-J.III-06	9 Ply - 12 mm thick Both sides Teak Veneered Decorative Plywood conforming to IS:1328	1 Sqm	1,552.00
<b>IV</b>	<b>SUB-SECTION</b>	<b>LAMINATES</b>		
381	TBSC-J.IV-01	Melamine Laminate Sheets - Glossy Finish: 1.00 mm thick	1 Sqm	410.00
382	TBSC-J.IV-02	Melamine Laminate Sheets - Glossy Finish: 1.50 mm thick	1 Sqm	587.00
383	TBSC-J.IV-03	Melamine Laminate Sheets - Glossy Finish: 1.80 mm thick	1 Sqm	644.00
384	TBSC-J.IV-04	Melamine Laminate Sheets - Mat Finish: 1.00 mm thick	1 Sqm	436.00
385	TBSC-J.IV-05	Melamine Laminate Sheets - Mat Finish: 1.50 mm thick	1 Sqm	606.00
386	TBSC-J.IV-06	Melamine Laminate Sheets - Mat Finish: 1.80 mm thick	1 Sqm	653.00
387	TBSC-J.IV-07	HIGH PRESSURE LAMINATES - HPL Compact Laminates of 6mm thickness for exterior elevation	1 Sqm	3,710.00
388	TBSC-J.IV-08	HIGH PRESSURE LAMINATES - HPL Compact Laminates of 12mm thickness for toilet cubicles	1 Sqm	4,842.00
<b>V</b>	<b>SUB-SECTION</b>	<b>COMMERCIAL VENEERS</b>		
389	TBSC-J.V-01	Teak Veneer Lamination of 4 mm thick with Pencil Grains conforming to IS 14315	1 Sqm	458.00
390	TBSC-J.V-02	Teak Veneer Lamination of 4 mm thick with Natural Grains conforming to IS 14315	1 Sqm	842.00
<b>VI</b>	<b>SUB-SECTION</b>	<b>NATURAL FIBRE COMPOSITE BOARDS</b>		
		Single extruded Natural Fibre Composite (NFC) board comprising of Natural Fibres derived from agri residuals like rice husk and stalk, non toxic natural minerals like calcium carbonate, fillers, processing additives, lubricants and heat stabilisers - bonded with Polyvinyl Chloride resin, having minimum density of 700 Kg/CBM, screw withdrawal strength of 1800 N (Face) and 900 N (edge), minimum compressive strength 40 MPA, modulus of elasticity 1000 N/mm <sup>2</sup> and resistance to spread of flame as per Class 1/A category with ever lasting property of being termite/borer proof, water proof and flame retardant, smoke suppressant		
391	TBSC-J.VI-01	Thickness 6mm of minimum density 700 Kg/cum	1 Sqm	1,033.00
392	TBSC-J.VI-02	Thickness 8mm of minimum density 700 Kg/cum	1 Sqm	1,291.00
393	TBSC-J.VI-03	Thickness 12mm of minimum density 700 Kg/cum	1 Sqm	1,571.00
394	TBSC-J.VI-04	Thickness 15mm of minimum density 700 Kg/cum	1 Sqm	1,926.00
395	TBSC-J.VI-05	Thickness 16mm of minimum density 700 Kg/cum	1 Sqm	2,077.00
396	TBSC-J.VI-06	Thickness 18mm of minimum density 700 Kg/cum	1 Sqm	2,227.00
397	TBSC-J.VI-07	Thickness 20mm of minimum density 700 Kg/cum	1 Sqm	2,550.00
398	TBSC-J.VI-08	Thickness 25mm of minimum density 700 Kg/cum	1 Sqm	3,368.00



Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
399	TBSC-J.VI-09	Thickness 30mm of minimum density 700 Kg/cum	1 Sqm	4,035.00
400	TBSC-J.VI-10	Thickness 6mm of minimum density 800 Kg/cum	1 Sqm	1,162.00
401	TBSC-J.VI-11	Thickness 8mm of minimum density 800 Kg/cum	1 Sqm	1,453.00
402	TBSC-J.VI-12	Thickness 12mm of minimum density 800 Kg/cum	1 Sqm	1,759.00
403	TBSC-J.VI-13	Thickness 15mm of minimum density 800 Kg/cum	1 Sqm	2,152.00
404	TBSC-J.VI-14	Thickness 16mm of minimum density 800 Kg/cum	1 Sqm	2,324.00
405	TBSC-J.VI-15	Thickness 18mm of minimum density 800 Kg/cum	1 Sqm	2,496.00
406	TBSC-J.VI-16	Thickness 20mm of minimum density 800 Kg/cum	1 Sqm	2,862.00
407	TBSC-J.VI-17	Thickness 25mm of minimum density 800 Kg/cum	1 Sqm	3,771.00
408	TBSC-J.VI-18	Thickness 30mm of minimum density 800 Kg/cum	1 Sqm	4,519.00
<b>K</b>	<b>SECTION</b>	<b>CEILINGS, WALL PARTITIONS &amp; WALL LININGS</b>		
		(Excluding taxes but including cost of loading, cost of conveyance, unloading & stacking)		
<b>I</b>	<b>SUB-SECTION</b>	<b>FALSE CEILINGs - TILES/ SHEETS</b>		
409	TBSC-K.I-01	Gypsum Board tiles of size not less than 0.595 M x 0.595 M of 12.5 mm thick as per IS 2095 -1992	1 Sqm	286.00
410	TBSC-K.I-02	Gypsum Board tiles of size not less than 0.595 M x 0.595 M of 9 mm thick as per IS 2095 -1992	1 Sqm	279.00
411	TBSC-K.I-03	Gypsum Board Plain sheet 12.5 mm thick as per IS 2095 -1993	1 Sqm	253.00
412	TBSC-K.I-04	<b>DELETED</b>		Deleted
413	TBSC-K.I-05	14 mm - Mineral Fibre sheet 600 x 600 of Board / Tegular Edge tiles with a Humidity Resistance of 90% RH, Average NRC 0.50, Light Reflectance >80%, Thermal Conductivity $\lambda = 0.052$ to $0.057$ w/mk, Fire Performance Class 0/Class 1	1 Sqm	599.00
414	TBSC-K.I-06	15 mm - Mineral Fibre sheet 600 x 600 of Board / Tegular Edge tiles with a Humidity Resistance of 95% RH, Average NRC 0.50, Light Reflectance >85%, Thermal Conductivity $\lambda = 0.052$ to $0.057$ w/mk, Fire Performance Class 0/Class 1	1 Sqm	701.00
415	TBSC-K.I-07	16 mm - Tegular Edge 600 x 600 of Board / Tegular/ Micro look Edge tiles with a Humidity Resistance of 99% RH, Average NRC 0.60, Light Reflectance >85%, Thermal Conductivity $\lambda = 0.052$ to $0.057$ w/mk, Fire Performance Class 0/Class 1	1 Sqm	754.00
416	TBSC-K.I-08	Designer ceiling Cement Boards -thickness 3.2 mm	1 Sqm	263.00
417	TBSC-K.I-09	High pressure steam cured Cement Boards 4 mm thick	1 Sqm	142.00
418	TBSC-K.I-10	High pressure steam cured Cement Boards 6 mm thick	1 Sqm	212.00
419	TBSC-K.I-11	High pressure steam cured Cement Boards 8 mm thick	1 Sqm	282.00
420	TBSC-K.I-12	High pressure steam cured Cement Boards 10 mm thick	1 Sqm	352.00
421	TBSC-K.I-13	High pressure steam cured Cement Boards 12 mm thick	1 Sqm	421.00
422	TBSC-K.I-14	High pressure steam cured Cement Boards 14 mm thick	1 Sqm	491.00
423	TBSC-K.I-15	High pressure steam cured Cement Boards 16 mm thick	1 Sqm	

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
				<b>564.00</b>
424	TBSC-K.I-16	High pressure steam cured Cement Boards 18 mm thick	1 Sqm	<b>632.00</b>
425	TBSC-K.I-17	High pressure steam cured Cement Boards 20 mm thick	1 Sqm	<b>703.00</b>
426	TBSC-K.I-18	High pressure steam cured designer Cement Boards 4 mm thick	1 Sqm	<b>208.00</b>
427	TBSC-K.I-19	High pressure steam cured designer Cement Boards 6 mm thick	1 Sqm	<b>305.00</b>
428	TBSC-K.I-20	Calcium Silicate Boards - 6mm thick	1 Sqm	<b>235.00</b>
429	TBSC-K.I-21	Calcium Silicate Boards - 8mm thick	1 Sqm	<b>312.00</b>
430	TBSC-K.I-22	Calcium Silicate Boards - 10mm thick	1 Sqm	<b>391.00</b>
431	TBSC-K.I-23	Calcium Silicate Boards - 12mm thick	1 Sqm	<b>468.00</b>
432	TBSC-K.I-24	Supply of Thermocol 12 mm thick sheets	1 Sqm	<b>28.00</b>
433	TBSC-K.I-25	Supply of Thermocol 19 mm thick sheets	1 Sqm	<b>48.00</b>
434	TBSC-K.I-26	Supplying and fixing of false ceiling using Plaster of Paris Boards 12 mm thick with standard GI ceiling angles, sections perimeter channels including cost and conveyance of all materials and labour charges etc complete	1 Sqm	<b>456.00</b>
435	TBSC-K.I-27	Supplying and fixing of false ceiling using Plaster of Paris Boards 10 mm thick with standard GI ceiling angles, sections perimeter channels including cost and conveyance of all materials and labour charges etc complete	1 Sqm	<b>381.00</b>
436	TBSC-K.I-28	Supply and fixing false ceiling using 8 mm thick Cement Bonded particle boards conforming to IS 14276 with galvanized and pre painted steel T section of size 24mm x 38mm x 0.3 mm for main T duly pre punched to accept cross T section of size 24mm x 30mm x 0.3 mm duly punched at both ends for insertion into main T. The grid size will be 610mm x 610mm. The frame work (grid) is suspended to the roof by using G.I flat of 0.60mm or 14-gauge G.I wire with necessary fixers to the roof and frame work the cost is inclusive of necessary hardware, labour, one coat of primer (Both side) and two coats of smooth finish on visible side.	1 Sqm	<b>1,299.00</b>
437	TBSC-K.I-29	Providing and fixing false ceiling consisting of 600 mm x 600 mm, Solid PVC insulation panels having wall thickness of 1mm thick plain PVC rigid foam sheet and EPS as defined in of desired thickness depending on insulation required shall be insert in a frame work made using anodized aluminium Tee section of sizes 1"X1" (25X25mm, 19 gauge or 1mm thick) in square pattern of grid sizes of 2'X2' (600X600mm). The aluminium framework is supported from the ceiling with the help of G.I. hook and G.I. wire/6mm.M.S. rods of required sizes to maintain proper level etc. the aluminium framework is supported on side wall with the use of aluminium 1"X1" (25X25mm) angles, complete as per direction of Engineer-in-Charge & drawing	1 Sqm	<b>1,415.00</b>
438	TBSC-K.I-30	Supply and fixing of PVC false ceiling on MS/GI made skeleton framework. The frame shall be 24 X 48mm MS tube section fixed along with the wall. The entire frame work shall be concealed with PVC section having overall dimensions of 6 X 250 mm with a wall thickness of 1mm	1 Sqm	<b>1,549.00</b>

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		± 0.3mm with tongue and groove system, provided with necessary arrangements for electrical connections, complete, for finished item of work.		
439	TBSC-K.I-31	15 mm - Micro Look Edge 600 x 600 of Board / Tegular/ Micro look Edge tiles with a Humidity Resistance of 95% RH, Average NRC 0.90, Light Reflectance >88%, Thermal Conductivity $\lambda$ = 0.032 w/mk, Fire Performance Class 0/Class 1 suitable for Green Building application, with Recycled content of 88% (FG)	1 Sqm	1,599.00
440	TBSC-K.I-32	16 mm - Tegular Edge 600 x 600 of Board / Tegular/ Micro look Edge tiles with a Humidity Resistance of 99% RH, Average NRC 0.55, Light Reflectance >84%, Thermal Conductivity $\lambda$ = 0.052 to 0.057 w/mk, Fire Performance Class 0/Class 1	1 Sqm	709.00
441	TBSC-K.I-33	Providing & Fixing of Lay-in-metal plain ceiling System consisting of 600 x 600mm Lay in GI tiles of pre coated galvanized steel in 0.5 mm thickness in white colour to be laid on grid systems with 15mm wide T - section flanges but excluding cost of Grid systems complete for finished item of work	1 Sqm	771.00
442	TBSC-K.I-34	Providing & Fixing of GI Lay in Standard Perforated(2.5mm diameter-16% open area) metal ceiling consisting of 600 x 600 mm Lay in tiles of pre coated galvanized steel in 0.5 mm thickness in Global white color acoustical fleece hot pressed to the back of the perforated tile to be laid on grid systems with 0.5 mm thickness in white colour with 15mm wide T - section flanges but excluding cost of Grid systems and having rotary stitching on the Main Runner, 1200 mm & 600 mm Cross Tees and the tiles with NRC of 0.70, Fire Performance of Class A2-s1.d0 as per EN13501 standard in module size of 600 X 600 mm suitable for Green Building application, with Recycled content of 25% complete for finished item of work	1 Sqm	1,105.00
		Providing and fixing false ceiling at all heights with GRG (Glass Fibre Reinforced Gypsum) false ceiling tiles of size 595 x 595 mm of approved texture, design and patterns having moisture content less than 2% humidity resistance of 99%, NRC 0.50 to 0.75 as per IS 8225:1987, Non combustible as per BS 476 part 4 1970 and light reflectance of 85% minimum to be laid in true horizontal level suspended on inter locking metal T grid of hot dipped galvanized iron section of 0.33 mm thick galvanized @ 120 gms per sqm including both sides, comprising of main T runners of size 15x32mm of length 3000mm, cross T of size 15x32mm of length 1200 mm and secondary intermediate cross T of size 15x32mm of length 600mm to form grid module of size 600 x 600mm suspended from ceiling using galvanized mild steel items galvanizing @ 80 grams per sqm i.e. 50mm long, 8mm outer diameter, M-6 dash fasteners, 6mm dia fully threaded hanger rod up to 1000mm length and L shape level adjuster of size 85x25x2 mm. Galvanized iron permitter wall angle of size 24x24x0.40mm of length 3000mm to fixed on periphery wall/partition with help of plastic rawl plugs at 450mm center to centre and 40mm long dry wall SS screws. The work shall be carried out as per specifications, drawing and as per directions of Engineer-in-Charge		
443	TBSC-K.I-35	GRG (Glass Fibre Reinforced Gypsum) false ceiling with fully perforated 10mm thick square edged GRG false ceiling tiles	1 Sqm	1,747.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
444	TBSC-K.I-36	GRG (Glass Fibre Reinforced Gypsum) false ceiling with semi perforated 12mm thick micro tegular edged GRG false ceiling tiles	1 Sqm	1,675.00
445	TBSC-K.I-37	Providing and fixing false ceiling at all heights with GRG (Glass Fibre Reinforced Gypsum) false ceiling tiles of size 595 x 595 mm of approved texture, design and patterns having moisture content less than 2% humidity resistance of 99%, NRC 0.60 to 0.75 as per IS 8225:1987, Non combustible as per BS 476 part 4 1970 and light reflectance of 85% minimum to be laid in true horizontal level suspended on inter locking metal silhouette T grid of hot dipped galvanized iron section of 0.33 mm thick galvanized @ 120 gms per sqm including both sides, comprising of main T runners of size 15x32mm of length 3600mm, cross T of size 15x32mm of length 1200 mm and secondary intermediate cross T of size 15x32mm of length 600mm to form grid module of size 600 x 600mm suspended from ceiling using galvanized mild steel items galvanizing @ 80 grams per sqm i.e. 50mm long, 8mm outer diameter, M-6 dash fasteners, 6mm dia fully threaded hanger rod up to 1000mm length and L shape level adjuster of size 85x25x2 mm. Galvanized iron permitter wall angle of size 24x24x0.40mm of length 3000mm to fixed on periphery wall/partition with help of plastic rawl plugs at 450mm center to centre and 40mm long dry wall SS screws. The work shall be carried out as per specifications, drawing and as per directions of Engineer-in-Charge with semi perforated 12mm thick micro tegular edged GRG false ceiling tiles	1 Sqm	1,846.00
446	TBSC-K.I-38	Providing and fixing false ceiling at all heights with 15mm thick eco friendly integral densified Board/tegular edged light weight calcium silicate false ceiling tiles having non cementitious calcium silicate reinforced with fibers and natural fillers with recycled content of more than 50%. False ceiling tile of size 595x595 mm of approved texture, design and patterns having NRC i.e. Noise reduction coefficient of 0.1 to 0.12 for plain and designer range of tiles HEXA/QUADRA and 0.5 to 0.75 for semi perforated and fully perforated tiles SPINTONE/COSMOS/GLOBE, Light reflectance of 85% minimum Nom combustible as per BS 476 part 4, Fire performance as per BS 476 Part 6 & 7, Relative humidity Resistance of 100%, thermal conductivity of 0.048 W/m.K to 0.050 W/m.K as per IS 3346/1980. The tile shall have average body density of 350 kg/m3 as per ECBC code 2007 and average edge density of 450kg/m3 the tile shall be primer coated on both sides and the fair surface shall be having a factory finish in two coats of white dispersion type solvent free paint in true horizontal level suspended on inter locking metal T grid of hot dipped galvanized iron section of 0.33mm thick galvanized @ 120 grams per sqm including both sides comprising of main T runners of size 24x38mm of length 3600mm cross T of size 24x32mm of length 1200mm and cross T of size 24x32mm of length 600mm to form grid module of size 600x600mm suspended from ceiling GI slotted cleats of size 25x35x1.6mm fixed to ceiling with 12.5mm dia and 50mm long dash fasteners, 4mm GI adjustable rods with galvanized steel level clips of size 85x30x0.8mm spaced 1200mm centre to centre along main T bottom exposed with 24mm of all T sections wall angle of size 24x24x0.40mm of length 3000mm to be	1 Sqm	1,772.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		fixed on periphery wall/partition with the help of plastic rawl plugs at 450 with 15mm thick integral densified tegular edged light weight calcium silicate false ceiling tiles		
447	TBSC-K.I-39	Providing and fixing false ceiling at all heights with 15mm thick eco friendly integral densified Board/tegular edged light weight calcium silicate false ceiling tiles having non cementitious calcium silicate reinforced with fibers and natural fillers with recycled content of more than 50%. False ceiling tile of size 595x595 mm of approved texture, design and patterns having NRC i.e. Noise reduction coefficient of 0.1 to 0.15 for plain and designer range of tiles HEXA/QUADRA and 0.5 to 0.75 for semi perforated and fully perforated tiles SPINTONE/COSMOS/GLOBE, Light reflectance of 85% minimum Nom combustible as per BS 476 part 4, Fire performance as per BS 476 Part 6 & 7, Relative humidity Resistance of 100%, thermal conductivity of 0.048 W/m.K to 0.050 W/m.K as per IS 3346/1980. The tile shall have average body density of 350 kg/m3 as per ECBC code 2007 and average edge density of 450kg/m3 the tile shall be primer coated on both sides and the fair surface shall be having a factory finish in two coats of white dispersion type solvent free paint in true horizontal level suspended on inter locking metal T grid of hot dipped galvanized mild steel powder coated section of 0.40 mm thick silhouetted white/black profile compiling main T runners of size 42x15mm of length 3600mm cross T of size 42x15mm of length 1200mm and cross T of size 42x15mm of length 600mm to form grid module of size 600x600mm suspended from ceiling GI slotted cleats of size 25x35x1.6mm fixed to ceiling with 12.5mm dia and 50mm long dash fasteners, 4mm GI adjustable rods with galvanized steel level clips of size 85x30x0.8mm spaced 1200mm centre to centre along main T bottom exposed with 24mm of all T sections wall angle of size 22x19x0.40mm of length 3000mm to be fixed on periphery wall/partition with the help of plastic rawl plugs at 450 with 15mm thick integral densified tegular edged light weight calcium silicate false ceiling tiles	1 Sqm	2,004.00
448	TBSC-K.I-40	Providing and fixing of false ceiling with powder coated exposed GI grid suspension system E Grid T 2430 or equivalent load carrying capacity with mid span deflection not exceeding 1/360 span with hanger spacing of 1200mm c/c consisting of main runner 3600mm long, Cross Tee 1200mm/60mm long and wall angle. The wall angle shall be fixed on PVC dash fasteners on the perimeter of the wall by steel screws with distance 300mm c/c, The main runners to be placed @ 1200mm, Cross tee 1200mm will be inserted in the pre-cut slots of main runner at a regular interval of 600mm to form a modular grid of 1200mm x 600mm. Additional cross tees of 600mm shall be placed perpendicular to the cross tee 1200mm long to finally form a grid of 600mm x 600mm. Grid of module size 600mmx600mm shall be supported by 3mm dia GI wire from purlins/soffit. 4mm thick High pressure steam cured non-asbestos fibre cement standard ceiling board density>1299 kg/m3, Modulus of rupture - 15.85 Mpa, Thermal conductivity - 0.0872 W/mK of size 595mm x 595mm confirming to IS 14862 and Type B category III of ISO 8336:1993, reaction to fire	1 Sqm	1,187.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		A2s1d0 tested as per EN13501 Part I and BS 476 part 4,5,6&7 should be placed in the Grid module to form a false ceiling. All complete as per drawing and directions of Engineer-in-Charge		
449	TBSC-K.I-41	Providing and fixing of false ceiling with powder coated exposed GI grid suspension system E Grid T 2430 or equivalent load carrying capacity with mid span deflection not exceeding 1/360 span with hanger spacing of 1200mm c/c consisting of main runner 3600mm long, Cross Tee 1200mm/60mm long and wall angle. The wall angle shall be fixed on PVC dash fasteners on the perimeter of the wall by steel screws with distance 300mm c/c, The main runners to be placed @ 1200mm, Cross tee 1200mm will be inserted in the pre-cut slots of main runner at a regular interval of 600mm to form a modular grid of 1200mm x 600mm. Additional cross tees of 600mm shall be placed perpendicular to the cross tee 1200mm long to finally form a grid of 600mm x 600mm. Grid of module size 600mmx600mm shall be supported by 3mm dia GI wire from purlins/soffit. 6mm thick High pressure steam cured non-asbestos fibre cement standard ceiling board density>1299 kg/m <sup>3</sup> , Modulus of rupture - 15.85 Mpa, Thermal conductivity - 0.0872 W/mK of size 595mm x 595mm confirming to IS 14862 and Type B category III of ISO 8336:1993, reaction to fire A2s1d0 tested as per EN13501 Part I and BS 476 part 4,5,6&7 should be placed in the Grid module to form a false ceiling. All complete as per drawing and directions of Engineer-in-Charge	1 Sqm	1,362.00
450	TBSC-K.I-42	Providing and fixing of false ceiling with powder coated exposed GI grid suspension system E Grid T 2430 or equivalent load carrying capacity with mid span deflection not exceeding 1/360 span with hanger spacing of 1200mm c/c consisting of main runner 3600mm long, Cross Tee 1200mm/60mm long and wall angle. The wall angle shall be fixed on PVC dash fasteners on the perimeter of the wall by steel screws with distance 300mm c/c, The main runners to be placed @ 1200mm, Cross tee 1200mm will be inserted in the pre-cut slots of main runner at a regular interval of 600mm to form a modular grid of 1200mm x 600mm. Additional cross tees of 600mm shall be placed perpendicular to the cross tee 1200mm long to finally form a grid of 600mm x 600mm. Grid of module size 600mmx600mm shall be supported by 3mm dia GI wire from purlins/soffit. 6mm thick High pressure steam cured non-asbestos fibre cement designer ceiling board density>1299 kg/m <sup>3</sup> , Modulus of rupture - 15.85 Mpa, Thermal conductivity - 0.0872 W/mK of size 595mm x 595mm confirming to IS 14862 and Type B category III of ISO 8336:1993, reaction to fire A2s1d0 tested as per EN13501 Part I and BS 476 part 4,5,6&7 should be placed in the Grid module to form a false ceiling. All complete as per drawing and directions of Engineer-in-Charge	1 Sqm	1,565.00
451	TBSC-K.I-43	Providing & Fixing of Armstrong Mineral Fibre Acoustical Suspended Ceiling System with 16mm thick Bioguard plain Bevelled Tegular Edge Tiles with Armstrong Suprafine 15mm face exposed grid. The tiles shall have smooth bright visual with Humidity Resistance (RH) of 99%, NRC 0.15 (Average value of Absorption Co-efficient readings taken at 250 Hz, 500 Hz, 1000 Hz and 2000 Hz) as per ASTM C423 standard,	1 Sqm	1,292.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		<p>CAC of 35db as per ASTM E1414, Light Reflectance <math>\geq 89\%</math> as per ASTM E-1477, Thermal Conductivity <math>k = 0.052 - 0.057 \text{ W/mK}</math>, Colour Global White, Fire Performance of Class 0/1 as per BS 476 Part6/7 and Class A as per ASTM E 84 with 16mm bevelled tegular edge and 8mm drop in module size of 600 x 600mm. The scrim on the face of the tile shall be cleanable, washable up to 150 cycle as per ASTM D-4828 and resistant to disinfectants. The tile shall be treated with Anti Microbial coating on the face and wax coating on the back to resist permeability. Tiles to be tested for antimicrobial activity having "total inhibition" as per TNO Seed Layer test &amp; "inhibition" as per Kirby Bauer agar diffusion test (excluding Pseudomonas Aeruginosa) and efficacy greater than 2 as per JIS-Z 2801-2010. It shall be suitable for Green Building application, with Recycled content of 37%. The tile shall have certifications from GRIHA and GreenPro thereby confirming that it is an environment friendly product.</p> <p><b>SUSPENSION:</b> The tile shall be laid on Armstrong Suprafine 32 with 15 mm wide T - section flanges colour global white (matching to tile color) having roll formed double stroke rotary stitching on all T sections i.e. the Main Runner, 1200 mm &amp; 600 mm Cross Tees with a web height of 32mm (all sections). The deflection loading of the system shall be 10.5 kg/m<sup>2</sup> (as per standard installation layout mentioned below) and main beam tested as per ASTM C635 (Deflection limit less than L/360) with a deflection loading of 8.8 kg/m. The end details of the cross tee shall be made of pre hardened steel and fixed to the ends of the cross tee to provide double locking between "cross tee to cross tee" and "cross tee to main beam". All main beam to main beam and cross tee to cross tee connection shall have a pull out strength of more than 100kg. The T Sections shall be made of hot dipped galvanized steel of 90 gsm as per IS 277 (2003) and pre-painted steel with baked polyester paint with OT bending capability. All border cross tee/main beam shall be levelled using perimeter fill. The Tile &amp; Grid system used together shall carry a 30 year warranty against manufacturing defect and manufacturer shall provide a warranty certificate. The Tile &amp; Grid shall have the manufacturers name embossed/printed on it. The supply shall be backed by a Manufacturing Test Certificate.</p> <p><b>INSTALLATION:</b> To comprise main runner spaced at 1200mm securely fixed to the structural soffit using Armstrong suspension system (specifications above) at 1200mm maximum. The First/Last Armstrong suspension system at the end of each main runner shall not be greater than 450mm from the adjacent wall along with the first and the last main beam shall be at less than 600mm from the wall. Flush fitting 1200mm long cross tees to be interlocked between main runners at 600mm to form 1200 x 600 mm module. Cut cross tees longer than 600mm require independent support. 600 x 600mm module to be formed by fitting 600mm long flush fitting cross tees centrally between the 1200 mm cross tees. Perimeter trim to be Armstrong wall angles of size 3000x19x19mm, secured to walls using screws at 450mm centre to centre maximum. Installation shall be carried</p>		

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		out as per Armstrong recommended procedure. SUSPENSION SYSTEM accessories consisting of M6 Anchor Fasteners with hanger hole, pre-straightened hanger wire of dia - 2.5 mm of 1.80 m length having a tensile strength of 344-413 MPa and a minimum loading strength of 110 kgs.		
452	TBSC-K.I-44	<p>Providing &amp; Fixing horizontal level suspended ceiling comprising of Armstrong GI Bioguard Clip-in Plain Tile 600x600mm (Nominal Size) tiles of 120 gsm galvanized steel as per IS 277 (2003) suitable for architectural finishes in 0.5mm thickness as per in IS:513 (1994) in Global white color with concealed suspension system having a bevelled edge of 3x3mm and height of 33mm on one side and 18mm on the other side. Tiles shall be flattened by precision leveller to minimize sag to less than 1/400mm. The tiles shall have double round pip of <math>\phi</math> 2mm and <math>\phi</math> 6mm for secure engagement and levelling respectively, along with swing down feature and special tabs to allow removal of tile to enable plenum access. The coated surface of the tile shall exhibit anti-microbial properties (eradication and inhibition of growth) and shall achieve up to 99.99% reduction in bacterial activity as per ISO22196:2011 when tested for organisms: Escherichia Coli, Bacillus Subtilis, Pseudomonas Aeruginosa, Clostridium Perfringens, Enterococcus Faecalis, Staphylococcus Aureus, Salmonella Enterica, Streptococcus Faecalis and MRSA. The coated surface of the tile shall also exhibit fungal resistance properties and shall achieve a "Rating 0" (No fungal growth observed) as per ASTM G-21 when tested for Aspergillus Brasiliensis, Penicillium Pinophilum and Candida Albicans. The tile shall be electrostatically polyester powder coated using RoHS compliant powder having coating thickness ranging from 60-80 microns. The powder coating shall pass Salt Spray Test for 750 Hours as per ASTM B117, QUV -A Test for 1000hours as per ASTM G-154 - (Cycle - 1) and Humidity test for 1000hours as per DIN 50017. The powder coating shall have an adhesion of GT0 as per EN ISO 2409. The shade variation across batches shall be delta E&lt;1 using Excite/BYK Gardner instrument and gloss level of 25<math>\pm</math>5% at 60° as per ASTM D523. The tile shall have scratch, mar &amp; abrasive resistance properties. The tile shall have a Light Reflectance of <math>\geq</math> 63% in accordance to ASTM 1477-98 and Fire Performance of class 0/1 as per BS 476 Part 6 &amp; 7 in module size of 600x600mm.</p> <p>SUSPENSION &amp; INSTALLATION: Shall comprise of 3000mm long 'C' channels of 38H x 12W mm and 1mm thick spaced at 1200mm centre to centre securely fixed to the structural soffit using threaded rod (Approved make/Third Party Supply) connecting to C-channel hanger of 109x18.5x16.5mm at 1200mm C/C and anchor fastener (Approved make/Third Party Supply). The last hanger at the end of each C-channel shall not be greater than 600mm from the adjacent wall. Use a C-channel connector of 99.5x35x 9mm for splicing together two pieces of C-channels. 4000mm DP-12 main carriers (Clip-in bar) of 16W x 40H mm and 0.6mm thick made of galvanized steel of 140gsm as IS 277 (2003) and shall be spaced at 600mm centre to centre in a direction perpendicular to the C-channels and secured at every intersection with C-channel using a DP-12 hanger (Clip-in</p>	1 Sqm	1,928.00



Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		bar hanger) of 54x18x20mm. Use DP-12 connector (Clip-in bar connector) to splice two pieces of DP-12 main carriers (Clip-in bar). Tiles shall be clipped in between two DP-12 carriers (Clip-in bars) from below. Optionally - Security clip to be installed to ensure the panels are positively engaged with DP12 channel (Clip-in bar channel). Installation shall be carried out as per Armstrong recommended procedure. Perimeter to be finished using Armstrong wall angles of size 3000x19x32mm in white color secured to walls using screws at 450mm centre to centre. Cut tiles to be secured to the wall angles using a spring clamp. The Tile & Grid system used together shall carry a 10 year warranty against manufacturing defect and manufacturer shall provide a warranty certificate. The Tile & Grid shall have the manufacturers name embossed/printed on it. The supply shall be backed by a Manufacturing Test Certificate.		
453	TBSC-K.I-45	Providing and fixing Knauf Heradesign Superfine, 1 layer magnesite bonded wood wool acoustic panel, 1mm thick fibre, exquisite surface structure, building biology recommended, size 600 x 600 x 25mm, having edge detail SK-06, weight 11.30Kg/Sqm, fire protection class B-s1,d0 as per EN 13501-1 & Humidity Resistance of 95%. Thickness Tolerance T2 (± 1 mm) according to EN 13168. Wood wool panels to be PEFC certified & should bear the Forest Stewardship Council Seal confirming that the wood used originates from responsibly managed forests. The wood wool panels to be laid in true horizontal level suspended on inter locking metal grid of hot dipped galvanised steel sections (galvanized @ 90 gsm/sqm) consisting of Main "Tee", size 24W x 38H x 3600L mm made from 0.30 mm thick sheet spaced at 600mm centre to centre and Cross "Tee", size 24W x 28H x 600L mm made of 0.30 mm thick sheet to be interlocked between the main T runners at the distance of 600mm centre to centre to create 600x600mm module to lay ceiling tiles of approved surface pattern in the grid including, wherever required, cutting / making, opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. The perimeter trims to be of 22W x 19H x 3000L mm and 0.50 mm thick. Main "Tees" to be suspended from ceiling using 6mm dia and 50mm long anchor fasteners, Knauf SoH suspension hangers consisting of 4mm GI adjustable rods with galvanized level clips spaced at 900mm centre to centre along the Main Tee. The 4.00mm GI rods should be in accordance to IS 280:2006 and should have a zinc coating of not less than 90 gsm in accordance with IS 4826:1986 and a tensile strength of 300-550 MPa in accordance to IS 1608:2005. The first suspension from the perimeter trim should not exceed 300mm. The bottom exposed width of ~24mm of all T-sections shall be pre-painted with polyester paint. The wood wool board should be backed by 40mm thick rock wool slabs packed in 600 x 600 polythene bags having a gross density of 50kg/m3. The finished face of wood wool panels have to be installed at a distance of 300mm from the soffit to achieve a NRC of 0.90 as per ASTM C423. Panels can be spray painted on site under supervision of manufacturer. SUSPENSION: The tile shall be laid on Armstrong Prelude 38 with 24 mm wide T - section flanges colour global white (matching to tile colour) having roll formed double	1 Sqm	3,312.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		<p>stroke rotary stitching on all T sections i.e. the Main Runner, 1200 mm &amp; 600 mm Cross Tees with a web height of 38mm (all sections). The deflection loading of the system shall be 15 kg/m<sup>2</sup> (as per standard installation layout mentioned below) and main beam tested as per ASTM C635 (Deflection limit less than L/360) with a deflection loading of 18kg/m. The end details of the cross tee shall be made of pre hardened steel and fixed to the ends of the cross tee to provide double locking between "cross tee to cross tee" and "cross tee to main beam". All main beam to main beam and cross tee to cross tee connection shall have a pull out strength of more than 100kg. The T Sections shall be made of hot dipped galvanized steel of 90 gsm as per IS 277 (2003) and pre-painted steel with baked polyester paint with OT bending capability.</p> <p>INSTALLATION: To comprise main runner spaced at 1200mm securely fixed to the structural soffit using Armstrong suspension system (specifications above) at 1200mm maximum. The First/Last Armstrong suspension system at the end of each main runner shall not be greater than 450mm from the adjacent wall along with the first and the last main beam shall be at less than 600mm from the wall.</p> <p>Flush fitting 1200mm long cross tees to be interlocked between main runners at 600mm to form 1200 x 600 mm module. Cut cross tees longer than 600mm require independent support. 600 x 600mm module to be formed by fitting 600mm long flush fitting cross tees centrally between the 1200 mm cross tees. Perimeter trim to be Armstrong wall angles of size 3000x19x19mm, secured to walls using screws at 450mm centre to centre maximum. Installation shall be carried out as per Armstrong recommended procedure.</p> <p>ARMSTRONG SUSPENSION SYSTEM accessories supplied by Armstrong consisting of M6 Anchor Fasteners with hanger hole, pre-straightened hanger wire of dia - 2.5 mm of 1.80 m length having a tensile strength of 344-413 MPa and a minimum loading strength of 110 kgs.</p>		
454	TBSC-K.I-46	<p>Providing and fixing KnaufHeradesign Superfine, 1 layer magnesite bonded wood wool acoustic panel, 1mm thick fibre, exquisite surface structure, building biology recommended, size 600 x 600 x 15mm, having edge detail SK-04, weight 11.3 Kg/Sqm, fire protection class B-s1,d0 as per EN 13501-1 &amp; Humidity Resistance of 95%. Thickness Tolerance T2 (± 1 mm) according to EN 13168. Wood wool panels to be PEFC certified &amp; should bear the Forest Stewardship Council Seal confirming that the wood used originates from responsibly managed forests. The wood wool panels to be laid in true horizontal level suspended on inter locking metal grid of hot dipped galvanised steel sections (galvanized @ 90 gsm/sqm) consisting of Main "Tee", size 24W x 38H x 3600L mm made from 0.30 mm thick sheet spaced at 600mm centre to centre and Cross "Tee", size 24W x 28H x 600L mm made of 0.30 mm thick sheet to be interlocked between the main T runners at the distance of 1200mm centre to centre to create 1200x600mm module to lay ceiling tiles of approved surface pattern in the grid including, wherever required, cutting / making, opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. The perimeter trims to be of 22W x 19H x 3000L mm and 0.50 mm thick. Main "Tees" to be</p>	1 Sqm	3,482.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		<p>suspended from ceiling using 6mm dia and 50mm long anchor fasteners, Knauf SoH suspension hangers consisting of 4mm GI adjustable rods with galvanized level clips spaced at 900mm centre to centre along the Main Tee. The 4.00mm GI rods should be in accordance to IS 280:2006 and should have a zinc coating of not less than 90 gsm in accordance with IS 4826:1986 and a tensile strength of 300-550 MPa in accordance to IS 1608:2005. The first suspension from the perimeter trim should not exceed 300mm. The bottom exposed width of ~24mm of all T-sections shall be pre-painted with polyester paint. The wood wool board should be backed by 40mm thick rock wool slabs packed in 600 x 600 polythene bags having a gross density of 50kg/m<sup>3</sup>. The finished face of wood wool panels have to be installed at a distance of 300mm from the soffit to achieve a NRC of 0.90 as per ASTM C423. Panels can be spray painted on site under supervision of manufacturer.</p> <p>SUSPENSION: The tile shall be laid on Armstrong Prelude 38 with 24 mm wide T - section flanges colour global white (matching to tile colour) having roll formed double stroke rotary stitching on all T sections i.e. the Main Runner, 1200 mm &amp; 600 mm Cross Tees with a web height of 38mm (all sections). The deflection loading of the system shall be 15 kg/m<sup>2</sup> (as per standard installation layout mentioned below) and main beam tested as per ASTM C635 (Deflection limit less than L/360) with a deflection loading of 18kg/m. The end details of the cross tee shall be made of pre hardened steel and fixed to the ends of the cross tee to provide double locking between "cross tee to cross tee" and "cross tee to main beam". All main beam to main beam and cross tee to cross tee connection shall have a pull out strength of more than 100kg. The T Sections shall be made of hot dipped galvanized steel of 90 gsm as per IS 277 (2003) and pre-painted steel with baked polyester paint with OT bending capability.</p> <p>INSTALLATION: To comprise main runner spaced at 1200mm securely fixed to the structural soffit using Armstrong suspension system (specifications above) at 1200mm maximum. The First/Last Armstrong suspension system at the end of each main runner shall not be greater than 450mm from the adjacent wall along with the first and the last main beam shall be at less than 600mm from the wall.</p> <p>Flush fitting 1200mm long cross tees to be interlocked between main runners at 600mm to form 1200 x 600 mm module. Cut cross tees longer than 600mm require independent support. 600 x 600mm module to be formed by fitting 600mm long flush fitting cross tees centrally between the 1200 mm cross tees.</p> <p>Perimeter trim to be Armstrong wall angles of size 3000x19x19mm, secured to walls using screws at 450mm centre to centre maximum.</p> <p>Installation shall be carried out as per Armstrong recommended procedure.</p> <p>ARMSTRONG SUSPENSION SYSTEM accessories supplied by Armstrong consisting of M6 Anchor Fasteners with hanger hole, pre-straightened hanger wire of dia - 2.5 mm of 1.80 m length having a tensile strength of 344-413 MPa and a minimum loading strength of 110 kgs.</p>		
II	SUB-SECTION	<b>FALSE CEILINGs - SECTIONS &amp; ACCESSORIES</b>		

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
455	TBSC-K.II-01	G.I. Ceiling Angle - 25 mm x 10 mm x 0.55 mm	1 RM	76.00
456	TBSC-K.II-02	G.I. Ceiling Section 51.5 mm x 26 mm x 10.5 mm x 0.55 mm thick	1 RM	88.00
457	TBSC-K.II-03	G.I. intermediate Section 45 mm x 15 mm x 15 mm x 0.9 mm	1 RM	87.00
458	TBSC-K.II-04	G.I. Perimeter Channel - 20 mm x 27 mm x 30 mm (web) of 0.55 mm thick	1 RM	76.00
459	TBSC-K.II-05	G.I.-Precoated Fine line Grid 25 mm x 25 mm x 0.7 mm	1 RM	43.00
460	TBSC-K.II-06	G.I.-Precoated Fine line Grid 15 mm x 25 mm x 0.7 mm	1 RM	39.00
461	TBSC-K.II-07	GI - Precoated - T-Sec- 24 mm x 38 mm x 0.7 mm thick	1 RM	57.00
462	TBSC-K.II-08	Hot dipped GI Angle - Precoated - Grid: 19 mm x 19 mm	1 RM	42.00
463	TBSC-K.II-09	Polyester painted GI - T Section - 24 x 32 mm	1 RM	52.00
464	TBSC-K.II-10	Polyester painted GI - T Section - 24 x 25 mm	1 RM	47.00
465	TBSC-K.II-11	Polyester painted GI - T Section - 24 mm x 27 mm	1 RM	48.00
466	TBSC-K.II-12	Aluminium Angle : 24 mm x 24 mm	1 RM	29.00
467	TBSC-K.II-13	Anodized Aluminium T Section : 24 x 24.5 x 2.4 mm	1 RM	36.00
468	TBSC-K.II-14	Connecting Clips	1 Each	5.00
469	TBSC-K.II-15	Rawl Plug	1 Each	5.00
470	TBSC-K.II-16	6 mm Nylon Rawl Plug	1 Each	5.00
471	TBSC-K.II-17	Soffit Cleats	1 Each	5.00
472	TBSC-K.II-18	Drywall Screws - 25 mm	1 Each	5.00
473	TBSC-K.II-19	Jointing Compound	1 Kgs	31.00
474	TBSC-K.II-20	Jointing Paper Tape	1 RM	7.00
475	TBSC-K.II-21	Drywall Top Coat	1 Lit	145.00
476	TBSC-K.II-22	Universal Holding Clips	1 Each	5.00
477	TBSC-K.II-23	4 mm Diameter GI Connecting Rod	1 RM	13.00
478	TBSC-K.II-24	2 mm Diameter GI Connecting Rod	1 RM	12.00
III	SUB-SECTION	<b>WALL LINING &amp; PANELLING</b>		
479	TBSC-K.III-01	Providing wooden paneling 12 mm thick prelaminate particle board fixed on wooden frame of BT wood size 50.8 mm x 25.4 mm (2"x1") at distance of 609.6mm (2'-0") intervals of both ways providing 3/4" x 1/2" (19.05 mm x 12.7 mm) size BT wood ornamental cover beading and necessary screws, synthetic glue complete for finished item of work.	1 Sqm	1,870.00
480	TBSC-K.III-02	Providing and fixing perforated wall panels channeled wood works panels/ sheets of width 192 mm, thickness of 15 mm and length 2400 mm made of a moisture resistant fibre board substrate with a laminated facing as per the approved shade/ species & finish and a melamine balancing layer on the reverse side, with a special perforation pattern of helm holtz fluted perforation with consecutive 3 mm wide grooves followed by 21 mm of visible surface with edges of panel shall be tongue and groove fitting to fix special clips for installation and seamless finish, the back of the panel shall have hot pressed acoustic fleece to absorb noise/ sound absorbing to achieve NRC of 0.5 as per ASTM C423 and humidity resistance with minimum sag resistance of RH70, and a fire rating class of 2 as per Part 7 of BS 476	1 Sqm	3,610.00
481	TBSC-K.III-03	Supply and fixing of wall lining fixing to GI channels of perimeter channel 30mm x 27mm x 0.55 thick and ceiling channels of 51.1mm x 26mm x 10.5mm x 0.55mm thick and fixing and finishing using joint compound and glass fibre tape complete finish as per specification without painting for finished item of work: using 8mmthick Calcium silicate boards	1 Sqm	791.00
482	TBSC-K.III-04	Supply and fixing of wall lining fixing to GI channels of perimeter channel 30mm x 27mm x 0.55 thick and ceiling channels of 51.1mm x 26mm x 10.5mm x 0.55mm	1 Sqm	871.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		thick and fixing and finishing using joint compound and glass fibre tape complete finish as per specification without painting for finished item of work: Using 10mm thick Calcium silicate boards		
483	TBSC-K.III-05	Supply and fixing of wall lining fixing to GI channels of perimeter channel 30mm x 27mm x 0.55 thick and ceiling channels of 51.1mm x 26mm x 10.5mm x 0.55mm thick and fixing and finishing using joint compound and glass fibre tape complete finish as per specification without painting for finished item of work: Using 12mm thick Calcium silicate boards	1 Sqm	950.00
484	TBSC-K.III-06	Supply and fixing of cement board (conforming to IS:14862:2000) wall paneling with frame work made of GI stud profile of size 48 x 40 x 10 x 0.55 mm thick placed at every 610 mm C/C intervals fixed vertically in between floor and roof 'U' track of size 50 x 30 x 0.6 mm thick duly fixed with self expansion screws and fixing with self tappingself embedding screws fixed at every 300 mm (centers) leaving a 3 mm gap between two panels of width 2'-0". The Gap will be covered with a decorative beading. Surface will be given a smooth finish over a coat of primer. - With 8 mm Cement Bonded Board	1 Sqm	952.00
485	TBSC-K.III-07	Supply and fixing of cement board (conforming to IS:14862:2000) wall paneling with frame work made of GI stud profile of size 48 x 40 x 10 x 0.55 mm thick placed at every 610 mm C/C intervals fixed vertically in between floor and roof 'U' track of size 50 x 30 x 0.6 mm thick duly fixed with self expansion screws and fixing with self tappingself embedding screws fixed at every 300 mm (centers) leaving a 3 mm gap between two panels of width 2'-0". The Gap will be covered with a decorative beading. Surface will be given a smooth finish over a coat of primer. - With 10 mm Cement Bonded Board	1 Sqm	1,096.00
486	TBSC-K.III-08	Supply and fixing Cement Bonded Particle Board conforming to IS 14276 wall paneling using 10 mm Cement Bonded Particle Board conforming to IS 14276 with frame work made of GI stud section of size 48mm x 35mm x 0.55mm thick placed at every 610 mm C/C intervals vertically and at 1200mm internals horizontally fixed to the wall by means of self expansion screws and caps and Cement Bonded Particle Board conforming to IS 14276 is to be fixed to frame by means of self taping screws placed at every 300 mm intervals leaving 3mm gap between two panels. The cost inclusive of one coat of synthetic plastered primer and two coats of synthetic smooth finished putty and cost & conveyance of all materials, labour charges etc. complete as per the direction of Engineer in charge.	1 Sqm	1,637.00
487	TBSC-K.III-09	Supply and fixing of Cement Bonded Pre-laminated Particle Board wall paneling using 12 mm Cement Bonded Pre-laminated Particle with frame work made of G.I stud section of size 48mm x 35mm x 0.55mm thick placed at every 610mm intervals vertically and at 1200mm internals horizontally fixed to the wall by means of self expansion screws and caps. Cement Bonded Pre-laminated Particle is to be fixed to frame by means of self-taping screws placed at every 300mm intervals leaving 3mm gap between two panels. The cost inclusive of Conveyance of materials, Labour charges etc., complete as per the direction of Engineer in charge	1 Sqm	2,412.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
488	TBSC-K.III-10	Providing and fixing plain PVC rigid foam sheet wall paneling of thickness 5mm consisting of panels having size 1220mm X2440mm stuck on inner frame work of 25mm wide strips of 5mm thick PVC rigid foam sheet. The strips should have in their centre a groove of 6mm width and 2mm depth for sinking the head of the screw used to fix the strips to the wall and should be placed vertically at equal intervals of 405/407mm centre to centre. The PVC strips shall be fixed to the wall using 65mm long M.S. screws through the groove in the strip by using PVC fasteners. The distance between two screws shall not be more than 300mm. a groove of 2mm may be left at the joint of two panels for aesthetic looks. This framework is done for making existing wall surface in ensured level and for sticking the wall paneling sheet (panel) on it. The exact size of the panel and correspondingly of the grid May be varied depending on the size of the wall. However it must ensured that a strips of 5mm thick PVC sheet of width 75mm feathered at the edges shall be stuck at the places where two panels are joined, using solvent cement. , complete as per direction of Engineer-in-Charge, manufacture's specification & drawing	1 Sqm	2,145.00
489	TBSC-K.III-11	Providing and fixing INSULATED PVC WALL paneling shall consist of PVC insulated panels having wall thickness of 1mm /1.5mm/2mm PVC sheet and the desired thickness of EPS (dependent on the insulation required) screwed into the wall using screws of adequate length. The screws shall be placed at a distance of 150mm and shall be 25mm from the edge of the insulated panel on all from sides of the panel. The PVC strips of 5mm thick PVC sheet of width 75mm feathered at the edges shall be stuck using solvent cement adhesive at the places where two panels are joined, so as to cover the screw of both the panels, using solvent cement. 90 heat bent strips of 5mm thick PVC sheets of width 75mm X75mm feathered at the edges shall be stuck at wall joints / pillars etc. , complete as per direction of Engineer-in-Charge, manufacture's specification & drawing	1 Sqm	2,258.00
490	TBSC-K.III-12	Supply and fixing of wall paneling on the framework of wooded rippers of 24 X 24mm of required size. The entire framework shall be paneled with PVC section having overall dimensions of 6 X 250mm with a wall thickness of 1mm $\pm$ 0.3mm. The panels are joined with tongue and groove system. Necessary cut-outs for electrical connections to be provided at required places complete, for finished item of work.	1 Sqm	1,466.00
491	TBSC-K.III-13	Providing and fixing wall paneling with 8mm thick high pressure steam cured non asbestos fibre cement siding planks Density >1200 kg/m <sup>3</sup> , Modulus of rupture 15.85 Mpa, Thermal conductivity .0872 W/mK conforming to IS 14862:2000 and Type B category III of ISO 8336:1993, reaction to fire A2S1d0 tested as per EN13501 Part I and BS 476 Part 4,5,6,7 fixed on the supporting W profile/Aluminium tube or iron tube with the help of full threaded flat head screw 0.70 mm thick having a knurled web of 51.55mm and two flanges of 26mm each with lips of 10.55mm placed at 407/1220mm c/c vertically and a perimeter channel having one flange of 20mm and another flange of 30mm with thickness of 0.70mm and web of length 27mm is fixed on the floor and the ceiling with the nylon sleeves @ 300mm c/c with expandable	1 Sqm	2,515.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		fasteners. Board is fixed to the W profile with 35mm long self embedding type screws @ 300mm c/c all complete as per the drawing and directions of Engineer-in-Charge. The boards maybe finished so as to have a uniform gap/groove or overlapping system. The groove shall be filled up with clear PU sealant. Finally exterior surface of the boards to be painted with PU paint of approved shade/make		
492	TBSC-K.III-14	Providing and fixing wall paneling with 8mm thick high pressure steam cured non asbestos fibre cement artwood Fibre cement pre colored siding planks Density >1200 kg/m <sup>3</sup> , Modulus of rupture 15.85 Mpa, Thermal conductivity .0872 W/mK confirming to IS 14862:2000 and Type B category III of ISO 8336:1993, reaction to fire A2S1d0 tested as per EN13501 Part I and BS 476 Part 4,5,6,7 fixed on the supporting W profile/Aluminium tube or iron tube with the helo of full threaded flat head screw 0.70 mm thick having a knurled web of 51.55mm and two flanges of 26mm each with lips of 10.55mm placed at 407/1220mm c/c vertically and a perimeter channel having one flange of 20mm and another flange of 30mm with thickness of 0.70mm and web of length 27mm is fixed on the floor and the ceiling with the nylon sleeves @ 300mm c/c with expandable fasteners. Board is fixed to the W profile with 35mm long self embedding type screws @ 300mm c/c all complete as per the drawing and directions of Engineer-in-Charge. The boards maybe finished so as to have a uniform gap/groove or overlapping system. The groove shall be filled up with clear PU sealant. Finally exterior surface of the boards to be painted with PU paint of approved shade/make	1 Sqm	2,182.00
493	TBSC-K.III-15	Providing and fixing wall paneling with 9mm thick high pressure steam cured non asbestos fibre cement stone board Density >1200 kg/m <sup>3</sup> , Modulus of rupture 15.85 Mpa, Thermal conductivity .0872 W/mK confirming to IS 14862:2000 and Type B category III of ISO 8336:1993, reaction to fire A2S1d0 tested as per EN13501 Part I and BS 476 Part 4,5,6,7 fixed on the supporting W profile/Aluminium tube or iron tube with the helo of full threaded flat head screw 0.70 mm thick having a knurled web of 51.55mm and two flanges of 26mm each with lips of 10.55mm placed at 620/1220mm c/c vertically and a perimeter channel having one flange of 20mm and another flange of 30mm with thickness of 0.70mm and web of length 27mm is fixed on the floor and the ceiling with the nylon sleeves @ 300mm c/c with expandable fasteners. Board is fixed to the W profile with 35mm long self embedding type screws @ 300mm c/c all complete as per the drawing and directions of Engineer-in-Charge. The boards maybe finished so as to have a uniform gap/groove or overlapping system. The groove shall be filled up with clear PU sealant. Finally exterior surface of the boards to be painted with PU paint of approved shade/make	1 Sqm	2,674.00
494	TBSC-K.III-16	Providing and fixing wall paneling with 9mm thick high pressure steam cured non asbestos fibre cement heavy duty board Density >1200 kg/m <sup>3</sup> , Modulus of rupture 15.85 Mpa, Thermal conductivity .0872 W/mK confirming to IS 14862:2000 and Type B category III of ISO 8336:1993, reaction to fire A2S1d0 tested as per EN13501 Part I and BS 476 Part 4,5,6,7 fixed on the	1 Sqm	2,137.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		supporting W profile/Aluminium tube or iron tube with the helo of full threaded flat head screw 0.70 mm thick having a knurled web of 51.55mm and two flanges of 26mm each with lips of 10.55mm placed at 407/1220mm c/c vertically and a perimeter channel having one flange of 20mm and another flange of 30mm with thickness of 0.70mm and web of length 27mm is fixed on the floor and the ceiling with the nylon sleeves @ 300mm c/c with expandable fasteners. Board is fixed to the W profile with 35mm long self embedding type screws @ 300mm c/c all complete as per the drawing and directions of Engineer-in-Charge. The boards maybe finished so as to have a uniform gap/groove or overlapping system. The groove shall be filled up with clear PU sealant. Finally exterior surface of the boards to be painted with PU paint of approved shade/make		
495	TBSC-K.III-17	<p>Providing and Fixing of Armstrong Optra Acoustical Wall Panel with square edges made of fibre glass substrate 25mm thick, wrapped on the front side with an acoustically transparent fabric as per the approved shade (Husk, Copper, Sangria, Sesame, Coffee, Charcoal, Titanium, Flame, Peanut and Shell). The panel shall be classified for Fire Class A, as per ASTM E-84. The Acoustical Wall Panel shall be of sizes 600x600mm (Nominal) or 600x1200mm (Nominal) and shall achieve an NRC of 0.85 (Average value of Absorption Co-efficient readings taken at 250 Hz, 500 Hz, 1000 Hz and 2000 Hz) with 50mm airgap as per ASTM C423 to be fixed to wall on a framework of wooden battens and using Wall panel Impalers (supplied by the manufacturer) or by using construction adhesives (as per the instructions laid down by the manufacturer). The fibre glass substrate shall have a recycle content of 85%.</p> <p><b>INSTALLATION:</b> An appropriate vapour barrier (by others) shall be applied/installed on the vertical surface before the installation to properly seal against entry of any moisture. Vapour barrier (by others) shall be installed as per Manufacturer's recommendation. Install wooden batten grid (provided by others) of section 50x50mm or as approved by the Architect on the solid wall/partition to provide level and plumb surface. The Impalers shall be fixed to the battens using self-tapping screws, 3 nos. in case of 600x600mm and 4 nos. in case of 600x1200mm. Silica based construction adhesive (by others) to be dabbed on to the projecting elements (spikes) of the Impalers. Armstrong Optra Wall Panels shall be pierced through the spikes of the Impalers ensuring the line and level of the panels are maintained.</p>	1 Sqm	4,939.00
<b>IV</b>	<b>SUB-SECTION</b>	<b>PARTITIONS</b>		
496	TBSC-K.IV-01	Supply & fixing 75mm thick metal stud partition using 12.5 mm thick Gypboard conforming to IS 2095-1982 screw fixed to either side to 48 mm studs of 0.55 mm thick with the 50 mm floor and ceiling channel 0.55 mm and the joints duly finished with joint compound, paper tape and two coats Dry wall top coat as per specification.	1 Sqm	1,263.00
497	TBSC-K.IV-02	Supply and Fixing 66mm thick metal stud partition screw fixed to either side of 48mm studs of 0.55mm thick with 50mm floor and ceiling channel 0.55mm and the joints duly finished with joining compound, glass fibre tape and	1 Sqm	1,334.00



Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		two coats dry wall top coat as per specification finished Item of work- using 8mm thick Calcium silicate boards		
498	TBSC-K.IV-03	Supply and Fixing 66mm thick metal stud partition screw fixed to either side of 48mm studs of 0.55mm thick with 50mm floor and ceiling channel 0.55mm and the joints duly finished with joining compound, glass fibre tape and two coats dry wall top coat as per specification finished Item of work - Using 10mm thick Calcium silicate boards	1 Sqm	1,493.00
499	TBSC-K.IV-04	Supply and Fixing 66mm thick metal stud partition screw fixed to either side of 48mm studs of 0.55mm thick with 50mm floor and ceiling channel 0.55mm and the joints duly finished with joining compound, glass fibre tape and two coats dry wall top coat as per specification finished Item of work - Using 12mm thick Calcium silicate boards	1 Sqm	1,651.00
500	TBSC-K.IV-05	Supply and Fixing 66mm thick metal stud partition using 2 layers of 12mm thick Calcium silicate boards screw fixed to either side to 48mm studs of 0.55mm thick with 50mm floor and ceiling channel 0.55mm. The boards joints are to be staggered to avoid through passage. Ceramic wool of 50mm thick, 64kg/m3 density is to be placed in cavity of the partition. The joints duly finished with joining compound, glass fibre tape and two coats dry wall top coat as per specification with out painting for finished item of work	1 Sqm	4,428.00
501	TBSC-K.IV-06	Supply and fixing double skin cement board (conforming to IS:14862:2000) partition with Frame work made of GI stud profile of size 48 x 40 x 10 x 0.55 mm thick placed at every 610 mm C/C intervals and 1220 mm horizontal intervals duly fixed with self expansion screws, the cement board of 8 mm thick cladded around with self tappingself embeddingscrews fixed at every 300 mm (centers) leaving 3 mm gap between two panels and the gap will be covered with decorative moulding surface will be given a smooth finish over cement primer. The rate is inclusive of cost and conveyance of all materials and labour charges etc. complete.	1 Sqm	1,663.00
502	TBSC-K.IV-07	Providing and fixing of 50 mm thick SOLID WALL PANEL Sandwich panels made of light Weight FRACC two 5 mm thick non-asbestos fibre reinforced cement sheets (conforming to IS:14862:2000) on either side of the lightweight concrete core composed of Portland cement binders with tongue and groove arrangement. The bottom of the panel shall be fixed to the floor channel made up of 1 mm thick GI channels of size 28x52x31 mm fixed to the existing floor with 6x60mm nylon self expansion screws at 600 mm C/C and top of the panel fixed with ceiling channel made out of 0.8 mm thick GI Channel of size 31x52x31 mm duly fixed to the existing ceiling with 6x60mm nylon self expansion screws at 600 mm C/C. All the tongue and groove joints of the panels have to be properly cleaned and both the panels have to be fixed by applying the mixture of fly ash and sodium silicate in between and Everest jointing compound all the exposed joints. The rate includes cost of 50mm SOLID WALL PANELS, G.I. Floor and ceiling channel. The panels can be flushed by using paper tape and Everest jointing compound all complete	1 Sqm	1,716.00
503	TBSC-K.IV-08	Providing and fixing of 75mm thick SOLID WALL PANEL Sandwich panels made of light Weight FRACC two 5 mm thick non-asbestos fibre reinforced cement sheets (conforming to IS:14862:2000) on either side of the lightweight concrete core composed of Portland cement	1 Sqm	2,047.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		binders with tongue and groove arrangement. The bottom of the panel shall be fixed to the floor channel made up of 1 mm thick GI channels of size 28x77x31 mm fixed to the existing floor with 6x60mm nylon self expansion screws at 600 mm C/C and top of the panel fixed with ceiling channel made out of 0.80 mm thick GI Channel of size 31x77x31 mm duly fixed to the existing ceiling with 6x60mm nylon self expansion screws at 600 mm C/C. All the tongue and groove joints of the panels have to be properly cleaned and both the panels have to be fixed by applying the mixture of fly ash and sodium silicate in between and Everest jointing compound all the exposed joints. The rate includes cost of 75mm SOLID WALL PANEL panels, G.I. Floor and ceiling channel. The panels can be flushed by using paper tape and Everest jointing compound all complete.		
504	TBSC-K.IV-09	Supply & fixing of 50 mm thick partition with composite panel comprise of two 5mm thick Boards (asbestos-free fibre reinforced cement sheets conforming to IS 14862) strongly bonded with core material which is light weight concrete mix of Portland cement, expanded polystyrene bead aggregates and admixture. s with unique semi-circular Tongue & Groove Joining System provides better stability, rapid installation and better workability. The bottom of the panel shall be fixed to the floor channel made up of 1 mm thick GI channels of size 28x52x31 mm fixed to the existing floor with 6x60mm nylon self-expansion screws at 600 mm C/C and top of the panel fixed with ceiling channel made out of 0.8 mm thick GI Channel of size 31 x 52 x 31 mm duly fixed to the existing ceiling with 6x60mm nylon self-expansion screws at 600 mm C/C. All the tongue and groove joints of the panels have to be properly cleaned and both the panels have to be fixed by applying the jointing compound in all the exposed joints. The rate includes cost of 50mm S, G.I. Floor and ceiling Channel.	1 Sqm	1,716.00
505	TBSC-K.IV-10	Supply & fixing of 75 mm thick partition with composite panel comprise of two 5mm thick Boards (asbestos-free fibre reinforced cement sheets conforming to IS 14862) strongly bonded with core material which is light weight concrete mix of Portland cement, expanded polystyrene bead aggregates and admixture. s with unique semi-circular Tongue & Groove Joining System provides better stability, rapid installation and better workability. The bottom of the panel shall be fixed to the floor channel made up of 1 mm thick GI channels of size 28x77x31 mm fixed to the existing floor with 6x60mm nylon self-expansion screws at 600 mm C/C and top of the panel fixed with ceiling channel made out of 0.8 mm thick GI Channel of size 31x77x31 mm duly fixed to the existing ceiling with 6x60mm nylon self-expansion screws at 600 mm C/C. All the tongue and groove joints of the panels have to be properly cleaned and both the panels have to be fixed by applying the jointing compound in all the exposed joints. The rate includes cost of 75mm S, G.I. Floor and ceiling Channel.	1 Sqm	2,047.00
506	TBSC-K.IV-11	Supply and fixing double skin partition using with 10 mm Cement Bonded Particle Board conforming to IS 14276 made out of G.I. track section of size 50mmx 35mm x 0.55 mm for fixing to the roof and floor and stud section of size 48mm x 35mm x 0.55mm placed in track section vertically at 610mm intervals and at 1200mm intervals	1 Sqm	2,503.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		horizontally fixed to the wall by means of self expansion screws and caps to the wall and roof the panel is to be fixed both sides of frame work by using self tapping screws fixed at every 300mm intervals to the frame work leaving 3 mm gap between two panels. The cost inclusive with one coat of synthetic primer and two coats of synthetic plaster smooth finish and cost and conveyance of all materials to site, labour charges etc., complete as per the direction of Engineer in charge.		
507	TBSC-K.IV-12	Supply and fixing of Cement Bonded Prelaminated Particle Board double skin partition using with 10 mm Cement Bonded Prelaminated Particle Board made out of G.I track section of size 50 mm x 35mm x 0.55mm for fixing to the roof and floor and stud section of size 48mm x 35mm x 0.55mm placed in track section vertically at 610mm intervals and at 1200mm internals horizontally. The frame is fixed by means of self expansion screws and caps to the wall / roof. Cement Bonded Prelaminated Particle Board is to be fixed both sides of the frame work by using 2mm thick electro plated CR flat section leaving 3mm gap between two panels. The cost inclusive of cost and conveyance of all materials to sites, other materials incidentals and labour charges as per the direction of Engineer in charges.	1 Sqm	3,448.00
508	TBSC-K.IV-13	Supply and fixing of Cement Bonded Prelaminated Particle Board aluminium glazed partitions using 10MM Cement Bonded Prelaminated Particle Board and 5.00 mm thick plain glass to full height. Using with Cement Bonded Prelaminated Particle Board to a height of 0.91 meter at bottom panel and remaining height with glass and aluminium sections anodized to 12 to 15 microns and of sections of size 37mm x 62mm and 1.5mm thickness with one meter centre to centre duly fixed with clip beading on both sides including fixing the frame to pillars by M.S. flats, bolts and nuts including cost and conveyance of all materials etc., complete as directed during execution.	1 Sqm	4,030.00
509	TBSC-K.IV-14	Providing and fixing 50mm thick SEMI HEIGHT SOLID PVC PARTITION consisting of 49mm sandwich PVC panel made out of 36mm high density expanded polystyrene sheet(E.P.S.-Thermocol) stuck on both side with 2mm thick plain/printed /prelam PVC rigid foam sheets reinforced with frame work made from 35mmX5mm M.S. Angle. In between two M.S. Angles 5mm thick plain/printed/prelam heat moulded "" PVC 'C' channel of size 50X100mm with feathered edges shall be fixed on the floor & 50X75mm with feathered edges plain/printed /prelam PVC 'C' channel. In between adjoining EPS sandwiched PVC partitions panel 5mm thickX75mm width plain/printed/prelam PVC sheet feathered at edges shall be stuck on front & back face using solvent cement etc. in places where two partitions meet to form an 'L' shape the panels are joined 5mm thick plain/printed/prelam heat moulded "" PVC 'L' section of size 75mmX75mm with feathered edges shall be fixed on front & back side. This is done to maintain the symmetry of design. An additional 5mm thick PVC strip of 40mm width is to be stuck on the interior side of the 'C' Channel using PVC solvent adhesive, complete as per direction of Engineer-in-Charge, manufacture's specification & drawing	1 Sqm	3,047.00
510	TBSC-K.IV-15	Supply and fixing of PVC Double Skin Partition. The entire framework shall be carried out by mild steel	1 Sqm	2,572.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		section having overall dimensions of 24 X 48mm with a wall thickness of 1.2mm. The entire framework shall be concealed with PVC section having overall dimensions of 6 X 250mm with a wall thickness of 1mm $\pm$ 0.3mm both sides. Glass provision/Door provision can be provided along the partition wherever required. Partitions can be made full or half as per requirement complete, for finished item of work.		
511	TBSC-K.IV-16	Supply and fixing double skin cement based Board partition with Frame work made of GI stud profile of size 48x40x 10x 0.6 mm thick placed at every 610 mm C/C intervals and 915 mm horizontal intervals duly fixed with self expansion screws, the Cement Bonded Board of 8 mm thick clad around with self tapping self embedding screws fixed at every 300 mm (centers) leaving a 3 mm gap between two panels of width 2'-0"(610 mm). The Gap will be covered with a decorative moulding surface will be given a smooth finish over cement primer. The rate Inclusive of cost and conveyance of all materials and labour charges etc., Complete. DOUBLE SKIN PARTITION	1 Sqm	1,439.00
512	TBSC-K.IV-17	Supply and fixing of partitions made of seccolor pre-painted steel (base steel as per IS 513 of 0.58 mm thick 'D' quality, galvanized as per IS 277 with Zinc of 120 GSM). Primer coated with epoxy primer of 5-7 microns thick, finish painted with a polyester paint of 12-16 microns thick alkyd backer. Section for outer frame should be 46x52mm, section for shutter should be 46x46mm, section for mullion should be 46x70mm, section for beading should be 18x25mm and section for middle and bottom rail (Lock Rail and Kick Rail) of size should be 23x130mm. The partition should be paneled with 9mm pre-laminated particle board to a height of 0.91m from the bottom, and remaining height with 5mm thick plain glass With Ethyl Propylene Diametertermine Monomer (EPDM) Gaskets. The sections are to be cut to length, mitre joined with corner bracket Centre mullions are to be fixed using mullion cap. Gaskets made of Ethyl Propylene Diametertermine Monomer (EPDM). Corner brackets made of CRCA with zinc phosphate. Mullion caps made of Glass filled nylon. The above frames should be fixed to the concrete/masonry wall by means of self expanding screws, and complete for finished item of work Fixed Partition: Outer frame section size of 46x52mm, mullion section should be of 46x70mm, fixed beading should be of 18x25mm.	1 Sqm	5,087.00
513	TBSC-K.IV-18	Supply and fixing of partitions made of seccolor pre-painted steel (base steel as per IS 513 of 0.58 mm thick 'D' quality, galvanized as per IS 277 with Zinc of 120 GSM). Primer coated with epoxy primer of 5-7 microns thick, finish painted with a polyester paint of 12-16 microns thick alkyd backer. Section for outer frame should be 46x52mm, section for shutter should be 46x46mm, section for mullion should be 46x70mm, section for beading should be 18x25mm and section for middle and bottom rail (Lock Rail and Kick Rail) of size should be 23x130mm. The partition should be paneled with 9mm pre-laminated particle board to a height of 0.91m from the bottom, and remaining height with 5mm thick plain glass With Ethyl Propylene Diametertermine Monomer (EPDM) Gaskets. The sections are to be cut to length, mitre joined with corner bracket Centre mullions	1 Sqm	5,800.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		are to be fixed using mullion cap. Gaskets made of Ethyl Propylene Diameter Monomer (EPDM). Corner brackets made of CRCA with zinc phosphate. Mullion caps made of Glass filled nylon. The above frames should be fixed to the concrete/masonry wall by means of self expanding screws, and complete for finished item of work Fixed Partition with Door: Outer frame section size of 46x52mm, mullion section should be of 46x70mm, fixed beading should be of 18x25mm, section for shutter should be of 46x46mm and section for middle & bottom should be of size 23x130mm		
514	TBSC-K.IV-19	Providing and fixing in position wall paneling to all heights with eco friendly light weight calcium silicate panels/tiles globe design of size 595x595mm having square/butt edge having NRC i.e. Noise reduction coefficient of 0.5 to 0.75 as per IS 8225:1987, Light reflectance of 85% minimum, Non combustible as per BS 476 part 4, fire performance as per BS 476 part 6&7, humidity resistance of 100% and thermal conductivity < 0.043 W/m K as per ASTM 518: 1991 comprising of a frame made from especially fabricated galvanized mild steel sheet 0.50mm thick pressed section galvanizing @ 120 grams per sqm including both sides i.e. vertical studs of size 48x34x36mm re placed at 600mm center to center in a floor and ceiling channel section of size 50x32mm fixed to the floor and soffit at 600mm centers using 12mm dia, 50mm long wedge type expanded zinc alloy dash fastener with 10mm bolt. Glass wool of 50mm thickness is then to be inserted in the slots and finally calcium silicate non combustible panels/tiles are to be screw fixed with self tapping pan head nickel coated mild steel screws of size 13x3.2mm on to this grid leaving an even groove of 1mm between the panels. The joints between the panels are to be duly jointed and finished using recommended jointing calcium silicate based compound and fiber joint tape roll 50mm wide and tow coats of primer suitable for paneling as per manufacturers specification as per direction of Engineer-in-Charge with 15mm thick integral densified fully perforated light weight calcium silicate panels/tiles	1 Sqm	2,295.00
515	TBSC-K.IV-20	Providing and fixing in position 67mm thick partition using Galvalume wall frame system AZ 150, 300Mpa yield strength sections minimum 0.55mm thickness with 150gms/sqm coating of aluminium zinc as per IS 277/1992 max height 3m using 8mm thick High pressure steam cured Everest non asbestos fibre cement wall board density>1200 kg/m <sup>3</sup> , Modulus of rupture 15.85 Mpa, Thermal conductivity 0.0872 W/mK confirming IS 14862:2000 and Type B category III of ISO 8336:1993, Reaction to fire A2-s1-d0 tested as per EN13501 part I and BS 476 Part 4,5,6,7 on either side fixed on the framework with 25mm fully threaded self tapping screws @ 300mm center to center on either side of 51mm studs 0.55mm thick having one flange of 42mm and another flange of 44mm made of Galvalume wall frame placed at 610mm c/c in 51mm floor and ceiling channel 0.55mm thick having equal flanges of 32mm Galvalume steel. Boards are to be fixed horizontally in a staggered manner to avoid through joints on both sides. The boards maybe finished so as to have uniform gap/groove. Alternatively, uniform gap/grooves maybe covered with manufactured recommended jointing compound or	1 Sqm	2,797.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		expansion filler for jointless/seamless finish. All complete as per drawing and directions of Engineer-in-Charge		
516	TBSC-K.IV-21	Providing and fixing in position 69mm thick partition using Galvalume wall frame system AZ 150, 300Mpa yield strength sections minimum 0.55mm thickness with 150gms/sqm coating of aluminium zinc as per IS 277/1992 max height 3m using 9mm thick High pressure steam cured Everest non asbestos fibre cement wall board density>1200 kg/m <sup>3</sup> , Modulus of rupture 15.85 Mpa, Thermal conductivity 0.0872 W/mK confirming IS 14862:2000 and Type B category III of ISO 8336:1993, Reaction to fire A2-s1-d0 tested as per EN13501 part I and BS 476 Part 4,5,6,7 on either side fixed on the framework with 25mm fully threaded self tapping screws @ 300mm center to center on either side of 51mm studs 0.55mm thick having one flange of 42mm and another flange of 44mm made of Galvalume wall frame placed at 610mm c/c in 51mm floor and ceiling channel 0.55mm thick having equal flanges of 32mm Galvalume steel. Boards are to be fixed horizontally in a staggered manner to avoid through joints on both sides. The boards maybe finished so as to have uniform gap/groove. Alternatively, uniform gap/grooves maybe covered with manufactured recommended jointing compound or expansion filler for jointless/seamless finish. All complete as per drawing and directions of Engineer-in-Charge	1 Sqm	3,840.00
517	TBSC-K.IV-22	Providing and fixing in position 70 thick partition using Galvalume wall frame system AZ 150, 300Mpa yield strength sections minimum 0.55mm thickness with 150gms/sqm coating of aluminium zinc as per IS 277/1992 max height 3m using 9mm thick High pressure steam cured Everest non asbestos fibre cement heavy duty wall board density>1200 kg/m <sup>3</sup> , Modulus of rupture 24 Mpa, Thermal conductivity 0.0872 W/mK confirming IS 14862:2000 and Type B category III of ISO 8336:1993, Reaction to fire A2-s1-d0 tested as per EN13501 part I and BS 476 Part 4,5,6,7 on wet side and 10mm thick Fibre cement wall board density>1200 kg/m <sup>3</sup> , Modulus of rupture 15.85 Mpa, Thermal conductivity 0.0872 W/mK confirming IS 14862:2000 and Type B category III of ISO 8336:1993, Reaction to fire A2-s1-d0 tested as per EN13501 part I and BS 476 Part 4,5,6,7 on other side fixed on the framework with 25mm fully threaded self tapping screws @ 300mm center to center on either side of 51mm studs 0.55mm thick having one flange of 42mm and another flange of 44mm made of Galvalume wall frame placed at 610mm c/c in 51mm floor and ceiling channel 0.55mm thick having equal flanges of 32mm Galvalume steel. Boards are to be fixed horizontally in a staggered manner to avoid through joints on both sides. The boards maybe finished so as to have uniform gap/groove. Alternatively, uniform gap/grooves maybe covered with manufactured recommended jointing compound or expansion filler for jointless/seamless finish. All complete as per drawing and directions of Engineer-in-Charge	1 Sqm	3,530.00
518	TBSC-K.IV-23	Providing and fixing in position 71mm thick partition using GI Sections minimum 0.55mm thickness with 180gms/sqm coating of aluminium zinc as per IS 277/1992 max height 3m using 10mm thick High pressure	1 Sqm	3,137.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		steam cured Everest non asbestos fibre cement wall board density>1200 kg/m <sup>3</sup> , Modulus of rupture 15.85 Mpa, Thermal conductivity 0.0872 W/mK confirming IS 14862:2000 and Type B category III of ISO 8336:1993, Reaction to fire A2-s1-d0 tested as per EN13501 part I and BS 476 Part 4,5,6,7 on either side fixed on the framework with 25mm fully threaded self tapping screws @ 300mm center to center on either side of 51mm studs 0.55mm thick having one flange of 42mm and another flange of 44mm made of Galvalume wall frame placed at 610mm c/c in 51mm floor and ceiling channel 0.55mm thick having equal flanges of 32mm Galvalume steel. Boards are to be fixed horizontally in a staggered manner to avoid through joints on both sides. The boards maybe finished so as to have uniform gap/groove. Alternatively, uniform gap/grooves maybe covered with manufactured recommended jointing compound or expansion filler for jointless/seamless finish. All complete as per drawing and directions of Engineer-in-Charge		
519	TBSC-K.IV-24	Providing and fixing in position 100mm thick drywall partition system which includes Galvalume wall frame system AZ 150, 300Mpa yield strength comprising of 51mm floor and ceiling track profile 0.5mm thick having two equal flanges of 32mm fixed to the floor and ceiling in plumb with each other with 6mm anchor fasteners at 620mm c/c, vertical studs of size 51mm, 0.5mm thick having one flange of 42mm and another flange of 44mm and two equal lips of 6mm insert fixed into the track profiles at 620mm centers, 12mm thick Everest board confirming to IS 14862 Type B and 12.5 thick Gypsum plaster board are screw fixed to the either side of the framework as inner and outer layer with 25mm fibre cement screws and 35mm drywall screws, respectively at 300mm centers. The cavity of frame should be filled with mineral wool of 48kg/m <sup>3</sup> density and 50mm thickness. Finally the joints of the Gypsum plaster board are to be jointed and finished with joint tape and gypsum jointing compound. All the periphery of the partition should be sealed with acoustic cum fire rated sealant.	1 Sqm	4,228.00
<b>L</b>	<b>SECTION</b>	<b>DOORS, SHUTTERS &amp; FRAMES</b>		
		(Excluding taxes but including cost of loading, cost of conveyance, unloading & stacking)		
<b>I</b>	<b>SUB-SECTION</b>	<b>DOOR FRAMES</b>		
520	TBSC-L.I-01	Mild Steel Hallow single rebate general purpose door frames manufactured using cold roll formed process steel sheet of 1.25 mm thick bright (Cold Rolled Close Annealed (CRCA) and profile-B of size 105 x 60 mm conforming to IS 4351 - 2003 including pre-treatment, phosphating with Hinges, Base Ties, Holdfast Lugs, Mortar Guards, shock absorbers and provision for Tower Bolts, Aldrops, Lock & Strike plates etc. for both single and double shutter doors	1 Rm	385.00
521	TBSC-L.I-02	Powder Coated Mild Steel Hallow single rebate door frames manufactured using cold roll formed process steel sheet of 1.25 mm thick bright (Cold Rolled Close Annealed (CRCA) and profile size of 105 x 60 mm conforming to IS 4351 - 2003 including pre-treatment, Galvanized as per IS:277, zinc phosphating finished with Thermosetting Polyurethane paint of Aliphatic Grade providing high levels of scratch resistance and	1 RM	706.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		durability/Epoxy polyester powder for powder coating paint thickness 60 - 65 microns(Dry film thickness)Stainless Steel Ball Bearing Butt Hinges 3 mm thick fixed flush to the frame with Hinges, Base Ties, Holdfast Lugs, Mortar Guards, shock absorbers and provision for Tower Bolts, Aldrops, Lock & Strike plates etc. for both single and double shutter doors		
522	TBSC-L.I-03	Providing and fixing factory made polyvinyl chloride (PVC) Door Frame of the size 50 x 47mm with a wall thickness of 5mm, made out of extruded 10 mm rigid PVC foam sheet, mitre cut at two corners and joined with 2nos. of 150mm long brackets of 15x15mm M.S. square tube. The two vertical door profiles are to be reinforced with 19x19mm M.S. Square tube of 19 gauge. The door frame shall be fixed to the wall using 65/100mm long M.S. Screws through the frame by using PVC fasteners. A minimum of 4nos. of screws to be provided for each vertical member & minimum 2nos. for horizontal member etc. complete as per manufacturers specification and direction of Engineer-in-Charge for finished item of work	1 Rm	315.00
523	TBSC-L.I-04	SUPPLY & FIXING SINGLE SIDE PRELAM SOLID PANEL PVC DOOR FRAME (CHOUKHAT) Providing and fixing factory made Pac single side Prelam door frame of the size 50X47 mm with a wall thickness of 5mm, made out of extruded 5mm rigid Pac single side prelam sheet, meter cut at two corners and joined with 2nos. of 150mm long brackets of 1515mm MS. Square tube. The two vertical door profiles are to be reinforced with 19X19mm MS. square tube of 19guage. The door frame shall be fixed to the wall using 65/100mm long MS. Screws through the frame by using Pac fasteners. a minimum of 4nos. of screws to be provided for each vertical member and minimum 2nos. for horizontal member etc. complete as per manufacture specification and direction of Engineer-in-charge.	1 Rm	330.00
524	TBSC-L.I-05	Supply and fixing of door frame made of hollow extruded PVC section having dimensions of 40 X 57mm with the wall thickness of 2mm +/- 0.2mm duly reinforced with seasoned wood plank at the hinges side. The door frame top 2 corners shall be metre-cut/ welded. PVC DOOR FRAME	1 RM	256.00
525	TBSC-L.I-06	Supply and fixing of door frame made of hollow extruded PVC section having dimensions of 40 X 47 mm with the wall thickness of 2mm +/- 0.2mm duly reinforced with seasoned wood plank at the hinges side. The door frame top 2 corners shall be mitre cut/welded	1 RM	202.00
526	TBSC-L.I-07	Supply & fixing of Door frames made of all formed sections of 1.25mm thick CRCA section, size should be 50x60mm with 32mm rebate. The corner of the frame should be welded. The frame should be painted with one coat of primer and finished painted with pure polyester paint. The frame should be provided with approved quality butt hinges of 3 Nos. complete for finished item.: Single shutter 3'-0" x 7'-0" (914.4x2133.6mm) outer frame section size of 50 x 60 mm	1RM	228.00
527	TBSC-L.I-08	Supply & fixing of Door frames made of all formed sections of 1.25mm thick CRCA section, size should be 50x60mm with 32mm rebate. The corner of the frame should be welded. The frame should be painted with one coat of primer and finished painted with pure polyester paint. The frame should be provided with approved	1 RM	228.00



Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		quality butt hinges of 3 Nos. complete for finished item.: Double shutter 5'-0" x 7'-0" (1524 x 2133.6mm) outer frame section size of 50 x 60 mm		
528	TBSC-L.I-09	Supplying & fixing of Door frame made of roll formed section of 1.25 mm thick CRCA section, size should be 50 x 75 mm with 32 mm rebate. The corner of the frame should be welded. The frame should be painted with one coat of primer and finished painted with pure polyester paint. The frame should be provided with approved quality butt hinges of 3 Nos. Complete for finished item of work.: Single shutter 3'-0" x 7'-0" (914.4x2133.6mm) outer frame section size of 50 x 75 mm	1 RM	257.00
529	TBSC-L.I-10	Supplying & fixing of Door frame made of roll formed section of 1.25 mm thick CRCA section, size should be 50 x 75 mm with 32 mm rebate. The corner of the frame should be welded. The frame should be painted with one coat of primer and finished painted with pure polyester paint. The frame should be provided with approved quality butt hinges of 3 Nos. Complete for finished item of work.: Single shutter 5'-0" x 7'-0" (1524x2133.6mm) outer frame section size of 50 x 75 mm	1 RM	257.00
530	TBSC-L.I-11	Providing and fixing door frames fabricated from sections made of galvanized steel powder coated (base steel as per IS 513, galvanized as per IS 277 with zinc of 120 grams / square metre), the factory made section are powder coated with pure polyester powder of 50-60 microns thick with total coated thickness of 1.25 mm, size of door frame section is of 105 x 60 mm with a rebate of 38 mm to accommodate 35 mm thick door shutter, with groove to insert gasket in the frame section, frame section filled with polyurethane foam, cut to length, and joined by way of welding, each frame provided with: a) 2mm thick MS powder coated butt hinges of 100 mm long - 3 Nos. for single shutter, 6 Nos. for double shutter. b) CRCA electroplates stiffeners of 6 Nos. - 3 in each vertical. c) 40 mm x 200 mm x 1.2 mm hold fasts screwed to stiffeners - 6 Nos. with split end tail. d) Nylon Aldrops Receiver - 1 No. for single shutter frame. e) Tie Rod - 1 No	1 RM	783.00
531	TBSC-L.I-12	Providing and fixing of door frames factory made, internal door frames without threshold, fabricated from pre painted cold roll formed section 100 mm x 60 mm made of galvanized (base steel as per IS-513 'D' quality galvanized as per IS-277 with Zinc of 120 Gms/sqm) steel colour coated sections with total coated thickness of 1 mm primer coated with epoxy primer of 5-7 microns thick finish painted with polyester paint of 12-16 microns and back coated with alkyd backer of 5-7 microns, the frame section filled with polyurethane (PU Foam) of 40 kg/Cum and the sections cut to length and mitre joined by means of 1.25 mm thick CRCA electroplated corner brackets of size 75 x 75 mm and 1.25 mm thick electroplated stiffeners of size 150 mm for fixing hold fasts and hinges with MS Powder coated fittings a) 6 Nos M.S. Z Type hold fasts made of 30 mm x 3 mm MS flat of 230 mm long, 3 Nos each size expandable PVC covered screw type fasteners b) 2.5 mm x 300 mm long 'T' hinges /2.5 mm x 50 mm x 50 mm x 100 mm two way but hinges (3 Nos for single leaf or 2 Nos for Double leaf/leaf) c) 12 mm Diameter MS tie rod at bottom with necessary size of nuts on either side.	1 RM	461.00
532	TBSC-L.I-13	Supply and fixing of factory made Bathroom door frames	1 RM	

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		without threshold, fabricated from pre-painted cold roll formed section 50mm x 50 mm made of galvanized steel as per IS - 513 'D' quality, galvanized as per IS-277 steel colour coated sections primer coated with epoxy primer finish painted with polyester paint the frame section filled with polyurethane (P.U. Foam) of 40 Kg/Cum; and the sections joined by means of 1.25mm thick CRCA electroplated corner brackets of size 75 x 75 mm and 1.25mm thick electroplated stiffeners of size 150mm for fixing hold fasts and hinges together with the following MS Power coated fitting (Supply and fixing) of approved make. a) 6 Nos M.S. Z. Type hold fasts made of 30mm x 3 mm MS flat of 230mm long, 3 Nos each side expandable PVC covered screw type fasteners b) 2.5 mm x 300 mm long 'T' hinges / 2.5mm x 50 mm x 100mm two way but hinges (3 Nos for single leaf or 2 Nos for Double leaf /leaf )c) 12 mm Diameter MS tie rod at bottom with necessary size of nuts on either side.		<b>416.00</b>
533	TBSC-L.I-14	Supply of factory made Precast Reinforced Cement concrete door frame of with overall dimension of 60 x 100 mm for single shutter door (+/-2mm) three nos, of 6mm dia steel bars are used for longitudinal reinforcement for each vertical and horizontal member and are held firmly by 3mm dia ties spaced at not more than 300mm c/c Polymer wonder blocks are provided in the frames for tower bolt and hinges provisions made in the frame for Aldrops provisions are made in the vertical member for fixing of 3 nos. hold-fasts with 8 mm dia bolts and the frame surface shall be smooth without any voids and shall confirm to <b>IS 6523</b> complete finished item including all taxes as per specifications & the directions of the Engineer-in-Charge.	<b>1 RM</b>	<b>336.00</b>
534	TBSC-L.I-15	Supply of factory made Precast Reinforced Cement concrete double door frame of the door frame shall have overall dimension of 60 x 125 for single shutter door(+/-2mm) four nos, of 6mm dia steel bars are used for longitudinal reinforcement for each vertical and horizontal member and are held firmly by 3mm dia ties spaced at not more than 300mm c/c Polymer wonder blocks for fixing of tower bolt and hinges with provision for Aldrops and 3 nos. hold-fasts with 8mm dia bolts and the frame surface shall be smooth without any voids and shall confirm to <b>IS 6523</b> complete finished item including all taxes as per specifications & the directions of the Engineer-in-Charge.	<b>1 RM</b>	<b>437.00</b>
535	TBSC-L.I-16	Fixing of precast RCC frames (Precast RCC framed members to be supplied at site) including assembling the members for door frames fixing to MS masonry or RCC wall face including providing and fixing Six no. hold-fasts of MS Flat 40x5mm and length 40cm per frame embedding in cement concrete blocks of size 30x10x15 cm of mix (1 cement:3 Coarse sand: 6 graded stone aggregate 20 mm nominal size) complete as per specification & the directions of the Engineer-in-Charge	<b>1 RM</b>	<b>267.00</b>
536	TBSC-L.I-17	Providing and fixing factory made solid Wood Polymer Composite (WPC) single extruded Door Frame section of 100*65 MM with encapsulation of 6 MM rigid layer on all external surfaces. The door frame will have a rebate of 32MM/ 37 MM. The two Vertical members are to be joined together with the horizontal member using 8x75 MM long MS Star full thread screws to be used with reverse forward speed control hand drilling machine.	<b>1 RM</b>	<b>749.00</b>

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		The ready/assembled door frame is fixed to wall using Z Hand fast 300 MM long hold fast.		
537	TBSC-L.I-18	Supplying and fixing of 28/30 mm thick Wood Plastic Composite (WPC) Door shutter, comprising of 70% virgin polymer, 15% wood powder (fiber), and the remaining 15% additives, comprising of virgin PVC polymer of K value 58-60 (Suspension grade), Calcium carbonate and natural fibers (wood powder) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum door density of 650 kg/cum, screw withdrawal strength 1800N (Face) & 900N (Edge), Modulus of Elasticity 900N/mm2 and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixed in position with stainless steel butt hinges of required size with necessary full body threaded star headed counter sunk SS screws all as per direction of Engineer - in- Charge (SS butt hinges and SS screws shall be paid separately)	1 Sqm	2,063.00
538	TBSC-L.I-19	Supplying and fixing of 24/26 mm thick Wood Plastic Composite (WPC) Door shutter, comprising of 70% virgin polymer, 15% wood powder (fiber), and the remaining 15% additives, comprising of virgin PVC polymer of K value 58-60 (Suspension grade), Calcium carbonate and natural fibers (wood powder) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum door density of 650 kg/cum, screw withdrawal strength 1800N (Face) & 900N (Edge), Modulus of Elasticity 900N/mm2 and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixed in position with stainless steel butt hinges of required size with necessary full body threaded star headed counter sunk SS screws all as per direction of Engineer - in- Charge (SS butt hinges and SS screws shall be paid separately)	1 Sqm	1,937.00
II	SUB-SECTION	<b>DOOR SHUTTERS WITHOUT FRAMES</b>		
539	TBSC-L.II-01	Flush door shutters, solid bond wood block board type with teak ply on both faces.: 25 mm thick conforming to IS:2202	1 Sqm	1,936.00
540	TBSC-L.II-02	Flush door shutters, solid bond wood block board type with teak ply on both faces.: 30 mm thick conforming to IS:2202	1 Sqm	2,032.00
541	TBSC-L.II-03	Flush door shutters, solid bond wood block board type with teak ply on both faces.: 35 mm thick conforming to IS:2202	1 Sqm	2,219.00
542	TBSC-L.II-04	Flush door shutters, solid bond wood block board type with commercial ply on both faces.: 25 mm thick conforming to IS:2202	1 Sqm	1,105.00
543	TBSC-L.II-05	Flush door shutters, solid bond wood block board type with commercial ply on both faces.: 30 mm thick conforming to IS:2202	1 Sqm	1,334.00
544	TBSC-L.II-06	Flush door shutters, solid bond wood block board type with commercial ply on both faces.: 35 mm thick conforming to IS:2202	1 Sqm	1,509.00
545	TBSC-L.II-07	Flush door shutters, solid bond wood block board type with commercial ply on both faces.: 40 mm thick conforming to IS:2202	1 Sqm	1,709.00
546	TBSC-L.II-08	Flush door shutters, solid bond wood block board type with teak veneer on one face and commercial ply on another face (lipping): 20 mm thick conforming to IS:2202	1 Sqm	2,127.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
547	TBSC-L.II-09	Flush door shutters, solid bond wood block board type with teak veneer on one face and commercial ply on another face (lipping): 25 mm thick conforming to IS:2202	1 Sqm	2,067.00
548	TBSC-L.II-10	Flush door shutters, solid bond wood block board type with teak veneer on one face and commercial ply on another face (lipping): 30 mm thick conforming to IS:2202	1 Sqm	2,289.00
549	TBSC-L.II-11	Flush door shutters, solid bond wood block board type with teak veneer on one face and commercial ply on another face (lipping): 35 mm thick conforming to IS:2202	1 Sqm	2,495.00
550	TBSC-L.II-12	Flush door shutters, solid bond wood block board type with teak veneer on one face and commercial ply on another face (lipping): 40 mm thick conforming to IS:2202	1 Sqm	2,852.00
551	TBSC-L.II-13	Supply and fixing of Cement Bonded Prelaminated Particle Board single door shutter using 16MM Cement Bonded Prelaminated Particle Board with all round section "U" size of mm thick galvanized pre-painted cold rolled steel profiles Cement Bonded Prelaminated Particle Board with necessary screws fixed at every 1'0" ( 304.8mm) intervals. The cost inclusive of MS Nickel coated 250mm long Aldrops 2 no's , MS powder coated 250mm long tower bolt 1 no's, 2no's MS powder coated 125mm long grip handle, 1 no's M.S.P.C. Door stopper. Including cost and conveyance of all materials at site labour charges etc., complete finished item of work.	1 Sqm	2,531.00
552	TBSC-L.II-14	Supply and fixing of Cement Bonded Prelaminated Particle Board double door shutter using 16MM Cement Bonded Prelaminated Particle Board with all round "U" section size of 20mm x 18mm x 20mm made from 0.6mm thick galvanized pre-painted cold rolled steel profiles with Cement Bonded Prelaminated Particle Board separating two shutter with 30mm x 20mm x 30mm stepped lipping with necessary screws fixed at every 1'0" (304.8mm) intervals. The cost inclusive of MS Nickel coated 250mm long Aldrops 2no's, MS powder coated 125mm long grip handle, 2 no's M.S.P.C. Door stopper. Including cost and conveyance of all materials at site labour charges etc., complete finished item of work.	1 Sqm	3,214.00
553	TBSC-L.II-15	Supply and fixing of Cement Bonded Prelaminated Particle Board door shutter made out of U sections of size 12x14x12 made from 0.6mm thick pps sections with 12MM Cement Bonded Prelaminated Particle Board with necessary screws fixed at every 1'.0" intervals. The hardware consists of 250mm long Aldrops - 2 Nos. 150mm Handle- 1 No , 150 mm long ms powder coated tower bolt 1 no. nickel coated. The cost is inclusive of all incidentals, labour transportation charges.	1 Sqm	2,476.00
554	TBSC-L.II-16	Supply and fixing of Cement bonded Particle BOARD (conforming to IS 14862) door shutter with all-round style "U" lipping size 15 x 18 x 15 mm made from 0.8 mm thick powder coated cold rolled steel profiles with 16 mm thick Cement bonded Particle BOARD with necessary screws fixed at 1'-0" interval 250 mm long Aldrops 2 nos. M.S. nickel coated 250 mm long 1 no. M.S. Tower Bolts Including cost and conveyance of all materials at site and applying 1 coat of primer, 2 coats of luppam and 2 coats of synthetic enamel paint as per approved design for finished item of work.	1 Sqm	1,704.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
555	TBSC-L.II-17	Supply and fixing of Cement bonded Particle BOARD (conforming to IS 14862) 12 mm thick door shutter of size 6'0" x 2'6" with all-round style "U" lipping size 15 x 14 x 15 mm made from 0.8 mm thick powder coated cold rolled steel profiles with necessary screws fixed at 1'-0" interval 250 mm long Aldrops 2 nos. M.S. nickel coated 250 mm long 1 no. M.S. Tower Bolts Including cost and conveyance of all materials at site and applying 1 coat of primer, 2 coats of luppam and 2 coats of synthetic enamel paint as per approved design for finished item of work.	1 Sqm	1,459.00
556	TBSC-L.II-18	Supply and fixing door shutter with frame made out of PVC section and panels conforming to IS:10151-1982 having panel sizes of 100 mm x 30 mm with self extruded grooves at 40 mm x 50 mm grooves on front face and the infill panel dimension is 610 mm x 20 mm seamless hollow multi chambered PVC single panel for finished item of work.	1 Sqm	2,532.00
557	TBSC-L.II-19	Moulded panel solid core flush doors using water-resistant hardwood fibre HDF / MDF fibre boards skins of 2.5 mm thick of Masonite or equivalent doors - 30 mm thick	1 Sqm	1,668.00
558	TBSC-L.II-20	Moulded panel solid core flush doors using water-resistant hardwood fibre HDF / MDF fibre boards skins of 2.5 mm thick Masonite or equivalent doors - 35 mm thick	1 Sqm	1,823.00
559	TBSC-L.II-21	Solid core membrane flush doors using rigid PVC membrane of 0.3 mm thick of different elegant shades doors - 30 mm thick	1 Sqm	1,272.00
560	TBSC-L.II-22	Solid core membrane flush doors using rigid PVC membrane of 0.3 mm thick of different elegant shades doors - 35 mm thick	1 Sqm	1,409.00
561	TBSC-L.II-23	Providing and fixing 35mm thick FACTORY MADE MOULDED DOOR SHUTTER consisting of solid core single leaf flush door of 30mm thickness, lipped with 15mm (5mmX3) thick X 30mm width on one stiles and top rails and 10mm (5mmX2) thick X 30mm width on the other stiles and bottom rails. The inner panel laminated with 2mm thick termite proof, water proof and fire resistant moulded Pac sheet with 2,4,6 raised panel design in different panel and / or prelam colours on one side after routing the moulded design on flush door and 2mm prelam Pac sheet on other side using rubber adhesive on flush door and solvent cement adhesive on Pac lipping etc. complete as per direction of Engineer-in-Charge, manufacture specification and drawing	1 Sqm	2,996.00
562	TBSC-L.II-24	Supply & Fixing SOLID STEEL DOOR shutter made out of G I Precoated Sheet with an average wall thickness of 0.35 mm on both sides. MS Tube having dimensions of 19 x 19 mm is inserted along the hinge side of the door, core of the door shutter filled with High Density Polyurethane foam injected with the help of hydraulic injection method, four sides of the door covered with G I Precoated Sheet and the hardware locations reinforced with suitable wooden blocks as per drawing and stickers indicating location of the hardware pasted at appropriate places, etc complete	1 Sqm	1,529.00
563	TBSC-L.II-25	Providing of 35mm thick Factory made Prelaminated ABS (Acrylonitrile Butadiene Styrene) Door shutter moulded in different designs, consisting of all round Frame made out of water proof solid foam PVC bar of size 20x32mm, reinforced by 32x 32mm - 2 nos. for vertical made out of	1 Sqm	6,615.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		LVL (Laminated Veneer Lumber), core material of 32 mm thick high density craft paper honey comb board, sandwiched on both sides with prelaminated ABS sheet thickness of 1.5mm . PVC edge banding of size 0.45mm on the vertical sides for each shutter and ISI make S.S round lock complete for finished item of work		
564	TBSC-L.II-26	Supply and fixing of Cement Bonded Prelaminated Particle Board door shutter conforming to IS-14276 made out of U sections of size 12 x 18 x 12 made from 0.6mm thick PPS sections with 16 mm Cement Bonded Prelaminated Particle Board with necessary screws fixed at every 1'.0"interwells. The hardware consists of 12 mm dia x 200mm long Aluminium Aldrops - 2 Nos. 125 mm long Handle- 2 Nos. 3 mm x 12 mm x 180 mm long 304 SS hinges- 3 Nos with pole receiver of 10mm dia pole X40mm long welded on 2mm X40mm(ss304) plates works as receiver for RT patte hinges. The cost is inclusive of all incidentals, labour transportation charges.	1 Sqm	2,752.00
565	TBSC-L.II-27	Providing and fixing factory made extruded WPC (Wood Polymer Composite) solid white color board for cupboards and bathroom/kitchen cabinet/partitioning/wall panelling/wall cladding of required size comprising of virgin PVC polymer of K value 58-60 (Suspension grade), Calcium carbonate and natural fibers (wood powder) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum door density of 650 kg/cum, screw withdrawal strength 1800N (Face) & 900N (Edge), Modulus of Elasticity 900N/mm2 and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixed in position with stainless steel butt hinges of required size with necessary full body threaded star headed counter sunk SS screws all as per direction of Engineer -in-Charge (SS butt hinges and SS screws shall be paid separately) - 6mm Thick	1 Sqm	926.00
566	TBSC-L.II-28	Providing and fixing factory made extruded WPC (Wood Polymer Composite) solid white color board for cupboards and bathroom/kitchen cabinet/partitioning/wall panelling/wall cladding of required size comprising of virgin PVC polymer of K value 58-60 (Suspension grade), Calcium carbonate and natural fibers (wood powder) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum door density of 650 kg/cum, screw withdrawal strength 1800N (Face) & 900N (Edge), Modulus of Elasticity 900N/mm2 and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixed in position with stainless steel butt hinges of required size with necessary full body threaded star headed counter sunk SS screws all as per direction of Engineer -in-Charge (SS butt hinges and SS screws shall be paid separately) - 12mm Thick	1 Sqm	1,854.00
567	TBSC-L.II-29	Providing and fixing factory made extruded WPC (Wood Polymer Composite) solid white color board for cupboards and bathroom/kitchen cabinet/partitioning/wall panelling/wall cladding of required size comprising of virgin PVC polymer of K value 58-60 (Suspension grade), Calcium carbonate and natural fibers (wood powder) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum door	1 Sqm	2,798.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		density of 650 kg/cum, screw withdrawal strength 1800N (Face) & 900N (Edge), Modulus of Elasticity 900N/mm <sup>2</sup> and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixed in position with stainless steel butt hinges of required size with necessary full body threaded star headed counter sunk SS screws all as per direction of Engineer -in-Charge (SS butt hinges and SS screws shall be paid separately) - 18mm Thick		
<b>III</b>	<b>SUB-SECTION</b>	<b>DOORS WITH SHUTTERS &amp; FRAMES</b>		
568	TBSC-L.III-01	Providing and fixing 30mm thick Solid panel PVC door shutter consisting of frame made out of M.S. tubes of 19 gauge thickness and size of 19mm x 19mm for stiles, & 15mm x 15mm for top & bottom rails. M.S. frame shall have a coat of steel primers of approved make and manufacture. M.S. frame shall be covered with 5mm thick heat moulded PVC 'C' channel of size 30 x 50mm forming stiles, and 5mm thick, 75mm wide PVC sheets for top rail, lock rail & bottom rail on either side, and 10mm (5mm x 2) thick, 20mm wide cross PVC sheet as gap insert for top rail & bottom rail. Paneling of 5mm thick PVC sheet to be fitted in the M.S. frame welded / sealed to the stiles & rails with 30mm wide x 5mm thick PVC sheet beading on either side, and joined together with solvent cement adhesive etc. An additional 5mm thick PVC strip of 20mm width is to be stuck on the interior side of the 'C' Channel using PVC solvent adhesive. Complete as per direction of Engineer-in-charge, manufacturer's specification & drawing for finished item of work .	1 Sqm	2,292.00
569	TBSC-L.III-02	Providing and fixing 30mm thick FACTORY MADE BOTHSIDE PRELAM SOLID PANEL PVC DOOR SHUTTER consisting of frame made out of MS. Tubes of 19gauge thickness and size of 19mmX19mm for stiles, top and bottom rails. MS. Frame shall have a coat of steel primers of approved make and manufacture. MS. Frame covered with 5mm thick heat moulded Prelam Pac 'C' channel of size 30mm thickness, 70mm width out of which 50mm shall be flat and 20mm shall be tapered in 450 angle on either side forming stiles; and 5mm thick, 95mm wide Prelam Pac sheet out of which 75mm shall be flat and 20mm shall be tapered in 450 on the inner side to form top and bottom rail 115mm wide Prelam Pac sheet out of which 75mm shall be flat and 20mm shall be tapered on both sides to form lock rail. Top, bottom and lock rail shall be provided either side of the panel. 10mm (5mmX2) thick, 20mmwide cross Pac sheet shall be provided as gap insert for top and bottom rail. Paneling of 5mm thick both side Prelam Pac sheet to be fitted in the MS. Frame welded/ sealed to the stiles & rails with 7mm(5mm+2mm) thick X 15mm wide Pac sheet beading on inner side, and joined together with solvent cement adhesive etc. an additional 5mm thick Pac strip of 20mm width is to be stuck on the interior side of the 'C' channel using Pac solvent cement adhesive etc. complete as per direction of Engineer - in-charge, manufacture specification and drawing.	1 Sqm	2,618.00
570	TBSC-L.III-03	Providing and fixing 30mm thick FACTORY MADE SOLID SINGLE SIDE PRELAM PANEL PVC DOOR SHUTTER consisting of frame made out of MS. Tubes of 19gauge thickness and size of 19mmX19mm for stiles, and	1 Sqm	2,377.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		15mmX15mm for top and bottom rails. The MS. Frame shall have a coat of steel primers of approved make and manufacture. MS. Frame covered with 5mm thick heat moulded single side Prelam Pac 'C' channel of size 30mmX50mm to form stiles. 5mm thick & 75mm wide single side Prelam Pac sheets shall be for the top, bottom and lock rails. Paneling of 5mm thick one side Pac sheet to be fitted in the MS. Frame and sealed to the front (Prelam side) stiles and rails (which should have a 5mm 45 bent portion as beading) and attached to the back (white/ivory) stiles and rails which should have a 10mm 90 bent portion as beading ) using 2nos. 15mm wide X 5mm thick Pac sheet beading inside the 90 bent beading. All stiles, rails and beadings are to be joined to the panel using solvent cement etc. an additional 5mm thick Pac strip of 20mm width to be stuck on the interior side of the 'C' channel using Pac solvent cement adhesive and 10mm(5mmX2) thick, 20mm wide cross Pac sheet to be fitted as gap insert for top and bottom rail etc. complete as per direction of Engineer -in-Charge, manufacture specification and drawing.		
571	TBSC-L.III-04	MOULDED PVC DOOR - WOOD FREE Providing and fixing 30mm thick Brand factory made Moulded door shutter-wood free consisting of frame made out of MS. tubes 19gauge thickness and size of 25mmX25mm for stiles, top and bottom rails. MS. Frame shall have a coat of steel primers. The inner panel shall consist of 25mm thick High density EPS conforming to IS 4671-1984 bounded with 2mm thick termite proof, water proof and fire resistant moulded Pac sheet with 2,4,6 raised panel design in different plain and / or Prelam colours after routing to the moulded design on one side and 2mm plain and / or Prelam Pac sheet on other side of the EPS. The edge of panel to be sealed with lipping of 10mm wide PVC sheet bottom (made by sticking 2 rigid foam sheet of 5mm thickness using Pac solvent cement) and stiles sides 25mm(5mmX5) thick and 30mm width Pac sheet fitted along Ms. Tube for lock provision for lock height 5mm thick Pac sheet of size 150mmX100mm fixed with upper and lower face of inner side of EPS Panel etc. Complete as per direction of Engineer - in-Charge, manufacture specification and drawing	1 Sqm	2,401.00
572	TBSC-L.III-05	Providing and fixing 30mm thick FACTORY MADE WIRE MESH SOLID PVC DOOR SHUTTER consisting of frame made out of M.S. tubes of 19 gauge thickness and size of 19mmX19mm for stiles and 15mm for top, lock & bottom rails. MS. Frame shall have a coat of steel primers of approved make and manufacture. 19mmX19mm M.S. square tubes shall be covered with 5mm thick heat moulded "" PVC 'C' channel of size 30mm thickness, 90mm width out of which 75mm shall be flat and 15mm shall be flat and 15mm shall be bent in 900 on the inner side to from top and bottom rail and 130mm wide PVC sheet out of which 100mm shall be flat and 154mm shall be bent in 900 on both side to from lock rail, 10mm(5mmX2) thick, 20mm wide cross PVC sheet as gap insert for top rail & bottom rail. Panel will be of G.I. wire mesh of 24gauge to be fitted in by 'C' channel of size 35mm X10mm on the either side in the stiles. The inner side 'C' channel is fixed by 19mmX19mm MS. Tube on both sides with screws. The wire mesh in top bottom & lock rail is sealed with 15mm X 15mm tube with G.I.	1 Sqm	2,134.00



Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		wire 10mm(5mmX2) thick PVC strip of 25mm width is to be stuck& nails on both side of G.I. wire mesh interior at the top, bottom & lock rail. An additional 5mm thick PVC strip of 20mm width is to be stuck on the interior side of the 'C' channel using PVC solvent cement adhesive etc. complete as per direction of Engineer-in-charge, manufacturer's specification & drawings		
573	TBSC-L.III-06	Providing and fixing door & shutter of which frame made from 1.2 mm powder coated cold rolled steel profiles of overall section size of 60 mm x 45 mm with 21 mm rebate for shutter with necessary stiffeners hinges and screws with Cement bonded Particle BOARD (IS 14862) shutter with all-round style "U" lipping of size 15 x 18 x 15 mm made from 0.8 mm thick CRCA powder coated steel profile with 16 mm thick Cement bonded Particle board with necessary screws fixed at every 1'-0" interval 250 mm long Aldrops 2 nos. M.S. nickel coated 250 mm long 1 no. M.S. Tower Bolts including cost and conveyance, one coat of primer, 2 coats of luppam and 2 coats of synthetic enamel paint as per approved colour, labour charges etc.	1 Sqm	2,008.00
574	TBSC-L.III-07	Doors Frames (Colour Coated Steel Sections) & Shutter using Cement Bonded Particle Board as per IS 14276 (Cement Bonded Particle Board conforming to IS 14276 or equivalent ) : Providing and fixing of door frame made from cold roll formed sections made of galvanized (Base steel as per IS277 with zinc of 120 Gms/sqm) colour coated steel sections with total coated thickness of 1mm, primer coated with epoxy primer coat of 5-7 microns thick, finish paint with polyester paint of 12-16 microns. The Section for door frame is to be filled with polyurethane (P.U) form of 40kg/m3. Overall size of frame section should be of 50mm x 50mm. With necessary corner brackets, stiffeners, hinges, and screws. Cement Bonded particle board shutter (Cement Bonded Particle Board conforming to IS 14276 or equivalent ) "Single Leaf" with all round styles "U" section of size 12m x 18m x 12mm made from 0.6 mm thick galvanized, colour coated cold rolled steel profiles with 16mm thick Cement Bonded particle Board (Cement Bonded Particle Board conforming to IS 14276 or equivalent ) with necessary screws fixed at every 1'-0" (304.8mm) intervals. The cost inclusive of MS nickel coated Aldrops of size 250mm long 2nos. 200mm long tower bolt 1no., 125mm handles 2nos., cost and conveyance of all materials at site and applying one coat primer , one coat of luppam and two coats of synthetic enamel paint as per approved design for finished item of work	1 Sqm	3,970.00
575	TBSC-L.III-08	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) 2 Track-2 Panel Sliding Doors duly manufactured using UPVC reinforced profiles(Composition of profile shall consists a minimum of 5.5 PHR of TiO2 and not more than 12 PHR of CaCo3 for every 100 parts of PVC resin) of 60 mm x 45 mm x 2.20 mm with reinforcement of 1.2 mm thickness, super sash with overall size of 39 mm x 75 mm x 2.20 mm with for sliding door shutter frames capable of mounting single glazing system, structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.5 mm prefabricated & welded through fusion welding the door sash shall be fitted with 6 mm thick clear float glass of reputed make	1 Sqm	6,063.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		duly fixed with Grey colour TPV Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC. Door shall be provided with standard hardware & multi point locking system of bent handle espagulate .the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.		
576	TBSC-L.III-09	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) 3 track sliding doors with mesh shutter provision - (2-glass shutters)- 95 -Series duly manufactured using UPVC reinforced profiles(Composition of profile shall consists a minimum of 5.5 PHR of TiO2 and not more than 12 PHR of CaCo3 for every 100 parts of PVC resin) of (108 mm x 45 mm)/(95.50 mm x 60 mm) x 2.20 mm for outer frames, (75 mm x 39 mm)/(66 mm x 42 mm) x 2.20 mm for sliding door shutter frames capable of mounting single glazing system, structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm prefabricated & welded through fusion welding the door sash shall be fitted with 6 mm thick clear float glass of reputed make duly fixed with Grey colour TPV Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC. Door shall be provided with standard hardware & multi point locking system of Patio/Bent espagulate .the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.	1 Sqm	6,821.00
577	TBSC-L.III-10	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) 3 track sliding doors with mesh shutter - (2-glass shutters and 1-mesh shutter)- 95 - Series duly manufactured using UPVC reinforced profiles (Composition of profile shall consists a minimum of 5.5 PHR of TiO2 and not more than 12 PHR of CaCo3 for every 100 parts of PVC resin) of (108 mm x 45 mm)/(95.50 mm x 60 mm) x 2.20 mm for outer frames, (75 mm x 39 mm)/(66 mm x 42 mm) x 2.20 mm for sliding door shutter frames capable of mounting single glazing system, structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm prefabricated & welded through fusion welding the door sash shall be fitted with 6 mm thick clear float glass of reputed make duly fixed with Grey colour TPV Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC. Mesh shutter shall be made of (48 mm x 30 mm)/(50 mm x 26.5 mm) x 2.0 mm uPVC profile section and fitted with Vinyl Coated Fibre mesh and rollers/pulley duly fixed with TPV Gaskets weathering seal resistant Door shall be provided with standard hardware & multi point locking system of Patio/Roto espagulate and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.	1 Sqm	7,538.00
578	TBSC-L.III-11	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) sliding doors three track - three glass shutters	1 Sqm	6,528.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		sliding - 112 -Series duly manufactured using UPVC reinforced profiles of 112.0 mm x 60 mm x 2.25 mm for outer frames, 66 mm x 42 mm x 2.25 mm for sliding door shutter frames capable of mounting single glazing system, structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm prefabricated & welded through fusion welding the window sash shall be fitted with 5 mm thick clear float glass of reputed make and fixed with EPDM weathering seal resistant accessories like clipping locking system made of aluminium 1 No., per set of sashes and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site with templates for casement sizing complete for finished item of work		
579	TBSC-L.III-12	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) openable doors with openable shutters duly manufactured using UPVC reinforced profiles (Composition of profile shall consists a minimum of 5.5 PHR of TiO <sub>2</sub> and not more than 12 PHR of CaCo <sub>3</sub> for every 100 parts of PVC resin) of 60 mm x 55 mm x 2.40 mm for outer frames, 74 mm x 60 mm x 2.40 mm for mullion sections as per the need and 102 mm x 60 mm x 2.40 mm for openable shutter frame capable of mounting single glazing system structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm prefabricated & welded through fusion welding the door sash shall be fitted with 6 mm thick clear float glass of reputed make duly fixed with Grey colour TPV Gaskets for sash & Glazing bead shall be co-extruded with Grey colour soft PVC System shall be provided with 4 no's of 3D Hinges for each shutter and multipoint locking with keys with raiser wedges for smooth operation and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.	1 Sqm	8,544.00
580	TBSC-L.III-13	Supplying and fixing door shutter, with shutter frame and infill panel made from PVC material conforming to IS: 10151-1982, the shutter frame made out of PVC extruded sections having overall dimension of 47 mm x 33 mm with wall thickness of 1.2mm + 0.3mm with usual process variation, the shutter frame with tapered shape to provide better grip to the infill panel end to drain out the water The Infill panel is made out of PVC Sections having Overall Dimensions of 200 mm x 20 mm with wall thickness of 1mm + 0.2mm, the shutter frames mitre cut and joined at the corner, by providing Polymeric " L" type corners to take hardware & fixtures fixed with 10-20mm counter sunk fully threaded parallel shank steel screws, all the hardware locations reinforced with special polymeric bars as per drawings, stickers showing locations of different hardware pasted on the shutter, the infill panels joined by tongue and groove method.	1 Sqm	1,007.00
581	TBSC-L.III-14	supply and fixing of Single panel 30 mm thick PVC door shutters made of rigid PVC extruded hollow section of 20mm X 635 mm with the wall thickness of 1.0mm +/- 0.1mm. The shutter frame is made of 30mm X 79mm	1 Sqm	1,866.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		with the wall thickness of 1.5mm +/-0.15mm section mitre cut and joined at 4 corners with 125mm X225mm plastic brackets. Teak wood batons shall be reinforced inside the door shutter during the fabrication of the door shutter at those points wherever the hardware is fixed onto the door shutter.		
582	TBSC-L.III-15	Providing & fixing 30 mm thick solid panel PVC door shutter consisting of frame made out of 19 gauge M.S tube of 19 x 19 mm for stiles, top & bottom rail, with a coat of primer of approved make. M.S. Frame covered with 5 mm thick heat moulded PVC "C" channel of size of 30 x 50 mm forming stiles, 5 mm thick 75 mm wide PVC sheet for top, lock & bottom rail on either side 20 mm wide cross PVC sheet as gap insert for top & bottom rail, paneling of 10mm(+/-)( 5mm+5mm)" thick PVC sheet fitted in the M.S. frame welded /sealed to the stiles, on either side joined together with solvent cement adhesive etc., additional 5 mm thick PVC strip of 20 mm width stuck on the interior side of the C channel using solvent cement, complete as per direction of Engineer-in-charge, manufacturers specification.	1 Sqm	2,939.00
583	TBSC-L.III-16	Supplying & fixing SINGLE PANEL 30 mm thick PVC DOOR, door shutters with shutter frame and Infill panel made from PVC material, the shutter frame made out of PVC extruded sections having overall dimensions of <b>105mm x 30 mm</b> with wall thickness of 1.3 mm ± 0.3 mm, with the Infill panel made out of multi chambered seamless hollow PVC extruded panel having overall dimensions of 610 mm x 20 mm having wall thickness 1 mm ± 0.2 mm with the shutter frame meter cut and joined at corners and all the hardware locations reinforced with special polymeric bars as per drawing including providing special PVC bracket on hinge side, etc complete	1 Sqm	2,527.00
584	TBSC-L.III-17	Providing & fixing internal prelaminated PVC door frame of size 100 x 45 mm with a wall thickness of 5mm, made of extruded 5 mm Prelam PVC foam sheet, mitred cut at two corners and joined with two nos. of 150mm long brackets of 15 x 15 mm MS square tube, two vertical door profiles reinforced with 40 x 20 MS Tube of 19 gauge throughout the frame and the door frame fixed to the wall using 65/100mm long MS screws through the frame by using PVC fasteners with a minimum of 3 nos of screws provided for each vertical member and two nos. for horizontal, etc complete as per drawing and direction of Engineer in Charge	1 RM	583.00
585	TBSC-L.III-18	Supply & Fixing of Powder Coated Mild Steel doors, frames & shutters made of Skin pass galvanized Iron sheet conforming to Base Steel as per IS 513 "D" Quality, Galvanized as per IS 277 with Hot Zinc Coating of 120 grams / Sq.Mtr with powder coating of thickness 60-65 Microns, frame with 1.2mm thick Skin pass Galvanized Iron sheet formed to single rebate profile of size 100 mm X 58 mm and filled with in-fill Polyurethane foam, the Door Shutters are with 0.80 mm thick Skin pass Galvanized Iron Sheet formed to provide a 46 mm thick fully flush, double skin door shell with Lock Seam joints at stile edges, fitted with in-fill of Honeycomb Kraft Paper and coated with polyester powders of Pure polyester/ epoxy polyester or polyurethane powder for powder coating of thickness 60 - 65 microns and are coated with Zinc Phosphate Primer to receive any paint on site or finished with Thermosetting Polyurethane	1 Sqm	12,653.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		paint of Aliphatic Grade providing high levels of scratch resistance and durability, the Shutter provided with 6 MM clear float vision glass in Circular, Square or Rectangular shapes, Stainless Steel Ball Bearing Butt Hinges 3 mm thick fixed flush to the frame and shutter (Profile 102x76x3mm thick).Mortise Sash Lock with Lever Handles, Mortise Dead Bolt, etc for industrial, commercial, residential, clean room applications		
586	TBSC-L.III-19	Providing & Fixing of Scientific Doors with metal door frames and door shutters made of galvanize steel (base steel as per IS 513 of 0.58 mm thick D quality, galvanized as per IS 277 with Zinc of 120 GSM)coated with Zinc Phosphate Primer to receive any paint on site or finished with Thermosetting Polyurethane paint of Aliphatic Grade providing high levels of scratch resistance and durability/Epoxy polyester powder for powder coating paint thickness 50-60 microns (Dry film thickness) outer frame section of 100 x 58 mm x 1.2 mm thick, shutter section of 0.80 mm thick galvanized steel sheet pressed (roll formed) for 46mm thick fully flush, double skin door shell seam joints at stile edges, in-fill of honeycomb Kraft paper used to give the required rigidity and effective acoustic insulation with 6" Tower bolt - 1 No., 6" D handles - 2 Nos., 10" Aldrops - 1 No., Butt Hinges - 3 Nos, Mortise Lock of approved quality - 1 No, frames fixed to the concrete/masonry wall by means of self expanding screws complete for finished item of work for Single leaf Door	1 Sqm	11,680.00
587	TBSC-L.III-20	Providing & Fixing of Scientific Doors with metal door frames and door shutters made of galvanize steel (base steel as per IS 513 of 0.58 mm thick D quality, galvanized as per IS 277 with Zinc of 120 GSM). coated with Zinc Phosphate Primer to receive any paint on site or finished with Thermosetting Polyurethane paint of Aliphatic Grade providing high levels of scratch resistance and durability/Epoxy polyester powder for powder coating paint thickness 50-60 microns (Dry film thickness) outer frame section of 100 x 58 mm x 1.2 mm thick, shutter section of 0.80 mm thick galvanized steel sheet pressed (roll formed) for 46mm thick fully flush, double skin door shell seam joints at stile edges, in-fill of honeycomb Kraft paper used to give the required rigidity and effective acoustic insulation with 6" Tower bolt - 2 Nos., 6" D handles - 2 Nos., 10" Aldrops - 1 No., Butt Hinges - 6 Nos, Mortise Lock of approved quality - 1 No, frames fixed to the concrete/masonry wall by means of self expanding screws complete for finished item of work for Double leaf Door	1 Sqm	12,459.00
588	TBSC-L.III-21	Supply & Fixing of Stainless steel doors, frames & shutters made of stainless steel grade 304 of hairline finish, frame with 1.2mm thick formed to single rebate profile of size 100 mm X 58 mm and filled with in-fill Polyurethane foam, the Door Shutters are with 0.80 mm thick Stainless steel Sheet formed to provide a 46 mm thick fully flush, double skin door shell with Lock Seam joints at stile edges, fitted with in-fill of Honeycomb Kraft Paper, the Shutter provided with 6 MM clear float vision glass in Circular, Square or Rectangular shapes, Stainless Steel Ball Bearing Butt Hinges 3 mm thick fixed flush to the frame and shutter (Profile 102x76x3mm thick).Mortise Sash Lock with Lever Handles, Mortise Dead Bolt, etc for industrial, commercial, residential,	1 Sqm	23,721.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		clean room applications		
589	TBSC-L.III-22	Supply & Fixing of Powder Coated Fire Rated doors, frames & shutters made of Skin pass galvanized Iron sheet conforming to Base Steel as per IS 513 "D" Quality, Galvanized as per IS 277 with Hot Zinc Coating of 120 grams / Sq.Mtr with powder coating of thickness 60-65 Microns, frame with 1.2mm thick Skin pass Galvanized Iron sheet formed to double rebate profile of size 143 mm X 58 mm with maximum bending radius of 1.4 mm and filled with in-fill Polyurethane foam, the Door Shutters are with 0.80 mm thick Skin pass Galvanized Iron Sheet formed to provide a 46 mm thick fully flush, double skin door shell with Lock Seam joints at stile edges, fitted with in-fill of Honeycomb Kraft Paper and coated with polyester powders of Pure polyester/ epoxy polyester or polyurethane powder for powder coating of thickness 60 - 65 microns and are coated with Zinc Phosphate Primer to receive any paint on site or finished with Thermosetting Polyurethane paint of Aliphatic Grade providing high levels of scratch resistance and durability, the Shutter provided with 6 MM clear float vision glass in Circular, Square or Rectangular shapes, Stainless Steel Ball Bearing Butt Hinges 3 mm thick fixed flush to the frame and shutter (Profile 102x76x3mm thick).Mortise Sash Lock with Lever Handles, Mortise Dead Bolt, etc for 120 minutes Fire Rated door conforming to IS:3614 (Part2) 1992	1 Sqm	15,024.00
590	TBSC-L.III-23	Supply & Fixing of Powder Coated Fire Rated doors, frames & shutters made of Skin pass galvanized Iron sheet conforming to Base Steel as per IS 513 "D" Quality, Galvanized as per IS 277 with Hot Zinc Coating of 120 grams / Sq.Mtr with powder coating of thickness 60-65 Microns, frame with 1.2mm thick Skin pass Galvanized Iron sheet formed to double rebate profile of size 143 mm X 58 mm with maximum bending radius of 1.4 mm and filled with in-fill Polyurethane foam, the Door Shutters are with 0.80 mm thick Skin pass Galvanized Iron Sheet formed to provide a 46 mm thick fully flush, double skin door shell with Lock Seam joints at stile edges, fitted with in-fill of Honeycomb Kraft Paper and coated with polyester powders of Pure polyester/ epoxy polyester or polyurethane powder for powder coating of thickness 60 - 65 microns and are coated with Zinc Phosphate Primer to receive any paint on site or finished with Thermosetting Polyurethane paint of Aliphatic Grade providing high levels of scratch resistance and durability, the Shutter provided with 6 MM clear float vision glass in Circular, Square or Rectangular shapes, Stainless Steel Ball Bearing Butt Hinges 3 mm thick fixed flush to the frame and shutter (Profile 102x76x3mm thick).Mortise Sash Lock with Lever Handles, Mortise Dead Bolt, etc for 60 minutes Fire Rated door conforming to IS:3614 (Part2) 1992	1 Sqm	14,234.00
591	TBSC-L.III-24	Supply & Fixing of Stainless steel Fire Rated doors, frames & shutters made of Stainless steel of 304 grade hairline finish, frame with 1.2mm thick Stainless steel of 304 grade hairline finish sheet formed to double rebate profile of size 143 mm X 58 mm with maximum bending radius of 1.4 mm and filled with in-fill Polyurethane foam, the Door Shutters are with 0.80 mm thick Stainless steel of 304 grade hairline finish Sheet formed to provide a 46 mm thick fully flush, double skin door shell with	1 Sqm	23,721.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		Lock Seam joints at stile edges, fitted with in-fill of Honeycomb Kraft Paper and coated with polyester powders of Pure polyester/ epoxy polyester or polyurethane powder for powder coating of thickness 60 - 65 microns and are coated with Zinc Phosphate Primer to receive any paint on site or finished with Thermosetting Polyurethane paint of Aliphatic Grade providing high levels of scratch resistance and durability, the Shutter provided with 6 MM clear float vision glass in Circular, Square or Rectangular shapes, Stainless Steel Ball Bearing Butt Hinges 3 mm thick fixed flush to the frame and shutter (Profile 102x76x3mm thick).Mortise Sash Lock with Lever Handles, Mortise Dead Bolt, etc for 120 minutes Fire Rated door conforming to IS:3614 (Part2) 1992		
592	TBSC-L.III-25	Supply & Fixing of Stainless steel Fire Rated doors, frames & shutters made of Stainless steel of 304 grade hairline finish, frame with 1.2mm thick Stainless steel of 304 grade hairline finish sheet formed to double rebate profile of size 143 mm X 58 mm with maximum bending radius of 1.4 mm and filled with in-fill Polyurethane foam, the Door Shutters are with 0.80 mm thick Stainless steel of 304 grade hairline finish Sheet formed to provide a 46 mm thick fully flush, double skin door shell with Lock Seam joints at stile edges, fitted with in-fill of Honeycomb Kraft Paper and coated with polyester powders of Pure polyester/ epoxy polyester or polyurethane powder for powder coating of thickness 60 - 65 microns and are coated with Zinc Phosphate Primer to receive any paint on site or finished with Thermosetting Polyurethane paint of Aliphatic Grade providing high levels of scratch resistance and durability, the Shutter provided with 6 MM clear float vision glass in Circular, Square or Rectangular shapes, Stainless Steel Ball Bearing Butt Hinges 3 mm thick fixed flush to the frame and shutter (Profile 102x76x3mm thick).Mortise Sash Lock with Lever Handles, Mortise Dead Bolt, etc for 60 minutes Fire Rated door conforming to IS:3614 (Part2) 1992	1 Sqm	20,681.00
593	TBSC-L.III-26	Supply & Fixing of Lead Lined Clean room doors frames and shutters made of Skin pass galvanized Iron sheet (Conform to Base Steel as per IS 513 "D" Quality, Galvanized as per IS 277 with Hot Zinc Coating of 120 grams / Sq.Mtr).with powder coating of thickness 60-65 Microns, frame of 1.60mm thick galvanized steel sheet (Conform to IS 277) formed to Single/double rebate profile of size 100mm X 58mm/ 143x58mm, door frames with a single / multi Layer of Lead sheet varying thickness from 3mm /1mm to 2mm depends on radiation level, the shutter with 1.2 mm thick Galvanized Steel Sheet (Conform to IS 277) formed to provide a 46mm thick fully flush, double skin door shell with Lock Seam joints at stile edges with a single / multi Layer of Lead sheet varying thickness from 3mm /1mm to 2mm depends on radiation level, the lead sheets extend the full width and height of the door, Lead thickness is equal to the shielding in the adjacent wall, the door frames and door shutters are coated with polyester powders of Pure polyester/ epoxy polyester or polyurethane powder for powder coating of thickness 60 - 65 microns, coated with Zinc Phosphate Primer to receive any paint on site or finished with Thermosetting Polyurethane paint of	1 Sqm	17,032.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		Aliphatic Grade providing high levels of scratch resistance and durability, hardware with Stainless Steel Ball Bearing Butt Hinges 3 mm thick fixed flush to the frame and shutter etc complete for finished item		
594	TBSC-L.III-27	Supply & Fixing of Lead Lined Stainless steel Clean room door frames and shutters made of Stainless steel grade of 304 hairline finish, frame with 1.60mm (16SWG) thick hairline finish Stainless steel grade of 304 formed to Single/double rebate profile of size 100 mm x 58mm/ 143 x 58 mm, door frames with a single / multi Layer of Lead sheet varying thickness from 3mm /1mm to 2mm depends on radiation level, the shutter with 1.2 mm thick hairline finish Stainless steel grade of 304 formed to provide a 46mm thick fully flush, double skin door shell with Lock Seam joints at stile edges with a single / multi Layer of Lead sheet varying thickness from 3mm /1mm to 2mm depends on radiation level. The lead sheets extend the full width and height of the door. Lead thickness is to be equal to the shielding in the adjacent wall. Hardware can be provided with Stainless Steel Ball Bearing Butt Hinges 3 mm thick fixed flush to the frame and shutter etc complete for finished item of work	1 Sqm	26,884.00
595	TBSC-L.III-28	Providing of Factory made prelaminate FPVC (Foamed Polyvinyl Chloride) Door frame of the size 105x40mm with a wall thickness of 10mm made out of extruded rigid FPVC profile mitre joined with 6 Nos. of 50mm long screw. The door frame shall be fixed to the wall by using 80mm long screws through the frame with the help of PVC fasteners of 3 no's to be provided for each vertical member, GI stiffeners of ("U" channel of size 29x9x1mm, 150mm long) -3 no's at hinge point, Frame reinforcement of("U" GI channel of size 46x22x.06mm),Bottom tie rod of ("U" GI channel size of 15x15x1mm) etc. complete as per manufacturers specification for finished item of work. Maximum door frame size : 980 x 2070 including providing of 35mm thick Factory made Pre-laminated ABS (Acrylonitrile Butadiene Styrene) Door shutter moulded in different designs, consisting of all round Frame made out of water proof solid foam PVC bar of size 20x32mm, reinforced by 32x 32mm - 2 nos. for vertical made out of LVL (Laminated Veneer Lumber), core material of 32 mm thick high density craft paper honey comb board, sandwiched on both sides with pre-laminated ABS sheet thickness of 1.5mm . PVC edge banding of size 0.45mm on the vertical sides. Hardware made out of steel coated butterfly hinges - 3 Nos. for each shutter and ISI make S.S round lock completes for finished item of work. Maximum shutter size of : 910 x 2030 mm	1 Sqm	8,134.00
596	TBSC-L.III-29	Supply and fixing of toilet door shutter with frame made of M.S. door frame of 5 mm x 48 mm x 48 mm (L angel) as all-round frame the frame is coated with one coat of red oxide and two coats of enamel of approved color. For shutter and the shutter is made with 16mm Bison lam shutter with all-round 'U' Lipping of PPS section of 12 mm x 18 mm x 12 mm x 0.60mm, along hardware of 200m long and 12mm dia aluminium Aldrops 2 Nos, 2Nos of 125m m handle, 3 Nos of RT patte hinges IS 304gr SS 2mmX12mmX180mm long with a pole receiver of 10mmDia x 40mm by welded on 3mm x 40mm SS 304, plate it works as receiver for RT Patte hinges it is	1 Sqm	3,938.00



Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		welded to M.S. angle . M.S. angle will be fixed to wall of self expandable screws and caps		
597	TBSC-L.III-30	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) sliding doors three track - three glass shutters sliding duly manufactured using UPVC reinforced profiles of 108.0 mm x 49 mm x 2.25 mm for outer frames, 85 mm x 41 mm x 2.25 mm for sliding door shutter frames capable of mounting single glazing system, structurally reinforced with reinforced with 35mm x 10mm x 1.5mm thick with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm prefabricated & welded through fusion welding the window sash shall be fitted with 5 mm thick clear float glass of reputed make and fixed with uPVC glazing bead of 22.5mm x 18mm with "C" or "R" type inner and outer EPDM weathering seal resistant accessories like clipping locking system made of aluminium 1 No., per set of sashes and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site with templates for casement sizing complete for finished item of work	1 Sqm	8,885.00
598	TBSC-L.III-31	Providing and fixing of factory made pre hung door. Frame: Shutter is hung on Factory made door frame of 40mm or 48 mm thickness made of Cement Bonded Particle Board (Bison Panel) and Composite board for water resistant property. Depending on thickness of the wall, width of the frame covers the entire wall from 100 to 300 mm based on actual measurements. The frame is laminated with 0.2mm thick water proof and scratch resistant PVC Foil using hot press and high grade PUR adhesive and is fitted with casing wick (rubber beading) for energy, dust and sound efficiency. The frame is affixed to the wall using high strength expandable PU Foam using tension rods for precision and optional anchor bolts, side and top of frame attached together using dowel screws and quick acting adhesives. Shutter: Factory made 42 mm thick shutter sandwiched with laminated Cement Bonded Particle Board (Bison Panel) 6 mm thick skins on both sides. Skeleton is made with Composite Board & Cement Bonded Particle Board (Bison Panel) of 30mm thickness (sides). Core of high density/ uniform load distribution featured Honey Comb and Laminated Veneer Lumber (LVL) for holding the lock body and hardware, laminated with 0.2mm thick water proof and scratch resistant PVC Foil and edge-banded with 1mm thick PVC edge-band using hot press and high grade PUR adhesives. Max opening dimensions in mm are 1100 (width) x 42 (thickness) x 2300 (height).	1 Sqm	11,812.00
599	TBSC-L.III-32	Supply and fixing of Bath/Toilet Door frame and shutter with 8mm Bison Lam(IS.15786) using with 50mmx35mmx1.3mm thick aluminium door frame of weight 220grm per Rft with a rebate of 30 mm for provision for shutter, shutter made with 45mmx25mmx1.3mm thick aluminium section of weight 210grms per Rft with 8mm groove to accommodate 8mm thick Bison lam(IS.15786) and shutter having 3nos of ss 304gr Butt hinges of 100mm long, 100mm aluminium handles -2nos, and also 2 nos of 200mmx12mm aluminium Aldrops ,the rates inclusive of all labor fixing at site and 50microns Ivory powder coated for aluminium	1 Sqm	5,164.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		door frame and shutter sections etc complete finished item of work .		
600	TBSC-L.III-33	Supply and fixing of Bath room / Toilet door shutter with 16mm BISON Lam (IS 15786) door shutter with all round 'U' lipping of PPS section of size 12mm X 18mmX 12mmX0.6mm thickness with a hardware of 12mm dia X200mm long aluminium aldrop - 2 nos(Jyothi make)2 No of 125mm long handles(Jyothi make) and also 3 no Of IS304 grade Patee Hinge s 3mmX12mmX180mm long with pole receiver of 10mm dia pole X40mm long welded on 2mm X40mm(ss304) plates works as receiver for RT patte hinges. The price inclusive of all material at site.	1 Sqm	3,341.00
601	TBSC-L.III-34	Providing and Fixing Doors Frames (Color Coated Steel Sections) & Shutter using Cement Bonded Particle Board as per IS 14276 (Bison Panel ) : Providing and fixing of door frame made from cold roll formed sections made of galvanized (Base steel as per IS277 with zinc of 120 Gms/sqm) color coated steel sections with total coated thickness of 1mm, primer coated with epoxy primer coat of 5-7 microns thick, finish paint with polyester paint of 12-16 microns. The Section for door frame is to be filled with polyurethane (P.U) form of 40kg/m3. Overall size of frame section should be of 50mm x 50mm. With necessary corner brackets, stiffeners, hinges, and screws. Cement Bonded particle board shutter (Bison Panel ) "Single Leaf" with all round styles "U" section of size 12m x 18m x 12mm made from 0.6 mm thick galvanized, color coated cold rolled steel profiles with 16mm thick Cement Bonded particle Board (Bison Panel ) with necessary screws fixed at every 1'-0" (304.8mm) intervals. The cost inclusive of MS nickel coated Aldrop of size 250mm long 2nos. 200mm long tower bolt 1no., 125mm handles2nos., cost and conveyance of all materials at site and applying one coat primer , one coat of lappum and two coats of synthetic enamel paint as per approved design for finished item of work	1 Sqm	4,784.00
IV	SUB-SECTION	<b>CUP-BOARD DOORS</b>		
602	TBSC-L.IV-01	Supply and fixing of cup board frames and shutters and using 16mm Cement Bonded Particle Board conforming to IS 14276 duly painted both sides with one coat of primer and two coats of synthetic / enamel paint of approved shade and brand including fixing of hardware like M.S. powder coated Piano hinges of size 18mm x 18mm, brass ball catches, Aluminium tower bolts and handles , Godrej locks, synthetic glue, screws and nails including cost and conveyance of all materials, labour charges, all incidental and operational charges etc., complete for finished item of work at site as per the directions of Engineer in Charge.	1 Sqm	2,462.00
603	TBSC-L.IV-02	Supply and fixing of box type cup board using Cement Bonded Particle Board conforming to IS 14276 for making frame of size 100mm x 35mm using two sandwiched 16MM boards, one Cement Bonded Particle Board conforming to IS 14276 and one Cement Bonded Prelaminated Particle Board with plain 35mm wood lipping. The Shutters are made of 16MM thick Cement Bonded Prelaminated Particle Board (Pre-Laminated Cement Bonded Particle Board) of approved shade inclusive of hardware like M.S. powder coated Piano hinges of size ¾" x ¾" , Aluminium powder coated handles of size 4" (101.6mm), Aluminium tower bolt 4"	1 Sqm	4,046.00

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		(101.6mm) Godrej locks, screws, wood lipping and synthetic glue etc., complete finish item of work.		
604	TBSC-L.IV-03	Supply and fixing of PVC cupboards for kitchen and bedrooms shall be made out of multi chambered PVC sections having overall dimensions of 20 X 762mm with a wall thickness of 1.2mm $\pm$ 0.3mm. The cabinets shall be made as per the requirements of the room with groove system. The PVC section surface shall be plain and laminated finish to have good look, completed, for finished item of work for SINTEX OR equivalent PVC CABINETS	1 Sqm	4,208.00
605	TBSC-L.IV-04	Supply and fixing of cupboard shutter using teakwood scantling of size 50 mm x 50 mm teakwood as outer frame and 50 mm x 30 mm of size teakwood for shutter frames, 8mm thick Bison Lam as panel to each shutter consist of 2 Nos 75mm long tower bolt - 2 nos 75 mm big handle the and other shutter will have 1 no of cupboard lack , 1 No of 75 mm long handle and 75 mm x 10mm x 1mm thick SS hinges- 2 Nos for each shutter. The above frame will be fixed to the wall with screws, the rate inclusive of screws, handle, etc., complete at site of work	1 Sqm	4,475.00
606	TBSC-L.IV-05	Supply & erection of open shelves using cement bonded particle board (Bison Panel) confirming to IS 14276 with 20mm thick board for sides & shelves, 8mm back liner with 15 "depth, Each shelf height 12" to 15" with all hardware screws & nails	1 Sqm	2,373.00
<b>M</b>	<b>SECTION</b>	<b>WINDOWS</b>		
		(Excluding taxes but including cost of loading, cost of conveyance, unloading & stacking)		
<b>I</b>	<b>SUB-SECTION</b>	<b>OPENABLE WINDOWS</b>		
607	TBSC-M.I-01	Supply and fixing of pre-painted steel casement/ open able windows base steel as per IS 513 of - 0.58 mm thick 'D quality, galvanized as per IS 277, finish painted with a polyester paint, section for outer frame of 46 x 52 mm section for shutter of 46 x 46 mm section for mullion 46 x 70 mm, and section for beading 18 x 25 mm paneled with 5 mm thick plain float glass fitted with EPDM gaskets, handle made of high grade aluminium powder coated frames fixed to the concrete /masonry wall by means of self expanding screws including 10 mm square guard bars @ 150 mm pitch for Windows: Double shutter for sizes 2'0 x 4'0 (609.6 x 1219.2 mm ) 3'-0 x 4'-0 (914.4mm x 1219.2 mm) without mullion section	1 Sqm	7,276.00
608	TBSC-M.I-02	Supply and fixing of pre-painted steel casement/ open able windows base steel as per IS 513 of - 0.58 mm thick 'D quality, galvanized as per IS 277, finish painted with a polyester paint, section for outer frame of 46 x 52 mm section for shutter of 46 x 46 mm section for mullion 46 x 70 mm, and section for beading 18 x 25 mm paneled with 5 mm thick plain float glass fitted with EPDM gaskets, handle made of high grade aluminium powder coated frames fixed to the concrete /masonry wall by means of self expanding screws including 10 mm square guard bars @ 150 mm pitch for Windows: Double shutter with mullion section for sizes 3'-0 x 4'-0 (914.4mm x 1219.2 mm) and 4'-0 x 4'-0 (1219.2x1219.2mm)	1 Sqm	7,696.00
609	TBSC-M.I-03	Supply and fixing of pre-painted steel casement/ open able windows base steel as per IS 513 of - 0.58 mm thick 'D quality, galvanized as per IS 277, finish painted with a polyester paint, section for outer frame of 46 x 52 mm section for shutter of 46 x 46 mm section for mullion 46	1 Sqm	7,485.00

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		x 70 mm, and section for beading 18 x 25 mm paneled with 5 mm thick plain float glass fitted with EPDM gaskets, handle made of high grade aluminium powder coated frames fixed to the concrete /masonry wall by means of self expanding screws including 10 mm square guard bars @ 150 mm pitch for Windows: Double shutter 4'-0 x 4'-0 (1219.2x1219.2mm) without Mullion section		
610	TBSC-M.I-04	Supply and fixing of pre-painted steel casement/ open able windows base steel as per IS 513 of - 0.58 mm thick 'D quality, galvanized as per IS 277, finish painted with a polyester paint, section for outer frame of 46 x 52 mm section for shutter of 46 x 46 mm section for mullion 46 x 70 mm, and section for beading 18 x 25 mm paneled with 5 mm thick plain float glass fitted with EPDM gaskets, handle made of high grade aluminium powder coated frames fixed to the concrete /masonry wall by means of self expanding screws including 10 mm square guard bars @ 150 mm pitch for Windows: Double shutter with Mullion section for sizes 4'-6 x 4'-6 (1371.6x1371.6mm) 5'-0 x 4'-0 (1524x1219.2mm) and 6'-0 x 4'-0 (1828.8x1219.2mm) and 6'-0 x 4'-6 (1828.8x1371.6mm)	1 Sqm	6,858.00
611	TBSC-M.I-05	Providing and fixing of Casement/ Open able Windows made of pre-painted steel as per IS 513 of 0.58 mm thick galvanized as per IS 277, finish painted with a polyester paint and section for outer frame of 48 x 50 mm, centre mullion of 48 x 50 mm, section for shutter of 48 x 25 mm and the fixed glass beading section should be 12 x 12 mm and the outer frame and mullions to have rebate for glazed shutter with a 20 mm provision for guard bars/grills, handle, stay, 2 nos. of stainless steel heavy duty pivot hinges provided per shutter and windows fitted with 5 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self expanding screws, Including 10mm Square guard bars with 6" (152.4mm) pitch etc., complete Single shutter Window without vertical mullion for size 2'0"x4'0" (609.6mm x 1219.2mm)	1 Sqm	6,555.00
612	TBSC-M.I-06	Providing and fixing of Casement/ Open able Windows made of pre-painted steel as per IS 513 of 0.58 mm thick galvanized as per IS 277, finish painted with a polyester paint and section for outer frame of 48 x 50 mm, centre mullion of 48 x 50 mm, section for shutter of 48 x 25 mm and the fixed glass beading section should be 12 x 12 mm and the outer frame and mullions to have rebate for glazed shutter with a 20 mm provision for guard bars/grills, handle, stay, 2 nos. of stainless steel heavy duty pivot hinges provided per shutter and windows fitted with 5 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self expanding screws, Including 10mm Square guard bars with 6" (152.4mm) pitch etc., complete Double shutter Window with vertical mullion for sizes 3'0" x 4'0" (914.4mm x 1219.2mm) and 4'0" x 4'0" (1219.2mm x 1219.2mm)	1 Sqm	6,968.00
613	TBSC-M.I-07	Providing and fixing of Casement/ Open able Windows made of pre-painted steel as per IS 513 of 0.58 mm thick galvanized as per IS 277, finish painted with a polyester paint and section for outer frame of 48 x 50 mm, centre mullion of 48 x 50 mm, section for shutter of 48 x 25 mm and the fixed glass beading section should be 12 x 12 mm and the outer frame and mullions to have rebate for	1 Sqm	6,140.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		glazed shutter with a 20 mm provision for guard bars/grills, handle, stay, 2 nos. of stainless steel heavy duty pivot hinges provided per shutter and windows fitted with 5 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self expanding screws, Including 10mm Square guard bars with 6" (152.4mm) pitch etc., complete Centre fixed both side open able shutter window for sizes 5'0"x4'0" (1524mm x1219.2mm) and 6'0"x4'0" (1828.8mm x1219.2mm)		
614	TBSC-M.I-08	Providing & Fixing of Open able Windows with Fly-mesh made of pre-painted steel as per IS 513 of 0.58 mm thick galvanized as per IS 277 finish painted with a polyester paint and the section for outer frame of 72 x 55mm, centre mullion of 72 x 50mm, section for fixed glass beading section of 12 x 12 mm and section for shutters of 48 x 25 mm and outer frame & mullion sections with rebate for glazed shutters, fly mesh and a 20 mm provision for guard bars/grills and fly mesh shutter section of 20 x 40 mm, stay, handles, latch 2 Nos of heavy duty stainless steel pivot hinges per shutter and paneled with 5mm thick plain float glass and S.S. Mesh for fly mesh shutter (304 grade), fitted using rubber gaskets including fixing the windows in the concrete/masonry wall by means of self expanding screws, including 10mm Square guard bars with 6" (152.4mm) pitch , complete for Single shutter Window 2'0"x4'0" (609.6mm x 1219.2mm)	1 Sqm	8,692.00
615	TBSC-M.I-09	Providing & Fixing of Open able Windows with Fly-mesh made of pre-painted steel as per IS 513 of 0.58 mm thick galvanized as per IS 277 finish painted with a polyester paint and the section for outer frame of 72 x 55mm, centre mullion of 72 x 50mm, section for fixed glass beading section of 12 x 12 mm and section for shutters of 48 x 25 mm and outer frame & mullion sections with rebate for glazed shutters, fly mesh and a 20 mm provision for guard bars/grills and fly mesh shutter section of 20 x 40 mm, stay, handles, latch 2 Nos of heavy duty stainless steel pivot hinges per shutter and paneled with 5mm thick plain float glass and S.S. Mesh for fly mesh shutter (304 grade), fitted using rubber gaskets including fixing the windows in the concrete/masonry wall by means of self expanding screws, including 10mm Square guard bars with 6" (152.4mm) pitch , complete for Double shutter Window with vertical mullion of sizes 3'0" x 4'0" ( 914.4mm x 1219.2mm) and 4'0" x 4'0" (1219.2mm x 1219.2mm)	1 Sqm	9,106.00
616	TBSC-M.I-10	Providing & Fixing of Open able Windows with Fly-mesh made of pre-painted steel as per IS 513 of 0.58 mm thick galvanized as per IS 277 finish painted with a polyester paint and the section for outer frame of 72 x 55mm, centre mullion of 72 x 50mm, section for fixed glass beading section of 12 x 12 mm and section for shutters of 48 x 25 mm and outer frame & mullion sections with rebate for glazed shutters, fly mesh and a 20 mm provision for guard bars/grills and fly mesh shutter section of 20 x 40 mm, stay, handles, latch 2 Nos of heavy duty stainless steel pivot hinges per shutter and paneled with 5mm thick plain float glass and S.S. Mesh for fly mesh shutter (304 grade), fitted using rubber gaskets including fixing the windows in the concrete/masonry wall by means of self expanding	1 Sqm	8,280.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		screws, including 10mm Square guard bars with 6" (152.4mm) pitch , complete for Centre fixed both side open able shutter window for a size 5'0"x4'0" (1524mm x1219.2mm).		
617	TBSC-M.I-11	Providing & Fixing of Open able Windows with Fly-mesh made of pre-painted steel as per IS 513 of 0.58 mm thick galvanized as per IS 277 finish painted with a polyester paint and the section for outer frame of 72 x 55mm, centre mullion of 72 x 50mm, section for fixed glass beading section of 12 x 12 mm and section for shutters of 48 x 25 mm and outer frame & mullion sections with rebate for glazed shutters, fly mesh and a 20 mm provision for guard bars/grills and fly mesh shutter section of 20 x 40 mm, stay, handles, latch 2 Nos of heavy duty stainless steel pivot hinges per shutter and paneled with 5mm thick plain float glass and S.S. Mesh for fly mesh shutter (304 grade), fitted using rubber gaskets including fixing the windows in the concrete/masonry wall by means of self expanding screws, including 10mm Square guard bars with 6" (152.4mm) pitch , complete for a size 6'0"x4'0" (1828.8mm x1219.2mm)	1 Sqm	7,244.00
618	TBSC-M.I-12	Providing & Fixing of Mesh windows made of pre-painted steel (Base Steel as per IS 513 of 0.58mm thick galvanized as per IS 277 primer coated with epoxy primer finish painted with a polyester paint, section for outer frame of 47 x 36 mm, centre mullion of 60 x 36 mm, section mesh beading 18 x 6 mm and Fly mesh shutter section of 20 x 40 mm, the sections cut to length meter joined with corner bracket and centre mullions fixed with mullion cap, handles, latch, 2 Nos of heavy duty stainless steel pivot hinges per S.S. Mesh for fly mesh shutter (304 grade) including fixing the frames in the concrete/masonry wall by means of self expanding screws complete for finished item of work.	1 Sqm	5,414.00
619	TBSC-M.I-13	Providing and fixing of Open able / Casement Windows made of pre-painted steel as per IS 513 of 0.80 mm thick galvanized as per IS 277 finish painted with a polyester paint and section for outer frame of 80 x 45 mm, centre mullion of 80 x 60 mm, section for shutter of 52 x 25 mm x 0.6 mm thick, outer frame and mullions to have rebate for glazed shutter with a provision for guard bars/grills, centre mullion fixed with mullion cap, 1 No. of High grade nylon latch handle, window stopper, 2 nos. of with MS Powder coated /SS ball bearing butt Hinges provided per shutter and windows fitted with 4 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self expanding screws, Including 10 mm Square guard bars with 6" (152.4mm) pitch etc., complete for Single open able shutter window size of 2' 0" x 4' 0" (609.6 x 1219.2mm)	1 Sqm	5,780.00
620	TBSC-M.I-14	Providing and fixing of Open able / Casement Windows made of pre-painted steel as per IS 513 of 0.80 mm thick galvanized as per IS 277 finish painted with a polyester paint and section for outer frame of 80 x 45 mm, centre mullion of 80 x 60 mm, section for shutter of 52 x 25 mm x 0.6 mm thick, outer frame and mullions to have rebate for glazed shutter with a provision for guard bars/grills, centre mullion fixed with mullion cap, 1 No. of High grade nylon latch handle, window stopper, 2 nos. of with MS Powder coated /SS ball bearing butt Hinges provided	1 Sqm	6,144.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		per shutter and windows fitted with 4 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self expanding screws, Including 10 mm Square guard bars with 6" (152.4mm) pitch etc., complete for Double open able shutter window Size of 3' 0" x 4' 0" (914.4mm x 1219.2mm) and 4'0" x 4'0" (1219.2mm x 1219.2mm)		
621	TBSC-M.I-15	Providing and fixing of Open able / Casement Windows made of pre-painted steel as per IS 513 of 0.80 mm thick galvanized as per IS 277 finish painted with a polyester paint and section for outer frame of 80 x 45 mm, centre mullion of 80 x 60 mm, section for shutter of 52 x 25 mm x 0.6 mm thick, outer frame and mullions to have rebate for glazed shutter with a provision for guard bars/grills, centre mullion fixed with mullion cap, 1 No. of High grade nylon latch handle, window stopper, 2 nos. of with MS Powder coated /SS ball bearing butt Hinges provided per shutter and windows fitted with 4 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self expanding screws, Including 10 mm Square guard bars with 6" (152.4mm) pitch etc., complete for 5'0 x 4'0 ( 1524 x 1219.2mm) and 6'0 x4'0 ( 1829.6 x 1219.2mm)	1 Sqm	5,414.00
622	TBSC-M.I-16	Providing and fixing of Open able / Casement Windows with fly mesh made of pre-painted steel as per IS 513 of 0.80 mm thick galvanized as per IS 277, finish painted with a polyester paint and section for outer frame of 100 x 45 mm, centre mullion of 100 x 60 mm, section for shutter of 52 x 25 mm x 0.6 mm thick, section for fly-shutter of 52 x 25 mm x 0.6 mm thick and fitted with stainless steel 32 gauge fly mesh of 304 grade and mullions to have double rebate for glazed shutter and fly-shutter with a provision for guard bars/grills and the sections, 1 No. of High grade nylon latch handle, window stopper, 2 nos. of with MS Powder coated /SS ball bearing butt Hinges provided per shutter and windows fitted with 4 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self expanding screws, Including 10 mm Square guard bars with 6" (152.4mm) pitch etc., complete for 2' 0" x 4' 0" (609.6 x 1219.2mm)	1 Sqm	7,666.00
623	TBSC-M.I-17	Providing and fixing of Open able / Casement Windows with fly mesh made of pre-painted steel as per IS 513 of 0.80 mm thick galvanized as per IS 277, finish painted with a polyester paint and section for outer frame of 100 x 45 mm, centre mullion of 100 x 60 mm, section for shutter of 52 x 25 mm x 0.6 mm thick, section for fly-shutter of 52 x 25 mm x 0.6 mm thick and fitted with stainless steel 32 gauge fly mesh of 304 grade and mullions to have double rebate for glazed shutter and fly-shutter with a provision for guard bars/grills and the sections, 1 No. of High grade nylon latch handle, window stopper, 2 nos. of with MS Powder coated /SS ball bearing butt Hinges provided per shutter and windows fitted with 4 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self expanding screws, Including 10 mm Square guard bars with 6" (152.4mm) pitch etc., complete for 3' 0" x 4' 0" (914.4mm x 1219.2mm) and 4'0" x 4'0" (1219.2mm x 1219.2mm)	1 Sqm	8,031.00
624	TBSC-M.I-18	Providing and fixing of Open able / Casement Windows with fly mesh made of pre-painted steel as per IS 513 of	1 Sqm	7,301.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		0.80 mm thick galvanized as per IS 277, finish painted with a polyester paint and section for outer frame of 100 x 45 mm, centre mullion of 100 x 60 mm, section for shutter of 52 x 25 mm x 0.6 mm thick, section for fly-shutter of 52 x 25 mm x 0.6 mm thick and fitted with stainless steel 32 gauge fly mesh of 304 grade and mullions to have double rebate for glazed shutter and fly-shutter with a provision for guard bars/grills and the sections, 1 No. of High grade nylon latch handle, window stopper, 2 nos. of with MS Powder coated /SS ball bearing butt Hinges provided per shutter and windows fitted with 4 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self expanding screws, Including 10 mm Square guard bars with 6" (152.4mm) pitch etc., complete for 5'0 x 4'0 ( 1524 x 1219.2mm) and 6'0 x4'0 ( 1829.6 x 1219.2mm)		
625	TBSC-M.I-19	Galvanized powder coated Casement Windows with open able shutters duly manufactured using pressed steel sections in mild steel conforming to IS 513 of having 1.0 mm thick and galvanized as per IS 277 of 120 GSM surface treatment with pure polyester powder coating of 30-40 microns thick and section for outer frame of 60x50mm, centre for mullion of 62x50mm, section for shutter of 52 x 22 mm, outer frame and mullions to have one side rebate for glazed shutter of size 24 mm and 10x10 mm square guard bars provided at 125 mm c/c the sections assembled with bolt & nut assembly with zinc-electroplated M-5 bolts, GI Handle of size 80 mm x 15 mm -1 No per shutter, 2 nos of stainless steel heavy duty pivot hinges of size 3 of SS 304 Grade per shutter, window panes with 5 mm thick plain float glass and fixed with glass beading section of 10x12 mm size with 0.8 mm thick powder coated aluminium 'U' channel and window frames fixing to the concrete/masonry wall arrangement with self expanding screws, complete for finished item of work including of all taxes - 1220 x 1372 or below size	1 Sqm	6,548.00
626	TBSC-M.I-20	Galvanized powder coated Casement Windows with open able shutters duly manufactured using pressed steel sections in mild steel conforming to IS 513 of having 1.0 mm thick and galvanized as per IS 277 of 120 GSM surface treatment with pure polyester powder coating of 30-40 microns thick and section for outer frame of 60x50mm, centre for mullion of 62x50mm, section for shutter of 52 x 22 mm, outer frame and mullions to have one side rebate for glazed shutter of size 24 mm and 10x10 mm square guard bars provided at 125 mm c/c the sections assembled with bolt & nut assembly with zinc-electroplated M-5 bolts, GI Handle of size 80 mm x 15 mm -1 No per shutter, 2 nos of stainless steel heavy duty pivot hinges of size 3 of SS 304 Grade per shutter, window panes with 5 mm thick plain float glass and fixed with glass beading section of 10x12 mm size with 0.8 mm thick powder coated aluminium 'U' channel and window frames fixing to the concrete/masonry wall arrangement with self expanding screws, complete for finished item of work including of all taxes - 1530 x 1372 or above size	1 Sqm	5,867.00
627	TBSC-M.I-21	Galvanized powder coated Casement Windows with open able shutters duly manufactured using pressed steel sections in mild steel conforming to IS 513 of having 1.0 mm thick and galvanized as per IS 277 of 120 GSM surface treatment with pure polyester powder coating of	1 Sqm	8,228.00



Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		30-40 microns thick and section for outer frame of 88x50mm, centre for mullion of 62x88 mm, section for glass and fly-proof mesh shutter of 52 x 22 mm, outer frame and mullions to have two sides rebate for glazed shutter of size 24 mm and 10x10 mm square guard bars provided at 125 mm c/c the sections assembled with bolt & nut assembly with zinc-electroplated M-5 bolts, GI Handle of size 80 mm x 15 mm -1 No per shutter, 2 Nos of stainless steel heavy duty pivot hinges of size 3 of SS 304 Grade per shutter, window panes with 5 mm thick plain float glass and fixed with glass beading section of 10x12 mm size with 0.8 mm thick powder coated aluminium 'U' channel and fly-proof mesh of SS 304 grade fixed with 18 mm x 12 mm BT wood beading and window frames fixing arrangement to the concrete/masonry wall with self expanding screws, complete for finished item of work including of all taxes - 1220 x 1372 or below size		
628	TBSC-M.I-22	Galvanized powder coated Casement Windows with open able shutters duly manufactured using pressed steel sections in mild steel conforming to IS 513 of having 1.0 mm thick and galvanized as per IS 277 of 120 GSM surface treatment with pure polyester powder coating of 30-40 microns thick and section for outer frame of 88x50mm, centre for mullion of 62x88 mm, section for glass and fly-proof mesh shutter of 52 x 22 mm, outer frame and mullions to have two sides rebate for glazed shutter of size 24 mm and 10x10 mm square guard bars provided at 125 mm c/c the sections assembled with bolt & nut assembly with zinc-electroplated M-5 bolts, GI Handle of size 80 mm x 15 mm -1 No per shutter, 2 Nos of stainless steel heavy duty pivot hinges of size 3 of SS 304 Grade per shutter, window panes with 5 mm thick plain float glass and fixed with glass beading section of 10x12 mm size with 0.8 mm thick powder coated aluminium 'U' channel and fly-proof mesh of SS 304 grade fixed with 18 mm x 12 mm BT wood beading and window frames fixing arrangement to the concrete/masonry wall with self expanding screws, complete for finished item of work including of all taxes - 1530 x 1372 or above size	1 Sqm	7,564.00
629	TBSC-M.I-23	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) casement windows open able shutters duly manufactured using UPVC reinforced profiles of (48 mm x 60 mm)/ (58 mm x 60 mm) x 2.0 mm for outer frames, (64 mm x 60 mm)/(72 mm x 60mm) x 2.0 mm for mullion sections for two or more open able shutters and (78 mm x 60 mm)/(72 mm x 42 mm) x 2.0 mm for outward open able shutter frame or (70 mm x 60 mm)/ (72 mmx 42 mm) x 2.0 mm for inward open able shutter frame capable of mounting single glazing system structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm prefabricated & welded through fusion welding the window sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with TPV Gaskets/ EPDM weathering seal resistant accessories for casement window - friction stay hinges of stainless steel grade 304- 2 Nos., per sash, handle with mazak alloy casting 1 No. per sash, locking system suitably concealed 1 No., per sash provided with raiser wedges for smooth operation and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials,	1 Sqm	6,275.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		accessories, labour charges for transportation, erection at site with templates for casement sizing complete for finished item of work		
630	TBSC-M.I-24	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) casement windows openable shutters duly manufactured using UPVC reinforced profiles (Composition of profile shall consists a minimum of 5.5 PHR of TiO <sub>2</sub> and not more than 12 PHR of CaCo <sub>3</sub> for every 100 parts of PVC resin) of 60 mm x 55 mm x 2.40 mm for outer frames, 74 mm x 60 mm x 2.40 mm for mullion sections for two or more openable shutters 75 mm x 60 mm x 2.40 mm for openable shutter frame capable of mounting single glazing system structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.0/1.2 mm prefabricated & welded through fusion welding. The window sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with Grey colour TPV Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC and accessories for casement window - friction hinges of stainless steel grade 304/430- 2 Nos., per sash, handle with mazak alloy casting 1 No. per sash, multipoint locking system suitably concealed 1 No., per sash provided with raiser wedges for smooth operation and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.	1 Sqm	7,521.00
631	TBSC-M.I-25	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) casement windows openable shutters duly manufactured using UPVC reinforced profiles of 60 mm x 60 mm x 2.60 mm for outer frames, 82 mm x 60 mm x 2.60 mm for Fix mullion ("T" or "Z" )made of 60mm x 82mm uPVC profile section with steel reinforcement of size 35mm x 28mm x 1.5mm shall be provided in windows having fixed panel as per the requirement. The shutter of outward open able window shall be made of size 60mm x 77mm or for inward open able window shall be made of size 60mm x 78mm; "T" shaped for outward open or "Z" shaped for Inward open extruded 3 box multi-chamber uPVC window profile section of white colour having outer wall thickness of 2.6mm (± 0.2mm) provided with reinforcement of minimum 1.5mm thick G/J/U/S/O type GI section prefabricated & welded through fusion welding. The window sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC and accessories for casement window - friction hinges of stainless steel grade 304- 2 Nos., per sash, handle 1 No. per sash, multipoint locking system suitably concealed 1 No., per sash provided with raiser wedges for smooth operation and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.	1 Sqm	7,739.00
		Supply and fixing of Pre Laminated Cement Bonded Particle Board (as per IS-14276) WINDOWS with Pre-Painted Steel Sections fabricated from pre-painted Cold rolled formed sections made of galvanized steel color		

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		coated sections {Base steel as per 15-512 quality, galvanized as per IS-277 with Zinc of 120 gram/sqm) with total coated thickness of 0.58mm primer coated with epoxy primer of 5-7 microns thick, finish painted with polyester paint of 12-16 microns and back coated with alkyd backer of 5-7 microns), the sections for outer frame and centre mullion (duly filled with PU form of 40 kg/Cum) should be of 60mm x 50mm, with provision for fixing glazed shutter. The section for glazed/paneled shutter should be of size 48mm x 25 mm and another section of size 60mm x 23mm should be provided for separating glazed and paneled portion 5 mm thick colour pin headed glass is to be provided for glazing and providing guard bars of 10mm square rods duly welded at 150mm pitch to MS flat section of size 18mm and 3mm thick. Windows are to be fixed to wall by means of self expansion nylon Cap (75) and electroplated wooden screws of size 100mm, including aluminum powder coated fittings, A) 75mm long grip handles 1 no per shutter, B) 75 mm long tower bolts 2 nos. per shutter, C) Heavy duty 55 Pivot hinges 2 nos per shutter, D) MS Powder coated telescopic stay 1no per shutter.		
632	TBSC-M.I-26	Pre Laminated Cement Bonded Particle Board (as per IS-14276) WINDOWS WITH PPS SECTIONS – Single shutter 2'0"x4'0" outer frame section size of 50mm x 60mm shutter frame section size of 48mm x 25mm	1 Sqm	7,743.00
633	TBSC-M.I-27	Pre Laminated Cement Bonded Particle Board (as per IS-14276) WINDOWS WITH PPS SECTIONS –Double shutter 3'0" x 4'0" outer frame section size of 50mm x 60mm shutter frame section size of 48mm x 25mm mullion section size of 50mm x 60mm for outer frame	1 Sqm	7,743.00
634	TBSC-M.I-28	Pre Laminated Cement Bonded Particle Board (as per IS-14276) WINDOWS WITH PPS SECTIONS – Double shutter 3'0" x 3'0" outer frame section size of 50mm x 60mm shutter frame section size of 48mm x 25mm Mullion section size of 50mm x 60mm for outer frame.	1 Sqm	7,743.00
635	TBSC-M.I-29	Pre Laminated Cement Bonded Particle Board (as per IS-14276) WINDOWS WITH PPS SECTIONS – Double shutter 4'0"x4'0" outer frame section size of 50mm x 60mm shutter frame section size of 48mm x 25mm Mullion section size of 50mm x 60mm for outer frame.	1 Sqm	7,743.00
636	TBSC-M.I-30	Cement Bonded Particle Plank - Bison Planks- 8 mm - Available size - 150 mm X 2440 mm and 200 mm X2440mm	1 Sqm	630.00
637	TBSC-M.I-31	Cement Bonded Particle Plank - Bison Planks - 10 mm - Available size - 150 mm X 2440 mm and 200 mm X2440mm	1 Sqm	772.00
638	TBSC-M.I-32	Cement Bonded Particle Plank - Bison Planks - 12 mm - Available size - 150 mm X 2440 mm and 200 mm X2440mm	1 Sqm	944.00
639	TBSC-M.I-33	Cement Bonded Particle Board Conforming to Is 14276 - 18 Mm Thick	1 Sqm	762.00
640	TBSC-M.I-34	Pre-Laminated Cement Bonded Particle Board (Bison Lam) Conforming to Is 15786 - 18 Mm Thick	1 Sqm	1,081.00
641	TBSC-M.I-35	Cement Bonded Particle Designer Board (Bison Panel- Is 14276) Available Designs 1. Lumber 2. Quadra 3. Murk, Standard Size 8'x4' - 6mm Thickness	1 Sqm	298.00
642	TBSC-M.I-36	Cement Bonded Particle Designer Board (Bison Panel- Is 14276) Available Designs 1. Lumber 2. Quadra 3. Murk, Standard Size 8'x4' - 8 Mm Thickness	1 Sqm	359.00
643	TBSC-M.I-37	Cement Bonded Particle Designer Board (Bison Panel- Is 14276) Available Designs 1. Lumber 2. Quadra 3 Murk,	1 Sqm	451.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		Standard Size 8'x4'- 10mm Thickness		
644	TBSC-M.I-38	Cement Bonded Particle Designer Board (Bison Panels 14276) Available Designs 1. Lumber 2. Quadra 3. Murk, Standard Size 8'x4'- 12mm Thickness	1 Sqm	553.00
645	TBSC-M.I-39	Cement Bonded Particle Designer Board (Bison Panel s 14276) Available Designs 1. Lumber 2. Quadra 3. Murk, Standard Size 8'x4' 16mm Thickness	1 Sqm	729.00
646	TBSC-M.I-40	50 mm Thick wall panels (sandwich wall panels) with 5 mm thick Cement bonded particle boards Facings and light weight EPS concrete as core materials.	1 Sqm	807.00
647	TBSC-M.I-41	75 mm Thick wall panels (sandwich wall panels) with 5 mm thick Cement bonded particle boards Facings and light weight EPS concrete as core materials	1 Sqm	1,211.00
648	TBSC-M.I-42	100 mm Thick wall panels (sandwich wall panels) with 5mm thick Cement bonded particle boards Facings and light weight EPS concrete as core materials.	1 Sqm	1,816.00
II	SUB-SECTION	<b>SLIDING WINDOWS</b>		
649	TBSC-M.II-01	Providing and fixing 2 Track 2 glass shutter sliding Windows fabricated from roll formed sections made of Galvanized Steel Colour Coated/ Powder Coated (Base Steel as per IS 513 "D" quality, Galvanized as per IS 277 with Zinc of 120 GM/Sq.mtr) with total coated thickness of 0.58 mm. Primer coat with epoxy primer of 5-7 micron thick, finish painted with polyester paint of 12-16 microns thick and back coated with alkyd backer of 5-7 microns or Powder Coated with pure Polyester Powder up to 50-60 microns thick. Section for external frame should be of 44 x 59mm, Section for glass shutter should be of 35 x 49 mm Section for euro groove should be 25 x 24mm( Aluminium/Plastic)and Lap Strip should be of 30 x 41mm(Aluminium/Plastic).shutter should be provided with a glass of 5mm Plain Float Glass. Corner bracket for External frame made of Steel/Polypropylene, Corner Bracket for Internal frame made of Steel/Polypropylene, Touch Lock, Rollers, wool pile for lap strip & euro groove, Bump Stop Base & Rubber for shutter stopper. Ethyl Propylene Diamine Monomer (EPDM) Gasket should be used all around glass in shutter. The Frame Section should be cut to length and mitre joined with Corner brackets & Shutter Sections should be cut to length and mitre joined with Corner Bracket. Window Frame should be fixed to brick/ concrete masonry by using Nylon self-expanding caps and driving MS electroplated 80mm long screws into the caps through frames.10mm square guard bars with 6" pitch (152.4mm) max to be fixed wall to wall and all taxes complete for finished item of work	1 Sqm	7,813.00
650	TBSC-M.II-02	Providing and fixing of Two shutter Sliding Windows made of Galvanized Steel as per IS 513, D quality, galvanized as per IS 277 with powder coated with Pure polyester powder up to 50-60 microns thick with total coated thickness of 0.8 mm for Outer Frame and 0.58 mm thickness for Sliding Shutter Section, the Outer Frame for Two Tracks without grill provision is of 75 mm x 50 mm and the Window Shutter section of 58 mm x 36 mm and the outer Frame with two integrated guide tracks of 12mm width and 24mm deep for provision to slide the Shutter / sash frame and facilitates with a water drain outlet component made of PVC and the shutter frame fitted with 5mm thick plain float glass of reputed make and fixed with EPDM weathering seal resistant accessories and handle made of Aluminium 1 No. per each shutter including installation of window	1 Sqm	5,657.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		system at site using anchor fasteners, Silicon sealant applied at the Outer frame corners inclusive of conveyance of all materials accessories, labour charges, and erection at site with complete finished item of work for Window with Two Sliding Shutters and without Grill		
651	TBSC-M.II-03	Providing and fixing of Two shutter Sliding Windows made of Galvanized Steel as per IS 513, D quality, galvanized as per IS 277 with powder coated with Pure polyester powder up to 50-60 microns thick with total coated thickness of 0.8 mm for Outer Frame and 0.58 mm thickness for Sliding Shutter Section, the Outer Frame for Two Tracks with Grill provision size of 90 mm x 50 mm and the Window Shutter section of 58 mm x 36 mm and the outer Frame with two integrated guide tracks of 12mm width and 24mm deep for provision to slide the Shutter / sash frame and facilitates with a water drain outlet component made of PVC and the shutter frame fitted with 5mm thick plain float glass of reputed make and fixed with EPDM weathering seal resistant accessories and handle made of Aluminium 1 No. per each shutter including installation of window system at site using anchor fasteners, Silicon sealant applied at the Outer frame corners inclusive of conveyance of all materials accessories, labour charges, and erection at site with complete finished item of work for Window with Two Sliding Shutters and with Grill	1 Sqm	6,273.00
652	TBSC-M.II-04	Providing and fixing of Three shutter Sliding Windows made of Galvanized Steel as per IS 513, D quality, galvanized as per IS 277 powder coated with Pure polyester powder and thickness of 0.8 mm for Outer Frame and 0.58 mm thickness for Sliding Shutter Section, with two integrated guide tracks of 12mm width and 24mm deep for provision to slide the Shutter / sash frame and facilitates with a water drain outlet component made of PVC and the shutter frame fitted with 5mm thick plain float glass of reputed make and fixed with EPDM weathering seal resistant accessories and handle made of Aluminium 1 No. per each shutter and including installation of window system at site using anchor fasteners, Silicon sealant applied at the Outer frame corners inclusive of conveyance of all materials accessories, labour charges, and erection at site with complete finished item of work for i) Centre Shutter Fixed: centre shutter frame made of section with size 20mm x 47mm should be fitted with 5mm thick plain float glass of reputed make, EPDM gasket all around the glass and fixed to the Outer Frame with the supporting section of size 29mm x 20mm of 0.58mm thick fixed horizontally on top and bottom of the shutter frame.	1 Sqm	6,626.00
653	TBSC-M.II-05	Providing and fixing of Three shutter Sliding Windows made of Galvanized Steel as per IS 513, D quality, galvanized as per IS 277 powder coated with Pure polyester powder and thickness of 0.8 mm for Outer Frame and 0.58 mm thickness for Sliding Shutter Section, with two integrated guide tracks of 12mm width and 24mm deep for provision to slide the Shutter / sash frame and facilitates with a water drain outlet component made of PVC and the shutter frame fitted with 5mm thick plain float glass of reputed make and fixed with EPDM weathering seal resistant accessories and handle made of Aluminium 1 No. per each shutter and including installation of window system at site using	1 Sqm	7,256.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		anchor fasteners, Silicon sealant applied at the Outer frame corners inclusive of conveyance of all materials accessories, labour charges, and erection at site with complete finished item of work for ii) Centre Shutter Sliding: centre shutter frame made of section of size 20mm x 47mm should be fitted with 5 mm thick plain float glass of reputed make. The supporting guide section of size 15mm x 19mm of 0.58mm thick fixed horizontally at top and bottom of shutter frame and slides along the bottom and top guide tracks made of sections size 24mm x 20mm of 0.58mm thick and 29mm x 20mm of 0.58mm thick and iii) Centre Fly mesh Shutter Sliding: Section for Fly mesh Shutter frame should be of size 20mm x 40mm of 0.58mm thick and fitted with SS mesh (304 Grade). The supporting guide section of size 29mm x 20mm of 0.58mm thick at the bottom and 15mm x 19mm of 0.58mm thick at the top fixed horizontally to the Fly mesh frame and slides along the bottom and top guide tracks made of sections size 20mm x 20mm of 0.58mm and 29mm x 20mm of 0.58mm.		
654	TBSC-M.II-06	Providing and fixing of Three shutter Sliding Windows made of Galvanized Steel as per IS 513, D quality, galvanized as per IS 277 powder coated with Pure polyester powder and thickness of 0.8 mm for Outer Frame and 0.58 mm thickness for Sliding Shutter Section, with two integrated guide tracks of 12mm width and 24mm deep for provision to slide the Shutter / sash frame and facilitates with a water drain outlet component made of PVC and the shutter frame fitted with 5mm thick plain float glass of reputed make and fixed with EPDM weathering seal resistant accessories and handle made of Aluminium 1 No. per each shutter and including installation of window system at site using anchor fasteners, Silicon sealant applied at the Outer frame corners inclusive of conveyance of all materials accessories, labour charges, and erection at site with complete finished item of work for Window with 3 shutters (Centre fixed shutter / Centre sliding shutter / centre Fly mesh shutter) and without Grill Window made of Outer Frame of size 90mm x 50mm. i) Centre Shutter Fixed: centre shutter frame made of section with size 20mm x 47mm of 0.58mm thick should be fitted with 5mm thick plain float glass of reputed make, EPDM gasket all around the glass and fixed to the Outer Frame with the supporting section of size 29mm x 20mm of 0.58mm thick fixed horizontally on top and bottom of the shutter frame.	1 Sqm	5,942.00
655	TBSC-M.II-07	Providing and fixing of Three shutter Sliding Windows made of Galvanized Steel as per IS 513, D quality, galvanized as per IS 277 powder coated with Pure polyester powder and thickness of 0.8 mm for Outer Frame and 0.58 mm thickness for Sliding Shutter Section, with two integrated guide tracks of 12mm width and 24mm deep for provision to slide the Shutter / sash frame and facilitates with a water drain outlet component made of PVC and the shutter frame fitted with 5mm thick plain float glass of reputed make and fixed with EPDM weathering seal resistant accessories and handle made of Aluminium 1 No. per each shutter and including installation of window system at site using anchor fasteners, Silicon sealant applied at the Outer frame corners inclusive of conveyance of all materials	1 Sqm	6,502.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		accessories, labour charges, and erection at site with complete finished item of work for Window with 3 shutters (Centre fixed shutter / Centre sliding shutter / centre Fly mesh shutter) and without Grill Window made of Outer Frame of size 90mm x 50mm. ii) Centre Shutter Sliding: centre shutter frame made of section with size 20mm x 47mm of 0.58mm thick should be fitted with 5 mm thick plain float glass of reputed make. The supporting guide section of size 15mm x 19mm of 0.58mm thick fixed horizontally at top and bottom of shutter frame and slides along the bottom and top guide tracks made of sections size 24mm x 20mm of 0.58mm thick and 29mm x 20mm of 0.58mm thick.		
656	TBSC-M.II-08	Providing and fixing of Three shutter Sliding Windows made of Galvanized Steel as per IS 513, D quality, galvanized as per IS 277 powder coated with Pure polyester powder and thickness of 0.8 mm for Outer Frame and 0.58 mm thickness for Sliding Shutter Section, with two integrated guide tracks of 12mm width and 24mm deep for provision to slide the Shutter / sash frame and facilitates with a water drain outlet component made of PVC and the shutter frame fitted with 5mm thick plain float glass of reputed make and fixed with EPDM weathering seal resistant accessories and handle made of Aluminium 1 No. per each shutter and including installation of window system at site using anchor fasteners, Silicon sealant applied at the Outer frame corners inclusive of conveyance of all materials accessories, labour charges, and erection at site with complete finished item of work for Window with 3 shutters (Centre fixed shutter / Centre sliding shutter / centre Fly mesh shutter) and without Grill Window made of Outer Frame of size 90mm x 50mm. iii) Centre Fly mesh Shutter Sliding: Section for Fly mesh shutter frame should be of size 20mm x 40mm and fitted with SS mesh (304 Grade). The supporting guide section of size 29mm x 20mm of 0.58mm thick at the bottom and 15mm x 19mm of 0.58mm thick at the top fixed horizontally to the Fly mesh frame and slides along the bottom and top guide tracks made of sections size 20mm x 20mm of 0.58mm thick and 29mm x 20mm of 0.58mm thick.	1 Sqm	6,502.00
657	TBSC-M.II-09	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) 2 Track-2 Panel Sliding windows duly manufactured using UPVC reinforced profiles(Composition of profile shall consists a minimum of 5.5 PHR of TiO2 and not more than 12 PHR of CaCo3 for every 100 parts of PVC resin) of (62 mm x 60 mm)/(60 mm x 45 mm) x 2.20 mm for outer frames, (66 mm x 38 mm)/(58 mm x 39 mm) x 2.20 mm for sliding shutter frames capable of mounting single glazing system, structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.0/1.2 mm prefabricated & welded through fusion welding. The window sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with Grey colour TPV Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC. System shall have single point locking with Touch Lock and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished	1 Sqm	6,818.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		item of work.		
658	TBSC-M.II-10	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) 3 track sliding windows with mesh shutter provision - (only 2-glass shutters) duly manufactured using UPVC reinforced profiles (Composition of profile shall consists a minimum of 5.5 PHR of TiO2 and not more than 12 PHR of CaCo3 for every 100 parts of PVC resin) of (80 mm x 52 mm)/ (94 mm x 45 mm) x 2.20 mm for outer frames, (54 mm x 38 mm)/(39 mm x 58 mm) x 2.20 mm for sliding shutter frames capable of mounting single glazing system, structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.0/1.2 mm prefabricated & welded through fusion welding. The window sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with Grey colour TPV Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC. System shall have single point locking with Touch Lock and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work	1 Sqm	6,396.00
659	TBSC-M.II-11	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) 3 track sliding windows with mesh shutter - (2-glass shutters and 1-mesh shutter) duly manufactured using UPVC reinforced profiles (Composition of profile shall consists a minimum of 5.5 PHR of TiO2 and not more than 12 PHR of CaCo3 for every 100 parts of PVC resin) of (94 mm x 45 mm)/(80 mm x 52 mm) x 2.20 mm for outer frames, (58 mm x 39 mm)/(54 mm x 38 mm) x 2.20 mm for sliding shutter frames capable of mounting single glazing system structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.0/1.2 mm prefabricated & welded through fusion welding. The window sash shall be fitted with 5 mm thick clear float glass of reputed make and mesh shutter frame shall be (42 mm x 25 mm)/(52 mm x 21.5 mm) x 2.0 mm fitted with Vinyl Coated Fibre mesh- on rollers/ pulley duly fixed with Grey colour TPV Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC. System shall have single point locking with Touch Lock and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.	1 Sqm	7,119.00
660	TBSC-M.II-12	<b>Deleted</b>		<b>Deleted</b>
661	TBSC-M.II-13	Providing and Fixing Pre painted Steel Sliding Windows / Doors - 3 track sliding window /doors shutter with mesh shutter - (2 - glass shutters and 1 - mesh shutter) fabricated from Roll formed sections made of galvanized Steel colour coated/powder coated (Base Steel as per IS 513 'D' quality, galvanized as per IS 277 with zinc of 120 GM/Sq.mtr) with total coated thickness of 0.58mm. Primer coat with epoxy primer of 5-7 microns thick, finish painted with a polyester paint of 12-16 microns thick and back coated with Alkyd backer of 5-7 microns or powder coated with pure polyester powder up to 50-60 microns thick. Section for external frame should be of 44 x 107mm .Section for glass shutter and mesh shutter	1 Sqm	8,638.00



Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		in case of door should be of 35 x 67 mm Section for euro groove should be 25 x 31mm (Aluminium/ Plastic) (in case of window sections should be 35 x 49 mm and 25 x 24 mm and 30 x 41 mm) and Lap Strip should be of 39 x 41mm (30 x 41 mm & Touch lock for window ) (Aluminium/ Plastic. The doors/ windows should be paneled with 5mm thick plain float glass. Corner bracket for internal and external frame made of glass filled nylon. Gaskets are to be made of Ethyl Propylene Diamine Monomer (EPDM).The sections are to be cut to length, joined and assembled by means of corner bracket. The above frames should be fixed to the concrete/masonry walls by means of self expanding brackets & screws including 10mm square guard bars with 6" pitch (152.4mm) (in case of windows only) and all Taxes complete for finished item of work.		
662	TBSC-M.II-14	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) 2 Track-2 Panel Sliding windows duly manufactured using UPVC reinforced profiles of 60 mm x 49 mm x 2.20 mm for outer frames, 62 mm x 41 mm x 2.20 mm for sliding shutter frames capable of mounting single glazing system, structurally reinforced with 30 mm 15 mm x 1.5 mm with hot dip galvanized up to 50 microns of minimum thickness of 1.0/1.2 mm prefabricated & welded through fusion welding. The window sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with Grey colour TPV Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC. System shall have single point locking with Touch Lock and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.	1 Sqm	7,013.00
663	TBSC-M.II-15	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) 2 Track-2 Panel Sliding windows with mesh duly manufactured using UPVC reinforced profiles of 91 mm x 49 mm x 2.20 mm for outer frames, 62 mm x 41 mm x 2.20 mm for sliding shutter frames capable of mounting single glazing system, structurally reinforced with 30 mm 15 mm x 1.5 mm with hot dip galvanized up to 50 microns of minimum thickness of 1.0/1.2 mm and the shutter of fly screen with fibre mesh shall be made of size 21mm x 58mm extruded uPVC window profile section of white colour having outer wall thickness of 2.2mm (± 0.3mm) provided with reinforcement of minimum 1.5mm thick G/J/U/S/O type GI section duly mitred cut and thermal welded at all corners and prefabricated & welded through fusion welding. The window sash shall be fitted with 5 mm thick clear float glass of reputed make & Glazing bead shall be co-extruded with Grey colour soft PVC. System shall have single point locking with Touch Lock and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.	1 Sqm	8,118.00
III	SUB-SECTION	<b>VENTILLATORS</b>		
664	TBSC-M.III-01	Supply and fixing of pre-painted steel top hung and fixed louvered ventilators made of pre - painted steel as per	1 Sqm	7,978.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		IS 513 of -0.58 mm thick 'D quality, galvanized as per IS 277, finish painted with a polyester paint & 4 mm pinhead glass for ventilators with EPDM Gasket with handle made of high grade aluminium powder coated and nylon receiver, corner brackets made of CRCA with Zinc Phosphate, Mullion caps made of glass filled nylon, frames fixed to the concrete /masonry wall by means of self expanding screws including 10 mm square guard bars with 6 pitch complete for finished item of work for (i) Ventilators: Top Hung 2'-0 x 2'-0 (609.6x609.6mm) outer frame section size of 46mm x 52 mm shutter frame section size of 46mm x 46 mm and (ii) Ventilators: Top Hung 4'-0 x 2'-0 (1219.2x609.6mm) outer frame section size of 46 x 52 m shutter frame section size of 46 x 46 mm Mullion section size of 46 x 70 mm and (iii) Ventilators: Top Hung 4'-0 x 3'-0 (1219.2x914.4mm) outer frame section size of 46 x 52m m shutter frame section size of 46 x 46 mm Mullion section size of 46 x 70 mm		
665	TBSC-M.III-02	Supply and fixing of pre-painted steel top hung and fixed louvered ventilators made of pre - painted steel as per IS 513 of -0.58 mm thick 'D quality, galvanized as per IS 277, finish painted with a polyester paint & 4 mm pinhead glass for ventilators with EPDM Gasket with handle made of high grade aluminium powder coated and nylon receiver, corner brackets made of CRCA with Zinc Phosphate, Mullion caps made of glass filled nylon, frames fixed to the concrete /masonry wall by means of self expanding screws including 10 mm square guard bars with 6 pitch complete for finished item of work for (i) Ventilators: Fixed louvers 2'-0 x 2'-0 (609.6x609.6mm)(Box section) outer frame section size of 33 x 56 mm and (ii) Ventilators: Fixed louvers 4'-0 x 2'-0 (1219.2 x 609.6 mm) (Box section) outer frame section size of 33 x 56 mm Mullion section size of 33 x 56 mm and (iii) Ventilators: Fixed louvers 4'-0 x 3'-0 (1219.2 x 914.4 mm) (Box section) outer frame section size of 33 x 56 mm Mullion section size of 33 x 56 mm	1 Sqm	5,457.00
666	TBSC-M.III-03	Providing and fixing of top hung Ventilators made of pre-painted steel as per IS 513 of 0.80 mm thick galvanized as per IS 277 with a polyester paint with 1 No. of High grade nylon latch handle, window stopper, 2 nos. of with MS Powder coated /SS ball bearing butt Hinges provided per shutter and fitted with 4 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self expanding screws, Including 10 mm Square guard bars with 6" (152.4mm) pitch etc., complete for finished item of work for (i) Single open able ventilator shutter size of 2' 0" x 2' 0" (609.6 x 609.6mm) outer frame section size of 80 x 45mm, shutter frame section size of 52 x 25mm thick and (ii) Double open able ventilator shutter Size of 4' 0" x 2' 0" (1219.2mm x 609.6mm) outer frame section size of 80 x 45mm, shutter frame section size of 52 x 25mm, vertical mullion section size of 80 x 60 mm and (iii) Double open able fix shutter size of 4'0" x 3'0" (1219.2mm x 914.4mm) outer frame section size of 80 x 45mm , shutter frame section size of 52 x 25 mm ,Vertical mullion section size of 80 x 60 mm	1 Sqm	6,934.00
667	TBSC-M.III-04	Providing and fixing of louvered Ventilators made of pre-painted steel as per IS 513 of 0.80 mm thick galvanized	1 Sqm	4,748.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		as per IS 277 with a polyester paint with and fitted with 4 mm thick plain float glass including fixing the frames in concrete/masonry wall by means of self expanding screws, etc., complete for finished item of work for (i) Single fixed Louvers Ventilator size of 2' 0" x 2' 0" (609.6 x 609.6mm) outer frame box section size of 80 x 45mm and (ii) Double fixed Louvers ventilator Size of 4' 0" x 2' 0" (1219.2mm x 609.6mm) outer frame box section size of 80 x 45mm, vertical mullion section size of 80 x 60 mm and (iii) Double fixed Louvers Ventilator size of 4'0" x 3'0" (1219.2mm x 914.4mm) outer frame box section size of 80 x 45mm , Vertical mullion section size of 80 x 60 mm		
668	TBSC-M.III-05	Providing and fixing of top hung Ventilator with fly mesh made of pre-painted steel as per IS 513 of 0.80 mm thick galvanized as per IS 277 with Zinc, finish painted with a polyester paint, section for fly-shutter of 0.6 mm thick and fitted with stainless steel 32 gauge fly mesh of 304 grade and mullions to have double rebate for glazed shutter and fly-shutter with a provision for guard bars/grills and 1 No. of High grade nylon latch handle, window stopper, 2 nos. of with MS Powder coated /SS ball bearing butt Hinges provided per shutter and windows fitted with 4 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self expanding screws, Including 10 mm Square guard bars with 6" (152.4mm) pitch etc., complete for finished item of work for (i) Single open able ventilator shutter window size of 2' 0" x 2' 0" (609.6 x 609.6mm) outer frame section size of 100 x 45mm, Glazed and fly mesh shutter frame section size of 52 x 25mm thick and (ii) Double open able ventilator shutter window Size of 4' 0" x 2' 0" (1219.2mm x 609.6mm) outer frame section size of 100 x 45mm, Glazed and fly mesh shutter frame section size of 52 x 25mm, vertical mullion section size of 100 x 60 mm and (iii) Double open able fix shutter window size of 4'0" x 3'0" (1219.2mm x 914.4mm) outer frame section size 100 x 45mm , Glazed and fly mesh shutter frame section size 52 x 25 mm ,Vertical mullion section size of 100 x 60 mm	1 Sqm	8,578.00
669	TBSC-M.III-06	Providing and fixing of top hung Ventilator with fly mesh made of pre-painted steel as per IS 513 of 0.80 mm thick galvanized as per IS 277 with Zinc, finish painted with a polyester paint, section for fly-shutter of 0.6 mm thick and fitted with stainless steel 32 gauge fly mesh of 304 grade and mullions to have double rebate for glazed shutter and fly-shutter with a provision for guard bars/grills and 1 No. of High grade nylon latch handle, window stopper, 2 nos. of with MS Powder coated /SS ball bearing butt Hinges provided per shutter and windows fitted with 4 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self expanding screws, Including 10 mm Square guard bars with 6" (152.4mm) pitch etc., complete for finished item of work for (i) Single fixed Louvers Ventilator window size of 2' 0" x 2' 0" (609.6 x 609.6mm) outer frame box section size of 100 x 45mm, fly mesh shutter frame section size 52 x 25 mm and (ii) Double fixed Louvers ventilator window Size of 4' 0" x 2' 0" (1219.2mm x 609.6mm) outer frame box section size of 100 x 45mm,	1 Sqm	5,780.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		fly mesh shutter frame section size 52 x 25 mm, vertical mullion section size of 100 x 60 mm and (iii) Double fixed Louvers Ventilator window size of 4'0" x 3'0" (1219.2mm x 914.4mm) outer frame box section size 100 x 45mm , fly mesh shutter frame section size 52 x 25 mm Vertical mullion section size of 100 x 60 mm		
670	TBSC-M.III-07	Providing, supplying & fixing of Fixed Louvered Ventilator made out of multi chambered uPVC sections with Glazing bead shall be co-extruded with Grey colour soft PVC. having isolated drainage and reinforced with Galvanized Iron profiles throughout the window. The outer frame having an overall size of 60 mm x 55 mm x 2.40 with reinforcement of 1 mm thickness and Mullion with overall size of 74 mm x 60 mm x 2.40 mm with reinforcement of 1 mm thickness. (Composition of profile shall consists a minimum of 5.5 PHR of TiO2 and not more than 12 PHR of CaCo3 for every 100 parts of PVC resin).Ventilator shall be provided with 4.5 mm Pin Head glass, standard hardware. Wall thickness of frame & Mullion shall be 2.4 mm., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.	1 Sqm	6,407.00
671	TBSC-M.III-08	Providing, supplying & fixing of Top hung Ventilator With Exhaust Fan Provision made out of multi chambered uPVC sections with TPV Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC and reinforced with Galvanized Iron profiles throughout the window. The outer frame having a overall size of 60mm x 55 mm x 2.40 mm with reinforcement of 1 mm thickness, Mullion with overall size of 74 mm x 60 mm x 2.40 mm with reinforcement of 1 mm thickness and Sash with overall size of 75 mm x 60 mm x 2.40 mm with reinforcement of 1.0/1.2 mm thickness. (Composition of profile shall consists a minimum of 5.5 PHR of TiO2 and not more than 12 PHR of CaCo3 for every 100 parts of PVC resin).Glazing bead for fixing of glass shall be of size 34 x 20 mm coextruded with soft PVC gasket. Ventilator shall be provided with 4.5 mm Pin Head glass, standard hardware, single point locking using cockspur handle and friction stays. Wall thickness of frame, mullion and sash shall be 2.4 mm., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.	1 Sqm	9,014.00
672	TBSC-M.III-09	Providing & Fixing of Open able Windows with Fly-mesh made of pre-painted steel as per IS 13 of 0.72 mm thick galvanized as per IS 277 finish painted with a polyester paint and the section for outer frame of 72 x 55mm, centre mullion of 72 x 50mm, section for fixed glass beading section of 12 x 12 mm and section for shutters of 48 x 25 mm and outer frame & mullion sections with rebate for glazed shutters, fly mesh and a 20 mm provision for guard bars/grills and fly mesh shutter section of 20 x 40 mm, stay, handles, latch 2 Nos of heavy duty stainless steel pivot hinges per shutter and panelled with 5mm thick plain float glass and S.S. Mesh for fly mesh shutter (304 grade), fitted using rubber gaskets including fixing the windows in the concrete/masonry wall by means of self expanding screws, including 10mm Square guard bars with 6" (152.4mm) pitch , complete for Double shutter Window with vertical mullion of sizes 3'0" x 4'0" ( 914.4mm x	1 Sqm	11,118.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		1219.2mm) and 4'0" x 4'0" (1219.2mm x 1219.2mm)		
673	TBSC-M.III-10	Providing & Fixing of Open able Windows with Fly-mesh made of pre-painted steel as per IS 513 of 0.72 mm thick galvanized as per IS 277 finish painted with a polyester paint and the section for outer frame of 72 x 55mm, centre mullion of 72 x 50mm, section for fixed glass beading section of 12 x 12 mm and section for shutters of 48 x 25 mm and outer frame & mullion sections with rebate for glazed shutters, fly mesh and a 20 mm provision for guard bars/grills and fly mesh shutter section of 20 x 40 mm, stay, handles, latch 2 Nos of heavy duty stainless steel pivot hinges per shutter and panelled with 5mm thick plain float glass and S.S. Mesh for fly mesh shutter (304 grade), fitted using rubber gaskets including fixing the windows in the concrete/masonry wall by means of self expanding screws, including 10mm Square guard bars with 6" (152.4mm) pitch , complete for Centre fixed both side open able shutter window for a size 5'0"x4'0" (1524mm x1219.2mm).	1 Sqm	10,109.00
674	TBSC-M.III-11	Providing & Fixing of Open able Windows with Fly-mesh made of pre-painted steel as per IS 513 of 0.72 mm thick galvanized as per IS 277 finish painted with a polyester paint and the section for outer frame of 72 x 55mm, centre mullion of 72 x 50mm, section for fixed glass beading section of 12 x 12 mm and section for shutters of 48 x 25 mm and outer frame & mullion sections with rebate for glazed shutters, fly mesh and a 20 mm provision for guard bars/grills and fly mesh shutter section of 20 x 40 mm, stay, handles, latch 2 Nos of heavy duty stainless steel pivot hinges per shutter and panelled with 5mm thick plain float glass and S.S. Mesh for fly mesh shutter (304 grade), fitted using rubber gaskets including fixing the windows in the concrete/masonry wall by means of self expanding screws, including 10mm Square guard bars with 6" (152.4mm) pitch , Centre fixed both side open able shutter window for a complete for a size 6'0"x4'0" (1828.8mmx1219.2mm)	1 Sqm	8,844.00
675	TBSC-M.III-12	Supply and fixing of pre-painted steel casement/ open able windows base steel as per IS 513 of - 0.72 mm thick 'D quality, galvanized as per IS 277, finish painted with a polyester paint, section for outer frame of 46 x 52 mm section for shutter of 46 x 46 mm section for mullion 46 x 70 mm, and section for beading 18 x 25 mm panelled with 5 mm thick plain float glass fitted with EPDM gaskets, handle made of high grade aluminium powder coated frames fixed to the concrete /masonry wall by means of self expanding screws including 10 mm square guard bars @ 150 mm pitch for Windows: Double shutters with mullion section for sizes 3'-0 x 4'-0 (914.4mm x 1219.2 mm) and 4'-0 x 4'-0 (1219.2 x 1219.2mm) Three shutters with mullion section for sizes and 5'-0 x 4'-0(1524 x 1219.2mm) and 6'-0 x 4'-0(1828.8 x 1219.2mm)	1 Sqm	9,265.00
676	TBSC-M.III-13	Supply and fixing of pre-painted steel casement/ open able windows base steel as per IS 513 of - 0.72 mm thick 'D quality, galvanized as per IS 277, finish painted with a polyester paint, section for outer frame of 46 x 52 mm section for shutter of 46 x 46 mm section for mullion 46 x 70 mm, and section for beading 18 x 25 mm panelled with 5 mm thick plain float glass fitted with EPDM gaskets, handle made of high grade aluminium powder	1 Sqm	8,256.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		coated frames fixed to the concrete /masonry wall by means of self expanding screws including 10 mm square guard bars @ 150 mm pitch for Windows: Center Fixed with sides openable windows Mullion section for sizes:5'-0 x 4'-0 (1524x1219.2mm) and 6'-0 x 4'-0 (1828.8x1219.2mm) and 6'-0 x 4'-6 (1828.8x1371.6mm)		
<b>N</b>	<b>SECTION</b>	<b>STRUCTURAL GLAZING &amp; CURTAIN WALLING</b>		
		(Excluding taxes but including cost of loading, cost of conveyance, unloading & stacking)		
<b>I</b>	<b>SUB-SECTION</b>	<b>FIXED GLAZING</b>		
677	TBSC-N.I-01	Supplying and fixing of curtain Glazing made of pre painted steel as per IS 513 of 0.58 mm thick D quality, galvanized as per IS 277 Primer coated with epoxy, finish painted with a polyester paint using the section for outer frame of 46 x 52 mm, section for mullion of 46 x 70 mm and section for beading of 18 x 25 mm and the glazing with 5 mm thick plain float glass fitted with EPDM gaskets including handle made of high grade Aluminium powder coated and nylon receiver, corner brackets made of CRCA with zinc phosphating, mullion caps made of Glass filled nylon including fixing the frames in the concrete / masonry wall with self expanding screws, etc., complete for finished item.- Fixed Glazing 2'-0 x 2'-0 (609.6x609.6mm) and Fixed Glazing 2'-0 x 3'-0 (609.6x914.4mm)	1 Sqm	6,926.00
678	TBSC-N.I-02	Supplying and fixing of curtain Glazing made of pre painted steel as per IS 513 of 0.58 mm thick D quality, galvanized as per IS 277 Primer coated with epoxy, finish painted with a polyester paint using the section for outer frame of 46 x 52 mm, section for mullion of 46 x 70 mm and section for beading of 18 x 25 mm and the glazing with 5 mm thick plain float glass fitted with EPDM gaskets including handle made of high grade Aluminium powder coated and nylon receiver, corner brackets made of CRCA with zinc phosphating, mullion caps made of Glass filled nylon including fixing the frames in the concrete / masonry wall with self expanding screws, etc., complete for finished item.- Fixed Glazing 3'-0 x 3'-0 (914.4x914.4mm) and Fixed Glazing 3'-0 x 4'-0 (914.4x1219.2mm)	1 Sqm	5,877.00
679	TBSC-N.I-03	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) Fixed Glazing - 48 series duly manufactured using UPVC reinforced profiles of 60 mm x 48 mm x 2.25 mm for outer frames and the mullion sections are of 60 mm x 76 mm x 2.25 mm frames are structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm the sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with EPDM weathering seal resistant including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site with templates for casement sizing complete for finished item of work	1 Sqm	3,143.00
680	TBSC-N.I-04	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) Fixed Glazing duly manufactured using UPVC reinforced profiles of 60 mm x 56 mm x 2.25 mm for outer frames and the mullion sections are of 60 mm x 70 mm x 2.25 mm frames are structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm the sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with EPDM weathering seal resistant including cost and conveyance of all materials, accessories, labour charges	1 Sqm	3,756.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		for transportation, erection at site with templates for casement sizing complete for finished item of work		
681	TBSC-N.I-05	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) Fixed Glazing/ Window duly manufactured using UPVC reinforced profiles of 60 mm x 60 mm x 2.60 mm for frames and the mullion sections are of 60 mm x 82 mm x 2.60 mm frames are structurally reinforced with hot dip galvanized up to 50 microns of size 35 mm x 28 mm of thickness 1.5 mm the sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with EPDM weathering seal resistant and glazing bead 34.5 mm x 18 mm including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site with templates for casement sizing complete for finished item of work	1 Sqm	4,710.00
II	SUB-SECTION	<b>STRUCTURAL GLAZING</b>		
682	TBSC-N.II-01	Providing and fixing Structural Glazing fabricated from Roll formed sections made of Pre-painted Steel / Powder coated base steel as per IS 513 of 'D' quality, galvanized as per IS 277 and the glass holding section made of 304 grade stainless steel of 0.58 mm thick galvanized steel section as stiffeners inside the colour coated steel powder coated sections as per the design requirement & calculations to suit wind pressures as given in IS: 875, the primer coat with epoxy primer, finish painted with a polyester paint or powder coated with pure polyester powder and the vertical section of 50 mm x 99 mm x 0.72 mm, 33 mm x 56 mm x 0.72 mm for frame horizontal section, stiffener section of 47 mm x 97 mm x 1 mm, cover profiles sections of 20 mm x 58 mm x 0.58 mm, glass holding section of 37 mm x 37 mm & 37 mm x 18 mm including fixing 5mm thick Ocean Blue reflective glass, brackets made of CRCA powder coated/Electroplated to connect vertical to horizontal, vertical to slab, to fix verticals at top & bottom as per site requirement and EPDM gasket, U.V. resistant silicon sealant including fixing in concrete/masonry wall with self-expanding cap & screws inclusive of cost and conveyance of all materials to site, all labour charges, incidental charges, cost of all consumables etc. and fixing charges excluding scaffolding complete for finished item of work.	1 Sqm	8,280.00
683	TBSC-N.II-02	Providing and fixing Top Hung shutters in Structural Glazing fabricated from Roll formed sections made of Pre-painted Steel / Powder coated base steel as per IS 513 of 'D' quality, galvanized as per IS 277 and the glass holding section made of 304 grade stainless steel of 0.58 mm thick, duly providing stiffeners inside the colour coated steel/powder coated sections as per the design requirement, calculations to suit wind pressures as given in IS 875 and primer coat with epoxy primer and powder coated with pure polyester powder up to 50-60 microns thick and the outer frame of 20 mm x 58 mm x 0.58 mm, shutter sections of 57 mm x 33 mm x 0.72 mm, stiffener sections of 55 mm x 31 mm x 1mm, hinges - 2 Nos for each shutter and aluminium Stays - 2 Nos. for each shutter, aluminium Handle - 1 no. for each shutter including cost and conveyance of all materials to site, all labour charges, incidental charges, cost of all consumables etc. and fixing charges etc excluding scaffolding complete for finished item of work	1 Sqm	6,785.00
III	SUB-SECTION	<b>CURTAIN WALLING</b>		

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
684	TBSC-N.III-01	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) Curtain Walling systems duly manufactured using UPVC reinforced profiles of 60 mm x 56 mm x 2.5 mm for outer frames, 60 mm x 70 mm x 2.5 mm for casement shutter frames and the mullion sections are of 60 mm x 70 mm x 2.5 mm or 60 mm x 62 mm x 2.5 mm for sliding shutter outer frames and 77 mm x 38 mm x 2.5 mm for sliding shutter frames structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1 mm the sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with EPDM weathering seal resistant and accessories for casement window - friction stay hinges of stainless steel grade 304- 2 Nos., per sash, handle with mazak alloy casting 1 No. per sash, multipoint locking system suitably concealed 1 No., per sash provided with raiser wedges for smooth operation for sliding window - clipping locking system 1 No. made of aluminium including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site with templates for casement sizing excluding scaffolding complete for finished item of work	1 Sqm	6,694.00
<b>P</b>	<b>SECTION</b>	<b>FIXTURES FOR DOORS &amp; WINDOWS</b>		
		<b>(Excluding taxes but including cost of loading, cost of conveyance, unloading &amp; stacking)</b>		
<b>I</b>	<b>SUB-SECTION</b>	<b>TOWER BOLTS</b>		
685	TBSC-P.I-01	Brass Tower Bolt-10 mm Bolt (IS:204) 100 mm Long	Each	184.00
686	TBSC-P.I-02	Brass Tower Bolt-10 mm Bolt (IS:204) 150 mm Long	Each	268.00
687	TBSC-P.I-03	Brass Tower Bolt-10 mm Bolt (IS:204) 200 mm Long	Each	358.00
688	TBSC-P.I-04	Brass Tower Bolt-10 mm Bolt (IS:204) 250 mm Long	Each	444.00
689	TBSC-P.I-05	Brass Tower Bolt-10 mm Bolt (IS:204) 300 mm Long	Each	547.00
690	TBSC-P.I-06	Aluminium Tower Bolt-10 mm Bolt (IS:204) 75 mm Long	Each	51.00
691	TBSC-P.I-07	Aluminium Tower Bolt-10 mm Bolt (IS:204) 100 mm Long	Each	57.00
692	TBSC-P.I-08	Aluminium Tower Bolt-10 mm Bolt (IS:204) 150 mm Long	Each	76.00
693	TBSC-P.I-09	Aluminium Tower Bolt-10 mm Bolt (IS:204) 200 mm Long	Each	90.00
694	TBSC-P.I-10	Aluminium Tower Bolt-10 mm Bolt (IS:204) 250 mm Long	Each	110.00
695	TBSC-P.I-11	Aluminium Tower Bolt-10 mm Bolt (IS:204) 300 mm Long	Each	125.00
696	TBSC-P.I-12	Aluminium Tower Bolt-10 mm Bolt (IS:204) 350 mm Long	Each	328.00
697	TBSC-P.I-13	Aluminium Tower Bolt-10 mm Bolt (IS:204) 450 mm Long	Each	427.00
698	TBSC-P.I-14	MS-Powder Coated Tower Bolt-10 mm Bolt (IS:204) 100 mm Long	Each	28.00
699	TBSC-P.I-15	MS-Powder Coated Tower Bolt-10 mm Bolt (IS:204) 150 mm Long	Each	40.00
700	TBSC-P.I-16	MS-Powder Coated Tower Bolt-10 mm Bolt (IS:204) 200 mm Long	Each	59.00
701	TBSC-P.I-17	MS-Powder Coated Tower Bolt-10 mm Bolt (IS:204) 250 mm Long	Each	77.00
702	TBSC-P.I-18	MS-Powder Coated Tower Bolt-10 mm Bolt (IS:204) 300 mm Long	Each	96.00
703	TBSC-P.I-19	Stainless Steel Tower Bolt-10 mm Bolt (IS:15833) 75 mm Long	Each	95.00
704	TBSC-P.I-20	Stainless Steel Tower Bolt-10 mm Bolt (IS:15833) 100 mm Long	Each	110.00



Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
705	TBSC-P.I-21	Stainless Steel Tower Bolt-10 mm Bolt (IS:15833) 150 mm Long	Each	166.00
706	TBSC-P.I-22	Stainless Steel Tower Bolt-10 mm Bolt (IS:15833) 200 mm Long	Each	220.00
707	TBSC-P.I-23	Stainless Steel Tower Bolt-10 mm Bolt (IS:15833) 250 mm Long	Each	275.00
708	TBSC-P.I-24	Stainless Steel Tower Bolt-10 mm Bolt (IS:15833) 300 mm Long	Each	328.00
II	SUB-SECTION	HINGES		
709	TBSC-P.II-01	Brass Butt hinges (IS:205)- 75 mm Long	Each	76.00
710	TBSC-P.II-02	Brass Butt hinges (IS:205)- 100 mm Long	Each	248.00
711	TBSC-P.II-03	Brass Butt hinges (IS:205)- 125 mm Long	Each	301.00
712	TBSC-P.II-04	Brass Butt hinges (IS:205)- 150 mm Long	Each	396.00
713	TBSC-P.II-05	Aluminium Butt hinges (IS:205)- 75 mm Long	Each	57.00
714	TBSC-P.II-06	Aluminium Butt hinges (IS:205)- 100 mm Long	Each	74.00
715	TBSC-P.II-07	Aluminium Butt hinges (IS:205)- 125 mm Long	Each	88.00
716	TBSC-P.II-08	Aluminium Butt hinges (IS:205)- 150 mm Long	Each	106.00
717	TBSC-P.II-09	MS-Powder Coated Butt hinges (IS:205)- 75 mm Long	Each	13.00
718	TBSC-P.II-10	MS-Powder Coated Butt hinges (IS:205)- 100 mm Long	Each	25.00
719	TBSC-P.II-11	MS-Powder Coated Butt hinges (IS:205)- 125 mm Long	Each	36.00
720	TBSC-P.II-12	MS-Powder Coated Butt hinges (IS:205)- 150 mm Long	Each	45.00
721	TBSC-P.II-13	Deluxe window stay Aluminium	Each	150.00
722	TBSC-P.II-14	Brass Windows Stay	Each	232.00
723	TBSC-P.II-15	GI Powder Coated Friction stay hinges of 10" Long for windows	Each	239.00
724	TBSC-P.II-16	Continuous Piano Hinges Powder coated Mild steel as per IS-3818 : 1992 of nominal size 25 mm (B) of thickness 0.8 to 1.0 mm	1 RM	37.00
725	TBSC-P.II-17	Box hinges for cup boards	1 Each	47.00
726	TBSC-P.II-18	GI Powder Coated Friction stay hinges of 14" Long for windows	1 Each	336.00
727	TBSC-P.II-19	Stainless Steel Butt hinges (IS:12817)- 75 mm Long	Each	72.00
728	TBSC-P.II-20	Stainless Steel Butt hinges (IS:12817)- 100 mm Long	Each	105.00
729	TBSC-P.II-21	Stainless Steel Butt hinges (IS:12817)- 125 mm Long	Each	134.00
730	TBSC-P.II-22	Stainless Steel Butt hinges (IS:12817)- 150 mm Long	Each	167.00
III	SUB-SECTION	DOOR HANDLES		
731	TBSC-P.III-01	Aluminium Door Handles (IS:208) 75 mm Long	Each	51.00
732	TBSC-P.III-02	Aluminium Door Handles (IS:208) 100 mm Long	Each	60.00
733	TBSC-P.III-03	Aluminium Door Handles (IS:208) 125 mm Long	Each	85.00
734	TBSC-P.III-04	Aluminium Door Handles (IS:208) 150 mm Long	Each	100.00
735	TBSC-P.III-05	MS-Powder Coated Door Handles (IS:208) 125 mm Long	Each	36.00
736	TBSC-P.III-06	MS-Powder Coated Door Handles (IS:208) 150 mm Long	Each	52.00
737	TBSC-P.III-07	Brass fancy handles 150 mm	Each	346.00
738	TBSC-P.III-08	Brass fancy handles 200 mm	Each	468.00
739	TBSC-P.III-09	Brass fancy handles 250 mm	Each	844.00
740	TBSC-P.III-10	Brass fancy handles 300 mm	Each	1,076.00
741	TBSC-P.III-11	Brass fancy handles 450 mm	Each	1,683.00
742	TBSC-P.III-12	Keyless lockset for toilet doors with CP or PC knob handles (complete set)	Each	35.00
743	TBSC-P.III-13	Keyless lock set for toilet doors with brass knob handles	Each	948.00
744	TBSC-P.III-14	Hard Nylon Window Handle	Each	73.00
745	TBSC-P.III-15	Stainless Steel Door Handles 100 mm Long	Each	108.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
746	TBSC-P.III-16	Stainless Steel Door Handles 125 mm Long	Each	128.00
747	TBSC-P.III-17	Stainless Steel Door Handles 150 mm Long	Each	157.00
748	TBSC-P.III-18	Stainless Steel Door Handles 200 mm Long	Each	176.00
IV	SUB-SECTION	ALDROPS		
749	TBSC-P.IV-01	Brass Aldrops (IS:2681) 300 mm long	Each	1,321.00
750	TBSC-P.IV-02	Brass Aldrops (IS:2681) 350 mm long	Each	2,544.00
751	TBSC-P.IV-03	Brass Aldrops (IS:2681) 450 mm long	Each	3,622.00
752	TBSC-P.IV-04	Aluminium Aldrops (IS:2681) 200 mm long	Each	189.00
753	TBSC-P.IV-05	Aluminium Aldrops (IS:2681) 250 mm long	Each	219.00
754	TBSC-P.IV-06	Aluminium Aldrops (IS:2681) 300 mm long	Each	239.00
755	TBSC-P.IV-07	MS-Powder Coated Aldrops (IS:2681) 200 mm long	Each	119.00
756	TBSC-P.IV-08	MS-Powder Coated Aldrops (IS:2681) 250 mm long	Each	154.00
757	TBSC-P.IV-09	MS-Powder Coated Aldrops (IS:2681) 300 mm long	Each	185.00
758	TBSC-P.IV-10	Stainless Steel Aldrops (IS:15834) 200 mm long	Each	265.00
759	TBSC-P.IV-11	Stainless Steel Aldrops (IS:15834) 250 mm long	Each	312.00
760	TBSC-P.IV-12	Stainless Steel Aldrops (IS:15834) 300 mm long	Each	343.00
V	SUB-SECTION	LATCHES		
761	TBSC-P.V-01	Brass latch heavy 300 mm	Each	663.00
762	TBSC-P.V-02	Brass latch heavy 350 mm	Each	763.00
763	TBSC-P.V-03	Brass latch heavy 450 mm	Each	1,006.00
764	TBSC-P.V-04	Aluminium Flat Latches: 200 mm long	Each	110.00
765	TBSC-P.V-05	Aluminium Flat Latches: 250 mm long	Each	120.00
766	TBSC-P.V-06	Aluminium Flat Latches: 300 mm long	Each	130.00
767	TBSC-P.V-07	MS-Powder Coated Flat Latches: 250 mm long	Each	60.00
768	TBSC-P.V-08	MS-Powder Coated Flat Latches: 300 mm long	Each	75.00
VI	SUB-SECTION	DOOR CLOSURES		
769	TBSC-P.VI-01	Providing and fixing Cast Iron Body Bottle Type Hydraulic Door Closer (IS: 3564) with double speed adjustment, with necessary accessories and screws etc. complete	Each	1,071.00
770	TBSC-P.VI-02	Providing and fixing Aluminium Extruded Section Body Tubular Type Hydraulic Door Closer (IS: 3564) with double speed adjustment with necessary accessories and screws etc. complete (Type-1: for width of doors up to 700 mm)	Each	1,255.00
771	TBSC-P.VI-03	Providing and fixing Aluminium Extruded Section Body Tubular Type Hydraulic Door Closer (IS: 3564) with double speed adjustment with necessary accessories and screws etc. complete (Type-2: for width of doors 701 to 850 mm)	Each	1,344.00
772	TBSC-P.VI-04	Providing and fixing Aluminium Extruded Section Body Tubular Type Hydraulic Door Closer (IS: 3564) with double speed adjustment with necessary accessories and screws etc. complete (Type-3: for width of doors 851 to 1000 mm)	Each	1,411.00
VII	SUB-SECTION	FLOOR SPRINGS		
773	TBSC-P.VII-01	Double action Stainless steel cover plate and cast body iron floor spring (IS 6315- Table-1)	Each	1,939.00
774	TBSC-P.VII-02	Double action Brass cover plate and cast brass body floor spring (IS 6315- Table-1)	Each	4,665.00
775	TBSC-P.VII-03	Providing and fixing double action brass cast hydraulic floor spring (IS:6315-Table 1) for doors including cost of cutting floors as required, embedding in floors and S.S./ Brass cover plates with brass pivot and single piece M.S. Sheet outer box with slide plate etc. complete (door weight capacity up to 130 Kgs)	Each	3,967.00
776	TBSC-P.VII-04	Providing and fixing double action brass cast hydraulic floor spring (IS:6315-Table 1) for doors including cost of cutting floors as required, embedding in floors and S.S. cover plates with brass pivot and single piece M.S. Sheet outer box with slide plate etc. complete (door weight	Each	2,951.00

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		capacity up to 80 Kgs)		
777	TBSC-P.VII-05	Providing of brass cast body Floor Spring IS: 6315 sleek in size with the S.S. / Brass Cover plates of Length 320 mm x Breadth 130 mm size along with the Top Patch, Bottom Patch, Door Lock and Pivot with Double Cylinder etc. complete for Heavy duty Glass doors.	Each	12,864.00
<b>VIII</b>	<b>SUB-SECTION</b>	<b>MORTICE LOCKS</b>		
778	TBSC-P.VIII-01	Heavy duty mortise lock 6/7 levers (IS:2209) with PC or CP handles complete set	Each	949.00
779	TBSC-P.VIII-02	Heavy duty mortise lock 6/7 levers (IS:2209) with brass heavy handles	Each	2,474.00
<b>IX</b>	<b>SUB-SECTION</b>	<b>OTHER ACCESSORIES</b>		
780	TBSC-P.IX-01	Brass Door Stoppers	Each	205.00
781	TBSC-P.IX-02	MS-Powder Coated - Door Stoppers	Each	52.00
782	TBSC-P.IX-03	Heavy duty Aluminium Door stopper	Each	66.00
783	TBSC-P.IX-04	Rubber/ Nylon door stop bushes	1 Each	12.00
784	TBSC-P.IX-05	Supply & fixing Mild Steel Powder coated drapery curtain rods (25.4 mm) 1" x 21 G with PVC rings	1 RM	130.00
785	TBSC-P.IX-06	Supply & fixing design drapery curtain rod bracket - brass/ stainless steel powder coated heavy duty	pair	466.00
786	TBSC-P.IX-07	Nylon rollers for sliding glasses/ aluminium windows	1 Each	17.00
787	TBSC-P.IX-08	MS Z Hold fasts - 300 mm long of 40 x 40 x 5 mm ISA	1 Each	37.00
788	TBSC-P.IX-09	Magnetic Catchers	1 Each	16.00
789	TBSC-P.IX-10	Supplying and fixing Aluminium Curtain Drapery rod of 25 mm dia not less than 1.0 mm thick powder coated with premium finish, including rings, screws etc., complete	1 RM	98.00
790	TBSC-P.IX-11	Supplying and fixing Stainless Steel Curtain Drapery rod of 25 mm dia 1.0 mm thick of 304 Grade steel powder coated with premium finish, including rings, screws etc., complete	1 RM	277.00
791	TBSC-P.IX-12	Supplying and fixing Brass Curtain Drapery rod of 25 mm dia not less than 1.0 mm thick powder coated with premium finish, including rings, screws etc., complete	1 RM	314.00
792	TBSC-P.IX-13	D type on rose Mortise handle SS 304 Grade 19mm dia	1 Set	1,110.00
793	TBSC-P.IX-14	Euro profile Cylinder Key & Knob 60mm SS finish	1 Each	567.00
794	TBSC-P.IX-15	10" on plate mortise handle with mortise lock body and cylinder key and knob 60mm	1 Set	2,258.00
795	TBSC-P.IX-16	8" on plate mortise handle with mortise lock body and cylinder key and knob 60mm	1 Set	1,960.00
796	TBSC-P.IX-17	Digital Lock 101 MGM 4 in 1 Access	1 Set	12,124.00
797	TBSC-P.IX-18	Soft close clip on prime pack master 0,8 crank with 5mm mounting plate	Pair	200.00
798	TBSC-P.IX-19	Door stopper in twin Door Mounted Hanging Type 304 grade	1 Each	343.00
799	TBSC-P.IX-20	Door Buffer	1 Each	32.00
<b>Q</b>	<b>SECTION</b>	<b>CONSTRUCTION CHEMICALS &amp; ADMIXTURES</b>		
		Approved brands, area of application, dosage etc have been appended to this SoR for the guidance for preparation of estimates only. However, Literature for usage/ application of construction/ water proofing		

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		<b>materials, epoxies etc, may be obtained from the manufacturers, while in execution.</b>		
<b>I</b>	<b>SUB-SECTION</b>	<b>PLASTICIZERS</b>		
800	TBSC-Q.I-01	Concrete Plasticizers and Water reducing admixture Conforming to IS:9103-1999	1 Ltr	205.00
801	TBSC-Q.I-02	Early High Strength, High water retention, polycarboxylic plasticizers Conforming to IS:9103-1999	1 Kg	144.00
802	TBSC-Q.I-03	High performance super plasticizer and water reducing admixture Conforming to IS: 9103-1999	1 Kg	97.00
803	TBSC-Q.I-04	Super plasticizer for high range water reducing admixture Conforming to IS: 9103-1999	1 Kg	108.00
804	TBSC-Q.I-05	Super plasticizer, high range water reducing and retarding admixture complying with IS: 9103-1999	1 Kg	119.00
805	TBSC-Q.I-06	Plasticizer for accelerator for sprayed concrete Conforming to IS: 9103-1999.	1Kg	88.00
806	TBSC-Q.I-07	High Early Strength Concrete Admixture for Road Repairs	1 Ltr	30.00
<b>II</b>	<b>SUB-SECTION</b>	<b>WATER PROOFING COMPOUNDS</b>		
807	TBSC-Q.II-01	Integral Cement Waterproofing Liquid Conforming to IS: 2645-2003	1 Ltr	215.00
808	TBSC-Q.II-02	High durable cementitious acrylic based waterproofing systems	1 Kg	138.00
809	TBSC-Q.II-03	Acrylic Polymer Elastomeric Cementitious Waterproof Coatings	1 Ltr	356.00
810	TBSC-Q.II-04	Single component, elastomeric waterproof membrane coating	1 Ltr	433.00
811	TBSC-Q.II-05	Quick setting, rapid hardening and water proofing compound Conforming to IS: I.S. 2645-2003	1 Ltr	82.00
812	TBSC-Q.II-06	Highly Flexible Waterproof Acrylic Elastomeric bituminous Blended Coatings	1 Ltr	305.00
813	TBSC-Q.II-07	Two part system of fibre reinforced Acrylic Cementitious Waterproofing coating.	Kg	147.00
814	TBSC-Q.II-08	High strength cellulose fibre reinforced acrylic elastomeric liquid membrane waterproof coating	Ltr	312.00
815	TBSC-Q.II-09	High Strength Acrylic Penetrative U,V. Resistant concrete road top coatings.	Ltr	343.00
816	TBSC-Q.II-10	High performance polyurethane blended with bituminous Membrane coating ( Complies with ASTM C - 836 )	Ltr	636.00
817	TBSC-Q.II-11	Nano Technology water based transparent silicon water repellent	Ltr	733.00
818	TBSC-Q.II-12	Providing and applying Brush bond ( two component acrylic polymer modified elastomeric waterproofing membrane which consists of Brush bond powder and Brush bond liquid acrylic emulsion) for a minimum 2mm thickness coating. (Work shall be executed as per manufacturer's specification and instructions.	Ltr	252.00
<b>III</b>	<b>SUB-SECTION</b>	<b>BONDING AGENTS/ ADHESIVES</b>		
819	TBSC-Q.III-01	Acrylic based Bonding adhesive	1 Ltr	153.00
820	TBSC-Q.III-02	Styrene butadiene rubber based bonding agent	1 Kg	458.00
821	TBSC-Q.III-03	Two Parts system of Epoxy Bonding adhesive Conforming to ASTM-C 881	1 Kg	884.00
822	TBSC-Q.III-04	Liquid Polymer additive for cement & concrete mixes	1 Ltr	244.00
823	TBSC-Q.III-05	Polymer cementitious additive for fixing tiles/ stones etc	1 Kg	221.00
824	TBSC-Q.III-06	Highly multi purpose Roads Grade concrete bonding agent	Ltr	221.00
825	TBSC-Q.III-07	Polymer Modified Adhesive mortar for jointing AAC Blocks/ Other Blocks	1 Kg	15.00

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<b>IV</b>	<b>SUB-SECTION</b>	<b>ANTI-CORROSIVE AGENTS</b>		
826	TBSC-Q.IV-01	Acrylic based Anti corrosive coating	1 Ltr	356.00
827	TBSC-Q.IV-02	Rust converter -rust encapsulating coating for steel	1 Ltr	488.00
828	TBSC-Q.IV-03	High range of reinforcement / steel protector against corrosion zinc rich epoxy resin primer	1 Kg	761.00
829	TBSC-Q.IV-04	Anti corrosion CRPPC (Corrosion Resistant) inhibitive admixture	1 Lit	352.00
830	TBSC-Q.IV-05	Anti-carbonation coating for Concrete Structures under aggressive environment/ Flyovers/ Bridges: Providing and application of Highly elastomeric anti carbonation coating with good crack bridging ability, waterproofing properties & UV Resistant. Product should be with standing at minimum 5bar pressure against water penetration as per BSEN:12390(PART 8)-2006, having elongation of >350 %(ASTM D412-16, tensile strength >4 Mpa(ASTM D412-16,Water Vapour Transmission rate(g/m2/hr) 0.42(ASTM E96-16),Co2 Diffusion Co-efficient R:>200m @300 Micron Fft. Thickness: Recommended thickness of 200 Micron Dft in two coats. Coverage: 3.5-5.5 m2/ltr/coat (2coats recommended)	1 Sqm	900.00
831	TBSC-Q.IV-06	Polyurethane Coatings for Steel structures like Bridges/Walkways etc.,: Providing and application of High Quality lead and chromate free two component (Acrylate-Isocyanate based) Polyurethane coating for Steel structures,machinery&apparatus. This coating is resistant to water, diluted acids and chemicals and having excellent abrasion resistance, weather resistance and impact resistance. Product is sustained with thermal resistance up to 1200°C dry heat. Sytem comprised of High Solid Epoxy Resin primer with Polyurethane top coat as per ISO 12944. Thickness: 40-60 Micron Dft Coverage: 90gms/ Sq.mtr in 1 coat. Two coats recommended.	1 Sqm	950.00
<b>V</b>	<b>SUB-SECTION</b>	<b>GROUTS</b>		
832	TBSC-Q.V-01	High Power Polyester Resin Anchor Grout Conforming to ASTM-827	1 Kg	305.00
833	TBSC-Q.V-02	Non-shrink Free flow high strength precision grout Conforming to BS 1881 Part 1161983.	1 Kg	36.00
834	TBSC-Q.V-03	Low viscosity Epoxy resin injection grout	1 Kg	813.00
835	TBSC-Q.V-04	Three component epoxy grout Conforming to IS: ASTM 827 (Three components)	1 Kg	164.00
836	TBSC-Q.V-05	Expansive aqua -reactive water barrier and grouting system.	1 Kg	1,054.00
<b>VI</b>	<b>SUB-SECTION</b>	<b>MISCELLANEOUS CHEMICALS</b>		
837	TBSC-Q.VI-01	Moulds / Shutter releasing oil	1 Ltr	148.00
838	TBSC-Q.VI-02	Non oxidizing, heavy duty metallic Floor Hardeners	1 Kg	39.00
839	TBSC-Q.VI-03	Non-metallic Floor Hardeners	1 Kg	32.00
840	TBSC-Q.VI-04	High Strength, Non shrink Micro Concrete for structural repair product.	1 Kg	38.00
841	TBSC-Q.VI-05	Structural graded polymer modified reinstatement concrete / mortar(Two Part System)	1 Kg	88.00
842	TBSC-Q.VI-06	Three Component high performance elastomeric mortar.	1 Kg	965.00
843	TBSC-Q.VI-07	Surface treatment crystalline product.	1 Kg	367.00

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844	TBSC-Q.VI-08	Polyurethane Sealant. 600 ml tube	1 No	742.00
845	TBSC-Q.VI-09	Polysulphide Sealant.	1 Kg	458.00
846	TBSC-Q.VI-10	Acrylic Latex caulking compound.	1 Kg	341.00
847	TBSC-Q.VI-11	Fast setting cement based plugging compound	1 Kg	88.00
848	TBSC-Q.VI-12	Highly Flexible High Range Polyurethane surface coatings	1 Ltr	661.00
849	TBSC-Q.VI-13	Coal Tar Epoxy	1 Kg	356.00
850	TBSC-Q.VI-14	Water Based Acrylic Blended High power curing compound	1 Kg	103.00
851	TBSC-Q.VI-15	Bituminous hot sealing compound	1 Kg	123.00
852	TBSC-Q.VI-16	Bitumen solution primer coating.	1 Kg	88.00
853	TBSC-Q.VI-17	Air Entraining Agent Conforming to IS: 9103-99	1 Ltr	123.00
854	TBSC-Q.VI-18	Imidacloprid 30.5% S.C diluted @ 2.1 ml of formulation in one Liter of water for the termite treatment in the buildings during pre and post construction stages as per current BIS standard practices (IS:6313 part II and III)	1 Lit	3,727.00
855	TBSC-Q.VI-19	Multifilament Polypropylene fibers of 6/12/18 mm length for Plastering, Screeds, all Precasting items	1 Kg	294.00
856	TBSC-Q.VI-20	Macro Synthetic fibers of 45mm length for CC Roads, Ground Supported Slabs, Pavements, Sprayed Concrete, Tunnel linings, Mining	1 Kg	440.00
857	TBSC-Q.VI-21	Steel Fibers of 35 mm length for CC Roads, Ground Supported Slabs, Pavements, Sprayed Concrete, Tunnel linings, Mining	1 Kg	98.00
858	TBSC-Q.VI-22	High strength, Acrylic blended dry colour mortar /concrete	1 Kg	48.00
859	TBSC-Q.VI-23	Providing post construction anti termite treatment by drilling 1/2 inch dia., holes at the edges of wall floor junction and pouring anti termite chemical (Imidacloprid 30.5 SC, 10.5 ml for 5 Liters of water as per IS 16131.) with a hand operated pressure pump until refusal or to a maximum of one liter per hole. Holes shall be sealed with cement motor after treatment and providing spraying and injecting termiticides for treating and applying to doors, windows, frames, removing, crusting treating in Treatment along outside of foundations (i.e., Soil in contact with external walls around the building and Concrete or Masonry apron around the building), Treatment of soil under floors - Inside Building, Treatment to voids in masonry, Treatment at points of contact of woodwork, Treatment of Wood Work, Treatment of Electrical Fixtures, as directed in IS 6313 Part 3 2013 with preventive chemicals duly taking precautions for health hazards and safety measures for the occupants including all costs, conveyances of all materials and labour charges etc for finished item of work to the satisfaction of the Engineer-in-Charge. The plinth area of the building each floor shall be taken for the purpose of payment.	1 Sqm	139.00
VII	SUB-SECTION	<b>REPAIRING &amp; TREATMENT WORKS</b>		
860	TBSC-Q.VII-01	Providing Tar Felting roof repair with approved brand Tar Felt duly applying one coat of appropriate grade of bitumen in hot condition @ 0.2 Kg/1 Sqm of roof area, fixing tar felt (Conforming to IS 1322-1972	1 Sqm	308.00

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		specification), applying second coat of appropriate grade of hot bitumen at 1.20 Kg / 1 Sqm of roof area and spreading course aggregate (sand) at 0.063 Cum per 1 Sqm of roof area finished item.		
861	TBSC-Q.VII-02	Providing waterproofing treatment by supplying and fixing synthetic membrane felt of 1.50 mm thickness, 2.25 Kg per Sq. Mtr. duly applying one coat of Bituminous Emulsion, first coat of bituminous grade 85/25, fix waterproofing membrane, applying second coat of bitumen grade 90/15 after sealing all the joints and abutments with a Gas torch and applying one coat of bituminous aluminium paint for heat resistance for finished item.	1 Sqm	433.00
862	TBSC-Q.VII-03	Providing and laying of 3mm thick app modified bitumen membrane treatment to the terrace duly [1]removing of existing tar felt. [2]cleaning of the surface from dirt, dust and other contaminations. [3]application of one coat of Bitumen primer [4]providing and laying of 3mm thick APP Modified Bitumen Membrane with 100 mm overlap fixing with butane torch.	1 Sqm	581.00
863	TBSC-Q.VII-04	Providing specialized high performance acrylic polymer modified elastomeric cementitious waterproof coating to the terrace / walls / internal portion of the bathroom & toilets / internal portion of the water tanks duly cleaning of the surface from dirt, dust and other contaminations, providing and application of Two coats of High performance Acrylic polymer modified Elastomeric cementitious waterproof coating ( 1.8 Sq. Mtr. / Kg /Each Coat )	1 Sqm	462.00
864	TBSC-Q.VII-05	Providing specialized high build, elastomeric acrylic bituminous blended coating to the terrace / internal portion of the bathroom / toilets / basements / roofing duly a). Cleaning of the surface. b). Applying primer coat of High Build, Elastomeric Acrylic Bituminous Blended Coating c). Application of Two coats of High Build, Elastomeric Acrylic Bituminous Blended Coating	1 Sqm	427.00
865	TBSC-Q.VII-06	Providing specialized high solid, cold applied, acrylic elastomeric liquid membrane coating treatment to the terrace / roofing with fibre mesh / geo fabric duly a. Cleaning of the surface from dirt, dust and other contaminations. b. Applying one coat of High solid, Cold applied, Acrylic Elastomeric Liquid Membrane coating c. immediately, Application of one coat of High solid, Cold applied, Acrylic Elastomeric Liquid Membrane coating e. Laying of fibre mesh 40 GSM / Geo fabric 40 GSM on the surface. f. Over the Fibre mesh, Application of two coats of High solid, cold applied, Acrylic Elastomeric Liquid Membrane Coating	1 Sqm	676.00
866	TBSC-Q.VII-07	Providing specialized polysulphide sealant treatment to the expansion joints (Size : 25 mm x 25 mm) duly a]. Chipping and removing of existing covering on expansion joints b]. Cleaning of the surface from dirt, dust and other contaminations c].Application of one coat of - High performance specially designed SBR latex polymer based bonding agent d]. Providing and application of Acrylic Polymer modified reinstatement concrete /mortar to the damaged edges of joint and making the groove. e]. Providing and fixing of masking tape on top of the joint both sides f]. Providing and fixing of Back up support material of PVC Solid Backer rod to leave the depth of 25 mm on the joint g].	1 RM	769.00

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		Providing and application of one coat of polysulphide primer on inner edges of Joint. h]. Providing and application of Two part Polysulphide sealant to a width of 25 mm and depth of 25 mm with putty knife and neat finish i]. Removing of masking tape and providing and application of two coats of Acrylic elastomeric cementitious coating		
867	TBSC-Q.VII-08	Pressure grouting the drilled holes with neat cement slurry or with approved grout admixture using pump - excluding cost of drilling holes after fixing nozzles as technical specification approved by the department	1 Each	383.00
868	TBSC-Q.VII-09	Providing multi-coloured silicon fluorocarbon spray coating of thickness 1mm for exterior & interior wall finishes to give Natural Granite appearance comprising of 4 coats including application of primer, waterproof coat, Multi colour texture & finally UV resistant with repellent clear coat of low VOC, non-toxic, Green Building compliant material	1 Sqm	1,641.00
869	TBSC-Q.VII-10	Providing and applying epoxy based anti skid coat over existing RCC/Concrete flooring surfaces of 2mm thickness for wear & tear protection in three part applications containing low solvent-coloured, epoxy resin based coating with thyrotrophic properties specially formulated for application in Car Parks having Mechanical / Physical Properties such as 1. Abrasion Resistance ~ 0.8mm thickness loss (According to IS 1237 - 1980 and IS 9162 - 1979) 2. Chemical Resistance to many chemicals 3. Thermal Resistance Exposure with Dry heat Permanent +50°C	1 Sqm	775.00
870	TBSC-Q.VII-11	Providing and applying epoxy resin based self levelling Conductive Floor System of 2mm thick Antistatic (ESD) Flooring System comprising of 1 coat of Primer followed by Application of copper tape and 1 layer of SL Conductive Undercoat and 1 layer of SL Conductive Top coat with Compressive strength after 7 days at +30° C: 50 N/mm2 and Flexural strength after 7 days at +30° C: approx. 25N/mm2 and Tensile strength after 7 days at +30° C: 16 N/mm2 with aSurface resistance When measured for surface resistance in accordance with BS 2050: 1978 (A-1984) and DIN EN 1081, the static Conductive topping including under coat shall be less than 25k Ω.	1 Sqm	1,595.00
871	TBSC-Q.VII-12	Providing and applying food grade epoxy based water proof coat over existing RCC/Concrete flooring surfaces in three part applications containing low solvent-coloured, epoxy resin based coating with low VOC properties specially formulated for food grade application for potable water storage tanks in ambient temperatures	1 Kg	320.00
872	TBSC-Q.VII-13	Providing water proof treatment by supplying and fixing of MAT of 2mm thickness, 2.25 kg per sqm, first coat of bituminous emulsion, then one coat of bitumen 85/25 grade, fixing of water proofing membrane, sealing of joints with torch, applying second coat of bitumen 85/25 grade, and applying a coat of bituminous Aluminum paint for heat resistance for finished item of work as directed by the Engineer-in-Charge	1 Sqm	488.00
<b>VIII</b>	<b>SUB-SECTION</b>	<b>EXPANSION JOINTS</b>		
873	TBSC-Q.VIII-01	Supply of high performance expansion joint filler board conforming to IS: 1838 - 18 mm THICK	1 Sqm	816.00
874	TBSC-Q.VIII-02	Supply of high performance expansion joint filler board conforming to IS: 1838 - 20 mm THICK	1 Sqm	915.00



Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
875	TBSC-Q.VIII-03	Supply of high performance expansion joint filler board conforming to IS: 1838 - 25 mm THICK	1 Sqm	1,144.00
876	TBSC-Q.VIII-04	Supply of expansion joint filler board conforming to IS: 1838 for buildings, columns, beams and slabs 20 mm THICK	1 Sqm	328.00
877	TBSC-Q.VIII-05	Supply of expansion joint filler board conforming to IS: 1838 for buildings, columns, beams and slabs 25 mm THICK	1 Sqm	410.00
878	TBSC-Q.VIII-06	Supply of expansion joint filler board conforming to IS: 1838 for buildings, columns, beams and slabs 50 mm THICK	1 Sqm	816.00
879	TBSC-Q.VIII-07	Supply of back up to cold applied gun-grade polysulphide sealant conforming to IS:11433 (Part-1) in construction and longitudinal joint - 10 mm OD	1 RM	14.00
880	TBSC-Q.VIII-08	Supply of back up to cold applied gun-grade polysulphide sealant conforming to IS:11433 (Part-1) in construction and longitudinal joint - 12 mm OD	1 RM	16.00
881	TBSC-Q.VIII-09	Supply of back up to cold applied gun-grade polysulphide sealant conforming to IS:11433 (Part-1) in construction and longitudinal joint - 15 mm OD	1 RM	20.00
882	TBSC-Q.VIII-10	Supply of back up to cold applied gun-grade polysulphide sealant conforming to IS:11433 (Part-1) in construction and longitudinal joint - 20 mm OD	1 RM	28.00
883	TBSC-Q.VIII-11	Supply of back up to cold applied gun-grade polysulphide sealant conforming to IS:11433 (Part-1) in construction and longitudinal joint - 25 mm OD	1 RM	35.00
884	TBSC-Q.VIII-12	Chipping and scarifying the existing DPC/ plum concrete surface or impervious surface up to 50 mm thick to expose the virgin surface of the concrete using low/ medium vibratory chipping machine as a part of structural repair/ retrofitting	1 Sqm	24.00
885	TBSC-Q.VIII-13	Providing and filling the chipped and scarified surface with High Strength, Non shrink Free Flow Micro Concrete mixing with water 3.75 to 4 liters per 25 kg bag and 6 to 12 mm aggregate, if necessary as per the directions of the Engineer-in-charge as a part of structural repair/ retrofitting	1 Cum	40,195.00
886	TBSC-Q.VIII-14	Supplying and fixing of weld mesh of size 100 x 100 x 3 mm using "U" nails into the existing prepared surfaces of concrete/ masonry as per the directions of the Engineer-in-charge as a part of structural repair/ retrofitting	1 Sqm	304.00
887	TBSC-Q.VIII-15	Providing guniting to the treated surfaces of concrete/ masonry with 30-35 mm thick premixed polypropylene fibers in two layers with dry-gun concrete as per IS 9012:1978 and the directions of the Engineer-in-Charge as a part of structural repair/ retrofitting	1 Sqm	3,035.00
888	TBSC-Q.VIII-16	Providing shotcreting to the treated surfaces of concrete/ masonry with 25 - 30 mm thick premixed polypropylene fibers in two layers with wet-gun concrete as per IS 9012:1978 and the directions of the Engineer-in-Charge as a part of structural repair/ retrofitting	1 Sqm	3,035.00
889	TBSC-Q.VIII-17	Providing and fixing of horizontal floor to floor expansion joint system for specified gap width of 100/25 metallic system after laying of necessary EPDM membrane over the joint profile related with floor location as per drawings. The joints system will be of extruded aluminium base members, support plates with EPDM top seal etc. as per ASTM B221-02. The system shall be such that it provides floor to floor expansion control system for various vertical location in load application areas that accommodates multi directional seismic movement without stress to it's components. System shall consist of	1 RM	3,024.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		metal profiles with a universal aluminium base member designed to accommodate various project conditions and finish floor treatments. The cover plate shall be designed of width and thickness required to satisfy projects movement and loading requirements and secured to base members . Expansion joint shall be tested for their watertight property & the same shall be watertight for a period of five years. (Material shall confirm to ASTM 6063.) Rates shall also be inclusive of material and labour of all exposed aluminium work, all as per manufacturers specifications. Rate should be exclusive of necessary scaffolding work, non shrink grout, RCC cutting, edge preparation, stone fixing in recess part of joint etc complete.		
890	TBSC-Q.VIII-18	Providing and fixing of paintable - expansion joint system for specified gap width of 25mm for all Internal /external - vertical wall to wall /wall to corner /ceiling location as per drawings, applying of PU sealant on both side of the seal into the groves after applying of the masking tape on both side of the joint to ensure straight alignment and squeezing the seal into the joint with uniform hand pressure and sealing the same . remove the residue form the top and masking tape from the side to ensure watertight joint complete in all respects. Internal wall 25mm expansion gap	1 RM	1,970.00
891	TBSC-Q.VIII-19	Providing and fixing of paintable - expansion joint system for specified gap width of 25mm for all Internal /external - vertical wall to wall /wall to corner /ceiling location as per drawings, applying of PU sealant on both side of the seal into the groves after applying of the masking tape on both side of the joint to ensure straight alignment and squeezing the seal into the joint with uniform hand pressure and sealing the same . remove the residue form the top and masking tape from the side to ensure watertight joint complete in all respects. External Wall 25mm expansion gap	1 RM	3,168.00
<b>R</b>	<b>SECTION</b>	<b>MISCELLANEOUS ITEMS</b>		
<b>I</b>	<b>SUB-SECTION</b>			
892	TBSC-R.I-01	Supply of White Cement conforming to IS:8042-1989	1 Kg	34.00
893	TBSC-R.I-02	Supply of well burnt cinder aggregates as per IS: 2686-1977	1 Cum	904.00
894	TBSC-R.I-03	Supply of Aluminium annealed and anodized sections for Doors, partitions, windows, Ventilators (including anodization cost) conforming to IS: 11857 - 1986/ Aluminium plates, sheets and sections for formwork and other industrial uses purposes	1 Kg	332.00
895	TBSC-R.I-04	Providing Powder coating as per IS:13871-1993 or colour anodization as per IS:7088-1973 - on any aluminium or mild steel section	1 Kg	35.00
896	TBSC-R.I-05	Providing hot dip galvanizing to any steel section as per IS:2629-1985	1 Kg	21.00
897	TBSC-R.I-06	Supply of Clear Silicone Sealant (Glass Glue Sealant) of Gun Applicator grade	1 Kg	237.00
898	TBSC-R.I-07	Supply of Sun Control film to the glazed windows partition including labour charges.	1 Sqm	335.00
899	TBSC-R.I-08	Supply of Aluminium Venetian Blinds horizontal 25.4 mm wide with all accessories.	1 Sqm	862.00
900	TBSC-R.I-09	Supply of Aluminium Venetian Blinds horizontal 20.0 mm wide with all accessories.	1 Sqm	822.00
901	TBSC-R.I-10	Supply of Venetian blinds Vertical blinds 100 mm wide	1 Sqm	

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		with all accessories.		<b>1,375.00</b>
902	TBSC-R.I-11	Supply of Rubber Beading for glass fixing	<b>1 RM</b>	<b>5.00</b>
903	TBSC-R.I-12	Supply of Soft Brush for painting, varnishing etc	<b>Each</b>	<b>151.00</b>
904	TBSC-R.I-13	Supply of Wire Brush for scraping	<b>Each</b>	<b>36.00</b>
905	TBSC-R.I-14	Providing and fixing PVC door cladding to the flush doors shutters, for the new doors it shall be pasted with synthetic glue or nailed to the old doors. complete as per direction of Engineer-in-charge, manufacturers specification and drawing - 1 mm thick	<b>1 Sqm</b>	<b>402.00</b>
906	TBSC-R.I-15	Providing and fixing PVC door cladding to the flush doors shutters, for the new doors it shall be pasted with Synthetic glue SSR 998 or nailed to the old doors. complete as per direction of Engineer-in-charge, manufacturers specification and drawing - 1.5 mm thick	<b>1 Sqm</b>	<b>458.00</b>
907	TBSC-R.I-16	Providing and fixing PVC door cladding to the flush doors shutters, for the new doors it shall be pasted with Synthetic glue SSR 998 or nailed to the old doors. complete as per direction of Engineer-in-charge, manufacturers specification and drawing - 2.0 mm thick	<b>1 Sqm</b>	<b>518.00</b>
908	TBSC-R.I-17	Supplying and fixing aluminium composite cladding with skin material 0.25 mm thick aluminium sheet cover material natural polyethylene aluminium cladding panel fixed with extruded aluminium basis frame (50x25x1.5mm) angle cleats, weather sealants, rivets, GI brackets all as approved, using suitable bolts on structural steel work including necessary accessories complete in all respects including labour charges etc., complete for finished item of work but excluding cost of structural steel fabrication, scaffolding charges, if any, <b>ACP Cladding - 3 mm thick</b>	<b>1 Sqm</b>	<b>2,710.00</b>
909	TBSC-R.I-18	Supplying and fixing aluminium composite cladding with skin material 0.25 mm thick aluminium sheet cover material natural polyethylene aluminium cladding panel fixed with extruded aluminium basis frame (50x25x1.5mm) angle cleats, weather sealants, rivets, GI brackets all as approved, using suitable bolts on structural steel work including necessary accessories complete in all respects including all labour charges etc., complete for finished item of work but excluding cost of structural steel fabrication, scaffolding charges, if any, <b>ACP Cladding - 4 mm thick</b>	<b>1 Sqm</b>	<b>2,955.00</b>
910	TBSC-R.I-19	Supplying and fixing aluminium composite cladding with skin material 0.5 mm thick aluminium sheet cover material natural polyethylene aluminium cladding panel fixed with extruded aluminium basis frame (50x25x1.5mm) angle cleats, weather sealants, rivets, GI brackets all as approved, using suitable bolts on structural steel work including necessary accessories complete in all respects including all labour charges etc., complete for finished item of work but excluding cost of structural steel fabrication, scaffolding charges, if any, <b>ACP Cladding - 4 mm thick</b>	<b>1 Sqm</b>	<b>3,313.00</b>
911	TBSC-R.I-20	S&F of pre-cast RCC Grills of any design of 25 mm thick manufactured with M-30 grade of concrete using vibro-compaction process using joint less FRP moulds to achieve shuttering finish and adequately reinforced for long use and to prevent damage during handling, transportation & erection etc.,	<b>1 Sqm</b>	<b>392.00</b>
912	TBSC-R.I-21	S&F of pre-cast RCC Grills of any design of 40 mm thick manufactured with M-30 grade of concrete using vibro-compaction process using joint less FRP moulds to	<b>1 Sqm</b>	<b>546.00</b>

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		achieve shuttering finish and adequately reinforced for long use and to prevent damage during handling, transportation & erection etc.,		
913	TBSC-R.I-22	S&F of pre-cast RCC Grills of any design of 50 mm thick manufactured with M-30 grade of concrete using vibro-compaction process using joint less FRP moulds to achieve shuttering finish and adequately reinforced for long use and to prevent damage during handling, transportation & erection etc.,	1 Sqm	641.00
914	TBSC-R.I-23	Supply of Aluminium sheet 24 Gauge	1 Sqm	311.00
915	TBSC-R.I-24	Supply of 7.5mm thick Aluminium Grill (as approved by the department) 3.58 Kg/1 Sqm	1 Sqm	1,145.00
		Design, fabrication & supply of light weight pre engineered buildings for a maximum span of 9 meters with 50 x 50 x 2.8 mm M.S hollow square tubes for columns, trusses & purlins walls with sandwich panels made up of 2 Nos 10mm thick cement bonded particle/ fibre boards with 25mm thick 12 kg/cum density expanded polystyrene in between encased in 1.25 mm thick 24x7x26 mm 'W' tracks in bottom & top and 'H' section for sides with doors, windows & ventilators, roofing with 26 gauge pre painted profiled sheets fixed with self tapping/ drilling screws, painting with enamel paint for steel items, OBD for interiors and ace for exteriors & providing base plates, templates & anchor bolts along with civil foundation designs & drawings for the finished item of work		
916	TBSC-R.I-25	Steel Structure:Structure is made up of 50x50x2.8 m/33x66x2.8mm thick hollow M.S. sections for -Columns and purlins	1 RM	442.00
917	TBSC-R.I-26	Steel Structure:Structure is made up of 50x50x2.8 m/33x66x2.8mm thick hollow M.S. sections for Trusses	1 RM	2,223.00
918	TBSC-R.I-27	10 mm thick 200 X 200 mm M.S Plates for base plates, 250mm long 12mm anchor bolts with plate washer and nuts complete with one coat of Asian or equivalent red oxide paint	Each	751.00
919	TBSC-R.I-28	Sandwich panels: Sandwich panels of 50 mm thick with 25 mm Thermocol of 12 kg / cum, fixed in between 2 Nos 10 mm cement bonded wood particle / fibre boards properly fixed together with 30 mmx30mmx30mm wood pieces along width & length wherever necessary	1 Sqm	1,600.00
920	TBSC-R.I-29	U' Tracks & 'H' Section:Bottom & Top 'U' Tracks are made of 1.25 mm thick 120 GSM G.I. Sheet of size24x51x26 mm size.	1 RM	174.00
921	TBSC-R.I-30	G I 'H' Section is made up of forming width of 275 mm single sheet roll formed in the shape of "H" section without any welding joint. 40mm width for flanges and 51 mm for web to hold 50 mm Sandwich panel	1RM	285.00
922	TBSC-R.I-31	Sandwich Panel joinery is made up of couplers or equivalent made from 0.6 mm G.I. roll formed section to hold 2 Nos of 10 mm board on both sides with 25 mm Thermocol in between.	1 RM	338.00
923	TBSC-R.I-32	150 mm X 150 mm X 2.0 mm size M. S. Corner Cover Plate	1 RM	406.00
924	TBSC-R.I-33	Window:windows are made up of 51 x51 mm step 'U' section made from 1.25 thick MS Cold rolled Steel Sheet and Windows Shutters & Grill are made of 48x25mm mm size pre painted section with 4 mm glass complete with necessary hardware. Grills are made from 8 mm square rod at 100 mm spacing.	1 Sqm	4,656.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
925	TBSC-R.I-34	Door Frames :-51 X 51 Stepped ' U' section made from 1.25 mm thick C.R. section with a 32 mm rebate for 30 mm flush door and Door Shutters with 30 mm thick block board / flush doors with boiling water proof plywood complete with necessary Hard ware.	1 Sqm	4,455.00
926	TBSC-R.I-35	Ventilators:Ventilators are made of 51x51 mm step 'U' section made From 1.25 mm thick C.R. sheet with fixed louvers and glass.	1 Sqm	4,986.00
927	TBSC-R.I-36	Painting:-1) Steel structure is to be painted with 2 coats of Grade I enamel paint.	1 Sqm	127.00
928	TBSC-R.I-37	2) Exterior walls are painted with one coast of primer and 2 coats of exterior emulsion paint .	1 Sqm	114.00
929	TBSC-R.I-38	3) Interiors are painted with 1+2 coat of O.B.D.	1 Sqm	100.00
930	TBSC-R.I-39	Toilets:Toilets are provided as per plan with a provision for fixing the wash basin, W.C. etc only is made with M.S. steel section secured to the walls with toilet bracket provision excluding cost of WC/ Wash basin etc	Each	1,066.00
931	TBSC-R.I-40	Sun shades:Sun shades will be provided wherever necessary with 300 mm more than the width of window. 25x25 mm angle frame to cover 450 mm in the front and the sides. 10mm cement bonded particle board will be fixed on the frame work and sealed with green paste or equivalent.	Each	3,591.00
932	TBSC-R.I-41	Roofing:Roofing will be provided with 0.5mm thick galvanized / pre painted G.I. profiled sheets fixed to the purlins with 14 size self drilling screws with neoprene washer. Side laps are stitched with self tapping / drilling screws. End laps are to be sealed with 25x3 mm Butyl tape. The sheets are provided with anti capillary grove.	1 Sqm	812.00
933	TBSC-R.I-42	Preparing gabions with jungle wood	Each	5.00
934	TBSC-R.I-43	Planting plants	Each	5.00
935	TBSC-R.I-44	Pruning plants	Each	5.00
936	TBSC-R.I-45	Maintaining avenues including fencing, weeding, mulching, watering etc per plant.	Each	9.00
937	TBSC-R.I-46	Maintaining avenues including fencing, weeding, mulching, watering etc per plant When scattered in hot weather with extra conveyance from March to June	Each	10.00
938	TBSC-R.I-47	Hoisting or lowering of slab	1 cum	124.00
939	TBSC-R.I-48	Drilling holes in hard rock surfaces up to 18mm Diameter	1 RM	344.00
940	TBSC-R.I-49	Drilling holes in hard rock above 18mm Diameter	1 RM	477.00
941	TBSC-R.I-50	Making holes up to 18mm Diameter in RCC/ any stones up to 50 mm thick	1 Each	57.33
942	TBSC-R.I-51	Making holes above 18mm Diameter in RCC/ any stones above 50 mm thick	1 Each	80.00
943	TBSC-R.I-52	Supplying EPDM Gasket for windows panes to the PPS shutter	1 RM	35.00
944	TBSC-R.I-53	Supplying SS 304 Grade Heavy Duty Pivot Hinges for windows	1 Each	88.00
945	TBSC-R.I-54	Making holes in Brick Masonry up to 12 mm dia up to 100 mm thick	1 Each	18.00
946	TBSC-R.I-55	Making holes in Brick Masonry up to 12 mm dia up to 150 mm thick	1 Each	22.00
947	TBSC-R.I-56	Designing, supplying and fixing/ erecting Cable and/or frame supported tensioned membrane-covered fabric structure; incorporating a fabric with low elongation	1 Sqm	2,980.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		characteristics under tension and capable of an anticlastic configuration, the Tensile Membrane structure using PET yarns covered with a thicker PVC-coating/ PVDF coating of 900 GSM on both sides to protect the fabric with properties of Anti-Wicking, Maximum Tensile Strength 5000/4300 N/cm <sup>2</sup> , Tear Resistance 600/500 N, Adhesion 140 N/cm <sup>2</sup> , cold and heat resistance in range - 50 to 70 degrees centigrade, light fastness >= 7, light transmission 6.46%, radiation transmission 7.79% complete for finished item of work including cables and fittings, Perimeter, catenary, and sectionalized aluminum clamping system, Structural steel, including masts, trusses, struts, and beams as indicated on the drawings, Fasteners and gaskets etc with a warranty of 20 years		
948	TBSC-R.I-57	Providing and fixing truly levelled and aligned structure made of MS angle of 35x35x3mm thick with 150/225mm x 1830mm x 12mm non asbestos fibre cement eaves board pre painted and designed Density >1225 Kg/m <sup>3</sup> Modulus of Rupture 15.85 MPA, Thermal conductivity 0.0862 W/mk confirming to IS 14862 and Type B category III of ISO 8336, reaction to fire A2-s1d0 tested as per EN 13801 Part 1 and BS 476 Part 4,5,6,7 with the help of full thread flat head steel or copper screws. The MS angle should be fixed on to the soffit with 6mm dia anchor fastener on 620mm cc. Finally the board should be painted with exterior paint. The gaps between the boards should be filled with paintable sealant. All complete as per the drawing and directions of Engineer-in-Charge	1 RM	963.00
949	TBSC-R.I-58	Providing and fixing 50mm thick Non asbestos fibre reinforced aerated cement sandwich modules made out of light weight fibre reinforced aerated cement/concrete core composed of Portland cement, flyash, binders etc and 4mm thick High pressure steam cured non asbestos fibre cement standard board Density>1200kg/m <sup>3</sup> confirming to IS 14862 and Type B category III of ISO 8336 E tested as per AS 1530 part 3 and BS 476 Part 4,5,6,7 on either side of the core having a tongue and groove on longitudinal side of the modules. These solid wall panel should be equivalent to ISO 354-1985, ASTM 423-90 and BS 476 Part 22 1987, IS 8225-1987 modules are erected/installed using galvanized iron steel tracks of 1mm thick and of size 15x51x25mm as bottom track, 25x51x25mm as top track for fixing to the floor and top of the wall respectively including all necessary materials required for erecting and fixing all panel complete as per direction of Engineer-in-Charge	1 Sqm	207.00
950	TBSC-R.I-59	Providing and fixing 75mm thick Non asbestos fibre reinforced aerated cement sandwich modules made out of light weight fibre reinforced aerated cement/concrete core composed of Portland cement, flyash, binders etc and 4mm thick High pressure steam cured non asbestos fibre cement standard board Density>1200kg/m <sup>3</sup> confirming to IS 14862 and Type B category III of ISO 8336 E tested as per AS 1530 part 3 and BS 476 Part 4,5,6,7 on either side of the core having a tongue and groove on longitudinal side of the modules. These solid wall panel should be equivalent to ISO 354-1985, ASTM 423-90 and BS 476 Part 22 1987, IS 8225-1987 modules are erected/installed using galvanized iron steel tracks of 1mm thick and of size 15x77x25mm as bottom	1 Sqm	259.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		track, 25x77x25mm as top track for fixing to the floor and top of the wall respectively including all necessary materials required for erecting and fixing all panel complete as per direction of Engineer-in-Charge		
951	TBSC-R.I-60	Roofing with Durasteel Roofs as per ER-32-251 Galvalume AZ150/PPGI of thickness 0.50mm thick with a tensile strength of 225 Mpa	1 Sqm	516.00
952	TBSC-R.I-61	Roofing with 6mm Non asbestos cement roofing sheets in natural stone grey confirming to BIS 14871: 2000 in standard width of 1097mm and length of 1m	1 Sqm	397.00
953	TBSC-R.I-62	Supply and Fixing of 84MM Thick Hollow Glass blocks , as directed by the Engineer- in-charge including cost of overheads & contractors profit etc., complete for finished item of work.	1 Sqm	13,310.00
954	TBSC-R.I-63	Supplying and laying Solid Wood Flooring of thickness 18 mm cut down to desired size using natural 100% wood board drawn and sawn from one piece of solid wood Oak, American Walnut, Burma Teak, Cumaru, Jatoba etc., including preparing the surface with 5 - 7 mm thick POP treatment, supplying 3 mm thick foam sheet and HDPE Plain Black Polythene Sheet, Tarpaulin Grade: GSM 150, Thickness: 100 Microns Sheeting to receive the wooden flooring	1 Sqm	4,125.00
955	TBSC-R.I-64	Supplying and laying Engineered Wooden Flooring of thickness 14 mm and varying width (53 to 207 mm) reapers of varying length in tongue and groove shape, the edges of the boards with finger lock groove and the bottom side with air pass groove using good quality Engineered Wood comprising of top layer of 3-4 mm thick specie wood drawn and sawn from one piece of solid wood Oak, American Walnut, Burma Teak, Cumaru, Jatoba etc., and bottom layer of 12-15 mm is wooden, spruce or pine or plywood Tongue and Groove 4 Sides machined to a hundredth of a millimeter, with beveled tongue in a tongue & groove section for easy jointing including preparing the surface with 5 - 7 mm thick POP treatment, supplying 3 mm thick foam sheet and HDPE Plain Black Polythene Sheet, Tarpaulin Grade: GSM 150, Thickness: 100 Microns Sheeting to receive the wooden flooring	1 Sqm	3,666.00
956	TBSC-R.I-65	Supplying and laying Laminate Wooden Flooring of thickness 8 mm and 53 to 92 mm wide reapers of varying length in tongue and groove shape, the edges of the boards with finger lock groove and the bottom side with air pass groove using good quality multi-layer synthetic flooring product, fused together with a lamination process the core layer with high-density fiberboard (HDF) including preparing the surface with 5 - 7 mm thick POP treatment, supplying 3 mm thick foam sheet and HDPE Plain Black Polythene Sheet, Tarpaulin Grade: GSM 150, Thickness: 100 Microns Sheeting to receive the wooden flooring	1 Sqm	917.00
957	TBSC-R.I-66	Supplying and Installation of Sports Flooring system of overall 80 mm thick (a+b+c) of which the top layer is of thickness (a) 22 mm and 53 to 92 mm wide reapers of varying length in tongue and groove shape, the edges of the boards with finger lock groove and the bottom side with air pass groove using natural 100% hardwood board drawn and sawn from one piece of solid wood Maple, Teak wood, Oak, etc., the under frame- made of pine wood runners of (b) 38 mm x 70 mm, treated with anti-termite solution and fixed on the bottom side with (c) 20	1 Sqm	6,875.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		mm thick EPDM air cushioned pads, stapled through the two wings at 350 m x 350 mm c/c, including laying HDPE Plain Black Polythene Sheet, Tarpaulin Grade: GSM 150, Thickness: 100 Microns Sheeting on existing IPS / RCC subfloor treated with a vapor barrier to be placed on the leveled IPS / RCC sub floor before laying the under frame, the runners having air cushion pads to be placed on the vapor barrier in perfect level at 350mm in 1 direction, the surface board to be screwed to the runner through the tongue only and will lock the screwed tongue by the groove of adjoining board, ends of the boards to be locked by inserting the wooden fingers through the edge grooves and fixed with suitable adhesive, an expansion of 12 to 15 mm to be left open between the wooden flooring and the surrounding tiled area / walls, duly finishing with machine sanded in uniform level and finishing with P.U. POLISHING water based polyurethane lacquer, etc, including game line marking to be carried out in required colors before applying the finishing coat, complete for finished item		
958	TBSC-R.I-67	Unlined Flax Canvas Hose pipe 3" size for fire fighting as per IS 4927 : 1992	1 Rm	58.00
959	TBSC-R.I-68	Round cover blocks of M60 grade with cover size of 25 mm confirming to IS Code 456:200 section 26.4. 1 .	Each	4.00
960	TBSC-R.I-69	Round cover blocks of M60 grade with cover size of 40 mm confirming to IS Code 456:200 section 26.4. 1 .	Each	7.00
961	TBSC-R.I-70	Round cover blocks of M60 grade with cover size of 50 mm confirming to IS Code 456:200 section 26.4. 1 .	Each	8.00
962	TBSC-R.I-71	Slab cover blocks of M60 grade with cover size of 20 mm confirming to IS Code 456:200 section 26.4. 1 .	Each	3.00
963	TBSC-R.I-72	Trapezoidal cover blocks of M60 grade with cover size of 75 mm confirming to IS Code 456:200 section 26.4. 1 .	Each	7.00
964	TBSC-R.I-73	Multiple cover blocks of M60 grade with cover size of - 20*25*40*50mm and confirming to IS Code 456:200 section 26.4. 1 .	Each	4.00
965	TBSC-R.I-74	Multiple cover blocks with holes of M60 grade with cover size of 20*25*40*50mm confirming to IS Code 456:200 section 26.4. 1 .	Each	4.00
966	TBSC-R.I-75	Multiple cover blocks of M60 grade with cover size of 30mm*35mm confirming to IS Code 456:200 section 26.4. 1 .	Each	4.00
967	TBSC-R.I-76	Supply of Aluminium heat treated sections for windows, structural glazing and other sections of 6061 grade and tempered grade of T6 and above for high strength applications	1 Kg	381.00
968	TBSC-R.I-77	Supply & Laying of Artificial Green Grass made of Polyamide & Polypropylene yarn for real time appurtenance, the thickness of the grass in pile height of 25mm with density -10500, Tuft GSM 750, Tuft withdrawal force -17.4 lbs, with a warranty of 4yrs, including transportation, installation, finishing and handover documentation etc comple for finished item of work.	1 sqm	1,100.00
969	TBSC-R.I-78	Supply & Laying of Artificial Green Grass made of Polyamide & Polypropylene yarn for real time appurtenance, the thickness of the grass in pile height of 35mm with density -10500, Tuft GSM 800, Tuft withdrawal force -17.4 lbs, with a warranty of 4yrs, including transportation, installation, finishing and handover documentation etc comple for finished item of work.	1 sqm	1,395.00
970	TBSC-R.I-79	Supply & Laying of Artificial Green Grass made of	1 sqm	



Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		Polyamide & Polypropylene yarn for real time appurtenance, the thickness of the grass in pile height of 45mm with density -10500, Tuft GSM 1030,, Tuft withdrawal force -17.4 lbs, with a warranty of 4yrs, including transportation, installation, finishing and handover documentation etc comple for finished item of work.		1,695.00
971	TBSC-R.I-80	Providing and Fixing of Stone polymer composite tile of thickness of 4 mm Click-N-Lock tiles with wear layer is of 0.3mm, and has an IXPE Cushion backing of 1 mm, 100% Water & Termite proof, Scratch / Fire / UV resistant, a Recyclable Green product having WEL- LOCK click system with suitable skirting, classification of abrasion resistance (Rubbing action of two abrading wheels of S-42 Type, load Applied 500 grams, No. of Cycles 4,200), Resistance to impact( ASTM F1265), scratch resistance (Micro Scratch EN 16094 : 2012), resistance to Chemical of resilient flooring (ASTM F925-13), with a warranty of 5 years, for Indoor application only, low & semi traffic areas, comple for finished item of work.	1 sqm	1,945.00
972	TBSC-R.I-81	Providing and Fixing of Stone polymer composite tile of thickness of 5 mm Click-N-Lock tiles with wear layer is of 0.5mm, and has an IXPE Cushion backing of 1 mm, 100% Water & Termite proof, Scratch / Fire / UV resistant, a Recyclable Green product having WEL- LOCK click system with suitable skirting, classification of abrasion resistance (Rubbing action of two abrading wheels of S-42 Type, load Applied 500 grams, No. of Cycles 4,200), Resistance to impact( ASTM F1265), scratch resistance (Micro Scratch EN 16094 : 2012), resistance to Chemical of resilient flooring (ASTM F925-13), with a warranty of 5 years, for Indoor application only, low & semi traffic areas, comple for finished item of work.	1 sqm	2,321.00
II	SUB-SECTION	<b>NYLON CARPETS</b>		
973	TBSC-R.II-01	Supply and installation of Modular Nylon Carpet with 100% Solution Dye PET Yarn, Tufted loop & Multi level loop, with Yarn weight of 500 GSM (30 Oz/ sq.yd) and total tile weight min 2200 gsm, Tile Density 5400 gram per cubic meter or above, pile height 2.5 mm and tile total thick ness 5.0mm, with Primary backing of Multi layerEcolyte PVC and Fiber Glass back as secondary backing of Size 50 X 50 cm and the product when tested and certified complying the (a) Indoor Air Quality - GLP2526 , (b) Flooring Radiant Panel - Class1 (ASTM E-648, Made in India, (c) Smoke Density - Less than 450 (ASTM E-662) Less than 3.5 kV (AATCC-134), (d) Lightfastness - Pass and with a Product Warranty 10 Years, (e) Surface Flammability of Carpets and Rugs (ASTM D2859), including installation of carpet tile on a level surface (existing VDF/ tiled floor) using High quality, low VOC water soluble adhesive (Pedilite) and protected with 2 Layers of 50 micron sheets to avoid soiling and 1 time vacuumed cleaning before handover, etc complete for finished item of work.	1 sqm	1,450.00
974	TBSC-R.II-02	Supply and installation of Modular Nylon Carpet with 100% Solution Dye Nylon, Tufted loop & Multi level loop, with Yarn weight of 610 GSM (18 Oz/ sq.yd) and total tile weight min 2400 gsm, Tile Density 5600 gram per cubic meter or above, pile height 2.5-2.75 mm and tile total thick ness 5.25-5.50mm, with Primary backing of Multi layerEcolyte PVC and Fiber Glass back as secondary backing of Size 50 X 50 cm or 25 x 100 cm and the	1 sqm	1,975.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		product when tested and certified complying the (a) Indoor Air Quality - GLP2526 , (b) CRI Green label certificate for LEED Building points, (c) Flooring Radiant Panel - Class1 (ASTM E-648, Made in India, (d) Smoke Density - Less than 450 (ASTM E-662) Less than 3.5 kV (AATCC-134), (e) Lightfastness - Pass and with a Product Warranty 10 Years, (f) Surface Flammability of Carpets and Rugs (ASTM D2859), including installation of carpet tile on a level surface (existing VDF/ tiled floor) using High quality, low VOC water soluble adhesive (Pedilite) and protected with 2 Layers of 50 micron sheets to avoid soiling and 1 time vacuumed cleaning before handover, etc complete for finished item of work.		
975	TBSC-R.II-03	Supply and installation of Modular Nylon Carpet with 100% Solution Dye Nylon, Tufted loop & Multi level loop, with Yarn weight of 900 GSM (30 Oz/ sq.yd) and total tile weight min 3600 gsm, Tile Density 8900 gram per cubic meter or above, pile height 3.5-3.75 mm and tile total thickness 6.25-6.75mm, with Primary backing of Multi layer Ecolyte PVC and Fiber Glass back as secondary backing of Size 50 X 50 cm or 25 x 100 cm and the product when tested and certified complying the (a) Indoor Air Quality - GLP2526 , (b) CRI Green label certificate for LEED Building points, (c) Flooring Radiant Panel - Class1 (ASTM E-648, Made in India, (d) Smoke Density - Less than 450 (ASTM E-662) Less than 3.5 kV (AATCC-134), (e) Lightfastness - Pass and with a Product Warranty 10 Years, (f) Surface Flammability of Carpets and Rugs (ASTM D2859), including installation of carpet tile on a level surface (existing VDF/ tiled floor) using High quality, low VOC water soluble adhesive (Pedilite) and protected with 2 Layers of 50 micron sheets to avoid soiling and 1 time vacuumed cleaning before handover, etc complete for finished item of work.	1 sqm	2,875.00
976	TBSC-R.II-04	Supplying and Fixing of Nylon broadloom carpet, 100% Nylon Cut Pile, Digitally Printed, Pile Height 7 mm ( $\pm 1$ mm), Total Height 11 mm ( $\pm 1$ mm), Stitch / 10 cm 37-39 ( $\pm 2\%$ ), Pile Weight Net less Than 800 GSM ( $\pm 5\%$ ), Total Weight 1791 GSM ( $\pm 5\%$ ), Secondary Backing PP Mesh, Gauge 1/8 Cut Pile, Latex Natural Rubber, the product with minimum 5 Years warranty for any manufacturing defects when tested and certified complying the Color fastness to LightTest Method of AATCC 16 (20 AFU) $\geq 4.0$ at 80 Hours , Static Electricity, AATCC 134 Less than 3.5 KV, Hexapod test Method: ASTM D 5252 $\geq 4$ , Flammability (Radiant Panel), Anti Bacterial & Anti Microbial, ASTM E 648 $\geq 0.45$ (Class I), complete as per specifications, the carpet and underlay (min 6 -8 mm) installed with standard SR 998/SR505/MAPA Adhesives, the flooring installed as per the manufacture's specification and protected with 2 Layers of 50 micron sheets to avoid soiling and 1 time vacuumed cleaning before handover, etc complete for finished item of work.	1 sqm	2,850.00
977	TBSC-R.II-05	Supplying and Fixing of Nylon broadloom carpet 100% Nylon Cut Pile , Digitally Printed , Pile Height 8.5 mm ( $\pm 1$ mm), Total Height 10.5 mm ( $\pm 1$ mm), Stitch / 10 cm 40.5 ( $\pm 2\%$ ), Pile Weight Net less Than 1200 GSM ( $\pm 5\%$ ), Total Weight 2186 GSM ( $\pm 5\%$ ), Secondary Backing PP Mesh, Gauge 1/8 Cut Pile, Latex Natural Rubber, the product with minimum 5 Years warranty for any manufacturing defects when tested and certified complying the Color fastness to LightTest Method of	1 sqm	3,680.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		AATCC 16 (20 AFU) $\geq 4.0$ at 80 Hours , Static Electricity, AATCC 134 Less than 3.5 KV, Hexapod test Method: ASTM D 5252 $\geq 4$ , Flammability (Radiant Panel), Anti Bacterial&Anti Microbial, ASTM E 648 $\geq 0.45$ (Class I), complete as per specifications, the carpet and underlay (min 6 -8 mm) installed with standard SR 998/SR505/MAPAI Adhesives, the flooring installed as per the manufacture's specification and protected with 2 Layers of 50 micron sheets to avoid soiling and 1 time vacuumed cleaning before handover, etc complete for finished item of work.		
978	TBSC-R.II-06	Supplying and Fixing of Nylon broadloom carpet 100% Nylon Cut Pile , Digitally Printed , Pile Height 10 mm ( $\pm 1$ mm), Total Height 12 mm ( $\pm 1$ mm), Stitch / 10 cm 46 ( $\pm 2\%$ ), Pile Weight Net less Than 1500 GSM ( $\pm 5\%$ ), Total Weight 2486 GSM ( $\pm 5\%$ ), Secondary Backing PP Mesh, Gauge 1/8 Cut Pile, Latex Natural Rubber, the product with minimum 5 Years warranty for any manufacturing defects when tested and certified complying the Color fastness to Light Test Method of AATCC 16 (20 AFU) $\geq 4.0$ at 80 Hours , Static Electricity, AATCC 134 Less than 3.5 KV, Hexapod test Method: ASTM D 5252 $\geq 4$ , Flammability (Radiant Panel), Anti Bacterial&Anti Microbial, ASTM E 648 $\geq 0.45$ (Class I), complete as per specifications, the carpet and underlay (min 6 -8 mm) installed with standard SR 998/SR505/MAPAI Adhesives, the flooring installed as per the manufacture's specification and protected with 2 Layers of 50 micron sheets to avoid soiling and 1 time vacuumed cleaning before handover, etc complete for finished item of work.	1 sqm	4,520.00
<b>S</b>	<b>SECTION</b>	<b>MACHINERY &amp; OTHER HIRE CHARGES</b>		
979	TBSC-S.I-01	Machine charges of rubbing/ polishing floor	1 Hr	312.00
980	TBSC-S.I-02	Power Saw Cutter - Hand Operated - Hire charges	1 Hr	146.00
981	TBSC-S.I-03	Power Drill - Hand Operated - Hire Charges	1 Hr	137.00
982	TBSC-S.I-04	Grinding Mortar (Special Grinding)	1 Hr	157.00
983	TBSC-S.I-05	Casuarinas Balli Props - 3" to 4" Diameter - 12'-0" Height	Each	86.00
984	TBSC-S.I-06	Casuarinas Balli Props - 4" to 8" Diameter - 20'-0" Height	Each	142.00
985	TBSC-S.I-07	Wall Plate Brackets / beam bottom supports	Each	249.00
986	TBSC-S.I-08	Wedge Plate fixture	Each	13.00
987	TBSC-S.I-09	Runner beams of approximately 4" x 4" size	RM	496.00
988	TBSC-S.I-10	Steel Plates for form works	1 Sqm	1,869.00
989	TBSC-S.I-11	Scaffolding Pipes & Centering accessories	1 Kg	142.00
990	TBSC-S.I-12	Scaffold Boards - Bamboo scaffolds - Bamboos - 8'0" long	Each	152.00
991	TBSC-S.I-13	Hire charges for stationary Concrete pump conforming to IS 21573 Part-1: 2006 to deliver the fresh green concrete	1 Hr	399.00
992	TBSC-S.I-14	Concrete delivery pipes conforming to IS 15947 Part I: 2012 to be connected to the pump to delivery point (150 mm Diameter) hire charges per 10 RM	1 Hr	7.00
<b>T</b>	<b>SECTION</b>	<b>LABOUR CHARGES</b>		
993	TBSC-T.I-01	Bailing out water for earth work excavation /concrete for foundation below water level. (For building items only) - Other than sandy soil - 0.0 M to 1.0 M	1 cum	347.00
994	TBSC-T.I-02	Bailing out water for earth work excavation /concrete for foundation below water level. (For building items only) - Other than sandy soil - 1.0 M to 2.0 M	1 cum	411.00
995	TBSC-T.I-03	Bailing out water for earth work excavation /concrete for foundation below water level. (For building items only) - Other than sandy soil - 2.0 M to 3.0 M	1 cum	479.00
996	TBSC-T.I-04	Bailing out water for earth work excavation / for concrete foundation below water level. (For building items only) Sandy soil - 0.0 M to 1.0 M	1 cum	551.00
997	TBSC-T.I-05	Bailing out water for earth work excavation /for	1 cum	

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		concrete foundation below water level. (For building items only) Sandy soil - 1.0 M to 2.0 M		856.00
998	TBSC-T.I-06	Bailing out water for earth work excavation /concrete for foundation below water level. (For building items only) Sandy soil - 2.0 M to 3.0 M	1 cum	1,034.00
999	TBSC-T.I-07	Labour charges for making, fabricating office racks, cup-board shutters etc with ply-wood/ MDF sheets, decolam/ veneer laminations including fixing cutting, making, assembling, fixing hinges, fixing fixtures, fixing locks, pasting sheets/ laminations fixing in position with necessary screws excluding cost of materials, accessories, fittings	1 Sqm	1,461.00
1000	TBSC-T.I-08	Labour charges for making, fabricating kitchen furniture, cup-boards with shutters, box cup-boards, box racks, work-station furniture etc with ply-wood/ MDF sheets, decolam/ veneer laminations including fixing cutting, making, assembling, fixing hinges, fixing fixtures, fixing locks, pasting sheets/ laminations fixing in position with necessary screws excluding cost of materials, accessories, fittings	1 Sqm	2,185.00
1001	TBSC-T.I-09	Labour charges for making, fabricating any aluminium door/ window/ glazing including fixing cutting, making, assembling, fixing hinges, fixing fixtures, fixing locks, fixing in position with necessary screws excluding cost of materials, accessories, fittings excluding cost of anodization	1 Sqm	676.00
1002	TBSC-T.I-10	Rounding the edges of Kadapa / Shahabad stone slabs of any thickness including polishing the same	1 Rm	150.00
1003	TBSC-T.I-11	Half Rounding the edges of Marble/ Granite stone slabs of all thicknesses including polishing the same.	1 Rm	456.00
1004	TBSC-T.I-12	Full Rounding the edges of Marble/ Granite stone slabs of all thicknesses including polishing the same.	1 Rm	590.00
1005	TBSC-T.I-13	Machine Cutting charges - for Marble/ Granite slabs up to 50 mm thick by mechanical device.	1 RM	24.00
1006	TBSC-T.I-14	Flat nosing to Kadapa/ Shahabad stone slabs of any thick	1 Rm	73.00
1007	TBSC-T.I-15	Grooves 2-3 mm	1 Rm	81.00
1008	TBSC-T.I-16	Labour charges for fabricating steel works like Window Grills, Compound Wall Grills, Iron Doors, Windows including cost of welding rods, power charges, excluding cost of fixing in position	1 Kg	37.00
1009	TBSC-T.I-17	Labour charges for fixing Iron Doors, Iron Windows and Window Grills in position	1 Kg	6.00
1010	TBSC-T.I-18	Labour charges for fabricating all structural steel works like heavy steel works like Trusses, Stanchions, Heavy Beams and Girders including cost of welding rods, power charges, etc excluding cost of fixing in position	1 Kg	34.00
1011	TBSC-T.I-19	Labour charges for erecting & fixing all structural steel works like heavy iron grills, Trusses, Stanchions, Heavy Beams and Girders erecting in position and fixing by using chain pulley blocks, Derek pole arrangements and cranes etc., complete in position	1 Kg	31.00
1012	TBSC-T.I-20	Labour charges for Fabrication of stainless steel railing works using stainless steel welding rods including buffing, polishing, lacquer finishing, to present seamless finish	1 Kg	188.00
1013	TBSC-T.I-21	Labour charges for Fabrication of stainless steel sheet cladding works using stainless steel welding rods including buffing, polishing, lacquer finishing, to present seamless finish	1 Sqm	2,516.00
1014	TBSC-T.I-22	Labour charges for Glass designing works on any	1 Sqm	

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		thickness of Glass including fixing at site - Etching works		1,369.00
1015	TBSC-T.I-23	Labour charges for Glass designing works on any thickness of Glass including fixing at site - Reverse Etching work	1 Sqm	1,694.00
1016	TBSC-T.I-24	Labour charges for Glass designing works on any thickness of Glass including fixing at site - Acid wash works	1 Sqm	2,117.00
1017	TBSC-T.I-25	Labour charges for fixing Flush door shutters of any thickness to the existing door frame including fixing the fixtures to the door shutter excluding cost of shutter	1 Sqm	550.00
1018	TBSC-T.I-26	Labour charges for fixing glass panes of any thickness to the existing door / window panes including fixing the beading excluding cost of beading	1 Sqm	410.00
1019	TBSC-T.I-27	Labour charges for wrought and put up including fixing in position for Teak wood Fully paneled doors external or internal including frame	1 Sqm	2,356.00
1020	TBSC-T.I-28	Labour charges for wrought and put up including fixing in position for Teak wood Glazed and paneled doors including fixing glass including frame	1 Sqm	2,212.00
1021	TBSC-T.I-29	Labour charges for wrought and put up including fixing in position for Teak wood Framed and planked doors including frame	1 Sqm	1,954.00
1022	TBSC-T.I-30	Labour charges for wrought and put up including fixing in position for Teak wood Ledged, braced and planked doors including frame	1 Sqm	1,528.00
1023	TBSC-T.I-31	Labour charges for wrought and put up including fixing in position for Teak wood Flush type door shutter including frame	1 Sqm	1,151.00
1024	TBSC-T.I-32	Labour charges for wrought and put up including fixing in position for Teak wood Windows glazed including outer frame and shutter frame	1 Sqm	1,495.00
1025	TBSC-T.I-33	Labour charges for wrought and put up including fixing in position for Teak wood Windows paneled including outer frame and shutter frame	1 Sqm	2,273.00
1026	TBSC-T.I-34	Labour charges for wrought and put up including fixing in position for Teak wood Windows ledged, braced and planked including outer frame	1 Sqm	1,553.00
1027	TBSC-T.I-35	Labour charges for wrought and put up including fixing in position for Teak wood Windows framed and planked including outer frame and shutter frame	1 Sqm	1,855.00
1028	TBSC-T.I-36	Labour charges for wrought and put up including fixing in position for Teak wood Ventilators glazed, fixed with double frame with wire netting including frame	1 Sqm	1,213.00
1029	TBSC-T.I-37	Labour charges for wrought and put up including fixing in position for Teak wood Swing ventilators glazed including outer frame and shutter frame	1 Sqm	1,543.00
1030	TBSC-T.I-38	Labour charges for wrought and put up including fixing in position for Teak wood Weld mesh doors and windows including outer frame and shutter frame	1 Sqm	806.00
1031	TBSC-T.I-39	Labour charges for wrought and put up including fixing in position for Teak wood G.I or .AC sheet door & windows including outer frame and shutter frame	1 Sqm	909.00
1032	TBSC-T.I-40	Labour charges for wrought and put up including fixing in position for Other than teakwood Fully paneled doors external or internal including frame	1 Sqm	2,019.00
1033	TBSC-T.I-41	Labour charges for wrought and put up including fixing in position for Other than teakwood Glazed and paneled doors including fixing glass including frame	1 Sqm	3,350.00
1034	TBSC-T.I-42	Labour charges for wrought and put up including fixing in position for Other than teakwood Framed and planked doors including frame	1 Sqm	1,674.00
1035	TBSC-T.I-43	Labour charges for wrought and put up including fixing in	1 Sqm	

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		position for Other than teakwood Ledged, braced and planked doors including frame		1,309.00
1036	TBSC-T.I-44	Labour charges for wrought and put up including fixing in position for Other than teakwood Flush type door shutter including frame	1 Sqm	925.00
1037	TBSC-T.I-45	Labour charges for wrought and put up including fixing in position for Other than teakwood Windows glazed including outer frame and shutter frame	1 Sqm	1,388.00
1038	TBSC-T.I-46	Labour charges for wrought and put up including fixing in position for Other than teakwood Windows paneled including outer frame and shutter frame	1 Sqm	2,081.00
1039	TBSC-T.I-47	Labour charges for wrought and put up including fixing in position for Other than teakwood Windows ledged, braced and planked including outer frame	1 Sqm	1,424.00
1040	TBSC-T.I-48	Labour charges for wrought and put up including fixing in position for Other than teakwood Windows framed and planked including outer frame and shutter frame	1 Sqm	1,698.00
1041	TBSC-T.I-49	Labour charges for wrought and put up including fixing in position for Other than teakwood Ventilators glazed, fixed with double frame with wire netting including frame	1 Sqm	1,174.00
1042	TBSC-T.I-50	Labour charges for wrought and put up including fixing in position for Other than teakwood Swing ventilators glazed including outer frame and shutter frame	1 Sqm	1,478.00
1043	TBSC-T.I-51	Labour charges for wrought and put up including fixing in position for Other than teakwood Weld mesh doors and windows including outer frame and shutter frame	1 Sqm	756.00
1044	TBSC-T.I-52	Labour charges for wrought and put up including fixing in position for Other than teakwood G.I or .AC sheet door & windows including outer frame and shutter frame	1 Sqm	858.00
1045	TBSC-T.I-53	Dressing faces of granite stone (double line dressing)	1 Sqm	251.00
1046	TBSC-T.I-54	Dressing faces of other than granite stone(double line dressing)	1 Sqm	157.00
1047	TBSC-T.I-55	Labour charges for removing and refixing with complete servicing of the MS Windows	1 Sqm	535.00
<b>U</b>	<b>SECTION</b>	<b>DISMANTLING</b>		
1048	TBSC-U.I-01	Stone masonry in cement mortar	1 Cum	571.00
1049	TBSC-U.I-02	Terracing work in roofs or floors	1 Sqm	24.00
1050	TBSC-U.I-03	Flat stones in roof or floors including lifting	1Sqm	22.00
1051	TBSC-U.I-04	Pan tiled or Mangalore tiled roof without roof timbers.	1Sqm	20.00
1052	TBSC-U.I-05	Flat and pan tiles or Mangalore tiles over flat tiles without roof timbers	1Sqm	22.00
1053	TBSC-U.I-06	Wrought and framed timber in roofs or floors	1 Cum	297.00
1054	TBSC-U.I-07	Old lime mortar plaster	1Sqm	7.00
1055	TBSC-U.I-08	Old cement mortar plaster	1Sqm	8.00
1056	TBSC-U.I-09	Dry rough stone revetment for aprons and stacking within 40 M lead	1 Cum	92.00
1057	TBSC-U.I-10	Revetment for aprons and stacking grouted within 40 lead	1 Cum	70.00
1058	TBSC-U.I-11	Kadapa slabs or Shahabad stone slabs flooring on sand bed	1Sqm	11.00
1059	TBSC-U.I-12	Through scraping of old plastered surface	1Sqm	7.00
1060	TBSC-U.I-13	Washing of plastered surface with soap, soda and water (or with soda lime and water)	1Sqm	4.00
1061	TBSC-U.I-14	Clean removal of lime plaster from walls and raking out joints 20 mm deep or from terraced roof and raking out joints up to 50 mm deep	1Sqm	7.00
1062	TBSC-U.I-15	Clean removal of cement plaster from walls and raking out joints 20 mm deep or from terraced roof and raking	1Sqm	8.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		out joints from 50 mm to 100 mm deep		
<b>V</b>	<b>SECTION</b>	<b>GYPSUM PLASTER</b>		
1063	TBSC-V.I-01	Supply and applying 20 mm thick fine Gypsum plaster on internal RCC surfaces like Ceilings, Beams, Columns, walls duly preparing the surfaces clean and dry including cost of material, application charges to make even surface, labour charges, unloading, loading, scaffolding etc complete for finished item of work.	1Sqm	568.00
1064	TBSC-V.I-02	Supply and applying 12 mm thick fine Gypsum plaster on internal RCC surfaces like Ceilings, Beams, Columns, walls duly preparing the surfaces clean and dry including cost of material, application charges to make even surface, labour charges, unloading, loading, scaffolding etc complete for finished item of work.	1Sqm	341.00
<b>W</b>	<b>SECTION</b>	<b>PANELS</b>		
1065	TBSC-W.I-01	Providing and fixing in position, 200mm thick factory made Expanded Polystyrene Core (EPS Core) wall panels consisting of EPS core sandwiched between two Engineered sheets of welded wire fabric mesh duly finished with shotcrete materials on outer faces. The fabric mesh shall be made of 3mm dia GI wire mesh with 50 mm pitch in both the directions and on both faces of the wall kept at 120-135 mm gap and connected by the zig zag GI wire of 3mm dia at alternate row by welding (at an angle ranging from 50-70 degree). The EPS core shall consist of 100 mm thick EPS of density not less than 20 kg/cum. Both the outer faces of the panel shall be finished by applying the layer of 50 mm thick cement mortar 1:3 ( 1 cement; 3 coarse sand (not having more than 40% stone chips of size up to 6mm) with the help of shortcreting/guniting equipment etc at a pressure not less than 1 bar (100 kN/m2) and both surfaces finished with trowel. Fixing operations of wall panels shall be completed in all respects as per drawing and specifications and under the overall direction of the Engineer-in-Charge	1Sqm	3,630.00
1066	TBSC-W.I-02	Providing and fixing in position, 230 thick factory made Expanded Polystyrene Core (EPS Core) roof/floor panels made of 3mm GI wire mesh with 50 mm pitch in both the directions and on both faces of the panel kept at 120-135 mm gap and connected by the zig zag GI wire of 3mm dia at alternate row by welding (at an angle ranging from 50-70 degree). The EPS core shall consist of 100 mm thick EPS of density not less than 20 kg/cum. The bottom side of the panel shall be finished by applying a layer of 60-65 mm thick cement mortar 1:3 ( 1 cement; 3 coarse sand (not having more than 40% stone chips of size up to 6mm) with the help of shortcreting equipment etc at a pressure not less than 1 bar (100 kN/m2) and surfaces finished with trowel. The top face of the panel shall be provided and finished by applying 70-75mm thick layer of cement concrete 1:1.5:3 (1 Cement : 1.5 Coarse sand : 3 graded stone aggregate 20 mm nominal size)Fixing operations of roof/floor panels shall be completed in all respects as per drawing and specifications and under the overall direction of the Engineer-in-Charge	1Sqm	3,843.00
1067	TBSC-W.I-03	Supply and Installation of 12 mm thick Flux standing seam polycarbonate panel system of DPI Daylighting or Equivalent, Supply and installation of translucent roof with DPI flux standing seam multicell polycarbonate panel system. The system with complete assembly of co	1Sqm	3,527.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		extruded UV protected multicell panels incorporated into a complete system. Co extruded UV protected polycarbonate panel system of min 12 mm thick of 900 mm min width with angular daylighting concept. Panels shall have minimum six layers with truss bridge design for higher flexibility and strength. Panels with all fixing accessories to ensure best performance for wind uplift vibration, oil canning and visual appearance. Panels shall be manufactured with vertical standing seam at both sides of the panel. Panels shall be fixed on Purlin with snap on connectors with double tooth grip lock locking mechanism and will be secured on MS structure (will be paid separately) with 3 numbers self drilling screws and trapezoid SS fasteners holding the base of the standing seam offering best stability having a pull out load of min 7000N tested as per ISO 6892-1998 and IS 1608-2005 as per design requirement. Panels must satisfy dart drop impact test as per IS 14443-97 shall show no sign of breakage on Polycarbonate sheets which have been exposed to UV for a min of 500 Hours as per ASTM G 155. Panels shall not have yellowness index as per ASTM D 1925 of 15 units when tested on a sample exposed to UV for 500 Hours as per ASTM G 155. U value shall not be more than 1.6 W/m <sup>2</sup> K as per EN ISO 10077-2;2018. Panel shall be with additional end cap/ Aluminium U/F profile/Glazing Bar for ends as required. Panel shall be fixed over MS structural steel/MS purlin (paid separately) conforming to the detail technical specifications as per approved architectural drawings. Trained and factory authorized labour with supervision to complete the entire panel installation as per drawing & direction of the Engineer-in-Charge.		
1068	TBSC-W.I-04	Supply and Installation of 16 mm thick Flux standing seam polycarbonate panel system of DPI Daylighting or Equivalent Supply and installation of DPI Flux translucent roof with standing seam multicell polycarbonate panel system. The system with complete assembly of co extruded UV protected multicell panels incorporated into a complete system. Co extruded UV protected polycarbonate panel system of min 16 mm thick of 1200 mm min width with angular daylighting concept. Panels shall have minimum seven layers in a truss bridge design for higher flexibility and strength. Panels with opaque translucent clear combination as per required flux level and design requirements with all fixing accessories to ensure best performance for wind uplift vibration, oil canning and visual appearance. Panels shall be manufactured with vertical standing seam at both sides of the panel. Panels shall be fixed on Purlin with snap on connectors with double tooth grip lock locking mechanism and will be secured on MS structure (will be paid separately) with 3 numbers self drilling screws and trapezoid SS fasteners holding the base of the standing seam offering best stability having a pull out load of min 7000N tested as per ISO 6892-1998 and IS 1608-2005 as per design requirement. Panels must satisfy dart drop impact test as per IS 14443-97 shall show no sign of breakage on Polycarbonate sheets which have been exposed to UV for a min of 500 Hours as per ASTM G 155. Panels shall not have yellowness index as per ASTM D 1925 of 15 units when tested on a sample exposed to UV for 500 Hours as per ASTM G 155. U value shall not be more than 1.9 W/m <sup>2</sup> K as per EN ISO 10077-2;2018. Panel	1Sqm	4,482.00



Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		shall be with additional end cap/ Aluminium U/F profile/Glazing Bar for ends as required. Panel shall be fixed over MS structural steel/MS purlin (paid separately) conforming to the detail technical specifications as per approved architectural drawings. Trained and factory authorized labour with supervision to complete the entire panel installation as per drawing & direction of the Engineer-in-Charge.		
1069	TBSC-W.I-05	Supply and Installation of 18 mm thick Flux standing seam polycarbonate panel system of DPI Daylighting or Equivalent, Supply and installation of DPI Flux translucent roof with standing seam multicell polycarbonate panel system. The system with complete assembly of co extruded UV protected multicell panels incorporated into a complete system. Co extruded UV protected polycarbonate panel system of min 18 mm thick of 1200 mm min width with angular daylighting concept. Panels shall have minimum seven layers in a truss bridge design for higher flexibility and strength. Panels with opaque translucent clear combination as per required flux level and design requirements with all fixing accessories to ensure best performance for wind uplift vibration, oil canning and visual appearance. Panels shall have an additional IR Blocking features for enhance thermal comfort. Panels shall be manufactured with vertical standing seam at both sides of the panel. Panels shall be fixed on Purlin with snap on connectors with double tooth grip lock locking mechanism and will be secured on MS structure (will be paid separately) with a continuous aluminium I Beam holding the base of the standing seam along the length of the panel and fixed with purlin with self drilling hex head screws offering best stability with a pull out load of min 21000N tested as per ISO 6892-1998 and IS 1608-2005 as per design requirement. Panels must satisfy dart drop impact test as per IS 14443-97 shall show no sign of breakage on Polycarbonate sheets which have been exposed to UV for a min of 500 Hours as per ASTM G 155. U value shall not be more than 1.9 W/m <sup>2</sup> K as per EN ISO 10077-2;2018. Panel shall be with additional end cap/ Aluminium U/F profile/Glazing Bar for ends as required. Panel shall be fixed over MS structural steel/MS purlin (paid separately) conforming to the detail technical specifications as per approved architectural drawings. Trained and factory authorized labour with supervision to complete the entire panel installation as per drawing & direction of the Engineer-in-Charge.	1Sqm	4,865.00
<b>X</b>	<b>SECTION</b>	<b>POST-TENSIONING WORKS</b>		
1070	TBSC-X.I-01	Supply of Freyssinet type wedge action anchorage cone block, couplers, anchor heads and wedges of cast iron make shot blasting finish complete assembly of size 400 x 300 mm as per IS 1343 : 2012	1 No	2,024.00
1071	TBSC-X.I-02	Supply of GI corrugated sheathing duct of 0.3mm thick of 90 mm size for installing the tendons for bonded post tensioning work as per IS 1343 : 2012	1 RM	54.00
1072	TBSC-X.I-03	Supply of HDPE grout hose with flanges for bonded post tensioning work as per IS 1343 : 2012	1 RM	32.00
1073	TBSC-X.I-04	Design and execution of post tensioning work, including supplying, laying of HT tendon strands, decoiling, the strands, cutting to the required lengths, laying of HT strands in sheathing (GI corrugated ducts 0.3mm thick) jointing with couplers and inserting the strands,	1 MT	202,303.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled R
		profiling, fixing live end anchorages, making dead end anchorages, including flowering the strands, fixing tendon support bars, supervising the fixing of antibursting reinforcement, stressing the cables using hydraulic jack, end trimming, grouting the cables, with cement slurry, mixed with admixtures with required tools, plants, and machineries, and consumables etc., including all leads, lifts, coordination, with the post-tensioning agency, preparation of drawings, obtaining approval from the Engineer-in-Charge with supply of approved grade tendons but excluding the cost of concrete, reinforcement steel, shuttering, anchors, sheathing duct etc.,		
1074	TBSC-X.I-05	Supply of uncoated Stress Relieved Strand for Prestressed Concrete or Post-Tensioning conforming to IS 6006 - 1983 and IS 14268 - 2017 of Class 1 & 2, as supply of approved grade tendons but excluding the cost of concrete, reinforcement steel, shuttering, anchors, sheathing duct etc. for - PT Strand 12.7 mm	1 MT	93,000.00
1075	TBSC-X.I-06	Supply of uncoated Stress Relieved Strand for Prestressed Concrete or Post-Tensioning conforming to IS 6006 - 1983 and IS 14268 - 2017 of Class 1 & 2, as supply of approved grade tendons but excluding the cost of concrete, reinforcement steel, shuttering, anchors, sheathing duct etc. for - PT Strand 15.2 mm	1 MT	95,000.00
1	All the items to be used on the works are of first quality & ISI and as approved by the Engineer-In-charge of the work.			
2	Supply Rates for all the materials are basic rates based on market rates/quoted rates/ derived rates, excluding Taxes.			
3	The applicable GST (works contract) shall be added at applicable rate in Part B of the estimates.			
4	SSR Rates for Building items are purely for the guidance of the officers in preparation of estimates vide para.113 of APPWD code. Authority who prepares the estimate is however responsible for proper rates as envisaged in para.45 of APPWD code.			
	<b>LEGEND</b>	"TBSC" -A.I-01		
		"TBSC" -R.I-22		
		"TBSC" -S.III-14		
		TBS - Denotes Telangana Buildings SoR		
		A.I/ R.IV - Denotes the Section & Sub-section		
		01/22 - Denotes the serial number of the item		

### SCAFFOLDING CHARGES

Providing rigid steel cup lock scaffolding system using steel pipes, adjustable Jack screw props, RHS spans, couplers, bracings and horizontal connecting members, supporting brackets, RHS span beams as per the approved scaffolding designs & plan and other accessories as per the IS Norms and stability calculations including hire charges for cup lock scaffolding pipes, RHS spans, runners, wooden members and cost and conveyance of all other consumable accessories, taxes etc complete for finished item of work

A. Hire Charges for Centring Deck Sheets - 9 Ply - 19 mm thick Plywood conforming to IS:303 BWR Grade

B. Hire Charges for Centring with MS Steel Plate - form work

C. Hire Charges for Centring with Aluminium anodized sheets and sections conforming to IS: 11857 - 1986

S l	NAME OF THE STRUCTURAL MEMBER	Material Hire charges	Labour charges	Centring Charges for 2021-22	Unit of Measurement
1	2	3	4	5	6
<b>A. HIRE CHARGES FOR CENTERING &amp; SCAFFOLDING - CUPLOCK + MARINE GRADE PLYWOOD</b>					
A	FOOTINGS	Rs. 528.00	Rs. 760.00	Rs. 1288.00	per 1 cum
B	BED BLOCKS, BANDS	Rs. 117.00	Rs. 392.00	Rs. 509.00	per 1 cum
C	PEDESTALS	Rs. 600.00	Rs. 1209.00	Rs. 1809.00	per 1 cum
D	PLINTH BEAMS	Rs. 2545.00	Rs. 1833.00	Rs. 4378.00	per 1 cum
<b>HIRE CHARGES FOR CENTERING &amp; SCAFFOLDING - Unsupported Height up to 3.66 M - MS Cup lock System + Marine Grade Plywood shuttering</b>					
E	LINTELS	Rs. 2161.00	Rs. 1945.00	Rs. 4106.00	per 1 cum
F	CHAJJAS - SUNSHADES	Rs. 427.00	Rs. 299.00	Rs. 726.00	per 1 sqm
G	COLUMNS	Rs. 650.00	Rs. 2732.00	Rs. 3382.00	per 1 cum
H	BEAMS	Rs. 3817.00	Rs. 2291.00	Rs. 6108.00	per 1 cum
I	SLABS - Up to 150 mm thick	Rs. 433.00	Rs. 260.00	Rs. 693.00	per 1 sqm
J	SLABS - above 150 mm - Up to 300 mm thick	Rs. 445.00	Rs. 267.00	Rs. 712.00	per 1 sqm
K	SLABS - above 300 mm thick	Rs. 465.00	Rs. 279.00	Rs. 744.00	per 1 sqm
L	WAFFLE - (GRID) SLABS (Rib Beams with Slabs)	Rs. 1572.00	Rs. 943.00	Rs. 2515.00	per 1 sqm
M	PERGOLA SLABS (Only Rib Beams)	Rs. 1102.00	Rs. 662.00	Rs. 1764.00	per 1 sqm
N	ARCH BEAMS - up to 1.5 M Span	Rs. 4340.00	Rs. 2604.00	Rs. 6944.00	per 1 cum
O	ARCH BEAMS - above 1.5 M Span	Rs. 4401.00	Rs. 2641.00	Rs. 7042.00	per 1 cum
P	DOME SLABS	Rs. 7018.00	Rs. 4212.00	Rs. 11230.00	per 1 cum
Q	HELICAL STAIRCASES	Rs. 535.00	Rs. 321.00	Rs. 856.00	per 1 sqm
R	SHEAR WALLS, RCC WALLS, WATER TANK WALLS	Rs. 890.00	Rs. 613.00	Rs. 1503.00	per 1 sqm
<b>B. HIRE CHARGES FOR CENTERING &amp; SCAFFOLDING - CUPLOCK + MS PLATES</b>					
A	FOOTINGS	Rs. 512.00	Rs. 760.00	Rs. 1272.00	per 1 cum
B	BED BLOCKS, BANDS	Rs. 113.00	Rs. 392.00	Rs. 505.00	per 1 cum
C	PEDESTALS	Rs. 582.00	Rs. 1209.00	Rs. 1791.00	per 1 cum
D	PLINTH BEAMS	Rs. 2467.00	Rs. 1833.00	Rs. 4300.00	per 1 cum
<b>HIRE CHARGES FOR CENTERING &amp; SCAFFOLDING - Unsupported Height up to 3.66 M - MS Cup lock System + MS Plate shuttering</b>					
E	LINTELS	Rs. 2095.00	Rs. 1945.00	Rs. 4040.00	per 1 cum
F	CHAJJAS - SUNSHADES	Rs. 414.00	Rs. 299.00	Rs. 713.00	per 1 sqm
G	COLUMNS	Rs. 631.00	Rs. 2732.00	Rs. 3363.00	per 1 cum
H	BEAMS	Rs. 3701.00	Rs. 2291.00	Rs. 5992.00	per 1 cum
I	SLABS - Up to 150 mm thick	Rs. 420.00	Rs. 260.00	Rs. 680.00	per 1 sqm

J	SLABS - above 150 mm - Up to 300 mm thick	Rs.	431.00	Rs.	267.00	Rs.	698.00	per 1 sqm
K	SLABS - above 300 mm thick	Rs.	451.00	Rs.	279.00	Rs.	730.00	per 1 sqm
L	WAFFLE - (GRID) SLABS (Rib Beams with Slabs)	Rs.	1524.00	Rs.	943.00	Rs.	2467.00	per 1 sqm
M	PERGOLA SLABS (Only Rib Beams)	Rs.	1069.00	Rs.	662.00	Rs.	1731.00	per 1 sqm
N	ARCH BEAMS - up to 1.5 M Span	Rs.	4208.00	Rs.	2604.00	Rs.	6812.00	per 1 cum
O	ARCH BEAMS - above 1.5 M Span	Rs.	4267.00	Rs.	2641.00	Rs.	6908.00	per 1 cum
P	DOMES SLABS	Rs.	6805.00	Rs.	4212.00	Rs.	11017.00	per 1 cum
Q	HELICAL STAIRCASES	Rs.	519.00	Rs.	321.00	Rs.	840.00	per 1 sqm
R	SHEAR WALLS, RCC WALLS, WATER TANK WALLS	Rs.	863.00	Rs.	613.00	Rs.	1476.00	per 1 sqm
<b>C. HIRE CHARGES FOR CENTERING &amp; SCAFFOLDING - CUPLOCK + ALUMINIUM PLATES</b>								
A	FOOTINGS	Rs.	720.00	Rs.	760.00	Rs.	1480.00	per 1 cum
B	BED BLOCKS, BANDS	Rs.	159.00	Rs.	392.00	Rs.	551.00	per 1 cum
C	PEDESTALS	Rs.	818.00	Rs.	1209.00	Rs.	2027.00	per 1 cum
D	PLINTH BEAMS	Rs.	3471.00	Rs.	1833.00	Rs.	5304.00	per 1 cum
<b>HIRE CHARGES FOR CENTERING &amp; SCAFFOLDING - Unsupported Height up to 3.66 M - MS Cup lock System + Aluminium Plate shuttering</b>								
E	LINTELS	Rs.	2947.00	Rs.	1945.00	Rs.	4892.00	per 1 cum
F	CHAJJAS - SUNSHADES	Rs.	582.00	Rs.	299.00	Rs.	881.00	per 1 sqm
G	COLUMNS	Rs.	887.00	Rs.	2732.00	Rs.	3619.00	per 1 cum
H	BEAMS	Rs.	5206.00	Rs.	2291.00	Rs.	7497.00	per 1 cum
I	SLABS - Up to 150 mm thick	Rs.	590.00	Rs.	260.00	Rs.	850.00	per 1 sqm
J	SLABS - above 150 mm - Up to 300 mm thick	Rs.	607.00	Rs.	267.00	Rs.	874.00	per 1 sqm
K	SLABS - above 300 mm thick	Rs.	635.00	Rs.	279.00	Rs.	914.00	per 1 sqm
L	WAFFLE - (GRID) SLABS (Rib Beams with Slabs)	Rs.	2144.00	Rs.	943.00	Rs.	3087.00	per 1 sqm
M	PERGOLA SLABS (Only Rib Beams)	Rs.	1503.00	Rs.	662.00	Rs.	2165.00	per 1 sqm
N	ARCH BEAMS - up to 1.5 M Span	Rs.	5919.00	Rs.	2604.00	Rs.	8523.00	per 1 cum
O	ARCH BEAMS - above 1.5 M Span	Rs.	6003.00	Rs.	2641.00	Rs.	8644.00	per 1 cum
P	DOMES SLABS	Rs.	9572.00	Rs.	4212.00	Rs.	13784.00	per 1 cum
Q	HELICAL STAIRCASES	Rs.	729.00	Rs.	321.00	Rs.	1050.00	per 1 sqm
R	SHEAR WALLS, RCC WALLS, WATER TANK WALLS	Rs.	1214.00	Rs.	613.00	Rs.	1827.00	per 1 sqm
Note:Centering & scaffolding charges for steel scaffolding with pipes, jack props, centring for unsupported heights of every 610 mm height above 3.66 M may be allowed at 16.666% more than the basic material hire charges and relevant labour charges of the applicable floor and item								

Sl	NAME OF THE STRUCTURAL MEMBER	Material Hire charges	Labour charges	Centring Charges for 2021-22	Unit of Measurement
1	2	3	4	5	6
<b>HIRE CHARGES FOR ACCESS SCAFFOLDING - up to 3.66 M using MS Jack Prop Cup lock Pipe Scaffolds for BRICK MASONRY/ STONE MASONRY - 1 sqm (Wall Area)</b>					
A	1st - Floor	Rs. 13.06	Rs. 95.98	Rs. 109.04	per 1 sqm
B	2nd - Floor	Rs. 13.06	Rs. 137.45	Rs. 150.51	per 1 sqm
C	3rd - Floor	Rs. 13.06	Rs. 178.91	Rs. 191.97	per 1 sqm
D	4th - Floor	Rs. 13.06	Rs. 220.37	Rs. 233.43	per 1 sqm
E	5th - Floor	Rs. 13.06	Rs. 261.84	Rs. 274.89	per 1 sqm
F	6th - Floor	Rs. 13.06	Rs. 303.30	Rs. 316.36	per 1 sqm
G	7th - Floor	Rs. 13.06	Rs. 344.76	Rs. 357.82	per 1 sqm
H	8th - Floor	Rs. 13.06	Rs. 386.22	Rs. 399.28	per 1 sqm
I	9th - Floor	Rs. 13.06	Rs. 427.69	Rs. 440.75	per 1 sqm
J	10th - Floor	Rs. 13.06	Rs. 469.15	Rs. 482.21	per 1 sqm
K	11th - Floor	Rs. 13.06	Rs. 510.61	Rs. 523.67	per 1 sqm
L	12th - Floor	Rs. 13.06	Rs. 552.07	Rs. 565.13	per 1 sqm
M	13th - Floor	Rs. 13.06	Rs. 593.54	Rs. 606.60	per 1 sqm
N	14th - Floor	Rs. 13.06	Rs. 635.00	Rs. 648.06	per 1 sqm
O	15th - Floor	Rs. 13.06	Rs. 676.46	Rs. 689.52	per 1 sqm
<b>HIRE CHARGES FOR ACCESS SCAFFOLDING - up to 3.66 M using MS Jack Prop Cup lock Pipe Scaffolds., for PLASTERING/ PAINTING/ TEXTURE to WALLS - 1 sqm</b>					
A	1st - Floor	Rs. 1.31	Rs. 9.60	Rs. 10.90	per 1 sqm
B	2nd - Floor	Rs. 1.31	Rs. 13.74	Rs. 15.05	per 1 sqm
C	3rd - Floor	Rs. 1.31	Rs. 17.89	Rs. 19.20	per 1 sqm
D	4th - Floor	Rs. 1.31	Rs. 22.04	Rs. 23.34	per 1 sqm
E	5th - Floor	Rs. 1.31	Rs. 26.18	Rs. 27.49	per 1 sqm
F	6th - Floor	Rs. 1.31	Rs. 30.33	Rs. 31.64	per 1 sqm
G	7th - Floor	Rs. 1.31	Rs. 34.48	Rs. 35.78	per 1 sqm
H	8th - Floor	Rs. 1.31	Rs. 38.62	Rs. 39.93	per 1 sqm
I	9th - Floor	Rs. 1.31	Rs. 42.77	Rs. 44.07	per 1 sqm
J	10th - Floor	Rs. 1.31	Rs. 46.91	Rs. 48.22	per 1 sqm
K	11th - Floor	Rs. 1.31	Rs. 51.06	Rs. 52.37	per 1 sqm
L	12th - Floor	Rs. 1.31	Rs. 55.21	Rs. 56.51	per 1 sqm
M	13th - Floor	Rs. 1.31	Rs. 59.35	Rs. 60.66	per 1 sqm
N	14th - Floor	Rs. 1.31	Rs. 63.50	Rs. 64.81	per 1 sqm
O	15th - Floor	Rs. 1.31	Rs. 67.65	Rs. 68.95	per 1 sqm
<b>HIRE CHARGES FOR STAGE SCAFFOLDING - up to 3.66 M using MS Jack Prop Cup lock Scaffolds, Staging Boards, for CEILING PLASTERING - 1 sqm</b>					
A	1st - Floor	Rs. 4.07	Rs. 20.18	Rs. 24.25	per 1 sqm
B	2nd - Floor	Rs. 4.07	Rs. 28.24	Rs. 32.31	per 1 sqm
C	3rd - Floor	Rs. 4.07	Rs. 36.29	Rs. 40.36	per 1 sqm
D	4th - Floor	Rs. 4.07	Rs. 44.35	Rs. 48.42	per 1 sqm
E	5th - Floor	Rs. 4.07	Rs. 52.41	Rs. 56.48	per 1 sqm
F	6th - Floor	Rs. 4.07	Rs. 60.47	Rs. 64.53	per 1 sqm
G	7th - Floor	Rs. 4.07	Rs. 68.52	Rs. 72.59	per 1 sqm
H	8th - Floor	Rs. 4.07	Rs. 76.58	Rs. 80.65	per 1 sqm
I	9th - Floor	Rs. 4.07	Rs. 84.64	Rs. 88.70	per 1 sqm
J	10th - Floor	Rs. 4.07	Rs. 92.69	Rs. 96.76	per 1 sqm
K	11th - Floor	Rs. 4.07	Rs. 100.75	Rs. 104.82	per 1 sqm
L	12th - Floor	Rs. 4.07	Rs. 108.81	Rs. 112.87	per 1 sqm
M	13th - Floor	Rs. 4.07	Rs. 116.86	Rs. 120.93	per 1 sqm
N	14th - Floor	Rs. 4.07	Rs. 124.92	Rs. 128.99	per 1 sqm
O	15th - Floor	Rs. 4.07	Rs. 132.98	Rs. 137.04	per 1 sqm
Note:Centering & scaffolding charges for steel scaffolding with pipes, jack props, centring for unsupported heights of every 610 mm height above 3.66 M may be allowed at 16.666% more than the basic material hire charges and relevant labour charges of the applicable floor and item					



**A. CENTERING & SCAFFOLDING CHARGES- FLOOR WISE RATES for CUPLOCK SCAFFOLD SYSTEM USING PLYWOOD SHUTTER for unsupported height 3.66 M**

FLOOR		LINTELS	CHAJJAS - SUNSHADES	COLUMNS	BEAMS	SLABS - Up to 150 mm thick	SLABS - above 150 mm - Up to 300 mm thick	SLABS - above 300 mm thick	WAFFLE - (GRID) SLABS (Rib Beams with Slabs)	PERGOLA SLABS (Only Rib Beams)	ARCH BEAMS - up to 1.5 M Span	ARCH BEAMS - above 1.5 M Span	DOVE SLABS	HELICAL STAIRCASES	SHEAR WALLS, RCC WALLS, WATER TANK WALLS
Material Hire for any Floor	H	2161.00	427.00	650.00	3817.00	433.00	445.00	465.00	1572.00	1102.00	4340.00	4401.00	7018.00	535.00	890.00
Labour Charges for 1st Floor	L	1945.00	299.00	2732.00	2291.00	260.00	267.00	279.00	943.00	662.00	2604.00	2641.00	4212.00	321.00	613.00
Total Hire Charges(H+L)	T	4106.00	726.00	3382.00	6108.00	693.00	712.00	744.00	2515.00	1764.00	6944.00	7042.00	11230.00	856.00	1503.00
1st - Floor	L	1945.00	299.00	2732.00	2291.00	260.00	267.00	279.00	943.00	662.00	2604.00	2641.00	4212.00	321.00	613.00
2nd - Floor	L	2140.00	329.00	3005.00	2520.00	286.00	294.00	307.00	1037.00	728.00	2864.00	2905.00	4633.00	353.00	674.00
3rd - Floor	L	2334.00	359.00	3278.00	2749.00	312.00	320.00	335.00	1132.00	794.00	3125.00	3169.00	5054.00	385.00	736.00
4th - Floor	L	2529.00	389.00	3552.00	2978.00	338.00	347.00	363.00	1226.00	861.00	3385.00	3433.00	5476.00	417.00	797.00
5th - Floor	L	2723.00	419.00	3825.00	3207.00	364.00	374.00	391.00	1320.00	927.00	3646.00	3697.00	5897.00	449.00	858.00
6th - Floor	L	2918.00	449.00	4098.00	3437.00	390.00	401.00	419.00	1415.00	993.00	3906.00	3962.00	6318.00	482.00	920.00
7th - Floor	L	3112.00	478.00	4371.00	3666.00	416.00	427.00	446.00	1509.00	1059.00	4166.00	4226.00	6739.00	514.00	981.00
8th - Floor	L	3307.00	508.00	4644.00	3895.00	442.00	454.00	474.00	1603.00	1125.00	4427.00	4490.00	7160.00	546.00	1042.00
9th - Floor	L	3501.00	538.00	4918.00	4124.00	468.00	481.00	502.00	1697.00	1192.00	4687.00	4754.00	7582.00	578.00	1103.00
10th - Floor	L	3696.00	568.00	5191.00	4353.00	494.00	507.00	530.00	1792.00	1258.00	4948.00	5018.00	8003.00	610.00	1165.00
11th - Floor	L	3890.00	598.00	5464.00	4582.00	520.00	534.00	558.00	1886.00	1324.00	5208.00	5282.00	8424.00	642.00	1226.00
12th - Floor	L	4085.00	628.00	5737.00	4811.00	546.00	561.00	586.00	1980.00	1390.00	5468.00	5546.00	8845.00	674.00	1287.00
13th - Floor	L	4279.00	658.00	6010.00	5040.00	572.00	587.00	614.00	2075.00	1456.00	5729.00	5810.00	9266.00	706.00	1349.00
14th - Floor	L	4474.00	688.00	6284.00	5269.00	598.00	614.00	642.00	2169.00	1523.00	5989.00	6074.00	9688.00	738.00	1410.00
15th - Floor	L	4668.00	718.00	6557.00	5498.00	624.00	641.00	670.00	2263.00	1589.00	6250.00	6338.00	10109.00	770.00	1471.00

**Note:** Centering & scaffolding charges for unsupported heights of every 610 mm height or part thereof over and above 3.66 M may be allowed at 16.666% more than the basic material hire charges and relevant labour charges of the applicable floor and item

**B. CENTERING & SCAFFOLDING CHARGES- FLOOR WISE RATES for CUPLOCK SCAFFOLD SYSTEM USING MS STEEL PLATE SHUTTER for unsupported height 3.66 M**

FLOOR		LINTELS	CHAJJAS - SUNSHADES	COLUMNS	BEAMS	SLABS - Up to 150 mm thick	SLABS - above 150 mm - Up to 300 mm thick	SLABS - above 300 mm thick	WAFFLE - (GRID) SLABS (Rib Beams with Slabs)	PERGOLA SLABS (Only Rib Beams)	ARCH BEAMS - up to 1.5 M Span	ARCH BEAMS - above 1.5 M Span	DOME SLABS	HELICAL STAIR- CASES	SHEAR WALLS, RCC WALLS, WATER TANK WALLS
Material Hire for any Floor	H	2095.00	414.00	631.00	3701.00	420.00	431.00	451.00	1524.00	1069.00	4208.00	4267.00	6805.00	519.00	863.00
Labour Charges for 1st Floor	L	1945.00	299.00	2732.00	2291.00	260.00	267.00	279.00	943.00	662.00	2604.00	2641.00	4212.00	321.00	613.00
Total Hire Charges (H+L)	T	4040.00	713.00	3363.00	5992.00	680.00	698.00	730.00	2467.00	1731.00	6812.00	6908.00	11017.00	840.00	1476.00
1st - Floor	L	1945.00	299.00	2732.00	2291.00	260.00	267.00	279.00	943.00	662.00	2604.00	2641.00	4212.00	321.00	613.00
2nd - Floor	L	2140.00	329.00	3005.00	2520.00	286.00	294.00	307.00	1037.00	728.00	2864.00	2905.00	4633.00	353.00	674.00
3rd - Floor	L	2334.00	359.00	3278.00	2749.00	312.00	320.00	335.00	1132.00	794.00	3125.00	3169.00	5054.00	385.00	736.00
4th - Floor	L	2529.00	389.00	3552.00	2978.00	338.00	347.00	363.00	1226.00	861.00	3385.00	3433.00	5476.00	417.00	797.00
5th - Floor	L	2723.00	419.00	3825.00	3207.00	364.00	374.00	391.00	1320.00	927.00	3646.00	3697.00	5897.00	449.00	858.00
6th - Floor	L	2918.00	449.00	4098.00	3437.00	390.00	401.00	419.00	1415.00	993.00	3906.00	3962.00	6318.00	482.00	920.00
7th - Floor	L	3112.00	478.00	4371.00	3666.00	416.00	427.00	446.00	1509.00	1059.00	4166.00	4226.00	6739.00	514.00	981.00
8th - Floor	L	3307.00	508.00	4644.00	3895.00	442.00	454.00	474.00	1603.00	1125.00	4427.00	4490.00	7160.00	546.00	1042.00
9th - Floor	L	3501.00	538.00	4918.00	4124.00	468.00	481.00	502.00	1697.00	1192.00	4687.00	4754.00	7582.00	578.00	1103.00
10th - Floor	L	3696.00	568.00	5191.00	4353.00	494.00	507.00	530.00	1792.00	1258.00	4948.00	5018.00	8003.00	610.00	1165.00
11th - Floor	L	3890.00	598.00	5464.00	4582.00	520.00	534.00	558.00	1886.00	1324.00	5208.00	5282.00	8424.00	642.00	1226.00
12th - Floor	L	4085.00	628.00	5737.00	4811.00	546.00	561.00	586.00	1980.00	1390.00	5468.00	5546.00	8845.00	674.00	1287.00
13th - Floor	L	4279.00	658.00	6010.00	5040.00	572.00	587.00	614.00	2075.00	1456.00	5729.00	5810.00	9266.00	706.00	1349.00
14th - Floor	L	4474.00	688.00	6284.00	5269.00	598.00	614.00	642.00	2169.00	1523.00	5989.00	6074.00	9688.00	738.00	1410.00
15th - Floor	L	4668.00	718.00	6557.00	5498.00	624.00	641.00	670.00	2263.00	1589.00	6250.00	6338.00	10109.00	770.00	1471.00

**Note:**Centering & scaffolding charges for unsupported heights of every 610 mm height or part thereof over and above 3.66 M may be allowed at 16.666% more than the basic material hire charges and relevant labour charges of the applicable floor and item



## C. CENTERING &amp; SCAFFOLDING CHARGES- FLOOR WISE RATES for CUPLOCK SCAFFOLD SYSTEM USING ALUMINIUM PLATE SHUTTER for unsupported height 3.66 M

FLOOR		LINTELS	CHAJJAS - SUN- SHADES	COLUMNS	BEAMS	SLABS - Up to 150 mm thick	SLABS - above 150 mm - Up to 300 mm thick	SLABS - above 300 mm thick	WAFFLE - (GRID) SLABS (Rib Beams with Slabs)	PERGOLA SLABS (Only Rib Beams)	ARCH BEAMS - up to 1.5 M Span	ARCH BEAMS - above 1.5 M Span	DOME SLABS	HELICAL STAIR- CASES	SHEAR WALLS, RCC WALLS, WATER TANK WALLS
Material Hire for any Floor	H	2947.00	582.00	887.00	5206.00	590.00	607.00	635.00	2144.00	1503.00	5919.00	6003.00	9572.00	729.00	1214.00
Labour Charges for 1st Floor	L	1945.00	299.00	2732.00	2291.00	260.00	267.00	279.00	943.00	662.00	2604.00	2641.00	4212.00	321.00	613.00
Total Hire Charges (H+L)	T	4892.00	881.00	3619.00	7497.00	850.00	874.00	914.00	3087.00	2165.00	8523.00	8644.00	13784.00	1050.00	1827.00
1st - Floor	L	1945.00	299.00	2732.00	2291.00	260.00	267.00	279.00	943.00	662.00	2604.00	2641.00	4212.00	321.00	613.00
2nd - Floor	L	2140.00	329.00	3005.00	2520.00	286.00	294.00	307.00	1037.00	728.00	2864.00	2905.00	4633.00	353.00	674.00
3rd - Floor	L	2334.00	359.00	3278.00	2749.00	312.00	320.00	335.00	1132.00	794.00	3125.00	3169.00	5054.00	385.00	736.00
4th - Floor	L	2529.00	389.00	3552.00	2978.00	338.00	347.00	363.00	1226.00	861.00	3385.00	3433.00	5476.00	417.00	797.00
5th - Floor	L	2723.00	419.00	3825.00	3207.00	364.00	374.00	391.00	1320.00	927.00	3646.00	3697.00	5897.00	449.00	858.00
6th - Floor	L	2918.00	449.00	4098.00	3437.00	390.00	401.00	419.00	1415.00	993.00	3906.00	3962.00	6318.00	482.00	920.00
7th - Floor	L	3112.00	478.00	4371.00	3666.00	416.00	427.00	446.00	1509.00	1059.00	4166.00	4226.00	6739.00	514.00	981.00
8th - Floor	L	3307.00	508.00	4644.00	3895.00	442.00	454.00	474.00	1603.00	1125.00	4427.00	4490.00	7160.00	546.00	1042.00
9th - Floor	L	3501.00	538.00	4918.00	4124.00	468.00	481.00	502.00	1697.00	1192.00	4687.00	4754.00	7582.00	578.00	1103.00
10th - Floor	L	3696.00	568.00	5191.00	4353.00	494.00	507.00	530.00	1792.00	1258.00	4948.00	5018.00	8003.00	610.00	1165.00
11th - Floor	L	3890.00	598.00	5464.00	4582.00	520.00	534.00	558.00	1886.00	1324.00	5208.00	5282.00	8424.00	642.00	1226.00
12th - Floor	L	4085.00	628.00	5737.00	4811.00	546.00	561.00	586.00	1980.00	1390.00	5468.00	5546.00	8845.00	674.00	1287.00
13th - Floor	L	4279.00	658.00	6010.00	5040.00	572.00	587.00	614.00	2075.00	1456.00	5729.00	5810.00	9266.00	706.00	1349.00
14th - Floor	L	4474.00	688.00	6284.00	5269.00	598.00	614.00	642.00	2169.00	1523.00	5989.00	6074.00	9688.00	738.00	1410.00
15th - Floor	L	4668.00	718.00	6557.00	5498.00	624.00	641.00	670.00	2263.00	1589.00	6250.00	6338.00	10109.00	770.00	1471.00

**Note:** Centering & scaffolding charges for unsupported heights of every 610 mm height or part thereof over and above 3.66 M may be allowed at 16.66% more than the basic material hire charges and relevant labour charges of the applicable floor and item



Sl	NAME OF THE STRUCTURAL MEMBER	Material Hire charges	Labour charges	Centring Charges for 2021-22	Unit of Measurement
1	2	3	4	5	6
<b>D. HIRE CHARGES FOR CENTERING &amp; SCAFFOLDING</b>					
A	FOOTINGS	Rs. 325.00	Rs. 760.00	Rs. 1085.00	per 1 cum
B	BED BLOCKS, BANDS	Rs. 72.00	Rs. 392.00	Rs. 464.00	per 1 cum
C	PEDESTALS	Rs. 369.00	Rs. 1209.00	Rs. 1578.00	per 1 cum
D	PLINTH BEAMS	Rs. 1566.00	Rs. 1833.00	Rs. 3399.00	per 1 cum
HIRE CHARGES FOR CENTERING & SCAFFOLDING - Unsupported Height up to 3.66 M Steel scaffolding pipes, jack Props, Wallers, Foot plates, brackets, steel Centering Plates, etc.,					
E	LINTELS	Rs. 1330.00	Rs. 1945.00	Rs. 3275.00	per 1 cum
F	CHAJJAS - SUNSHADES	Rs. 263.00	Rs. 299.00	Rs. 562.00	per 1 sqm
G	COLUMNS	Rs. 400.00	Rs. 2732.00	Rs. 3132.00	per 1 cum
H	BEAMS	Rs. 2349.00	Rs. 2291.00	Rs. 4640.00	per 1 cum
I	SLABS - Up to 150 mm thick	Rs. 266.00	Rs. 260.00	Rs. 526.00	per 1 sqm
J	SLABS - above 150 mm - Up to 300 mm thick	Rs. 274.00	Rs. 267.00	Rs. 541.00	per 1 sqm
K	SLABS - above 300 mm thick	Rs. 286.00	Rs. 279.00	Rs. 565.00	per 1 sqm
L	WAFFLE - (GRID) SLABS (Rib Beams with Slabs)	Rs. 967.00	Rs. 943.00	Rs. 1910.00	per 1 sqm
M	PERGOLA SLABS (Only Rib Beams)	Rs. 678.00	Rs. 662.00	Rs. 1340.00	per 1 sqm
N	ARCH BEAMS - up to 1.5 M Span	Rs. 2671.00	Rs. 2604.00	Rs. 5275.00	per 1 cum
O	ARCH BEAMS - above 1.5 M Span	Rs. 2709.00	Rs. 2641.00	Rs. 5350.00	per 1 cum
P	DOME SLABS	Rs. 4319.00	Rs. 4212.00	Rs. 8531.00	per 1 cum
Q	HELICAL STAIRCASES	Rs. 329.00	Rs. 321.00	Rs. 650.00	per 1 sqm
R	SHEAR WALLS, RCC WALLS, WATER TANK WALLS	Rs. 548.00	Rs. 613.00	Rs. 1161.00	per 1 sqm
<b>E. HIRE CHARGES FOR CENTERING &amp; SCAFFOLDING - Unsupported Height up to 3.66 M</b> Casuarinas Ballies, Bamboos, Wooden Reapers, Runners, Wood Posts, Wall Plates etc.,					
E	LINTELS	Rs. 886.00	Rs. 1489.00	Rs. 2375.00	per 1 cum
F	CHAJJAS - SUNSHADES	Rs. 175.00	Rs. 229.00	Rs. 404.00	per 1 sqm
G	COLUMNS	Rs. 267.00	Rs. 2091.00	Rs. 2358.00	per 1 cum
H	BEAMS	Rs. 1566.00	Rs. 1753.00	Rs. 3319.00	per 1 cum
I	SLABS - Up to 150 mm thick	Rs. 177.00	Rs. 199.00	Rs. 376.00	per 1 sqm
J	SLABS - above 150 mm - Up to 300 mm thick	Rs. 183.00	Rs. 204.00	Rs. 387.00	per 1 sqm
K	SLABS - above 300 mm thick	Rs. 191.00	Rs. 214.00	Rs. 405.00	per 1 sqm
L	WAFFLE - (GRID) SLABS (Rib Beams with Slabs)	Rs. 645.00	Rs. 722.00	Rs. 1367.00	per 1 sqm
M	PERGOLA SLABS (Only Rib Beams)	Rs. 452.00	Rs. 506.00	Rs. 958.00	per 1 sqm
N	ARCH BEAMS - up to 1.5 M Span	Rs. 1780.00	Rs. 1993.00	Rs. 3773.00	per 1 cum
O	ARCH BEAMS - above 1.5 M Span	Rs. 1805.00	Rs. 2021.00	Rs. 3826.00	per 1 cum
P	DOME SLABS	Rs. 2878.00	Rs. 3223.00	Rs. 6101.00	per 1 cum
Q	HELICAL STAIRCASES	Rs. 219.00	Rs. 246.00	Rs. 465.00	per 1 sqm

R	SHEAR WALLS, RCC WALLS, WATER TANK WALLS			DELETED					
Sl	NAME OF THE STRUCTURAL MEMBER		Material Hire charges		Labour charges		Centring Charges for 2021-22		Unit of Measurement
1	2		3		4		5		6
HIRE CHARGES FOR ACCESS SCAFFOLDING - up to 3.66 M using Casuarinas Ballies, Bamboos, Wooden Reapers, Runners, Wood Posts, Wall Plates etc., for BRICK MASONRY/ STONE MASONRY - 1 sqm (Wall Area)									
A	1st - Floor		Rs.	11.66	Rs.	94.29	Rs.	105.95	per 1 sqm
B	2nd - Floor		Rs.	11.66	Rs.	135.61	Rs.	147.27	per 1 sqm
C	3rd - Floor		Rs.	11.66	Rs.	176.93	Rs.	188.59	per 1 sqm
D	4th - Floor		Rs.	11.66	Rs.	218.25	Rs.	229.91	per 1 sqm
E	5th - Floor		Rs.	11.66	Rs.	259.57	Rs.	271.23	per 1 sqm
F	6th - Floor		Rs.	11.66	Rs.	300.89	Rs.	312.54	per 1 sqm
G	7th - Floor		Rs.	11.66	Rs.	342.20	Rs.	353.86	per 1 sqm
H	8th - Floor		Rs.	11.66	Rs.	383.52	Rs.	395.18	per 1 sqm
I	9th - Floor		Rs.	11.66	Rs.	424.84	Rs.	436.50	per 1 sqm
J	10th - Floor		Rs.	11.66	Rs.	466.16	Rs.	477.82	per 1 sqm
K	11th - Floor		Rs.	11.66	Rs.	507.48	Rs.	519.13	per 1 sqm
L	12th - Floor		Rs.	11.66	Rs.	548.79	Rs.	560.45	per 1 sqm
M	13th - Floor		Rs.	11.66	Rs.	590.11	Rs.	601.77	per 1 sqm
N	14th - Floor		Rs.	11.66	Rs.	631.43	Rs.	643.09	per 1 sqm
O	15th - Floor		Rs.	11.66	Rs.	672.75	Rs.	684.41	per 1 sqm
HIRE CHARGES FOR ACCESS SCAFFOLDING - up to 3.66 M using Casuarinas Ballies, Bamboos, Wooden Reapers, Runners, Wood Posts, Wall Plates etc., for PLASTERING to WALLS - 1 sqm									
A	1st - Floor		Rs.	1.17	Rs.	9.43	Rs.	10.60	per 1 sqm
B	2nd - Floor		Rs.	1.17	Rs.	13.56	Rs.	14.73	per 1 sqm
C	3rd - Floor		Rs.	1.17	Rs.	17.69	Rs.	18.86	per 1 sqm
D	4th - Floor		Rs.	1.17	Rs.	21.82	Rs.	22.99	per 1 sqm
E	5th - Floor		Rs.	1.17	Rs.	25.96	Rs.	27.12	per 1 sqm
F	6th - Floor		Rs.	1.17	Rs.	30.09	Rs.	31.25	per 1 sqm
G	7th - Floor		Rs.	1.17	Rs.	34.22	Rs.	35.39	per 1 sqm
H	8th - Floor		Rs.	1.17	Rs.	38.35	Rs.	39.52	per 1 sqm
I	9th - Floor		Rs.	1.17	Rs.	42.48	Rs.	43.65	per 1 sqm
J	10th - Floor		Rs.	1.17	Rs.	46.62	Rs.	47.78	per 1 sqm
K	11th - Floor		Rs.	1.17	Rs.	50.75	Rs.	51.91	per 1 sqm
L	12th - Floor		Rs.	1.17	Rs.	54.88	Rs.	56.05	per 1 sqm
M	13th - Floor		Rs.	1.17	Rs.	59.01	Rs.	60.18	per 1 sqm
N	14th - Floor		Rs.	1.17	Rs.	63.14	Rs.	64.31	per 1 sqm
O	15th - Floor		Rs.	1.17	Rs.	67.27	Rs.	68.44	per 1 sqm
HIRE CHARGES FOR STAGE SCAFFOLDING - up to 3.66 M using Casuarinas Ballies, Bamboos, Wooden Reapers, Runners, Wood Posts, Wall Plates etc., for CEILING PLASTERING - 1 sqm									
A	1st - Floor		Rs.	2.78	Rs.	18.94	Rs.	21.72	per 1 sqm
B	2nd - Floor		Rs.	2.78	Rs.	27.03	Rs.	29.80	per 1 sqm
C	3rd - Floor		Rs.	2.78	Rs.	35.11	Rs.	37.89	per 1 sqm
D	4th - Floor		Rs.	2.78	Rs.	43.20	Rs.	45.97	per 1 sqm
E	5th - Floor		Rs.	2.78	Rs.	51.28	Rs.	54.06	per 1 sqm
F	6th - Floor		Rs.	2.78	Rs.	59.37	Rs.	62.14	per 1 sqm
G	7th - Floor		Rs.	2.78	Rs.	67.45	Rs.	70.23	per 1 sqm
H	8th - Floor		Rs.	2.78	Rs.	75.54	Rs.	78.31	per 1 sqm
I	9th - Floor		Rs.	2.78	Rs.	83.62	Rs.	86.40	per 1 sqm
J	10th - Floor		Rs.	2.78	Rs.	91.71	Rs.	94.48	per 1 sqm
K	11th - Floor		Rs.	2.78	Rs.	99.79	Rs.	102.57	per 1 sqm

L	12th - Floor	Rs.	2.78	Rs.	107.87	Rs.	110.65	per 1 sqm
M	13th - Floor	Rs.	2.78	Rs.	115.96	Rs.	118.74	per 1 sqm
N	14th - Floor	Rs.	2.78	Rs.	124.04	Rs.	126.82	per 1 sqm
O	15th - Floor	Rs.	2.78	Rs.	132.13	Rs.	134.90	per 1 sqm

Note: Centering & scaffolding charges for steel scaffolding with pipes, jack props, steel centring plates for unsupported heights of every 610 mm height above 3.66 M may be allowed at 16.666% more than the basic material hire charges and relevant labour charges of the applicable floor and item

**Note:** It is recommended not to adopt centering and scaffolding rates of Casuarinas Ballies, Bamboos, Wooden Reapers, Runners, Wood Posts, Wall Plates for 3rd and above floors for stage scaffold, access scaffold and regular centering and shuttering items due to safety concerns.

For 3rd and upper floors, it is recommended to adopt CUP LOCK SCAFFOLD SYSTEM for stage scaffold, access scaffold and regular centering and shuttering items as appended in above sections.



**D.CENTERING & SCAFFOLDING CHARGES-FLOOR WISE RATES for Steel scaffolding pipes, jack Props, Steel Centering Plates, etc.,**

FLOOR		LINTELS	CHAJJAS - SUNSHADES	COLUMNS	BEAMS	SLABS - Up to 150 mm thick	SLABS - above 150 mm - Up to 300 mm thick	SLABS - above 300 mm thick	WAFFLE - (GRID) SLABS (Rib Beams with Slabs)	PERGOLA SLABS (Only Rib Beams)	ARCH BEAMS - up to 1.5 M Span	ARCH BEAMS - above 1.5 M Span	DOVE SLABS	HELICAL STAIRCASES	SHEAR WALLS, RCC WALLS, WATER TANK WALLS
Material Hire for any Floor	H	1330.00	263.00	400.00	2349.00	266.00	274.00	286.00	967.00	678.00	2671.00	2709.00	4319.00	329.00	548.00
Labour Charges for 1st Floor	L	1945.00	299.00	2732.00	2291.00	260.00	267.00	279.00	943.00	662.00	2604.00	2641.00	4212.00	321.00	613.00
Total Hire Charges (H+L)	T	3275.00	562.00	3132.00	4640.00	526.00	541.00	565.00	1910.00	1340.00	5275.00	5350.00	8531.00	650.00	1161.00
1st - Floor	L	1945.00	299.00	2732.00	2291.00	260.00	267.00	279.00	943.00	662.00	2604.00	2641.00	4212.00	321.00	613.00
2nd - Floor	L	2140.00	329.00	3005.00	2520.00	286.00	294.00	307.00	1037.00	728.00	2864.00	2905.00	4633.00	353.00	674.00
3rd - Floor	L	2334.00	359.00	3278.00	2749.00	312.00	320.00	335.00	1132.00	794.00	3125.00	3169.00	5054.00	385.00	736.00
4th - Floor	L	2529.00	389.00	3552.00	2978.00	338.00	347.00	363.00	1226.00	861.00	3385.00	3433.00	5476.00	417.00	797.00
5th - Floor	L	2723.00	419.00	3825.00	3207.00	364.00	374.00	391.00	1320.00	927.00	3646.00	3697.00	5897.00	449.00	858.00
6th - Floor	L	2918.00	449.00	4098.00	3437.00	390.00	401.00	419.00	1415.00	993.00	3906.00	3962.00	6318.00	482.00	920.00
7th - Floor	L	3112.00	478.00	4371.00	3666.00	416.00	427.00	446.00	1509.00	1059.00	4166.00	4226.00	6739.00	514.00	981.00
8th - Floor	L	3307.00	508.00	4644.00	3895.00	442.00	454.00	474.00	1603.00	1125.00	4427.00	4490.00	7160.00	546.00	1042.00
9th - Floor	L	3501.00	538.00	4918.00	4124.00	468.00	481.00	502.00	1697.00	1192.00	4687.00	4754.00	7582.00	578.00	1103.00
10th - Floor	L	3696.00	568.00	5191.00	4353.00	494.00	507.00	530.00	1792.00	1258.00	4948.00	5018.00	8003.00	610.00	1165.00
11th - Floor	L	3890.00	598.00	5464.00	4582.00	520.00	534.00	558.00	1886.00	1324.00	5208.00	5282.00	8424.00	642.00	1226.00
12th - Floor	L	4085.00	628.00	5737.00	4811.00	546.00	561.00	586.00	1980.00	1390.00	5468.00	5546.00	8845.00	674.00	1287.00
13th - Floor	L	4279.00	658.00	6010.00	5040.00	572.00	587.00	614.00	2075.00	1456.00	5729.00	5810.00	9266.00	706.00	1349.00
14th - Floor	L	4474.00	688.00	6284.00	5269.00	598.00	614.00	642.00	2169.00	1523.00	5989.00	6074.00	9688.00	738.00	1410.00
15th - Floor	L	4668.00	718.00	6557.00	5498.00	624.00	641.00	670.00	2263.00	1589.00	6250.00	6338.00	10109.00	770.00	1471.00

**Note:**Centering & scaffolding charges for steel scaffolding with pipes, jack props, steel centring plates for unsupported heights of every 610 mm height or part thereof over and above 3.66 M may be allowed at 16.666% more than the basic material hire charges and relevant labour charges of the applicable floor and item

**E. CENTERING & SCAFFOLDING CHARGES- FLOOR WISE RATES for Casuarina Ballies, Bamboos, Wooden Reapers, Runners, Wood Posts, Wall Plates, Steel Centring Plates etc., for unsupported height 3.66 M**

## CIVIL ITEMS

## Scaffolding&amp;Centeringcharges 2022-23

FLOOR		LINTELS	CHAJJAS - SUN- SHADES	COLUMNS	BEAMS	SLABS - Up to 150 mm thick	SLABS - above 150 mm - Up to 300 mm thick	SLABS - above 300 mm thick	WAFFLE - (GRID) SLABS (Rib Beams with Slabs)	PERGOLA SLABS (Only Rib Beams)	ARCH BEAMS - up to 1.5 M Span	ARCH BEAMS - above 1.5 M Span	DOVE SLABS	HELICAL STAIR- CASES
Material Hire for any Floor	H	886.00	175.00	267.00	1566.00	177.00	183.00	191.00	645.00	452.00	1780.00	1805.00	2878.00	219.00
Labour Charges for 1st Floor	L	1489.00	229.00	2091.00	1753.00	199.00	204.00	214.00	722.00	506.00	1993.00	2021.00	3223.00	246.00
Total Hire Charges (H+L)	T	2375.00	404.00	2358.00	3319.00	376.00	387.00	405.00	1367.00	958.00	3773.00	3826.00	6101.00	465.00
1st - Floor	L	1489.00	229.00	2091.00	1753.00	199.00	204.00	214.00	722.00	506.00	1993.00	2021.00	3223.00	246.00
2nd - Floor	L	1638.00	252.00	2300.00	1928.00	219.00	224.00	235.00	794.00	557.00	2192.00	2223.00	3545.00	271.00
3rd - Floor	L	1787.00	275.00	2509.00	2104.00	239.00	245.00	257.00	866.00	607.00	2392.00	2425.00	3868.00	295.00
4th - Floor	L	1936.00	298.00	2718.00	2279.00	259.00	265.00	278.00	939.00	658.00	2591.00	2627.00	4190.00	320.00
5th - Floor	L	2085.00	321.00	2927.00	2454.00	279.00	286.00	300.00	1011.00	708.00	2790.00	2829.00	4512.00	344.00
6th - Floor	L	2234.00	344.00	3137.00	2630.00	299.00	306.00	321.00	1083.00	759.00	2990.00	3032.00	4835.00	369.00
7th - Floor	L	2382.00	366.00	3346.00	2805.00	318.00	326.00	342.00	1155.00	810.00	3189.00	3234.00	5157.00	394.00
8th - Floor	L	2531.00	389.00	3555.00	2980.00	338.00	347.00	364.00	1227.00	860.00	3388.00	3436.00	5479.00	418.00
9th - Floor	L	2680.00	412.00	3764.00	3155.00	358.00	367.00	385.00	1300.00	911.00	3587.00	3638.00	5801.00	443.00
10th - Floor	L	2829.00	435.00	3973.00	3331.00	378.00	388.00	407.00	1372.00	961.00	3787.00	3840.00	6124.00	467.00
11th - Floor	L	2978.00	458.00	4182.00	3506.00	398.00	408.00	428.00	1444.00	1012.00	3986.00	4042.00	6446.00	492.00
12th - Floor	L	3127.00	481.00	4391.00	3681.00	418.00	428.00	449.00	1516.00	1063.00	4185.00	4244.00	6768.00	517.00
13th - Floor	L	3276.00	504.00	4600.00	3857.00	438.00	449.00	471.00	1588.00	1113.00	4385.00	4446.00	7091.00	541.00
14th - Floor	L	3425.00	527.00	4809.00	4032.00	458.00	469.00	492.00	1661.00	1164.00	4584.00	4648.00	7413.00	566.00
15th - Floor	L	3574.00	550.00	5018.00	4207.00	478.00	490.00	514.00	1733.00	1214.00	4783.00	4850.00	7735.00	590.00

**Note:**Centring & scaffolding charges for steel scaffolding with pipes, jack props, steel centring plates for unsupported heights of every 610 mm height or part thereof over and above 3.66 M may be allowed at 16.666% more than the basic material hire charges and relevant labour charges of the applicable floor and item



Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
<b>A</b>	<b>SECTION</b>	<b>BRICKS &amp; BUILDING BLOCKS</b>
III	SUB-SECTION	Aerocon, Siporex, Nucon, NCL Aerated Blocks
<b>C</b>	<b>SECTION</b>	<b>WALL &amp; FLOOR TILES</b>
		(Landing cost - including material VAT, loading, cost of conveyance, unloading & stacking)
I	SUB-SECTION	NON-PORCELAIN CERAMIC FLOOR TILES - Somany, H & R Johnson, Naveen Ceramics, Kajaria, Nitco, Sphinx, Orient Bell, AGL, Hindware, Cera, Varmora, Vitero, Ambani, SUNHEART CERAMIK, Bandhan
II	SUB-SECTION	PORCELAIN VITRIFIED FLOOR TILES - H & R Johnson, H & R Johnson Marbonite, H & R Johnson Endura, H & R Johnson GPS, Naveen Ceramics, Kajaria, Nitco, Orient Bell, Hindware, AGL, RicasilCermaics Exxaro, Cera, Varmora, VITERO, Ambani, SUNHEART CERAMIK, Bandhan
III	SUB-SECTION	CERAMIC WALL TILES - Somany, H & R Johnson, Kajaria, Sphinx, Orient Bell, AGL, Hindware, RicasilCermaics Exxaro, Cera, Varmora, Vitero, Ambani, SUNHEART CERAMIK, Bandhan
IV	SUB-SECTION	PORCELAIN WALL TILES - Somany, H & R Johnson, Kajaria, Sphinx, Orient Bell, Hindware, RicasilCermaics Exxaro, Cera, Varmora, VITERO, Ambani, NCL Vitristik for Ceramic vitrified tiles on floor, NCL Tilostik for fixing Granite stones and NCL Marbstik for fixing Marble stones, SUNHEART CERAMIK, Bandhan
V	SUB-SECTION	GLASS MOSAIC TILES - Bisazza * Palladio * Expansive acqua reactive water barrier grouting system - NCL Tile grout
VI	SUB-SECTION	WALL CLADDING TILES - Somany, H & R Johnson, Kajaria, Sphinx, Orient Bell, Hindware, Cera, SUNHEART CERAMIK, Bandhan
VII	SUB-SECTION	TERRAZZO FLOOR TILES (PLAIN & CHEQUERED) - Super Decorative, Aditya Designer, Maha Bhima, Tricon, Pheonix, Eurocon, Ultra, Sphinx, Cemtech
VIII	SUB-SECTION	CEMENT CONCRETE FLOOR TILES (PLAIN & CHEQUERED) - Super Decorative, Aditya Designer, Maha Bhima, Tricon, Pheonix, Eurocon, Ultra, Sphinx
IX	SUB-SECTION	PRE-CAST CONCRETE BLOCKS FOR PAVING - Super Decorative, Aditya Designer, Maha Bhima, Tricon, Pheonix, Eurocon, Ultra, Sphinx, Cemtech, DEC Industries PVT LTD
X	SUB-SECTION	VINYL FLOORING - Marblax, Amstrong
		TILE ADHESIVE - MYK LATICRETE, Ambani, JK TileMaxX * Wall dado with cement based adhesive - NCL Vitristik for Ceramic vitrified tiles * Cement based adhesive - NCL Tilostik for fixing Granite stones and NCL Marbstik for fixing Marble stones * Cement based Polymer modified jointing mortar - NCL Masonry glue * Cement based Polymer modified plastering mortar - NCL Render
<b>D</b>	<b>SECTION</b>	<b>ROOFING MATERIAL</b> - DEC Industries PVT LTD
<b>E</b>	<b>SECTION</b>	<b>STAINLESS STEEL MATERIALS</b> - DEC Industries PVT LTD
<b>F</b>	<b>SECTION</b>	<b>GLASS MATERIALS</b> - Modifloat, Asahi, Saint-Gobain, Binani, HNG,Gold Plus
<b>G</b>	<b>SECTION</b>	<b>PAINTS &amp; POLISHES</b> - Asian Paints, Berger, Nerolac, British Paints, JK Cements, Nexon paints, Indocem, ESSAR, Sheenlac, Suryacem, Neon, Wallz, Walrus - SYNTHETIC PLASTER - NCL-Cement Primer (Interior, Exterior), NCL White Cement Putty, NCL-Alltek Spray Plaster, NCL-Skimcoat, Alltek Spray Plaster, NCL Gaiety, NCL-Delight, NCL-Harmony, NCL-Alltek Dune, NCL Alltek Acrylic Coarse, NCL Grey Coarse Putty, NCL Base Coat, NCL Flora, Alltek Deco Orient, MYK LATICRETE, Multichem, Essar, JK ShieldMaxX - White Cement, JK WhiteMaxX, LevelMaxX, JK GypsoMaxX, JK BondMaxX, Wall Putty (White cement based) JK WallMaxX, JK Primaxx(White Cement Based Primer), Smoothtek, Shalimar, Snowcem, Nippon, New World Paints

Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
		Pvt. Ltd, Fortune Paints Pvt. Ltd, BAKELITE COATINGS AND PAINTS, NCL Topcoat paint, Alltek Trendy, AlltekGoldline, Dulux Professional
H	SECTION	<b>PARTICLE BOARDS</b> - NCL Bison, Ramco-Hilux, Ramco-Hicem, Everest-board, Visaka-board, Rajshri, Innsula, Birla Aerocon, Aerolite, Novopan, Bhutan-board, Greenply, Greenpanel, Kajariaply, ECOBOARD
J	SECTION	<b>PLYWOODS, LAMINATES &amp; VENEERS</b> - Kitply, Century Ply, National Ply, Bhutan Ply, Samrat, Gurjan ply, Aamoda, Mayur, Amul Boards, Greenply, Greenpanel, Kajariaply, PRAYAG POLYMERS, Archidply/ M/S DEC Industries PVT Ltd , Almo Laminates, Black cobra <b>NATURAL FIBRE COMPOSITE BOARDS</b> - Indowud
K	SECTION	<b>CEILING, WALL PARTITIONS &amp; WALL LININGS</b> -Ramco-Hilux, Everest-board, Visakha-board, Rajshri, Innsula, Gypsum India, Saint-Gobain, Armstrong-Knauf Ceilings, Daikin, NCL-Seccolor, NC Bison, Rock Strength, Aerolite, USG Boral, Birla Aerocon, Diamond, Aerolite, DIAMOND FRAMES, Almo Laminates
L	SECTION	<b>DOORS, SHUTTERS &amp; FRAMES</b> -NCL Buildtek, Anand, Raavila, Kutty, Standard, Shubhdwar, ITP, Rajshri, NCL-Bison, Elixir, Sintex, Elgi, Oasis, Polywood, Sintex, NCL Prelaminated ABS door shutter, NCL FPS Door Frame, NCL Scientific Door Frames, NCL UPVC Door Shutter, NCL-Wintech, Fenesta, LG, Masonite, Everest, Vishaka, Ambience, Aamoda, Rehau, Arpitha, Nandi, Aparna-Venster, Ecoste, DEC Infrastructure & Projects(I) Pvt. Ltd, Ecocell, Marcolini, Greenpanel, Kajariaply, HDHMR Doors - NCL, Yashpoly EUREKA WINDOOR SYSTEMS, ULTIMATE SAFETY METAL DOORS, SUDHAKAR PROFILE SYSTEMS, SHREEJI WOODCRAFT PVT LTD, DEC Industries PVT LTD , Elegant Door and Ply Innovations, Plastone, Black cobra, Galwin, Shakti Hormann, Ambience
M	SECTION	<b>WINDOWS</b> - NCL-Buildtek, NCL-Bison, Elixir, Sintex, Elgi, Oasis, Polywood, NCL- Wintech, Fenesta, LG, Ahlada, Rehau, Arpitha, Win-Eshtas-Viswajeet Industries, Aparna Venster, ecoVUE, EcoCell, Yashpoly, Marcolini, EUREKA WINDOOR SYSTEMS, DEC Industries PVT LTD - Aluminium Windows -Schueco, NCL Veka, Plastone, Galwin, SS Secure
N	SECTION	<b>STRUCTURAL GLAZING &amp; CURTAIN WALLING</b> - NCL Buildtek, NCL-Bison, Elixir, Sintex, Elgi, Oasis, Polywood, Sintex, NCL-Wintech, Fenesta, LG, Rehau, Arpitha, EUREKA WINDOOR SYSTEMS
P	SECTION	<b>FIXTURES FOR DOORS &amp; WINDOWS</b> - Jyoti, Classic, Hardwyn, AKS for SS, Crown, GLOBEL (Aluminium Udyog)/Prayag Polymer, EUREKA WINDOOR SYSTEMS, M/s DEC Industries Pvt Ltd, Global ISI, Assa Abloy, Dorset
Q	SECTION	<b>CONSTRUCTION CHEMICALS &amp; ADMIXTURES</b>
		<b>MAKE, APPLICATION METHOD, AREA AND DOSAGE</b>
I	SUB-SECTION	<b>PLASTICIZERS</b>
	TBSC-Q.I-01	* Consplax of Armstrong Chemicals Pvt Ltd, Bengaluru * Conplast of Fosroc Chemicals India Pvt Ltd, Bengaluru (200ml /50Kgs Cement)* Zoriplax of Protect More Construction chemicals, Hyderabad. (Dosage 20ml per 50 Kgs cement). for M 20 + grade concrete works in slabs /canal lining works/ roads works**MYK SAVEMIX SERIES M/S by MYK Schomburg,Hyderabad.* "MYK SAVEMIX" dosage from 0.5% - 1.5% by weight of cement * BONDTUF CONSTRUCTION CHEMICALS/ Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products/ DEC Industries PVT LTD, CAC
	TBSC-Q.I-02	* Roofplast HS 100 of Armstrong Chemicals Pvt Ltd, Bengaluru * Structuro100 of Fosroc Chemicals India Pvt Ltd, Bengaluru * Zoriplast HS of Protect More Construction Chemicals, ** MYK Remecrete P30 M/S by MYK Schomburg,Hyderabad.* Dosage 0.5 to 1 Ltr per 100kgs of

Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
		Cement *BONDTUF CONSTRUCTION CHEMICALS/ Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products / DEC Industries PVT LTD, CAC
	TBSC-Q.I-03	*Roofplast SP 35of Armstrong Chemicals Pvt Ltd, Bengaluru *Conplast SP 337 of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoriplast SP 350 of Protect More Construction chemicals. * Rheomac 707 of BASF *Conflow (Dosage: 200ml to 500ml per bag of 50 Kgs Cement) . for M30+ grade concrete works like road projects / Canal linings / Dams / Reservoirs / Building's concrete works * Power35 of EBT (Dosage : 300 ml to 500 ml Per Bag of 50 Kgs Cement) * MYK Savemix RP 333 M/S by MYK Schomburg,Hyderabad.* Dosage at a rate between 0.15 and 0.40 kgs /50 kg cement * NCL Vitristik * BONDTUF CONSTRUCTION CHEMICALS * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products / DEC Industries PVT LTD, CAC
	TBSC-Q.I-04	*Roofplast SP 45 of Armstrong Chemicals Pvt Ltd, Bengaluru*Consplast SP 430 of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoriplast SP 450 of Protect More Construction Chemicals (Dosage: 200ml to 500ml per bag of 50 Kgs Cement) for high early strength and high range water reducing admixture for M40+ grade concrete works like road projects/Canal linings/Dams/Reservoirs /Building's concrete works *Power45 of EBT (Dosage : 300 ml to 500 ml Per Bag of 50 Kgs Cement) * MYK Remecrete PC10 M/S by MYK Schomburg,Hyderabad.* Dosage rangebetween0.3to2.5ltrs/100 kg of cementitious material * BONDTUF CONSTRUCTION CHEMICALS * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products / DEC Industries PVT LTD, CAC
	TBSC-Q.I-05	*Roofplast SR 45 of Armstrong Chemicals Pvt Ltd, Bengaluru*Conplast RP264 of Fosroc Chemicals India Pvt Ltd, Bengaluru*Zoriplast SRT 5 of Protect More Construction Chemicals (Dosage : 300ml to 400ml per bag of 50 Kgs Cement).For delaying of initial setting time and M 40+ Grade concrete works * Power SR 45 of EBT (Dosage: 200 ml to 500 ml per bag of 50 Kgs Cement) * MYK Savemix RP 333 M/S by MYK Schomburg,Hyderabad.* Dosage at a rate between 0.15 and 0.40 kgs /50 kg cement * BONDTUF CONSTRUCTION CHEMICALS * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products / DEC Industries PVT LTD, CAC
	TBSC-Q.I-06	*Roofplast SCA of Armstrong Chemicals Pvt Ltd, Bengaluru*Conplast NC of Fosroc Chemicals India Pvt Ltd, Bengaluru*Zoriset of Protect More Construction Chemicals (Dosage:1 Kg to 3 Kgs per bag of 50 Kgs Cement depending on the setting time required).For shotcrete / Guniting / Emergency concrete works * Power-200 of EBT or Equivalent (Dosage:1 Kg to 3 Kgs per bag of 50 Kgs Cement depending on the setting time required) * BONDTUF CONSTRUCTION CHEMICALS * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products / DEC Industries PVT LTD, CAC
	TBSC-Q.I-07	ALSTRONG CA 353 of M/s. Armstrong Chemicals Pvt Ltd , Bengaluru / ZORIBOND CRA 35 of M/s. Protect More Construction Chemicals ( PMCC). POWER n STRENGTH of M/s. EBT Construction Chemicals/ FOSROC ( 500ml Per Bag of 50 Kgs Cement) * BONDTUF CONSTRUCTION CHEMICALS * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products / DEC Industries PVT LTD, CAC
II	SUB-SECTION	<b>WATER PROOFING COMPOUNDS</b>
	TBSC-Q.II-01	*Rainproof No.1 of Armstrong Chemicals Pvt Ltd Bengaluru *Conplast

Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
		421 of Fosroc Chemicals India Pvt Ltd Bengaluru (125ml Per 50 Kgs Cement) *Zoriproof No.1 of Protect More construction Chemicals. : (Dosage : 100ml Per Bag of 50 Kgs Cement) *MYK PROOF WP10 M/S by MYK SCHOMBURG,Hyderabad. Dosage - 150-200Gms per bag of cement * E160 of Ardex Endura : (200 ml per 50 Kgs Bag), Pidilite * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products * Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products, IWL, Chryso, Acebond, CAC
	TBSC-Q.II-02	*Roofbond RFX of Armstrong Chemicals Pvt Ltd, Bengaluru. *Brushbond RFX of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoricoat RX of Protect More Construction Chemicals.*Masreaseal 550 Grey of Base. (12-14 m2 in two coats to achieve 1mm thickness ). Terrace, Water Tanks, Walls Waterproof Coatings : of Two Part System: *EBT - Power RFX *MYK BETOCRETE C-35 M/S by MYK Schomburg, Hyderabad Dosage - 0.8 - 1.5% by weight of cement * WPM 004 of Ardex Endura : (12-14 m2 in two coats to achieve 1mm thickness) * PIDILITE INDUSTRIES LIMITED * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products * Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products, IWL, Chryso, Acebond, CAC
	TBSC-Q.II-03	* Roof coat of Armstrong Chemicals Pvt Ltd, Bengaluru * Brushbond of Fosroc Chemicals India Pvt Ltd, Bengaluru * Zoricoat of Protect More Construction Chemicals Terrace, Water Tanks, Walls, Reservoirs Waterproofing Coatings : Surface treatments* Asian Paints *MYK AQUAFIN ADMIX M/S by MYK Schomburg, Hyderabad-Dosage Rate: w/c ratio < 0.45: 2 % of cement content w/c ratio > 0.45: 3 % of cement content * WPM 004 OF Ardex Endura * PIDILITE INDUSTRIES LIMITED * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products, IWL, Chryso, Acebond, CAC
	TBSC-Q.II-04	*Rainseal of Armstrong Chemicals Pvt Ltd, Bengaluru *Proofex SM of Fosroc Chemicals India Pvt Ltd, Bengaluru, *Zoricoat XL of Protect More Construction Chemicals. wherever highly flexible, crack bridging ,waterproofing required (Coverage : 50 to 60 SFT Per/Ltr/Coat) (for brush / spray application add 20% water per Ltr) Terrace, Walls Highly Flexible Waterproof Liquid Membrane pure Acrylic Coatings : **MYK Coat WPU-1K(E) M/S by MYK Schomburg, Hyderabad-Coverage at minimum of 1.8 kg per m2 for thickness of 1.1 mm * WPM 004 OF Ardex Endura * PIDILITE INDUSTRIES LIMITED * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products , IWL, Chryso, Acebond, CAC
	TBSC-Q.II-05	*Rapid strong QS of Armstrong Chemicals Pvt Ltd Bengaluru *Patchro C of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zorirapidr of Protect More Construction Chemicals * Conflow (Dosage : 1 to 3 Ltrs per bag of 50 Kgs Cement depending on the setting time required). * CLEAN TECH CORROSION CHEMICALS Concure Plus (200 -250 ml per Bag of cement)For emergency works/Anti wash and under water concreting: *MYK AQUAFINTGM/ Sby MYK Schomburg, Hyderabad Dosage Rate:at1.5-2.5kg/m².* A4/5 WPM 401 of Ardex Endura * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products , IWL, Chryso, Acebond, CAC
	TBSC-Q.II-06	*Rainseal Flexi Coat B30 of Armstrong Chemicals Pvt Ltd, Bengaluru *Fosroc Chemicals India Pvt Ltd, Bengaluru. *Zoricoat BL of Protect More Construction Chemicals. : wherever highly flexible, crack bridging, Sewage treatment plants, pipe lines, Reservoirs and

Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
		waterproofing required. *MYK Schomburg * WPM 004 of Ardex Endura * PIDILITE INDUSTRIES LIMITED * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products, IWL, Chryso, Acebond, CAC
	TBSC-Q.II-07	ROOFBOND FRC of M/s. Armstrong Chemicals Pvt Ltd, Bengaluru / ZORICOAT FRC of M/s. Protect More Construction Chemicals ( PMCC). POWER n BOND FRX 2 of M/s. EBT Construction Chemicals / FOSROC ( Coverage : 30 to 40 SFT / Ltr / Two coats ) * PIDILITE INDUSTRIES LIMITED * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products , IWL, Chryso, Acebond, CAC
	TBSC-Q.II-08	RAINSEAL CFR of M/s. Armstrong Chemicals Pvt Ltd, Bengaluru / ZORICOAT EFC of M/s. Protect More Construction Chemicals ( PMCC). POWER n COAT EFC of M/s.EBT Construction Chemicals/FOSROC *PIDILITE INDUSTRIES LIMITED * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products, IWL, Chryso, Acebond, CAC
	TBSC-Q.II-09	ALSTRONG CC 153 of M/s. Armstrong Chemicals Pvt Ltd, Bengaluru / ZORIBOND CTC 15 of M/s. Protect More Construction Chemicals ( PMCC) ( Coverage : 1 Ltr 20 SFT / 2 Coats ). POWER n STRENGTH PEN of M/s. EBT Construction Chemicals /FOSROC *PIDILITE INDUSTRIES LIMITED * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products , IWL, Chryso, Acebond, CAC
	TBSC-Q.II-10	ROOFCARE PU of M/s. Armstrong Chemicals Pvt Ltd, Bengaluru / ZORICOAT PU of M/s. Protect More Construction Chemicals ( PMCC) , POWER n COAT BPU of M/s. EBT Construction Chemicals / FOSROC. *PIDILITE INDUSTRIES LIMITED * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products , IWL, Chryso, Acebond, CAC
	TBSC-Q.II-11	ROOFCARE WR of M/s. Armstrong Chemicals Pvt Ltd, Bengaluru / ZORICOAT WR of M/s. Protect More Construction Chemicals ( PMCC),POWER n REPEL WR of M/s. EBT Construction Chemicals / FOSROC/ PIDILITE INDUSTRIES LIMITED * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products , IWL, Acebond, CAC
III	SUB-SECTION	<b>BONDING AGENTS/ ADHESIVES</b>
	TBSC-Q.III-01	*Roofbond PB of Armstrong Chemicals Pvt Ltd Bengaluru *Nitobond AR of Fosroc Chemical India Pvt Ltd Bengaluru *Zoribond PB of Protect More Construction Chemicals. (Mix: 1:1 ratio of cement )50 SFT / Ltr /coat depending on the substrate) On terrace old concrete to new mortar / screed : *MYK bond AR 43 M/S by MYK Schomburg, Hyderabad*Coverage: as a bonding agent: approximate 4 - 5 m2 / kg depending on substrate porosity* E135 of Ardex Endura (2.5 Lit for 50 Kgs of cement) , Chryso, Acebond, CAC
	TBSC-Q.III-02	*Roofbond SBR of Armstrong Chemicals Pvt Ltd Bengaluru *Nitobond SBR of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoribond SBR of Protect More Construction Chemicals. (50 SFT / Ltr /coat depending on the substrate) For ceiling / concrete repairs and bonding : mortar/concrete *MYK bond SBR 45 M/S by MYK Schomburg, Hyderabad* Dosage :For patching and repair mortars and plaster for masonry 10 Ltr of MYK Bond SBR per 50 Kgs- cement* E135 of Ardex Endura(2.5Litfor50Kgs of cement)/ M/S DEC Industries manufactured products , Chryso, Acebond, CAC
	TBSC-Q.III-03	*Roofbond EP of Armstrong Chemicals Pvt Ltd, Bengaluru *Nitobond EP of Fosroc Chemicals India Pvt Ltd, Bengaluru*Zoribond EP of Protect

Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
		More Construction Chemicals. (Coverage : 20 - 25 SFT / Kg /Coat) For Structural concrete repairs / bonding : Old concrete to new concrete epoxy bonding : *MYK Bond EB A M/Sby MYK Schomburg, Hyderabad* Coverage Approx.2.6 Sq.Mtr per 1 kgs * EP 300 of Ardex Endura (10 sqm per 5 Lit per coat of 50 microns)* Epoxy emulsion grout/synthetic/resin adhesive -NCL Vitristik Ceramic & Vitrified tile, Chryso, Acebond, CAC
	TBSC-Q.III-04	Admix AD1 of Ardex Endura
		Silver/Diamond &Platinum stars of Ardex Endura
		ALSTRONG CA 353 of M/s. Armstrong Chemicals Pvt Ltd , Bengaluru / ZORIBOND CRA 35 of M/s. Protect More Construction Chemicals ( PMCC). POWER n STRENGTH of M/s. EBT Construction Chemicals / FOSROC ( 500ml Per Bag of 50 Kgs Cement) , Chryso, Acebond, CAC
		ALSTRONG CB 253 of M/s. Armstrong Chemicals Pvt Ltd , Bengaluru / ZORIBOND CB 25 of M/s. Protect More Construction Chemicals ( PMCC). POWER n BOND RGB of M/s. EBT Construction Chemicals / FOSROC ( Coverage : 1 Ltr / 40 SFT / Coat ) , Chryso, Acebond, CAC
	TBSC-Q.III-05	M/S DEC Industries manufactured products
IV	SUB-SECTION	<b>ANTI-CORROSIVE AGENTS</b>
	TBSC-Q.IV-01	*Roofguard AC of Armstrong Chemicals Pvt Ltd Bengaluru *Fosroc Chemicals India Pvt Ltd Bengaluru*Zoriguard AC of Protect More Construction Chemicals.( 40 SFT Per Ltr / Coat ) * CLEAN TECH CORROSION CHEMICALS Concure-XL (200 ml to 250 ml per Bag of Cement To protect the exposed reinforcement / steel structures against corrosion : *MYK RUST Remover M/S by MYK Schomburg, Hyderabad*, IWL, Chryso, Acebond, CAC
	TBSC-Q.IV-02	*Roofguard RC of Armstrong Chemicals Pvt Ltd Bengaluru *Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoriguard RC of Protect More Construction Chemicals Hyderabad. ( 50 SFT Per Ltr / Coat ) During repairs to protect, to convert the rust of reinforcement / steel : *MYK RUST CONVERTOR M/S by MYK Schomburg, Hyderabad*, IWL, Chryso, Acebond, CAC
	TBSC-Q.IV-03	*Roofguard ZP of Armstrong Chemicals Pvt Ltd, Bengaluru *Nitoprime Zinc Rich of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoriguard ZP of Protect More Construction Chemicals, Hyderabad. (Coverage : 4 Sq.Mtr. /Ltr / Coat) *MYK Savemix CN 100 M/S by MYK Schomburg, Hyderabad - Recommended 0.90 chloride to nitrite ratio 30% CaNO2 Sol * EP 410 of Ardex Endura (Coverage : 10 Sq.Mtr. /5 Ltr / Coat of 250 Microns) , IWL, Chryso, Acebond, CAC
	TBSC-Q.IV-04	Supply of anti-corrosion admixture inhibitor liquid as per Central Electro Chemical Research Institute developed specification and licensee of Concure or Concure Plus or Equivalent (300 ml to 500 ml per Bag of 50 Kgs Cement)/ DEC Industries PVT LTD , IWL, Chryso, Acebond, CAC
V	SUB-SECTION	<b>GROUTS</b>
	TBSC-Q.V-01	*Rapidstrong Grout AG of Armstrong Chemicals Pvt Ltd, Bengaluru*Lock fix of Fosroc Chemicals India Pvt Ltd, Bengaluru*Zori fix of Protect More Construction Chemicals (Yield 0.5 Ltrs / 1 Kg Pack ) Anchoring /fix the steel bars into the rocks, concrete for foundations, extension of concrete :*EBT Power Anchor grout . (Yield 0.5 Ltrs / 1 Kg Pack) *MYK GROUT M 65 Yield: 13.0 Ltsatflowableconsistencyfor25KgsofHDPEbags/ M/S DEC Industries manufactured products , IWL, Chryso, Acebond, CAC
	TBSC-Q.V-02	*Rapidstrong Grout GP2 of Armstrong Chemicals Pvt Ltd, Bengaluru*Conbextra GP2 of Fosroc Chemicals India Pvt Ltd, Bengaluru*Zori grout GP 2 of Protect More Construction Chemicals For

Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
		machinery / thin sections of concrete joints Filling : *EBT Power GP2 Grout (Yield 13.5 Ltrs Per 25 Kgs Bag). *MYK Schomburg MYK Grout Inject E-200 Approx. 1.06 kg for filling up of 1000 cc/ M/S DEC Industries manufactured products , IWL, Chryso, Acebond, CAC
	TBSC-Q.V-03	*Rapidstrong Grout EP of Armstrong Chemicals Pvt Ltd , Bengaluru*Conbextra EP10 of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zori grout EP of Protect More Construction Chemicals. (Two parts system).(Density 1.07 Kg Per Ltr )For Structural strengthening, filling of honey comb / voids in the concrete : *EBT Power EPL Grout *MYK Schomburg MYK Grout EP750 (Yield: Approx. 9.5 Liter volume per 19 kg pack) , IWL, Chryso, Acebond, CAC
	TBSC-Q.V-04	*Rapidstrong Grout EP3 of Armstrong Chemicals Pvt Ltd, Bengaluru *Conbextra EP300 of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zori grout EP3 of Protect More Construction Chemicals. Concrete strengthening and filling concrete repairs *EBT Power EP Grout *MYK Schomburg MYK INDUGROUT-EP10 approx. 1.60 kg/liters or 16.0 kg/10 mm thick gap/m2. , IWL, Chryso, Acebond, CAC
	TBSC-Q.V-05	RAPIDSTRONG GROUT PU of M/s. Armstrong Chemicals Pvt Ltd , Bengaluru / ZORIGROUT PU of M/s. Protect More Construction Chemicals (PMCC). M/s. POWER n GROUT RPU of M/s. EBT Construction Chemicals / FOSROC, IWL, Chryso, Acebond, CAC
VI	SUB-SECTION	<b>MISCELLANEOUS CHEMICALS</b>
	TBSC-Q.VI-01	*Roofcare MRA of Armstrong Chemicals Pvt Ltd, Bengaluru *Reebol of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zorislip of Protect More Construction Chemicals (Coverage: 1 Ltr will cover approx. 20 to 30m2 on method and material of the form ) *MY Schomburg * DEC Industries PVT LTD , IWL, Chryso, Acebond, CAC
	TBSC-Q.VI-02	*Rapidstrong FM of Armstrong Chemicals Pvt Ltd, Bengaluru *Fosroc Chemicals India Pvt Ltd. Bengaluru. *Zorifloor NH of Protect More Construction Chemicals. :( Coverage : May be applied at rate 3.5 Kgs /m2 over green concrete for normal traffic & 6-12 Kg / M2 for heavy traffic. Higher application rates yield better abrasion resistance)* EBT PowerHard M-100 *MYK Schomburg, IWL, Chryso, Acebond, CAC
	TBSC-Q.VI-03	* Rapidstrong NH of Armstrong Chemicals Pvt Ltd, Bengaluru *Nitoflor Hardtop/Hard Standard of Fosroc Chemicals India Pvt Ltd, Bengaluru. * Zorifloor DH of Protect More Construction Chemicals* Mastertof 100 Grey of BASF :( Coverage : May be applied at rate 3.5 Kgs /m2 over green concrete for normal traffic & 6-12 Kg / M2 for heavy traffic. Higher application rates yield better abrasion resistance) *EBT PowerHard NM-100. (Coverage: May be applied at rate 3.5 Kgs /m2 over green concrete for normal traffic & 6-12 Kg / M2 for heavy traffic) *MYK Schomburg MYK TOP 150 Application rate Kg/M2 Intended traffic use AvgWear (IS1237-1980) 7 kgs Heavy <2mm 5 Kgs Medium >2<3.5mm 3 kgs Light>3.5<4mm, IWL, Chryso, Acebond, CAC
	TBSC-Q.VI-04	*Roofcrete MC of Armstrong Chemicals Pvt Ltd, Bengaluru / *Rendroc RG of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoricrete MC of Protect More Construction Chemicals. *MYK Schomburg MYK Top 200 Coverage : Light traffic 2.5 to 3.5 edium traffic 4 to 5 kg/m <sup>2</sup> Heavy traffic 6 to 7 kg/m <sup>2</sup> / M/S DEC Industries manufactured products , IWL, Chryso, Acebond, CAC
	TBSC-Q.VI-05	*Roofcrete AR of Armstrong Chemicals Pvt Ltd, Bengaluru *Cemtop 400 SD of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoricrete CMG of Protect More Construction Chemicals. To achieve High Strength Concreting / Structural rehabilitation / concrete repairs : *MYK Schomburg MYK SOLOPLAN -30 For layers of less than 20 mm recommend 5.0 - 5.4 L of water to 25 kg of SOLOPLAN- 30.Forlayersof

Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
		20mm and higher, we recommend 4.7- 5.1 L of water to 25 kg of SOLOPLAN-30 * Expansive acqua reactive water barrier grouting system - NCL Tile grout, IWL, Chryso, Acebond, CAC
	TBSC-Q.VI-06	*Roofcrete EM of Armstrong Chemicals Pvt Ltd, Bengaluru *Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoricrete ERM of Protect More Construction Chemicals. For wherever repeated failures takes place, resistance to chemicals. Repairing of Deteriorated concrete with High Strength Flexural / Compressive Strength with High Standard Bonding: *MYK Schomburg MYK Crete CMS 4500 M/S by MYK Schomburg, Hyderabad *applied upto 50mm thickness at 2 kg per m <sup>2</sup> at 1mm thickness. , IWL, Chryso, Acebond, CAC
	TBSC-Q.VI-07	*Roofex of Armstrong Chemicals Pvt Ltd, Bengaluru *Brushbond Tap of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoripex of Protect More Construction Chemicals. For Negative Water Pressure Treatments like Cellar / Ceiling areas etc., : *MYK Schomburg, IWL, Chryso, Acebond, CAC
	TBSC-Q.VI-08	*Roofseal PU of Armstrong Chemicals Pvt Ltd, Bengaluru *Nitoseal PU 280 of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoriseal PU of Protect More Construction Chemicals. For Expansion Joints / Terrace Cracks / Wall & Beam junction cracks ; Runway Joints etc., : *MYK Schomburg, IWL, Chryso, Acebond, CAC
	TBSC-Q.VI-09	* Roofseal PS of Armstrong Chemicals Pvt Ltd, Bengaluru * Thioflex 600 of Fosroc Chemicals India Pvt Ltd, Bengaluru * Zoriseal PS of Protect More Construction Chemicals. For Expansion Joints / Terrace Cracks : *MYK Schomburg,, IWL, Chryso, Acebond, CAC
	TBSC-Q.VI-10	*Wonderseal XL of Armstrong Chemicals Pvt Ltd, Bengaluru *Decofil of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoriseal XL of Protect More Construction Chemicals. External / Internal Wall Cracks Sealing *MYK Schomburg, IWL, Chryso, Acebond, CAC
	TBSC-Q.VI-11	*Wonderseal Plug of Armstrong Chemicals Pvt Ltd, Bengaluru *Renderroc Plug of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoriseal Plug of Protect More Construction Chemicals. , IWL, Chryso, Acebond, CAC
	TBSC-Q.VI-12	*Roofcoat PU400 of Armstrong Chemicals Pvt Ltd, Bengaluru *Nitocote UR 512 of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoricoat PU of Protect More Construction Chemicals. for floorings / Walls. , IWL, Chryso, Acebond, CAC
	TBSC-Q.VI-13	*Roofguard CTE of Armstrong Chemicals Pvt Ltd, Bengaluru *Nitocote ET 550 of Fosroc Chemicals India Pvt Ltd, Bengaluru / *Zoriguard CTE of Protect More Construction Chemical. : tar based epoxy coating for sewage treatment plants, pipe lines protective coating for steel reinforcement. , IWL, Chryso, Acebond, CAC
	TBSC-Q.VI-14	*Roofexure WB of Armstrong Chemicals Pvt Ltd, Bengaluru *Concure WB of Fosroc Chemicals Pvt Ltd, Bengaluru *Zoricure WB of Protect More Construction Chemicals. (Coverage : 4 Sq. Mtrs / Ltr / Coat )/ M/S DEC Industries manufactured products , IWL, Chryso, Acebond, CAC
	TBSC-Q.VI-15	*Rainseal BS of Armstrong Chemicals Pvt Ltd, Bengaluru *Fosroc Chemicals India Pvt Ltd, Bengaluru. *Zoriseal BS Grade 'A' of Protect More Construction Chemicals. for construction joints of roads / bridges. , IWL, Chryso, Acebond, CAC
	TBSC-Q.VI-16	*Rainseal BT Primer of Armstrong Chemicals Pvt Ltd, Bengaluru *Nitoproof 100 of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoriprime BT of Protect More Construction Chemicals, IWL, Chryso, Acebond, CAC
	TBSC-Q.VI-17	*Roofplast AEA of Armstrong Chemicals Pvt Ltd Bengaluru *Conplast



Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
		AEA of Fosroc Chemicals India Pvt Ltd, Bengaluru (Dosage : 200ml Per 50 Kgs Cement)*Zoriplast AEA of Protect More Construction Chemicals. (Dosage : 15ml to 20ml per bag of 50 Kgs Cement) For entrainment of air, recommended for canal lining works, mass concreting etc : *EBT Power AEA Plasticizer (Dosage : 15ml per Bag of 50 Kgs Cement) , IWL, Chryso, Acebond, CAC
		Belmix, IWL, Chryso, Acebond, CAC
		Macro Synthetic Fibers of Propex ASTM C1116/ 1116M -45mm length for CC Roads, Ground Supported Slabs, Pavements, Sprayed Concrete, Tunnel linings, Mining etc., 4 to7 kg per 1 CuM, IWL, Chryso, Acebond, CAC
		Steel Fibers of PropexNovocon HE05535 EN 14889-1:2006 -35mm length for CC Roads, Ground Supported Slabs, Pavements, Sprayed Concrete, Tunnel linings, Mining etc., 15 to 22 kg per 1 CuM, IWL, Chryso, Acebond, CAC
		ALSTRONG CM 666 of M/s. Armstrong Chemicals Pvt Ltd , Bengaluru / ZORICOAT CM of M/s. Protect More Construction Chemicals ( PMCC). M/s. POWER n GUARD ADM of EBT Construction Chemicals / FOSROC ( Coverage : 1 Ltr / 40 SFT / Coat ) , IWL, Chryso, Acebond, CAC
		Anticarbonation coating for Concrete structures- Belmix PU coating for steel structures - Belmix, CAC
VII	SUB-SECTION	<b>REPAIRING &amp; TREATMENT WORKS</b>
	TBSC-Q.VII-1	RAINSEAL FELT of Armstrong / Fosroc / ZORIFELT BT of PMCC, Supreme Tar Products/ ShivamTarfelt ( Membrane felt ) , IWL
	TBSC-Q.VII-2	RAINSEAL HDP 1500 of Armstrong / Fosroc / ZORISHIELD 1500 of PMCC/Roofshield/ ShivamTarfelt, IWL
	TBSC-Q.VII-3	RAINSEAL BT PRIMER of Armstrong / Fosroc /STP/PMCC/ Asian/ LeakShield, IWL
	TBSC-Q.VII-4	ROOFBOND RFX of Armstrong /BRUSHBOND RFX of Fosroc / ZORIBOND RFX of PMCC. * MYK Schomburg MYK AQUAFIN TG M/S by MYK Schomburg,Hyderabad.* MYK AQUAFIN TG is a two component cementations, polymer dispersion based flexible protective coating and water proof barrier. This product is two-component and resistant to water, moisture and abrasion. Dosage Rate: MYK AQUAFINTG to be applied typically at 1.5-2.5kg/m <sup>2</sup> ., IWL
	TBSC-Q.VII-5	RAINSEAL FLEXICOAT B 300 of Armstrong / NITOPROOF 120 of Fosroc /ZORICOAT BL of PMCC (Coverage : 1Ltr /100 SFT/ Each Coat) diluting with water at 1:1 ratio as a primer coat. RAINSEAL FLEXICOAT B 300 of Armstrong / NITOPROOF 120 of Fosroc /ZORICOAT BL of PMCC top coat diluting with 20% of water (Coverage : 1Ltr /5 Sqm /Each Coat) , IWL
	TBSC-Q.VII-6	RAINSEAL of Armstrong /PROOFEX SM of Fosroc / ZORICOAT XL of SMCC(1 Ltr/10 Sq.Mtr./Each Coat) diluting with water at 1:1 ratio as a primer coat , Next coat with with -RAINSEAL of Armstrong / PROOFEX SM of Fosroc / ZORICOAT XL of PMCC mixing with 20 % of Water. (1 Ltr/5 Sq.Mtr/Each Coat) final coat with--RAINSEAL of Armstrong /PROOFEX SM of Fosroc / ZORICOAT XL of PMCC (1 Ltr/2 Sq.Mtr/Each Coat)diluting with 20% of water. * MYK Schomburg MYK Coat WPU-1K(e) M/S by MYK Schomburg,Hyderabad.* Recommended coverage at minimum of 1.8kg per m <sup>2</sup> for thickness of 1.1 mm, IWL
	TBSC-Q.VII-7	Polymer bonding agent: - ROOFBOND SBR of Armstrong / NITOBOND SBR of Fosroc / ZORIBOND SBR of PMCC (Coverage : 1 Ltr /5 Sqm / Each Coat), next with - Acrylic Polymer modified reinstatement concrete /mortar ROOFCRETE AR of Armstrong / CEMTOP 400 SD of Fosroc/ZORICRETE CMG of PMCC to finish and polysulphide sealant

Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
		with ROOFSEALPS of Armstrong/THIOFLEX600 of Fosroc / ZORISEAL PS of PMCC (Coverage : 1 Kg Per 1.8 RMT ) finally with - ROOFCOAT of Armstrong / BRUSHBOND of Fosroc /ZORICOAT of PMCC mixing with Cement at 1: 2 ratio. (Coverage : 1 Ltr / 2.5 Sqm /Coat)* MYK Schomburg SealPS * COHERE TECH INDIA PVT LTD / M/s DEC Industries Pvt Ltd, IWL
	TBSC-Q.VII-09	Ador Granite Series of MYK Schomburg Coverage: Primer Approx. 0.350 kg/m2 - final Texture Coat Approx. 0.70 to 0.80 kg/m2, IWL
	TBSC-Q.VII-10	MYK Schomburg Parking System - Coverage: Primer Approx. 0.350 kg/m2 - final Coat Approx. 0.70 to 0.80 kg/m2, IWL
	TBSC-Q.VII-11	MYK Schomburg Conductive Flooring System - Coverage: Primer Approx. 0.350 kg/m2 - final Coat Approx. 0.70 to 0.80 kg/m2, IWL
	TBSC-Q.VII-12	MYKSchomburg- Coverage:Approximately0.450kg/m2intwocoatforaDFTof Approx 200 micron. Primer (10% dilution with water) is approx. 0.150 to 0.200 kg/m2Note:Higherconsumptionisexpectedonroughsurfaces. , IWL
VIII	TBSCC-Q.VIII-01-11	Silseal, Silflex, Armour, Shalitex
R	SECTION	MISCELLANEOUS ITEMS
	TBSC-R.I-1 to 81	(a) Sintex, Aquatech for PVC tanks(b) Centurywells&Sudarshana for Galvalume sheets (c) Elixir for PEB structures (d) Aluminium Sections - Hindalco, Nalco, Jindal, Geetha series (e) ACP Sheets - Alucopanel, alucobonel, Reynobond, Lennox Durabuid, Istronglegame, Alpolic, Alcomat, Alshine, Viva, Aludecorf)Gypsum plaster-NKV Home Depot, Gyplite, Eurobond, Alex Panels(f) AC Sheets - Charminar Fortune (g) Ant termite Treatment - Bayer (h) MPC ( Mineral Polymer Composite) Grills/Jali - Esoste, Carpets - Welspun (i) Polycarbonate sheets - DPI Daylighting (j) Design, fabrication & supply of light weight pre engineered buildings - DEC Industries PVT LTD, NCL Buildtek, Kirby (k) Artificial Grass - Welspun (l) Hard-Composite tile - Welspun
	TBSC-R.II-1 to 6	NYLON CARPETS - WELSPUN

# PLUMBING ITEMS



**INDEX FOR PLUMBING ITEMS OF TELANAGANA BUILDINGS SOR 2022-23**

Sl. No	SECTION	ITEM CODE	DESCRIPTION OF THE ITEM	FROM	TO
<b>A</b>	<b>SECTION</b>		<b>S.W.G. PIPES &amp; FITTINGS</b>		
			(Landing cost - including material VAT, loading, cost of conveyance, unloading & stacking)		
I	SUB-SECTION	TBSP-A.I-01-09	SUPPLY & LAYING OF SWG PIPES		
II	SUB-SECTION	TBSP-A.II-01-63	S.W.G. FITTINGS		
III	SUB-SECTION	TBSP-A.III-01-05	LABOUR CHARGES FOR SWG WORKS		
<b>B</b>	<b>SECTION</b>		<b>MANHOLES &amp; INSPECTION CHAMBERS</b>		
I	SUB-SECTION	TBSP-B.I-01-04	MANHOLES		
II	SUB-SECTION	TBSP-B.II-01-13	INSPECTION CHAMBERS		
III	SUB-SECTION	TBSP-B.III-01-01	LABOUR CHARGES FOR IC WORKS		
<b>C</b>	<b>SECTION</b>		<b>CENTRIFUGAL CI PIPES &amp; FITTINGS - IS : 1729</b>		
I	SUB-SECTION	TBSP-C.I-01-06	SUPPLY & LAYING OF CAST IRON PIPES		
II	SUB-SECTION	TBSP-C.II-01-33	SUPPLYING & LAYING OF C.I. FITTINGS		
III	SUB-SECTION	TBSP-C.III-01-08	LABOUR CHARGES FOR CI PIPE WORKS		
<b>D</b>	<b>SECTION</b>		<b>CENTRIFUGAL CI PIPES &amp; FITTINGS - IS : 3989</b>		
I	SUB-SECTION	TBSP-D.I-01-13	SUPPLY OF CENTRIFUGAL CI PIPES		
II	SUB-SECTION	TBSP-D.II-01-95	SUPPLY OF C.I. SPUN FITTINGS		
<b>E</b>	<b>SECTION</b>		<b>VITREOUS CHINAWARE - SANITARY APPLIANCES</b>		
I	SUB-SECTION	TBSP-E.I-01-07	INDIAN WATER CLOSETS		
II	SUB-SECTION	TBSP-E.II-01-06	FLOOR MOUNTED EWC		
III	SUB-SECTION	TBSP-E.III-01-03	WALL MOUNTED EWC		
IV	SUB-SECTION	TBSP-E.IV-01-03	CISTERNS FOR WATER CLOSETS		
V	SUB-SECTION	TBSP-E.V-01-02	PLASTIC SEATS FOR WATER CLOSETS		
VI	SUB-SECTION	TBSP-E.VI-01-16	WASH HAND BASINS		
VII	SUB-SECTION	TBSP-E.VII-01-05	URINALS		
VIII	SUB-SECTION	TBSP-E.VIII-01-12	LABOUR CHARGES FOR SANITARY WARE		
<b>F</b>	<b>SECTION</b>		<b>CP FITTINGS - TAPS, FAUCETS &amp; ACCESSORIES</b>		
I	SUB-SECTION	TBSP-F.I-01-08	TAPS & FAUCETS - BIB TAPS		
II	SUB-SECTION	TBSP-F.II-01-09	TAPS & FAUCETS - PILLAR TAPS		
III	SUB-SECTION	TBSP-F.III-01-07	TAPS & FAUCETS - OTHER TAPS & SPOUTS		
IV	SUB-SECTION	TBSP-F.IV-01-07	STOP & ANGLE VALVES		
V	SUB-SECTION	TBSP-F.V-01-09	COMBINATION FAUCETS		
VI	SUB-SECTION	TBSP-F.VI-01-08	SHOWER ROSES & FITTINGS		
VII	SUB-SECTION	TBSP-F.VII-01-41	MISCELLANEOUS CP FITTINGS		
VIII	SUB-SECTION	TBSP-F.VIII-01-05	LABOUR CHARGES		
<b>G</b>	<b>SECTION</b>		<b>G.I. PIPES &amp; FITTINGS</b>		
I	SUB-SECTION	TBSP-G.I-01-13	G.I. PIPES		
II	SUB-SECTION	TBSP-G.II-01-24	G.I. FITTINGS		
III	SUB-SECTION	TBSP-G.III-01-27	BRONZE (COPPER ALLOY) VALVES		
IV	SUB-SECTION	TBSP-G.IV-01-03	LABOUR CHARGES FOR G.I PLUMBING		
<b>H</b>	<b>SECTION</b>		<b>PVC PIPES &amp; FITTINGS</b>		
I	SUB-SECTION	TBSP-H.I-01-44	PVC PIPES		
II	SUB-SECTION	TBSP-H.II-01-96	PVC FITTINGS		
III	SUB-SECTION	TBSP-H.III-01-10	PVC PLUMBING ACCESSORIES		
IV	SUB-SECTION	TBSP-H.IV-01-03	LABOUR CHARGES FOR PVC PLUMBING		
<b>J</b>	<b>SECTION</b>		<b>MISCELLANEOUS ITEMS</b>		
I	SUB-SECTION	TBSP-J.I-01-42	MISCELLANEOUS PLUMBING WORK		

Sl. No	SECTION	ITEM CODE	DESCRIPTION OF THE ITEM	FROM	TO
			ITEMS		
II	SUB-SECTION	TBSP-J.II-01-17	POLYETHYLENE-ALUMINIUM- POLYETHYLENE COMPOSITE PIPES		
III	SUB-SECTION	TBSP-J.III-01-218	OTHER VARIETIES OF PIPES		

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		Note: All the prices of the materials are excluding taxes but including cost of loading, cost of conveyance, unloading & stacking		
<b>A</b>	<b>SECTION</b>	<b>S.W.G. PIPES &amp; FITTINGS</b>		
<b>I</b>	<b>SUB-SECTION</b>	<b>SUPPLY &amp; LAYING OF S.W.G. PIPES</b>		
1	TBSP-A.I-01	Supplying, laying, jointing and testing 101.6 mm SWG SP-1 pipes of ISI make conforming to ISI 651 & 4127 with airtight cement joints in CM 1.5:1 prop. Including excavation of trenches and socket pits in any soil (except rock requiring blasting) up to 1524 mm(5'0") depth and refilling with watering and tamping.	1 RM	<b>573.00</b>
2	TBSP-A.I-02	Supplying, laying, jointing and testing 101.6 mm SWG SP-1 pipes of ISI make conforming to ISI 651 & 4127 with airtight cement joints in CM 1.5:1 prop. including excavation of trenches and socket pits in any soil (except rock requiring blasting) up to 914.4 mm (3'0") depth and refilling with watering and tamping.	1 RM	<b>495.00</b>
3	TBSP-A.I-03	Supplying, laying, jointing and testing 152.4 mm SWG SP-1 pipes of ISI make conforming to ISI 651 & 4127 with airtight cement joints in CM 1.5:1 prop. including excavation of trenches and socket pits in any soil (except rock requiring blasting) up to 1524 mm(5'0") depth and refilling with watering and tamping.	1 RM	<b>828.00</b>
4	TBSP-A.I-04	Supplying, laying, jointing and testing 152.4 mm SWG SP-1 pipes of ISI make conforming to ISI 651 & 4127 with airtight cement joints in CM 1.5:1 prop. including excavation of trenches and socket pits in any soil (except rock requiring blasting) up to 914.4 mm (3'0")) depth and refilling with watering and tamping.	1 RM	<b>736.00</b>
5	TBSP-A.I-05	Providing 152.4 mm CC bed 1:2:4 Prop:using 19.05mm gauge graded granite metal chips and cradling 101.6 mm SWG pipe line all round to have 75 mm nominal size thick cover over the sockets.	1 RM	<b>163.00</b>
6	TBSP-A.I-06	Providing 152.4 mm CC bed 1:2:4 Prop: using 19.05 mm gauge graded granite metal chips and cradling 152.4 mm SWG pipe line all round to have 75 mm nominal size thick cover over the sockets.	1 RM	<b>277.00</b>
7	TBSP-A.I-07	Supplying & Laying 101.6 mm SWG channels with cement mortar joints with suitable brick masonry for fixing the channels in position	1 RM	<b>112.00</b>
8	TBSP-A.I-08	Supplying & Laying 152.4 mm SWG channels with cement mortar joints with suitable brick masonry for fixing the channels in position	1 RM	<b>209.00</b>
9	TBSP-A.I-09	Supplying & fixing 150 mm x 100 mm SWG gully traps conforming to ISI 651 & 4127 with C.I Grating & Cost. Brick masonry in CM 1:6 prop. Intermediate chamber and fitted with 304.8 mm x 288.6mm (12"x9") C.I Frame and hinged cover	Each	<b>722.00</b>
<b>II</b>	<b>SUB-SECTION</b>	<b>S.W.G. PIPES (1m or above lengths)&amp; FITTINGS</b>		
10	TBSP-A.II-01	Supply of SWG SP-1 pipe conforming to ISI 651 - 4"dia(101.6mm)	1 RM	<b>216.00</b>
11	TBSP-A.II-02	Supply of SWG SP-1 pipe conforming to ISI 651 -	1 RM	<b>374.00</b>

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		6"dia(152.4mm)		
12	TBSP-A.II-03	Supply of SWG SP-1 pipe conforming to ISI 651 - 8" dia(203.2mm)	1 RM	578.00
13	TBSP-A.II-04	Supply of SWG SP-1 pipe conforming to ISI 651 - 10" dia (254 mm)	1 RM	1,057.00
14	TBSP-A.II-05	Supply of SWG SP-1 pipe conforming to ISI 651 - 12" dia (300 mm)	1 RM	1,523.00
15	TBSP-A.II-06	Supply of SWG SP-1 pipe conforming to ISI 651 - 14" dia (350 mm)	1 RM	2,073.00
16	TBSP-A.II-07	Supply of SWG SP-2 pipe conforming to ISI 651 - 4"dia(101.6mm)	1 RM	268.00
17	TBSP-A.II-08	Supply of SWG SP-2 pipe conforming to ISI 651 - 6"dia(152.4mm)	1 RM	397.00
18	TBSP-A.II-09	Supply of SWG SP-2 pipe conforming to ISI 651 - 8" dia(203.2mm)	1 RM	713.00
19	TBSP-A.II-10	Supply of SWG SP-2 pipe conforming to ISI 651 - 10" dia (254 mm)	1 RM	1,119.00
20	TBSP-A.II-11	Supply of SWG SP-2 pipe conforming to ISI 651 - 12" dia (300 mm)	1 RM	1,721.00
21	TBSP-A.II-12	Supply of SWG SP-2 pipe conforming to ISI 651 - 14" dia (350 mm)	1 RM	2,230.00
22	TBSP-A.II-13	Supply of SWG SP-2 pipe conforming to ISI 651 - 16" dia (400 mm)	1 RM	2,568.00
23	TBSP-A.II-14	Supply of SWG SP-2 pipe conforming to ISI 651 - 18" dia (450 mm)	1 RM	3,279.00
24	TBSP-A.II-15	Supply of SWG SP-3 pipe conforming to ISI 651 - 4"dia(101.6mm)	1 RM	341.00
25	TBSP-A.II-16	Supply of SWG SP-3 pipe conforming to ISI 651 - 6"dia(152.4mm)	1 RM	495.00
26	TBSP-A.II-17	Supply of SWG SP-3 pipe conforming to ISI 651 - 8" dia(203.2mm)	1 RM	875.00
27	TBSP-A.II-18	Supply of SWG SP-3 pipe conforming to ISI 651 - 10" dia (254 mm)	1 RM	1,327.00
28	TBSP-A.II-19	Supply of SWG SP-3 pipe conforming to ISI 651 - 12" dia (300 mm)	1 RM	1,854.00
29	TBSP-A.II-20	Supply of SWG SP-3 pipe conforming to ISI 651 - 14" dia (350 mm)	1 RM	2,354.00
30	TBSP-A.II-21	Supply of SWG SP-2 pipe conforming to ISI 651 - 16" dia (400 mm)	1 RM	2,708.00
31	TBSP-A.II-22	Supply of SWG SP-3 pipe conforming to ISI 651 - 18" dia (450 mm)	1 RM	3,686.00
32	TBSP-A.II-23	Supply of SWG Bends conforming to IS standards -100 mm dia	Each	110.00
33	TBSP-A.II-24	Supply of SWG Bends conforming to IS standards -150 mm dia	Each	202.00
34	TBSP-A.II-25	Supply of SWG Bends conforming to IS standards -200 mm dia	Each	378.00
35	TBSP-A.II-26	Supply of SWG Bends conforming to IS standards -250 mm dia	Each	765.00
36	TBSP-A.II-27	Supply of SWG Bends conforming to IS standards -300 mm dia	Each	973.00
37	TBSP-A.II-28	Supply of SWG Bends conforming to IS standards -350 mm dia	Each	1,214.00
38	TBSP-A.II-29	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 100 x 100	Each	210.00
39	TBSP-A.II-30	Supply of SWG Junctions (T's & Y's) conforming to IS	Each	308.00



Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		standards with length of barrel 60 cm for - 150 x 100		
40	TBSP-A.II-31	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 150 x 150	Each	336.00
41	TBSP-A.II-32	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 200 x 100	Each	477.00
42	TBSP-A.II-33	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 200 x 150	Each	558.00
43	TBSP-A.II-34	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 200 x 200	Each	640.00
44	TBSP-A.II-35	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 250 x 100	Each	753.00
45	TBSP-A.II-36	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 250 x 150	Each	992.00
46	TBSP-A.II-37	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 250 x 200	Each	1,228.00
47	TBSP-A.II-38	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 250 x 250	Each	1,470.00
48	TBSP-A.II-39	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 300 x 100	Each	1,071.00
49	TBSP-A.II-40	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 300 x 150	Each	1,371.00
50	TBSP-A.II-41	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 300 x 200	Each	1,681.00
51	TBSP-A.II-42	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 300 x 250	Each	1,975.00
52	TBSP-A.II-43	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 300 x 300	Each	2,273.00
53	TBSP-A.II-44	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 350 x 100	Each	1,336.00
54	TBSP-A.II-45	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 350 x 150	Each	1,714.00
55	TBSP-A.II-46	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 350 x 200	Each	2,088.00
56	TBSP-A.II-47	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 350 x 250	Each	2,462.00
57	TBSP-A.II-48	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 350 x 300	Each	2,840.00
58	TBSP-A.II-49	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 350 x 350	Each	3,212.00
59	TBSP-A.II-50	Supply of SWG Plugs conforming to IS standards for 100 mm dia	Each	41.00
60	TBSP-A.II-51	Supply of SWG Plugs conforming to IS standards for 150 mm dia	Each	78.00
61	TBSP-A.II-52	Supply of SWG Plugs conforming to IS standards for 200 mm dia	Each	144.00
62	TBSP-A.II-53	Supply of SWG Plugs conforming to IS standards for 250 mm dia	Each	249.00
63	TBSP-A.II-54	Supply of SWG Plugs conforming to IS standards for 300 mm dia	Each	394.00
64	TBSP-A.II-55	Supply of SWG Plugs conforming to IS standards for 350 mm dia	Each	493.00
65	TBSP-A.II-56	Supply of SWG Gully Traps (Round & Square) conforming to IS standards 150 x 100 mm	Each	303.00
66	TBSP-A.II-57	Supply of SWG Saddles conforming to IS standards 150 x 100mm	Each	222.00
67	TBSP-A.II-58	Supply of SWG Saddles conforming to IS standards	Each	378.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		200 x 100mm		
68	TBSP-A.II-59	Supply of SWG Saddles conforming to IS standards 250 x 100mm	Each	612.00
69	TBSP-A.II-60	Supply of SWG Rubber Rings, glue & Fixing Charges confirming to IS standards 150mm	Each	46.00
70	TBSP-A.II-61	Supply of SWG Rubber Rings, glue & Fixing Charges confirming to IS standards 200mm	Each	67.00
71	TBSP-A.II-62	Supply of SWG Rubber Rings, glue & Fixing Charges confirming to IS standards 250mm	Each	90.00
72	TBSP-A.II-63	Supply of SWG Rubber Rings, glue & Fixing Charges confirming to IS standards 300mm	Each	149.00
III	SUB-SECTION	LABOUR CHARGES FOR SWG WORKS		
73	TBSP-A.III-01	Labour charges only for laying, jointing and testing SWG pipes of any dia with airtight cement joints including excavation of trenches and socket pits in any soil up to 914.4 mm (3'0") depth (except rock requiring blasting) and refilling with watering and tamping.	1 RM	326.00
74	TBSP-A.III-02	Labour charges only for laying, jointing and testing SWG pipes of any dia with airtight cement joints including excavation of trenches and socket pits in any soil up to 1524 mm (5'-0") depth (except rock requiring blasting) and refilling with watering and tamping.	1 RM	405.00
75	TBSP-A.III-03	Labour charges only for laying 101.6 mm SWG channels with cement mortar joints with suitable brick masonry for fixing the channels in position	1 RM	53.00
76	TBSP-A.III-04	Labour charges only for laying 152.4 mm SWG channels with cement mortar joints with suitable brick masonry for fixing the channels in position	1 RM	71.00
77	TBSP-A.III-05	Labour charges only for fixing and laying the SWG Junctions/ Plugs/ Bends of any dia with airtight cement joints as per standard practice	Each	44.00
B	SECTION	MANHOLES&INSPECTIONCHAMBERS-ASPER- IS 4111 : Part 1 :1986		
I	SUB-SECTION	MANHOLES		
78	TBSP-B.I-01	Constructing 904.0 mm (3'0") dia solid block masonry inspection chamber as per IS - 4111: Part-1:1986 with cement mortar (1:6) prop using fly-ash blocks of 225 mm thick from approved source having a minimum crushing strength of 10 N/sq.mm including plastering with cement mortar 1:3 prop; ½" thick both inside and outside fitted with 20" dia RCC manhole covers and frames including excavating pits up to a depth of 904 mm (3'-0") in all sorts of soils (excluding rock) and laying cement concrete (1:4:8) 150 mm thick using 40 mm HBG Metal and P.C.C. 1:2:4 benching and channel 100 mm thick as per Standard specification and including cost and conveyance of all materials like cement, sand, bricks, water etc., to site, cost of seigniorage charges on all materials and all incidental and operational, labour charges like mixing cement mortar, constructing masonry, lift charges, curing etc., complete for finished item of work as per Standard specification.	Each	8,611.00
79	TBSP-B.I-02	Constructing 904.0 mm (3'0") dia solid block masonry	Each	

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		inspection chamber as per IS - 4111: Part-1:1986 with cement mortar (1:6) prop using fly-ash blocks of 225 mm thick from approved source having a minimum crushing strength of 10 N/sq.mm including plastering with cement mortar 1:3 prop; ½" thick both inside and outside fitted with 20" dia RCC manhole covers and frames including excavating pits up to a depth of 1524 mm (5'-0") in all sorts of soils (excluding rock) and laying cement concrete (1:4:8) 150 mm thick using 40 mm HBG Metal and P.C.C. 1:2:4 benching and channel 100 mm thick as per Standard specification and including cost and conveyance of all materials like cement, sand, bricks, water etc., to site, cost of seigniorage charges on all materials and all incidental and operational, labour charges like mixing cement mortar, constructing masonry, lift charges, curing etc., complete for finished item of work as per Standard specification.		13,951.00
80	TBSP-B.I-03	Constructing 904.0 mm (3'0") dia brick masonry inspection chamber as per IS - 4111: Part-1:1986 with cement mortar (1:6) prop using 2nd Class Clay Bricks of 225 mm thick from approved source having a minimum crushing strength of 5 N/sq.mm including plastering with cement mortar 1:3 prop; ½" thick both inside and outside fitted with 20" dia RCC manhole covers and frames including excavating pits up to a depth of 904 mm (3'-0") in all sorts of soils (excluding rock) and laying cement concrete (1:4:8) 150 mm thick using 40 mm HBG Metal and P.C.C. 1:2:4 benching and channel 100 mm thick as per Standard specification and including cost and conveyance of all materials like cement, sand, bricks, water etc., to site, cost of seigniorage charges on all materials and all incidental and operational, labour charges like mixing cement mortar, constructing masonry, lift charges, curing etc., complete for finished item of work as per Standard specification.	Each	8,607.00
81	TBSP-B.I-04	Constructing 904.0 mm (3'0") dia brick masonry inspection chamber as per IS - 4111: Part-1:1986 with cement mortar (1:6) prop using 2nd Class Clay Bricks of 225 mm thick from approved source having a minimum crushing strength of 5 N/sq.mm including plastering with cement mortar 1:3 prop; ½" thick both inside and outside fitted with 20" dia RCC manhole covers and frames including excavating pits up to a depth of 1524 mm (5'-0") in all sorts of soils (excluding rock) and laying cement concrete (1:4:8) 150 mm thick using 40 mm HBG Metal and P.C.C. 1:2:4 benching and channel 100 mm thick as per Standard specification and including cost and conveyance of all materials like cement, sand, bricks, water etc., to site, cost of seigniorage charges on all materials and all incidental and operational, labour charges like mixing cement mortar, constructing masonry, lift charges, curing etc., complete for finished item of work as per	Each	13,919.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		Standard specification.		
II	<b>SUB-SECTION</b>	<b>INSPECTION CHAMBERS &amp; COVERS</b>		
82	TBSP-B.II-01	Constructing 914.4 mm x 457.2 mm (3'0"x1'6") brick in CM 1:6 prop. Masonry Inspection chamber up to 914.4 mm (3'0") and fitted with light weight 914.4 mm x 457.2 mm (3'0"x1'6") C.I frame and cover of 40 Kg.	Each	7,376.00
83	TBSP-B.II-02	Constructing 457.2 mm x 457.2 mm (1'6"x1'6") brick in CM 1:6 prop. Masonry. Inspection chamber up to 914.4 mm (3'0") and fitted with light weight 457.2 mm x 457.2 mm (1'6"x1'6") C.I frame and cover of 20 Kg.	Each	4,448.00
84	TBSP-B.II-03	Constructing Brick masonry chamber over the gully trap or peet valve and fitted with 304.8 x 228.6 mm size CI frame and hinged cover.	Each	552.00
85	TBSP-B.II-04	Constructing Brick masonry support for G.I pipe with C.M 304.8 x 228.6 x 228.6 mm size including plastering and finishing etc. complete.	Each	90.00
86	TBSP-B.II-05	Supply & fixing RCC cover 22" dia with nominal reinforcement 3 " thick and hooks for lifting	Each	855.00
87	TBSP-B.II-06	Supplying & fixing 304.8 x 228.6 mm CI frame & cover over gully taps	Each	146.00
88	TBSP-B.II-07	Supplying & fixing CI Nahany trap grating	Each	25.00
89	TBSP-B.II-08	Supplying & fixing CI gully trap grating	Each	61.00
90	TBSP-B.II-09	Supplying & fixing 914.4 x 457.2 mm CI man hole frame and cover (light weight) 30 Kgs	Each	2,347.00
91	TBSP-B.II-10	Supplying & fixing 602 x 602 mm CI man hole frame and cover (light weight) 30 Kgs	Each	3,498.00
92	TBSP-B.II-11	Supplying & fixing CI steps for septic tank.	Each	78.00
93	TBSP-B.II-12	Supplying & fixing 50.8 cm dia C.I. Man hole frame & cover for 914.4 mm dia chamber (20 Kgs - Light weight)	Each	1,511.00
94	TBSP-B.II-13	Supplying & fixing 50.8 cm dia C.I. Man hole frame & cover for 914.4 mm dia chamber (Medium weight) as per IS:1726 - 40 Kgs	Each	3,119.00
III	<b>SUB-SECTION</b>	<b>LABOUR CHARGES FOR IC WORKS</b>		
95	TBSP-B.III-01	Making drainage connection from a drainage line in to an existing inspection chamber/ manhole including making a hole in to the chambers, placing necessary pipes in the connection and making good the junction in and out of the chambers including cost of necessary cement, sand and aggregate etc.,	Each	168.00
C	<b>SECTION</b>	<b>C.I. PIPES &amp; FITTINGS - AS PER - IS 1729:1979 (Materials shall be procured from the list of approved Brands/ Manufacturers/Suppliers)</b>		
I	<b>SUB-SECTION</b>	<b>SUPPLYING &amp; LAYING OF C.I. PIPES</b>		
96	TBSP-C.I-01	Supplying and fixing of C.I. soil pipes ISI marked conforming to IS:1729-1979 of approved make with cement caulked joints and fixing as per site requirements including painting black with Japan paint and fixing with necessary wooden blocks fixed in the masonry walls in cement mortar (1½:1) including fixing of M.S. clamps if necessary with required no. of Bombaynailsetc.,completefor3"dia(75mmnominal size) Single Socket	1 RM	878.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
97	TBSP-C.I-02	Supplying and fixing of C.I. soil pipes ISI marked conforming to IS:1729-1979 of approved make with cement caulked joints and fixing as per site requirements including painting black with Japan paint and fixing with necessary wooden blocks fixed in the masonry walls in cement mortar (1½:1) including fixing of M.S. clamps if necessary with required no. of Bombay nails etc., complete for 4" dia (101.6mm) Single Socket	1 RM	1,153.00
98	TBSP-C.I-03	Supplying and fixing of C.I. soil pipes ISI marked conforming to IS:1729-1979 of approved make with cement caulked joints and fixing as per site requirements including painting black with Japan paint and fixing with necessary wooden blocks fixed in the masonry walls in cement mortar (1½:1) including fixing of M.S. clamps if necessary with required no. of Bombay nails etc., complete for 6" dia (152.4mm) Single Socket	1 RM	1,843.00
99	TBSP-C.I-04	Supplying and fixing of C.I. soil pipes ISI marked conforming to IS:1729-1979 of approved make with cement caulked joints and fixing as per site requirements including painting black with Japan paint and fixing with necessary wooden blocks fixed in the masonry walls in cement mortar (1½:1) including fixing of M.S. clamps if necessary with required no. of Bombay nails etc., complete for 3" dia (75mm nominal size) Double Socket	1 RM	959.00
100	TBSP-C.I-05	Supplying and fixing of C.I. soil pipes ISI marked conforming to IS:1729-1979 of approved make with cement caulked joints and fixing as per site requirements including painting black with Japan paint and fixing with necessary wooden blocks fixed in the masonry walls in cement mortar (1½:1) including fixing of M.S. clamps if necessary with required no. of Bombay nails etc., complete for 4" dia (101.6mm) Double Socket	1 RM	1,280.00
101	TBSP-C.I-06	Supplying and fixing of C.I. soil pipes ISI marked conforming to IS:1729-1979 of approved make with cement caulked joints and fixing as per site requirements including painting black with Japan paint and fixing with necessary wooden blocks fixed in the masonry walls in cement mortar (1½:1) including fixing of M.S. clamps if necessary with required no. of Bombay nails etc., complete for 6" dia (152.4mm) Double Socket	1 RM	2,125.00
<b>II</b>	<b>SUB-SECTION</b>	<b>SUPPLYING &amp; LAYING OF C.I. FITTINGS</b>		
102	TBSP-C.II-01	Supplying & fixing CI Plain bends 1st quality ISI marked conforming to IS:1729-1979 with cement caulked joints and fixing as per site requirements with standard practice for 3" dia (75 mm nominal size)	Each	342.00
103	TBSP-C.II-02	Supplying & fixing CI Plain bends 1st quality ISI marked conforming to IS:1729-1979 with cement caulked joints and fixing as per site requirements with standard practice for 4" dia (101.6mm)	Each	434.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
104	TBSP-C.II-03	Supplying & fixing CI Plain bends 1st quality ISI marked conforming to IS:1729-1979 with cement caulked joints and fixing as per site requirements with standard practice for 6" dia (152.4 mm)	Each	721.00
105	TBSP-C.II-04	Supplying & fixing CI Plug (Door) bends 1st quality ISI marked conforming to IS:1729-1979 with cement caulked joints and fixing as per site requirements with standard practice for 3" dia (75 mm nominal size)	Each	424.00
106	TBSP-C.II-05	Supplying & fixing CI Plug (Door) bends 1st quality ISI marked conforming to IS:1729-1979 with cement caulked joints and fixing as per site requirements with standard practice for 4" dia (101.6 mm)	Each	525.00
107	TBSP-C.II-06	Supplying & fixing CI Plug (Door) bends 1st quality ISI marked conforming to IS:1729-1979 with cement caulked joints and fixing as per site requirements with standard practice for 6" dia (152.4 mm)	Each	1,147.00
108	TBSP-C.II-07	Supplying and fixing of 75 mm nominal size (3") CIS oil single junction with plug: conforming to IS:1729-1979 with cement caulked joints and fixing	Each	533.00
109	TBSP-C.II-08	Supplying and fixing of 101.6 mm (4") CI soil single junction with plug : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	835.00
110	TBSP-C.II-09	Supplying and fixing of 152.4 mm (6") CI soil single junction with plug : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	1,977.00
111	TBSP-C.II-10	Supplying and fixing of 75 mm nominal size (3") CIS oil plain single junction : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	449.00
112	TBSP-C.II-11	Supplying and fixing of 101.6 mm (4") CI soil plain single junction : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	615.00
113	TBSP-C.II-12	Supplying and fixing of 152.4 mm (6") CI soil plain single junction : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	1,472.00
114	TBSP-C.II-13	Supplying and Fixing of 75 mm nominal size (3") CI soil Double junction with plug: conforming to IS:1729-1979 with cement caulked joints and fixing	Each	811.00
115	TBSP-C.II-14	Supplying and Fixing of 101.6 mm (4") CI soil Double junction with plug : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	987.00
116	TBSP-C.II-15	Supplying and Fixing of 152.4 mm (6") CI soil Double junction with plug : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	2,307.00
117	TBSP-C.II-16	Supplying and Fixing of 75 mm nominal size (3") CI soil plain Double junction : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	703.00
118	TBSP-C.II-17	Supplying and Fixing of 101.6 mm (4") CI soil plain Double junction : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	923.00
119	TBSP-C.II-18	Supplying and Fixing of 152.4 mm (6") CI soil plain Double junction : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	2,159.00
120	TBSP-C.II-19	Supplying and Fixing of 75mm C.I. Offsets 1st quality conforming to IS:1729-1979 with cement caulked joints and fixing -for 76.20 mm (3") C.I. Pipe	Each	344.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
121	TBSP-C.II-20	Supplying and Fixing of 75mm C.I. Offsets 1st quality conforming to IS:1729-1979 with cement caulked joints and fixing -for 101.6 mm (4") C.I. Pipe	Each	481.00
122	TBSP-C.II-21	Supplying and Fixing of 75mm C.I. Offsets 1st quality conforming to IS:1729-1979 with cement caulked joints and fixing -for 152.4 mm (6") C.I. Pipe	Each	1,049.00
123	TBSP-C.II-22	Supplying and Fixing of 115 mm C.I. Offsets 1st quality conforming to IS:1729-1979 with cement caulked joints and fixing - for 76.20 mm (3") C.I. Pipe	Each	411.00
124	TBSP-C.II-23	Supplying and Fixing of 115 mm C.I. Offsets 1st quality conforming to IS:1729-1979 with cement caulked joints and fixing - for 101.6 mm (4") C.I. Pipe	Each	546.00
125	TBSP-C.II-24	Supplying and Fixing of 115 mm C.I. Offsets 1st quality conforming to IS:1729-1979 with cement caulked joints and fixing - for 152.4 mm (6") C.I. Pipe	Each	1,076.00
126	TBSP-C.II-25	Supplying and Fixing of 150 mm C.I. Offsets 1st quality conforming to IS:1729-1979 with cement caulked joints and fixing for 76.20 mm (3") C.I. Pipe	Each	475.00
127	TBSP-C.II-26	Supplying and Fixing of 150 mm C.I. Offsets 1st quality conforming to IS:1729-1979 with cement caulked joints and fixing for 101.6 mm (4") C.I. Pipe	Each	615.00
128	TBSP-C.II-27	Supplying and Fixing of 150 mm C.I. Offsets 1st quality conforming to IS:1729-1979 with cement caulked joints and fixing for 152.4 mm (6") C.I. Pipe	Each	1,248.00
129	TBSP-C.II-28	Supplying & fixing CI floor traps 1st quality ISI marked conforming to IS:1729-1979 with C.P. Grating fixing with white cement as per site requirements with standard practice for nominal dia 75 mm (3") and grating size 165 mm dia of weight not less than 5.5 Kgs	Each	624.00
130	TBSP-C.II-29	Supplying & fixing CI floor traps 1st quality ISI marked with C.P. Grating fixing with white cement as per site requirements with standard practice for nominal dia 100 mm (4") and grating size 100 mm dia of weight not less than 6 Kgs	Each	762.00
131	TBSP-C.II-30	Supplying & fixing CI floor traps 1st quality ISI marked conforming to IS:1729-1979 with C.P. Grating fixing with white cement as per site requirements with standard practice for nominal dia 75 mm (3") and grating size 100 mm dia of weight not less than 4.0 Kgs	Each	381.00
132	TBSP-C.II-31	Supplying & fixing CI Collars (double socket) 1st quality ISI marked conforming to IS:1729-1979 with cement caulked joints and fixing as per site requirements with standard practice for 76.20 mm (3") C.I. Pipe	Each	210.00
133	TBSP-C.II-32	Supplying & fixing CI Collars (double socket) 1st quality ISI marked conforming to IS:1729-1979 with cement caulked joints and fixing as per site requirements with standard practice for 101.6 mm (4") C.I. Pipe	Each	263.00
134	TBSP-C.II-33	Supplying & fixing CI Collars (double socket) 1st quality ISI marked conforming to IS:1729-1979 with cement caulked joints and fixing as per site requirements with standard practice for 152.4 mm (6") C.I. Pipe	Each	753.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
III	<b>SUB-SECTION</b>	<b>LABOUR CHARGES FOR CI PIPE WORKS</b>		
135	TBSP-C.III-01	Labour charges only for fixing of C.I. Single/ Double Socket soil pipes of any dia with cement caulked joints and fixing as per site requirements including painting black with Japan paint and fixing with necessary wooden blocks fixed in the masonry walls in cement mortar and including fixing of M.S. clamps if necessary with required nails	1 RM	318.00
136	TBSP-C.III-02	Labour charges only for fixing CI Plain/ Plug (Door) bends with cement caulked joints and fixing as per site requirements with standard practice	Each	102.00
137	TBSP-C.III-03	Labour charges only fixing CI soil single junctions with cement caulked joints and fixing as per site requirements with standard practice	Each	128.00
138	TBSP-C.III-04	Labour charges only fixing CI soil Double junctions with cement caulked joints and fixing as per site requirements with standard practice	Each	137.00
139	TBSP-C.III-05	Labour charges only fixing CI soil Collars, Bends, Offsets etc., with cement caulked joints and fixing as per site requirements with standard practice	Each	63.00
140	TBSP-C.III-06	Labour charges only for fixing CI Nahany/ Floor traps with C.P. Grating fixing with white cement as per site requirements with standard practice	Each	83.00
141	TBSP-C.III-07	Boxing of Nahany traps in RCC floors	Each	268.00
142	TBSP-C.III-08	Boxing of W.C Traps in R.C.C floors	Each	536.00
D	<b>SECTION</b>	<b>CENTRIFUGALCASTIRONPIPES&amp;FITTINGSASPER IS: 3989 -1984</b>		
I	<b>SUB-SECTION</b>	<b>SUPPLY OF CENTRIFUGAL CI PIPES</b>		
143	TBSP-D.I-01	75 mm dia CI (spun) soils Waste & Ventilating pipe (3 M)	Each	1,700.00
144	TBSP-D.I-02	100 mm dia CI (spun) soils Waste & Ventilating pipe(3M)	Each	2,262.00
145	TBSP-D.I-03	150 mm dia CI (spun) soils Waste & Ventilating pipe(3M)	Each	4,145.00
146	TBSP-D.I-04	75 mm dia CI (spun) soils Waste & Ventilating pipe (3 M) Double socket	Each	1,886.00
147	TBSP-D.I-05	100 mm dia CI (spun) soils Waste & Ventilating pipe(3 M) Double socket	Each	2,545.00
148	TBSP-D.I-06	75 mm dia 9'-0" (2743.2 mm) CI (Spun) pipes	Each	1,528.00
149	TBSP-D.I-07	100 mm dia 9'-0" (2743.2 mm) CI (Spun) pipes	Each	2,041.00
150	TBSP-D.I-08	75 mm dia 8'-0" (2438.4 mm) CI (Spun) pipes	Each	1,368.00
151	TBSP-D.I-09	100 mm dia 8'-0" (2438.4 mm) CI (Spun) pipes	Each	1,818.00
152	TBSP-D.I-10	75 mm dia 6'-0" (1828.8 mm) CI (Spun) pipes	Each	1,113.00
153	TBSP-D.I-11	100 mm dia 6'-0" (1828.8 mm) CI (Spun) pipes	Each	1,451.00
154	TBSP-D.I-12	75 mm dia 6'-0" (1828.8 mm) Double Socket CI (Spun) pipes	Each	1,170.00
155	TBSP-D.I-13	100 mm dia 6'-0" (1828.8 mm) Double Socket CI (Spun) pipes	Each	1,451.00
II	<b>SUB-SECTION</b>	<b>SUPPLY OF C.I. SPUN FITTINGS</b>		
156	TBSP-D.II-01	75 mm dia Cut pipes (pieces) 1 foot (304.8 mm) CI (Spun) fittings	Each	406.00
157	TBSP-D.II-02	100 mm dia Cut pipes (pieces) 1 foot (304.8 mm) CI (Spun) fittings	Each	467.00
158	TBSP-D.II-03	75 mm dia Cut pipes (pieces) 1'.6" (457.2 mm) CI (Spun) fittings	Each	582.00
159	TBSP-D.II-04	100 mm dia Cut pipes (pieces) 1'.6" (457.2 mm) CI	Each	669.00



Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		(Spun) fittings		
160	TBSP-D.II-05	150 mm dia Cut pipes (pieces) 1'.6" (457.2 mm) CI (Spun) fittings	Each	1,274.00
161	TBSP-D.II-06	75 mm dia Cut pipes (pieces ) 2 feet (609.6 mm) CI (Spun) fittings	Each	801.00
162	TBSP-D.II-07	100 mm dia Cut pipes (pieces ) 2 feet (609.6 mm) CI (Spun) fittings	Each	885.00
163	TBSP-D.II-08	150 mm dia Cut pipes (pieces ) 2 feet (609.6 mm) CI (Spun) fittings	Each	1,596.00
164	TBSP-D.II-09	75 mm dia Cut pipes (pieces ) 3 feet (914.4 mm) CI (Spun) fittings	Each	1,229.00
165	TBSP-D.II-10	100 mm dia Cut pipes (pieces ) 3 feet (914.4 mm) CI (Spun) fittings	Each	1,657.00
166	TBSP-D.II-11	75 mm dia Cut pipes (pieces ) 4 feet (1219.2 mm) CI (Spun) fittings	Each	1,351.00
167	TBSP-D.II-12	100 mm dia Cut pipes (pieces ) 4 feet (1219.2 mm) CI (Spun) fittings	Each	2,023.00
168	TBSP-D.II-13	75 mm dia Plain Bend - CI (Spun) fittings	Each	419.00
169	TBSP-D.II-14	100 mm dia Plain Bend - CI (Spun) fittings	Each	492.00
170	TBSP-D.II-15	150 mm dia Plain Bend - CI (Spun) fittings	Each	1,171.00
171	TBSP-D.II-16	75 mm dia Door Bend - CI (Spun) fittings	Each	432.00
172	TBSP-D.II-17	100 mm dia Door Bend - CI (Spun) fittings	Each	560.00
173	TBSP-D.II-18	150 mm dia Door Bend - CI (Spun) fittings	Each	1,281.00
174	TBSP-D.II-19	75 mm dia Plain Bend 45 Degrees - CI (Spun) fittings	Each	419.00
175	TBSP-D.II-20	100 mm dia Plain Bend 45 Degrees - CI (Spun) fittings	Each	492.00
176	TBSP-D.II-21	150 mm dia Plain Bend 45 Degrees - CI (Spun) fittings	Each	1,171.00
177	TBSP-D.II-22	75 mm dia Door Bend 45 Degrees - CI (Spun) fittings	Each	432.00
178	TBSP-D.II-23	100 mm dia Door Bend 45 Degrees - CI (Spun) fittings	Each	560.00
179	TBSP-D.II-24	150 mm dia Door Bend 45 Degrees - CI (Spun) fittings	Each	1,281.00
180	TBSP-D.II-25	Horn Bend Plain 101.6 x 50 mm nominal size (4" x 2") 100 mm dia - CI (Spun) fittings	Each	851.00
181	TBSP-D.II-26	Horn Bend door 101.6 x 50 mm nominal size (4" x 2") 100 mm dia - CI (Spun) fittings	Each	992.00
182	TBSP-D.II-27	75 mm dia Heel Rest Bend - CI (Spun) fittings	Each	445.00
183	TBSP-D.II-28	100 mm dia Heel Rest Bend - CI (Spun) fittings	Each	569.00
184	TBSP-D.II-29	150 mm dia Heel Rest Bend - CI (Spun) fittings	Each	1,207.00
185	TBSP-D.II-30	75 mm dia Single Branch Plain "T" - CI (Spun) fittings	Each	560.00
186	TBSP-D.II-31	100 mm dia Single Branch Plain "T" - CI (Spun) fittings	Each	755.00
187	TBSP-D.II-32	150 mm dia Single Branch Plain "T" - CI (Spun) fittings	Each	1,557.00
188	TBSP-D.II-33	75 mm dia Single Branch Door "T" - CI (Spun) fittings	Each	660.00
189	TBSP-D.II-34	100 mm dia Single Branch Door "T" - CI (Spun) fittings	Each	877.00
190	TBSP-D.II-35	150 mm dia Single Branch Door "T" - CI (Spun) fittings	Each	1,645.00
191	TBSP-D.II-36	75 mm dia Single Branch plain "Y" - CI (Spun) fittings	Each	660.00
192	TBSP-D.II-37	100 mm dia Single Branch plain "Y" - CI (Spun) fittings	Each	877.00
193	TBSP-D.II-38	150 mm dia Single Branch plain "Y" - CI (Spun) fittings	Each	1,930.00
194	TBSP-D.II-39	75 mm dia Single Branch Door "Y" - CI (Spun) fittings	Each	724.00
195	TBSP-D.II-40	100 mm dia Single Branch Door "Y" - CI (Spun) fittings	Each	967.00
196	TBSP-D.II-41	150 mm dia Single Branch Door "Y" - CI (Spun) fittings	Each	2,080.00
197	TBSP-D.II-42	75 mm dia Double Branch Plain "T" - CI (Spun) fittings	Each	765.00
198	TBSP-D.II-43	100 mm dia Double Branch Plain "T" - CI (Spun) fittings	Each	1,029.00
199	TBSP-D.II-44	75 mm dia Double Branch Door "T" - CI (Spun) fittings	Each	853.00
200	TBSP-D.II-45	100 mm dia Double Branch Door "T" - CI (Spun) fittings	Each	1,073.00
201	TBSP-D.II-46	75 mm dia Double Branch Plain "Y" - CI (Spun) fittings	Each	853.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
202	TBSP-D.II-47	100 mm dia Double Branch Plain "Y" - CI (Spun) fittings	Each	1,073.00
203	TBSP-D.II-48	75 mm dia Double Branch Door "Y" - CI (Spun) fittings	Each	900.00
204	TBSP-D.II-49	100 mm dia Double Branch Door "Y" - CI (Spun) fittings	Each	1,165.00
205	TBSP-D.II-50	75 mm dia Shoe Bend - CI (Spun) fittings	Each	527.00
206	TBSP-D.II-51	100 mm dia Shoe Bend - CI (Spun) fittings	Each	617.00
207	TBSP-D.II-52	150 mm dia Shoe Bend - CI (Spun) fittings	Each	1,252.00
208	TBSP-D.II-53	75 mm dia Collar - CI (Spun) fittings	Each	362.00
209	TBSP-D.II-54	100 mm dia Collar - CI (Spun) fittings	Each	439.00
210	TBSP-D.II-55	150 mm dia Collar - CI (Spun) fittings	Each	900.00
211	TBSP-D.II-56	75 mm dia Cowl - CI (Spun) fittings	Each	319.00
212	TBSP-D.II-57	100 mm dia Cowl - CI (Spun) fittings	Each	362.00
213	TBSP-D.II-58	150 mm dia Cowl - CI (Spun) fittings	Each	810.00
214	TBSP-D.II-59	75 mm dia Offset 3" (75 mm nominal size ) projection - CI (Spun) fittings	Each	463.00
215	TBSP-D.II-60	100 mm dia Offset 3" (75 mm nominal size ) projection - CI (Spun) fittings	Each	560.00
216	TBSP-D.II-61	150 mm dia Offset 3" (75 mm nominal size ) projection - CI (Spun) fittings	Each	1,131.00
217	TBSP-D.II-62	75 mm dia Offset 6" (152.4mm ) projection - CI (Spun) fittings	Each	504.00
218	TBSP-D.II-63	100 mm dia Offset 6" (152.4mm ) projection - CI (Spun) fittings	Each	660.00
219	TBSP-D.II-64	150 mm dia Offset 6" (152.4mm ) projection - CI (Spun) fittings	Each	1,316.00
220	TBSP-D.II-65	75 mm dia Long Door Bend - CI (Spun) fittings	Each	1,061.00
221	TBSP-D.II-66	100 mm dia Long Door Bend - CI (Spun) fittings	Each	1,141.00
222	TBSP-D.II-67	75 mm dia Hand Hole pipe ( Inspection pipe)	Each	610.00
223	TBSP-D.II-68	100 mm dia Hand Hole pipe ( Inspection pipe)	Each	830.00
224	TBSP-D.II-69	150 mm dia Hand Hole pipe ( Inspection pipe)	Each	1,106.00
225	TBSP-D.II-70	75 mm dia P Traps - CI (Spun) fittings	Each	660.00
226	TBSP-D.II-71	100 mm dia P Traps - CI (Spun) fittings	Each	905.00
227	TBSP-D.II-72	4" x 3" (101.6 mm x 76.2mm ) P. Traps 100 mm dia - CI (Spun) fittings	Each	1,037.00
228	TBSP-D.II-73	4" x 3" (101.6 mm x 76.2mm ) Vent Traps 100 mm dia - CI (Spun) fittings	Each	1,037.00
229	TBSP-D.II-74	4" x 3" (101.6 mm x 76.2mm ) Reducer 75 mm dia - CI (Spun) fittings	Each	645.00
230	TBSP-D.II-75	6" x 4" (152.4 mm x 101.6 mm ) Reducer 75 mm dia - CI (Spun) fittings	Each	882.00
231	TBSP-D.II-76	3" x 2" ( 75 mm nominal size x 50 mm nominal size ) plain T 75 mm dia - CI (Spun) fittings	Each	552.00
232	TBSP-D.II-77	3" x 2" ( 75 mm nominal size x 50 mm nominal size ) Door T 75 mm dia - CI (Spun) fittings	Each	859.00
233	TBSP-D.II-78	3" x 2" ( 75 mm nominal size x 50 mm nominal size ) Plain Y 75 mm dia - CI (Spun) fittings	Each	859.00
234	TBSP-D.II-79	3" x 2" ( 75 mm nominal size x 50 mm nominal size ) Door Y 75 mm dia - CI (Spun) fittings	Each	859.00
235	TBSP-D.II-80	4" x 3" (101.6 mm x 76.2mm ) Plain T 75 mm dia - CI (Spun) fittings	Each	859.00
236	TBSP-D.II-81	4" x 3" (101.6 mm x 76.2mm ) Door T 75 mm dia - CI (Spun) fittings	Each	910.00
237	TBSP-D.II-82	4" x 3" (101.6 mm x 76.2mm ) Plain Y 75 mm dia - CI (Spun) fittings	Each	910.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
238	TBSP-D.II-83	4" x 3" (101.6 mm x 76.2mm ) Door Y 75 mm dia - CI (Spun) fittings	Each	971.00
239	TBSP-D.II-84	6" x 4" (152.4 mm x101.6 mm ) Plain T 75 mm dia - CI (Spun) fittings	Each	1,271.00
240	TBSP-D.II-85	6" x 4" (152.4 mm x101.6 mm ) Door T 75 mm dia - CI (Spun) fittings	Each	1,378.00
241	TBSP-D.II-86	6" x 4" (152.4 mm x101.6 mm ) Plain Y 75 mm dia - CI (Spun) fittings	Each	1,458.00
242	TBSP-D.II-87	6" x 4" (152.4 mm x101.6 mm ) Door Y 75 mm dia - CI (Spun) fittings	Each	1,780.00
243	TBSP-D.II-88	75 mm dia Plain " T" 27 " (685.8 mm ) Special Types of Long Fittings	Each	1,846.00
244	TBSP-D.II-89	100 mm dia - Plain " T" 27 " (685.8 mm ) Special Types of Long CI (Spun) fittings	Each	2,592.00
245	TBSP-D.II-90	75 mm dia Door "T" 27" (685.8 mm ) Special Types of Long CI (Spun) fittings	Each	2,060.00
246	TBSP-D.II-91	100mm dia Door "T" 27" (685.8 mm ) Special Types of Long CI (Spun) fittings	Each	2,847.00
247	TBSP-D.II-92	75 mm dia Plain " Y" 27" (685.8 mm) Special Types of Long CI (Spun) fittings	Each	2,060.00
248	TBSP-D.II-93	100mm dia Plain " Y" 27" (685.8 mm) Special Types of Long CI (Spun) fittings	Each	2,847.00
249	TBSP-D.II-94	75 mm dia Door " Y" 27" (685.8 mm) Special Types of Long CI (Spun) fittings	Each	2,297.00
250	TBSP-D.II-95	100mm dia Door " Y" 27" (685.8 mm) Special Types of Long CI (Spun) fittings	Each	3,126.00
<b>E</b>	<b>SECTION</b>	<b>VITREOUS CHINAWARE - SANITARY APPLIANCES as per IS:2556 - 2004 (Materials shall be procured from the list of approved Brands/ Manufacturers/ Suppliers)</b>		
<b>I</b>	<b>SUB-SECTION</b>	<b>INDIAN WATER CLOSETS</b>		
251	TBSP-E.I-01	Supplying & fixing approved make Indian pattern white glazed W.C 1st quality ISI marked conforming to IS:2556-Part-3-2004 with "P" or "S" trap: 580 mm Long	Each	1,571.00
252	TBSP-E.I-02	Supplying & fixing approved make Indian pattern white glazed W.C 1st quality ISI marked conforming to IS:2556-Part-3-2004 with "P" or "S" trap: 630 mm Long	Each	1,571.00
253	TBSP-E.I-03	Supplying & fixing approved make Orissa Pan white glazed W.C 1st quality ISI marked conforming to IS:2556-Part-3-2004 with "P" or "S" trap: 580 mm x 440 mm	Each	2,101.00
254	TBSP-E.I-04	Supplying & fixing approved make Orissa Pan white glazed W.C 1st quality ISI marked conforming to IS:2556-Part-3-2004 with "P" or "S" trap: 630 mm x 450 mm	Each	2,101.00
255	TBSP-E.I-05	Supplying & fixing approved make porcelain foot rest for squatting I.W.C.(Rectangular pair)of sizes 250mm x 125 mm x 15 mm thick each foot rest 1st quality ISI marked conforming to IS:2556-Part-10:1974	Pair	249.00
256	TBSP-E.I-06	Providing Brick masonry seat for Orissa pan/ Indian W.C. using traditional common burnt clay bricks as per standard practice	Each	321.00
257	TBSP-E.I-07	Providing Cement Concrete Squatting plate for Orissa pan/ Indian W.C. in P.C.C. 1:2:4 as per standard	Each	96.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		practice		
II	<b>SUB-SECTION</b>	<b>FLOOR MOUNTED EWC</b>		
258	TBSP-E.II-01	Supplying and fixing approved make wash down European Water Closet of 1st quality conforming to IS:2556-Part-2-2004 of white glazed with 'P' trap	Each	1,873.00
259	TBSP-E.II-02	Supplying and fixing approved make wash down European Water Closet of 1st quality conforming to IS:2556-Part-2-2004 of white glazed with 'S' trap	Each	2,008.00
260	TBSP-E.II-03	Supply, Installation and commissioning approved make floor mounted Anglo Indian wash down EWC conforming to IS:2556 (Part 8)-2004 suit with 'P' or 'S' trap with dual flush porcelain cistern fixed on wash down EWC with all internal parts of dual flush cistern, ultra solid seat cover of approved make with rubber buffer and cap & 15 mm angle stop cock & 450 mm long PVC inter connection pipe wall flanges all of approved make etc. complete for finished item of work in all respects: White Colour	Each	5,952.00
261	TBSP-E.II-04	Supply, Installation and commissioning approved make floor mounted Close Coupled wash down EWC conforming to IS:2556 (Part 8)-2004 suit with 'P' trap with dual flush porcelain cistern fixed on wash down EWC with all internal parts of dual flush cistern, ultra solid seat cover of approved make with rubber buffer and cap & 15 mm angle stop cock & 450 mm long PVC inter connection pipe wall flanges all of approved make etc. complete for finished item of work in all respects: White Colour	Each	11,527.00
262	TBSP-E.II-05	Supply, Installation and commissioning approved make floor mounted Close Coupled wash down EWC conforming to IS:2556 (Part 8)-2004 suit with 'P' trap with dual flush porcelain cistern fixed on wash down EWC with all internal parts of dual flush cistern, ultra solid seat cover of approved make with rubber buffer and cap & 15 mm angle stop cock & 450 mm long PVC inter connection pipe wall flanges all of approved make etc. complete for finished item of work in all respects: Coloured-Grade-I/Grade-II	Each	14,489.00
263	TBSP-E.II-06	Supply, Installation and commissioning approved make floor mounted Close Coupled wash down EWC conforming to IS:2556 (Part 8)-2004 with 'P' or 'S' trap with dual flush porcelain cistern fixed on wash down EWC with all internal parts of dual flush cistern, ultra solid seat cover of approved make with rubber buffer and cap & 15 mm angle stop cock & 450 mm long PVC inter connection pipe wall flanges all of approved make etc. complete for finished item of work in all respects: Special Colour-Grade-III	Each	16,668.00
III	<b>SUB-SECTION</b>	<b>WALL MOUNTED EWC</b>		
264	TBSP-E.III-01	Supply, Installation and commissioning approved make wash down wall mounted EWC conforming to IS:2556 (Part 16)-2002 with 'P' or 'S' trap with concealed flush cistern fixed in wall with all internal parts of dual flush cistern, ultra solid seat cover of approved make with rubber buffer and cap all of	Each	10,911.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		approved make etc. complete for finished item of work in all respects: White colour		
265	TBSP-E.III-02	Supply, Installation and commissioning approved make wash down wall mounted EWC conforming to IS:2556 (Part 16)-2002 with 'P' or 'S' trap with concealed flush cistern fixed in wall with all internal parts of dual flush cistern, ultra solid seat cover of approved make with rubber buffer and cap all of approved make etc. complete for finished item of work in all respects: Coloured Grade-I&II	Each	15,000.00
266	TBSP-E.III-03	Supply, Installation and commissioning approved make wash down wall mounted EWC conforming to IS:2556 (Part 16)-2002 with 'P' or 'S' trap with concealed flush cistern fixed in wall with all internal parts of dual flush cistern, ultra solid seat cover of approved make with rubber buffer and cap all of approved make etc. complete for finished item of work in all respects: Special Coloured Grade-III	Each	15,618.00
IV	SUB-SECTION	<b>CISTERNS FOR WATER CLOSETS</b>		
267	TBSP-E.IV-01	Supplying & Fixing low down porcelain flushing tank with lid 10 Lit Capacity with internal components	Each	3,027.00
268	TBSP-E.IV-02	Supplying & Fixing internal cistern fittings for dual flush cisterns	Each	1,682.00
269	TBSP-E.IV-03	Supplying & Fixing ultra slim concealed flushing cistern of HDPE body and of size 460 x 450 x 80 mm with internal component for wall mounted Wash down WC	Each	4,650.00
V	SUB-SECTION	<b>PLASTIC SEATS FOR WATER CLOSETS</b>		
270	TBSP-E.V-01	Supplying and Fixing best Indian make plastic seat and lid for European water closets with rubber or plastic Buffers as per IS2548-1996	Each	1,235.00
271	TBSP-E.V-02	Supplying and Fixing best Indian make plastic soft closing seat and lid for European water closets with rubber or plastic Buffers as per IS 2548-1996	Each	1,646.00
VI	SUB-SECTION	<b>WASH HAND BASINS</b>		
272	TBSP-E.VI-01	Supplying & Fixing Indian make Flat Back Wash Hand Basin 1st quality conforming to IS:2556-Part-4:1972 with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979 and fitted with 15 mm nominal bore Chromium Plated Pillar Tap of 1st quality Indian make 400 grams Seiko/ Senior/ Nice/ Esso or equivalent complete with standard CI brackets including wooden block: 660 x 460 mm - Single C.P. Pillar cock	Each	3,816.00
273	TBSP-E.VI-02	Supplying & Fixing Indian make Flat Back Wash Hand Basin 1st quality conforming to IS:2556-Part-4:1972 with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979 and fitted with 15 mm nominal bore Chromium Plated Pillar Tap of 1st quality Indian make 400 grams Seiko/ Senior/ Nice/ Esso or equivalent complete with standard CI brackets including wooden block: 630 x 450 mm - Single C.P. Pillar cock	Each	2,791.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
274	TBSP-E.VI-03	Supplying & Fixing Indian make Flat Back Wash Hand Basin 1st quality conforming to IS:2556-Part-4:1972 with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979 and fitted with 15 mm nominal bore Chromium Plated Pillar Tap of 1st quality Indian make 400 grams Seiko/ Senior/ Nice/ Esso or equivalent complete with standard CI brackets including wooden block: 630 x 450 mm - Double C.P. Pillar cock	Each	2,906.00
275	TBSP-E.VI-04	Supplying & Fixing Indian make Flat Back Wash Hand Basin 1st quality conforming to IS:2556-Part-4:1972 with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979 and fitted with 15 mm nominal bore Chromium Plated Pillar Tap of 1st quality Indian make 400 grams Seiko/ Senior/ Nice/ Esso or equivalent complete with standard CI brackets including wooden block: 550 x 400 mm - Single C.P. Pillar cock	Each	2,223.00
276	TBSP-E.VI-05	Supplying & Fixing Indian make Flat Back Wash Hand Basin 1st quality conforming to IS:2556-Part-4:1972 with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979 and fitted with 15 mm nominal bore Chromium Plated Pillar Tap of 1st quality Indian make 400 grams Seiko/ Senior/ Nice/ Esso or equivalent complete with standard CI brackets including wooden block: 550 x 400 mm - Double C.P. Pillar cock	Each	2,588.00
277	TBSP-E.VI-06	Supplying & Fixing Indian make Flat Back Wash Hand Basin 1st quality conforming to IS:2556-Part-4:1972 with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979 and fitted with 15 mm nominal bore Chromium Plated Pillar Tap of 1st quality Indian make 400 grams Seiko/ Senior/ Nice/ Esso or equivalent complete with standard CI brackets including wooden block: 450 x 300 mm - Single C.P. Pillar cock	Each	1,455.00
278	TBSP-E.VI-07	Supplying & Fixing Indian make Flat Back Wash Hand Basin 1st quality conforming to IS:2556-Part-4:1972 with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979 and fitted with 15 mm nominal bore Chromium Plated Pillar Tap of 1st quality Indian make 400 grams Seiko/ Senior/ Nice/ Esso or equivalent complete with standard CI brackets including wooden block: 450 x 300 mm - Double C.P. Pillar cock	Each	1,938.00
279	TBSP-E.VI-08	Supplying & Fixing Indian make below counter Wash Hand Basin 1st quality with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979 and fitted with 15 mm nominal bore Chromium Plated Pillar Tap of 1st quality Indian make 400 grams	Each	4,071.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		Seiko/ Senior/ Nice/ Esso or equivalent complete with standard CI brackets including wooden block with single CP pillar cock		
280	TBSP-E.VI-09	Supplying & Fixing Indian make white glazed vitreous china porcelain sink conforming to IS:2556-Part-5-1994 on cantilever brackets with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979: 600 x 400 x250	Each	4,766.00
281	TBSP-E.VI-10	Supplying & Fixing Indian make white glazed vitreous china porcelain sink conforming to IS:2556-Part-5-1994 on cantilever brackets with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979: 750 x 450 x250	Each	5,363.00
282	TBSP-E.VI-11	Supplying & fixing oval shape basin white (520x410mm) parry or equivalent	Each	2,625.00
283	TBSP-E.VI-12	Supplying and Fixing Pedestal for Wash Hand Basin	Each	1,532.00
284	TBSP-E.VI-13	Supplying & fixing stainless steel sink size 36" x 18" (914.4x457.2mm) 1 mm thick with accessories	Each	7,277.00
285	TBSP-E.VI-14	Supplying & fixing SINGLE BOWL stainless steel sink size 24"x18"x8 " (609.6 x 457.2 x 203.2mm) 1 mm thick with accessories	Each	5,366.00
286	TBSP-E.VI-15	Supplying & fixing stainless steel sink size 20" x18" x 8 " (508x457.2x203.2mm) 1 mm thick with accessories	Each	4,871.00
287	TBSP-E.VI-16	S & F 609.6 x 457.2 x 254 mm RCC terrazzo finished sink (or constructed at site with 50.8mm thick) brass plug and chain including CI cantilever brackets	Each	761.00
VII	<b>SUB-SECTION</b>	<b>URINALS</b>		
288	TBSP-E.VII-01	Supplying & Fixing white glazed flat back Bowl urinals of size 440 mm x 265 mm x 315 mm with internal flushing rim fixed with screws complete Indian make conforming to IS:2556-1995	Each	1,049.00
289	TBSP-E.VII-02	Supplying & Fixing white glazed flat back half stall urinals 1st quality conforming to IS:2556-1995 with standard C.P. Spreader fixed with screws complete Indian make : 410 x 265 x 305 mm	Each	3,349.00
290	TBSP-E.VII-03	Supplying & Fixing white glazed flat back half stall urinals 1st quality conforming to IS:2556-1995 with standard C.P. Spreader fixed with screws complete Indian make : 590 x 375 x 390 mm	Each	3,809.00
291	TBSP-E.VII-04	Supplying & fixing 4 " x 24 " (101.6x609.6mm) white glazed porcelain channel fixed in brick masonry white cement pointing.	Each	524.00
292	TBSP-E.VII-05	Supplying and Fixing Odorless, Waterless Urinal Commode, of size 600mm x 340mmx320 mm/470 mm x 356mm x 305mm made of Specially designed curvature profile and the non-stick ceramic Coating help to ensure maximum slippery index. All the urine or water which is poured, slip into cartridge and does not stick to urinal basin. The Cartridge works on a Uni-directional system i.e., It gets opened only For the amount of urine passed through and gets closed immediately. This ensures bad odor behind trap in the drainage system can't pass back into the	Each	21,702.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		lavatory/ restroom. Cartridge has been sealed for high durability With no leakage		
VIII	<b>SUB-SECTION</b>	<b>LABOUR CHARGES FOR SANITARY WARE</b>		
293	TBSP-E.VIII-01	Labour charges only for fixing Indian pattern W.C with "P" or "S" trap	Each	423.00
294	TBSP-E.VIII-02	Labour charges only Fixing Orissa pan W.C with "P" or "S" trap	Each	527.00
295	TBSP-E.VIII-03	Labour charges only for fixing porcelain foot rest for squatting I.W.C. (Rectangular pair)	Pair	98.00
296	TBSP-E.VIII-04	Labour charges only for fixing low down porcelain flushing tank with internal components	Each	737.00
297	TBSP-E.VIII-05	Labour charges only for fixing internal cistern fittings of any flushing tank	Each	366.00
298	TBSP-E.VIII-06	Labour charges only for fixing European Water Closet with 'P' or 'S' trap as per standard practice	Each	370.00
299	TBSP-E.VIII-07	Labour charges only for fixing plastic seat and lid for European water closet	Each	108.00
300	TBSP-E.VIII-08	Labour charges only for fixing Indian make Flat Back Wash Hand Basin with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting Pillar Taps complete with standard CI brackets including wooden block	Each	527.00
301	TBSP-E.VIII-09	Labour charges only for fixing pedestal for wash hand basin	Each	192.00
302	TBSP-E.VIII-10	Labour charges only for fixing bottle trap to the wash hand basin	Each	74.00
303	TBSP-E.VIII-11	Labour charges only Fixing flat back Bowl/ Half stall urinals with fixing C.P. Spreader and screws complete	Each	211.00
304	TBSP-E.VIII-12	Labour charges only for fixing Vitreous china porcelain sinks with waste fittings, rubber plug, chain, cantilever brackets etc.	Each	527.00
F	<b>SECTION</b>	<b>CPFITTINGS (Materials shall be procured from the list of approved Brands/ Manufacturers/ Suppliers)</b>		
I	<b>SUB-SECTION</b>	<b>TAPS &amp; FAUCETS - BIB TAPS</b>		
305	TBSP-F.I-01	S&F of 15 mm brass body CP finish bib tap of not less than 300 grams weight screw type (full turn) with internal / external threaded connection conforming to IS 8931	Each	261.00
306	TBSP-F.I-02	S&F of 15 mm brass body CP finish bib tap of not less than 300 grams weight with quarter turn spindle with either internal or external threaded connection conforming to IS 8931	Each	634.00
307	TBSP-F.I-03	S&F of 15 mm brass body premium variety Chromium Plated finish bib tap with wall flange of not less than 500 grams weight with quarter turn spindle with either internal or external threaded connection conforming to IS 8931 and with 10 years warranty	Each	901.00
308	TBSP-F.I-04	S&F of 15 mm brass body premium variety Chromium Plated finish bib tap angular shape with wall flange of not less than 500 grams weight with quarter turn spindle with either internal or external threaded connection conforming to IS 8931 and with 10 years warranty	Each	1,269.00
309	TBSP-F.I-05	S&F of 15 mm brass body CP finish two way bib tap of not less than 400 grams weight with quarter turn	Each	907.00



Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		spindle internal/ external threaded connection conforming to IS 8931		
310	TBSP-F.I-06	S&F of 15 mm brass body premium variety Chromium Plated finish two way bib tap with flange of not less than 500 grams weight with quarter turn spindle internal/ external threaded connection conforming to IS 8931 and with 10 years warranty	Each	1,164.00
311	TBSP-F.I-07	S&F of Chromium plated finish brass body quarter turn Bibcock cum Health Faucet with 1m long tube and wall hook with 10 years warranty	Each	3,400.00
312	TBSP-F.I-08	S&F of 15 mm brass body CP finish long body bib tap of not less than 400 grams weight with quarter turn spindle internal / external threaded connection conforming to IS 8931	Each	809.00
II	<b>SUB-SECTION</b>	<b>TAPS &amp; FAUCETS - PILLAR TAPS</b>		
313	TBSP-F.II-01	S&F of 15 mm brass body CP finish pillar tap of not less than 300 grams weight screw type (full turn) conforming to IS 8931	Each	663.00
314	TBSP-F.II-02	S&F of 15 mm brass body CP finish pillar tap of not less than 500 grams weight quarter turn spindle conforming to IS 8931	Each	857.00
315	TBSP-F.II-03	S&F of 15 mm brass body Premium variety Chromium plated finish pillar cock with aerator of not less than 500 grams weight quarter turn spindle conforming to IS 8931 and with a warranty of 10 years	Each	875.00
316	TBSP-F.II-04	S&F of 15 mm brass body Premium variety Chromium plated finish long neck pillar cock with aerator of not less than 500 grams weight quarter turn spindle conforming to IS 8931 and with a warranty of 10 years	Each	1,164.00
317	TBSP-F.II-05	S&F of 15 mm brass body Premium variety Chromium plated finish single lever pillar cock with aerator of not less than 500 grams weight quarter turn spindle conforming to IS 8931 and with a warranty of 10 years	Each	1,269.00
318	TBSP-F.II-06	S&F premium make Sensotronic sensor faucet for wash basin, and with 10 years warranty	Each	15,366.00
319	TBSP-F.II-07	S&F premium make Sensotronic concealed type flushing valve for urinal complete set with installation box with control cock, and with 10 years warranty	Each	15,366.00
320	TBSP-F.II-08	S&F premium make Auto closing system pillar cockforwashbasin,andwith10years warranty	Each	2,547.00
321	TBSP-F.II-09	S&F premium make Auto Closing system Bibcock, and with 10 years warranty	Each	2,672.00
III	<b>SUB-SECTION</b>	<b>TAPS &amp; FAUCETS - OTHER TAPS &amp; SPOUTS</b>		
322	TBSP-F.III-01	S&F of 15 mm brass body CP finish self closing tap push type conforming to IS 1711	Each	287.00
323	TBSP-F.III-02	S&F of 15 mm brass body CP finish self closing tap lift type conforming to IS1711	Each	251.00
324	TBSP-F.III-03	S&F of 15 mm brass body Premium variety Chromium plated finish Swan neck tap with right/left hand operating knob with aerator of not less than 500 grams weight quarter turn spindle conforming to IS 8931 and with a warranty of 10 years	Each	1,694.00
325	TBSP-F.III-04	S&F of 15 mm brass body CP finish wall mounted sink	Each	2,433.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		spout with connecting legs & wall flanges swinging nozzle conforming to IS 8931 and with a warranty of 10 years		
326	TBSP-F.III-05	S&F of 15 mm brass body CP finish wall mounted sink spout with connecting legs & wall flanges fixed nozzle conforming to IS 8931 and with a warranty of 10years	Each	1,481.00
327	TBSP-F.III-06	S&F of 15 mm bath tub spout minimum 180 mm projection with diverter system	Each	1,379.00
328	TBSP-F.III-07	S&F of 15 mm bath tub spout with tip ton minimum 180 mm projection with diverter system	Each	1,857.00
IV	<b>SUB-SECTION</b>	<b>STOP &amp; ANGLE VALVES</b>		
329	TBSP-F.IV-01	S & F 15 mm nominal size CP finish brass stop valve screw type with internal /external threaded conforming to IS 8931	Each	246.00
330	TBSP-F.IV-02	S & F 15 mm nominal size brass concealed stop valve screw type with internal /external threaded conforming to IS 8931	Each	263.00
331	TBSP-F.IV-03	S & F 15 mm nominal size CP finish brass angled stop valve screw type with internal /external threaded conforming to IS 8931	Each	251.00
332	TBSP-F.IV-04	S&F of 15 mm CP finish brass stop valve of not less than 400 grams weight quarter turn spindle with internal threaded conforming to IS 8931	Each	830.00
333	TBSP-F.IV-05	S&F of 15 mm CP finish brass concealed stop valve of not less than 400 grams weight quarter turn spindle conforming to IS 8931	Each	644.00
334	TBSP-F.IV-06	S&F of 15 mm CP finish brass concealed stop valve of not less than 400 grams weight with adjustable wall flange and quarter turn spindle conforming to IS 8931 and with 10 years warranty	Each	1,006.00
335	TBSP-F.IV-07	S&F of 15 mm brass angle stop valve of quarter turn spindle type of not less than 400 grams weight with internal threaded conforming to IS 8931	Each	645.00
V	<b>SUB-SECTION</b>	<b>COMBINATION FAUCETS</b>		
336	TBSP-F.V-01	S&F of 15 mm CP finish brass body wall mixer with hand shower with center distance 150 mm conforming to IS 8931	Each	2,948.00
337	TBSP-F.V-02	S&F of 15 mm CP finish brass body wall mixer conforming to IS 8931 with center distance 150 mm conforming to IS 8931	Each	2,271.00
338	TBSP-F.V-03	S&F of 15 mm premium variety Chromium plated finish brass body wall mixer with hand shower with a provision for over head shower with 115 mm long bend pipe on upper side, connecting legs & wall flanges conforming to IS 8931 with 10 years warranty	Each	3,863.00
339	TBSP-F.V-04	S&F of 15 mm brass forged body concealed diverter with regular flow	Each	3,575.00
340	TBSP-F.V-05	S&F of 15 mm brass forged body concealed diverter with high flow	Each	4,637.00
341	TBSP-F.V-06	S&F of 15 mm brass forged body concealed diverter forged body with 3 way in let	Each	4,446.00
342	TBSP-F.V-07	S&F of 15 mm central hole Chromium plated finish brass body basin mixer 450 mm long pipe for hot & cold water mixing conforming to IS 8931 and with 10 years warranty	Each	2,901.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
343	TBSP-F.V-08	S&F of 15 mm central hole Chromium plated finish brass body single lever basin mixer 450 mm long braided pipe for hot & cold water mixing conforming to IS 8931 and with 10 years warranty	Each	3,386.00
344	TBSP-F.V-09	S&F of 15 mm central hole Chromium plated finish brass body sink mixer with swinging cascade round shape spout (wall/ table mounted model) with connecting legs & wall flanges conforming to IS 8931 and with 10 years warranty	Each	2,961.00
VI	<b>SUB-SECTION</b>	<b>SHOWER ROSES &amp; FITTINGS</b>		
345	TBSP-F.VI-01	S&F 15 mm nominal size 152.0 mm CP finish iron body shower rose	Each	200.00
346	TBSP-F.VI-02	S&F 15 mm nominal size 137.0 mm CP finish iron body shower rose	Each	191.00
347	TBSP-F.VI-03	S&F 15 mm nominal size 101.6 mm CP finish iron body shower rose	Each	182.00
348	TBSP-F.VI-04	S&F 15 mm nominal size CP finish shower rose 200 mm dia with CP finish flexible pipe	Each	611.00
349	TBSP-F.VI-05	S&F 15 mm nominal size CP finish brass over head shower arm of 450 mm long with 90 degree bend & wall flange suitable for rain shower	Each	1,303.00
350	TBSP-F.VI-06	S&F 15 mm nominal size Chromium plated finish brass over head shower arm of 450 mm long with 90 degree bend & wall flange suitable for rain shower and with 10 years warranty	Each	1,588.00
351	TBSP-F.VI-07	S&F 15 mm nominal size over head 5 flow round massage shower rose	Each	925.00
352	TBSP-F.VI-08	S&F 15 mm nominal size 5 flow hand shower with rabbit cleaning system and 1.5 m long flexible hose and wall hook.	Each	1,904.00
VII	<b>SUB-SECTION</b>	<b>MISCELLANEOUS CP FITTINGS</b>		
353	TBSP-F.VII-01	S&F of 15 mm Stainless steel flexible hose 1.0 m long for hand shower / health faucet with brass nuts	Each	271.00
354	TBSP-F.VII-02	S&F of 15 mm CP finish brass body health faucet gun	Each	224.00
355	TBSP-F.VII-03	S&F CP finish brass bottle trap 250 mm long with wall connection pipe & wall Flange	Each	1,006.00
356	TBSP-F.VII-04	S&F CP finish brass bottle trap 190mm long with wall connection pipe & wall Flange	Each	1,012.00
357	TBSP-F.VII-05	S&F PVC bottle trap with wall connection pipe	Each	152.00
358	TBSP-F.VII-06	S&F CP finish brass body 32 mm dia nominal size waste coupling with half/full thread & brass check nut conforming to IS 2963: 1979	Each	248.00
359	TBSP-F.VII-07	S&F CP finish brass body 32 mm dia nominal size waste coupling with half/ full thread & brass body check nut and chain & plug conforming to IS 2963: 1979	Each	271.00
360	TBSP-F.VII-08	S&F CP finish brass body 32 mm dia nominal size waste coupling doom type with half/ full thread & brass body check nut conforming to IS 2963: 1979	Each	319.00
361	TBSP-F.VII-09	S&F brass body CP spreader for urinals	Each	166.00
362	TBSP-F.VII-10	S&F CP finish steel towel rod of 600 mm long and 20 mm dia with brackets	Each	421.00
363	TBSP-F.VII-11	S&F CP finish brass towel rod 600 mm long and 20 mm dia with brackets	Each	1,134.00
364	TBSP-F.VII-12	S&F of Towel rod 24 " premium make powder coated stainless steel body with 10 years warranty	Each	3,428.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
365	TBSP-F.VII-13	S&F CP finish brass wall mounted towel ring	Each	653.00
366	TBSP-F.VII-14	S&F of Chromium plated finish stainless steel body Towel Ring with 10 years warranty	Each	1,061.00
367	TBSP-F.VII-15	S&F of powder coated brass body finish Towel ring premium make with 10 years warranty	Each	2,193.00
368	TBSP-F.VII-16	S&F of Chromium plated finish stainless steel body towel rail 24" with 10 years warranty	Each	1,715.00
369	TBSP-F.VII-17	S&F powder coated stainless steel body wall mounted towel rack 600 mm long	Each	3,598.00
370	TBSP-F.VII-18	S&F CP finish brass metal body single coat hook	Each	430.00
371	TBSP-F.VII-19	S&F CP finish brass robe hook	Each	335.00
372	TBSP-F.VII-20	Supply & Fixing Double coat hook with 10 years warranty	Each	794.00
373	TBSP-F.VII-21	S&F CP finish brass soap dish	Each	601.00
374	TBSP-F.VII-22	S&F Stainless steel liquid soap container wall mounted and bottle type	Each	478.00
375	TBSP-F.VII-23	S&F premium make wall mirror with provision for over head shower and 115 mm long bend pipe with wall flange and with 10 years warranty	Each	5,826.00
376	TBSP-F.VII-24	S&F premium make wall mirror with provision for over head shower and 115 mm long bend pipe with wall flange powder coated with 10 years warranty	Each	9,164.00
377	TBSP-F.VII-25	S&F of Chromium plated finish stainless steel body Toilet paper holder with 10 years warranty	Each	925.00
378	TBSP-F.VII-26	S&F Stainless steel 4" dia round Grating with frame for nahany or floor trap cover with or without hole	Each	68.00
379	TBSP-F.VII-27	S&F Stainless steel 5" square Grating with frame for nahany or floor trap cover with or without hole	Each	81.00
380	TBSP-F.VII-28	S&F Stainless steel 4" dia round Grating for nahany or floor trap cover with cockroach trap with or without hole	Each	176.00
381	TBSP-F.VII-29	S&F Stainless steel 5" square Grating for nahany or floor trap cover with cockroach trap with or without hole	Each	183.00
382	TBSP-F.VII-30	S&F brass body plumber union of size 31.75 mm dia with check nut	Each	74.00
383	TBSP-F.VII-31	S&F brass body plumber union of size 38.1 mm dia with check nut	Each	80.00
384	TBSP-F.VII-32	S&F 4" dia CP thimble pipe: 150 mm long	Each	440.00
385	TBSP-F.VII-33	S&F 4" dia CP thimble pipe: 220 mm long	Each	653.00
386	TBSP-F.VII-34	S&F 4" dia CP thimble pipe: 300 mm long	Each	875.00
387	TBSP-F.VII-35	S&F CP long bend	Each	371.00
388	TBSP-F.VII-36	S&F CP short bend	Each	187.00
389	TBSP-F.VII-37	Supply & fixing of LLC handle set 1st quality	Each	85.00
390	TBSP-F.VII-38	S&F premium make copper pipe 450 mm long with nuts & washers with 10 years warranty	Each	444.00
391	TBSP-F.VII-39	S&F premium make copper pipe 450 mm long with nuts & washers power colour coated and with 10 years warranty	Each	858.00
392	TBSP-F.VII-40	S&F of Chromium plated finish stainless steel body Tumbler holder with 10 years warranty	Each	1,156.00
393	TBSP-F.VII-41	S&F of Chromium plated finish stainless steel body Glass shelf 22" with 10 years warranty	Each	2,272.00
VII	<b>SUB-SECTION</b>	<b>LABOUR CHARGES</b>		
394	TBSP-F.VIII-01	Labour charges for fixing all types of CP Taps &	Each	64.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		faucets		
395	TBSP-F.VIII-02	Labour charges for fixing all types of CP Stop & Angle Valves	Each	128.00
396	TBSP-F.VIII-03	Labour charges for fixing all types of wall combination taps, mixers & diverters	Each	225.00
397	TBSP-F.VIII-04	Labour charges for fixing all types of miscellaneous CP fittings	Each	128.00
398	TBSP-F.VIII-05	Cleaning of water tanks, Sumps and PVC/RCC tank through 'T' clean process undertaking cleaning by using latest German state of art technology with High pressure Rotary Jet cleaning and usage of the most effective Anti-bacterial agents, which is Bio degradable and eco friendly in nature, UV radiation in following stages: 1. First stage of Mechanized dewatering, 2. Cleaning of wall and ceiling to the sump with high pressure rotary jet which dislodges the layer of dirt and algae, 3. Dirty water and sludge are removed by using sludge pump, 4. Removing dirt is again removed by using industrial vacuum, 5. Treatment of wall ceiling roof with anti bacterial liquid (which is bio degradable and eco friendly in nature), 6. Final important treatment is ultra violet radiation which kills suspended or floating bacteria(for sumps)	1000	100.00
G	SECTION	<b>G.I. PIPES &amp; FITTINGS (Materials shall be procured from the list of approved Brands/ Manufacturers/ Suppliers)</b>		
I	SUB-SECTION	<b>G.I. PIPES</b>		
399	TBSP-G.I-01	S& F 15 mm Nominal Bore GI pipe Light Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings &labour charges complete	1 RM	194.00
400	TBSP-G.I-02	S& F 20 mm Nominal Bore GI pipe Light Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings &labour charges complete	1 RM	224.00
401	TBSP-G.I-03	S& F 25 mm Nominal Bore GI pipe Light Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings &labour charges complete	1 RM	293.00
402	TBSP-G.I-04	S& F 32 mm Nominal Bore GI pipe Light Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings &labour charges complete	1 RM	407.00
403	TBSP-G.I-05	S& F 40 mm Nominal Bore GI pipe Light Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings &labour charges complete	1 RM	457.00
404	TBSP-G.I-06	S& F 50 mm Nominal Bore GI pipe Light Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings &labour charges complete	1 RM	500.00
405	TBSP-G.I-07	S& F 15 mm Nominal Bore GI pipe Medium Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings &labour charges complete	1 RM	215.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
406	TBSP-G.I-08	S& F 20 mm Nominal Bore GI pipe Medium Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings &labour charges complete	1 RM	240.00
407	TBSP-G.I-09	S& F 25 mm Nominal Bore GI pipe Medium Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings &labour charges complete	1 RM	314.00
408	TBSP-G.I-10	S& F 32 mm Nominal Bore GI pipe Medium Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings &labour charges complete	1 RM	439.00
409	TBSP-G.I-11	S& F 40 mm Nominal Bore GI pipe Medium Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings &labour charges complete	1 RM	492.00
410	TBSP-G.I-12	S& F 50 mm Nominal Bore GI pipe Medium Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings &labour charges complete	1 RM	527.00
411	TBSP-G.I-13	S & F 65 mm Nominal Bore GI pipe Medium Grade properties & weight as per IS 1239 with GI fittings such as elbows tees couplings, nipples, plugs including excavation for trenches and refilling the trenches complete except for GI bends union and GI connectors with checkout and socket Tata or Zenith make or equivalent.	1 RM	936.00
II	SUB-SECTION	G.I. FITTINGS		
412	TBSP-G.II-01	S& F GI union 15 mm nominal size 1st Quality	Each	49.00
413	TBSP-G.II-02	S& F GI union 20 mm nominal size 1st Quality	Each	58.00
414	TBSP-G.II-03	S& F GI union 25 mm nominal size 1st Quality	Each	87.00
415	TBSP-G.II-04	S& F GI union 30 mm nominal size 1st Quality	Each	108.00
416	TBSP-G.II-05	S& F GI union 40 mm nominal size 1st Quality	Each	129.00
417	TBSP-G.II-06	S& F GI union 50 mm nominal size 1st Quality	Each	160.00
418	TBSP-G.II-07	S& F GI connector 25 mm nominal size dia	Each	96.00
419	TBSP-G.II-08	S& F 15 mm nominal size GI 'T' A class 1st quality	Each	60.00
420	TBSP-G.II-09	S& F 30 mm nominal size dia GI bend 1st quality	Each	87.00
421	TBSP-G.II-10	S & F 30 mm nominal size dia GI 'T' 1st Quality	Each	86.00
422	TBSP-G.II-11	S & F 25 mm nominal size copper body float valve with PVC ball Indian make ISI mark	Each	493.00
423	TBSP-G.II-12	S & F 20 mm nominal size copper body float valve with PVC ball Indian make ISI mark	Each	405.00
424	TBSP-G.II-13	S & F 15 mm nominal size copper body float valve with PVC ball Indian make ISI mark	Each	263.00
425	TBSP-G.II-14	Supplying & fixing leather washers for 15 mm nominal size bib tap and stop cock	Each	4.00
426	TBSP-G.II-15	Supplying & fixing leather washers for 20 mm nominal size bib tap and stop cock	Each	6.00
427	TBSP-G.II-16	Supplying & Fixing 15 mm nominal size fibre washers	Each	6.00
428	TBSP-G.II-17	Supplying & Fixing 20 mm nominal size fibre washers	Each	6.00
429	TBSP-G.II-18	S & F 15 mm nominal size holder bat clamps	Each	15.00
430	TBSP-G.II-19	S & F 20 mm nominal size holder bat clamps	Each	22.00
431	TBSP-G.II-20	S & F 25 mm nominal size holder bat clamps	Each	30.00
432	TBSP-G.II-21	S & F 40 mm nominal size holder bat clamps	Each	35.00
433	TBSP-G.II-22	Supplying & fixing 15 mm nominal size GI drain pipe with plug for tanks (Mud valve) including making a	Each	51.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		hole		
434	TBSP-G.II-23	Supplying & fixing 20 mm nominal size GI drain pipe with plug for tanks (Mud valve) including making a hole	Each	73.00
435	TBSP-G.II-24	Supplying & fixing 25 mm nominal size GI drain pipe with plug for tanks (Mud valve) including making a hole	Each	86.00
III	<b>SUB-SECTION</b>	<b>BRONZE (COPPER ALLOY) VALVES</b>		
436	TBSP-G.III-01	S & F Bronze Gate/ Globe valve as per IS - 778 Class - I, Indian make heavy type-15mm NB Size	Each	675.00
437	TBSP-G.III-02	S & F Bronze Gate/ Globe valve as per IS - 778 Class - I, Indian make heavy type-20mm NB Size	Each	909.00
438	TBSP-G.III-03	S & F Bronze Gate/ Globe valve as per IS - 778 Class - I, Indian make heavy type-25mm NB Size	Each	1,306.00
439	TBSP-G.III-04	S & F Bronze Gate/ Globe valve as per IS - 778 Class - I, Indian make heavy type-32mm NB Size	Each	1,985.00
440	TBSP-G.III-05	S & F Bronze Gate/ Globe valve as per IS - 778 Class - I, Indian make heavy type-40mm NB Size	Each	2,677.00
441	TBSP-G.III-06	S & F Bronze Gate/ Globe valve as per IS - 778 Class - I, Indian make heavy type-50mm NB Size	Each	3,926.00
442	TBSP-G.III-07	S & F Bronze Gate/ Globe valve as per IS - 778 Class - I, Indian make heavy type-65mm NB Size	Each	6,060.00
443	TBSP-G.III-08	S & F Bronze Gate/ Globe valve as per IS - 778 Class - I, Indian make heavy type-80mm NB Size	Each	8,983.00
444	TBSP-G.III-09	Supplying & fixing Bronze Horizontal Check (Non return) Valve as per IS-778 I-class heavy duty - 15 mm NB Size	Each	498.00
445	TBSP-G.III-10	Supplying & fixing Bronze Horizontal Check (Non return) Valve as per IS-778 I-class heavy duty - 20 mm NB Size	Each	727.00
446	TBSP-G.III-11	Supplying & fixing Bronze Horizontal Check (Non return) Valve as per IS-778 I-class heavy duty - 25 mm NB Size	Each	1,136.00
447	TBSP-G.III-12	Supplying & fixing Bronze Horizontal Check (Non return) Valve as per IS-778 I-class heavy duty - 32 mm NB Size	Each	1,667.00
448	TBSP-G.III-13	Supplying & fixing Bronze Horizontal Check (Non return) Valve as per IS-778 I-class heavy duty - 40 mm NB Size	Each	2,311.00
449	TBSP-G.III-14	Supplying & fixing Bronze Vertical Check (Non return) Valve as per IS-778 I-class heavy duty - 15 mm NB Size	Each	469.00
450	TBSP-G.III-15	Supplying & fixing Bronze Vertical Check (Non return) Valve as per IS-778 I-class heavy duty - 20 mm NB Size	Each	611.00
451	TBSP-G.III-16	Supplying & fixing Bronze Vertical Check (Non return) Valve as per IS-778 I-class heavy duty - 25 mm NB Size	Each	923.00
452	TBSP-G.III-17	Supplying & fixing Bronze Vertical Check (Non return) Valve as per IS-778 I-class heavy duty - 32 mm NB Size	Each	1,269.00
453	TBSP-G.III-18	Supplying & fixing Bronze Vertical Check (Non return) Valve as per IS-778 I-class heavy duty - 40 mm NB Size	Each	1,535.00
454	TBSP-G.III-19	Supplying & fixing Bronze Vertical Check (Non return) Valve as per IS-778 I-class heavy duty - 50 mm NB	Each	2,433.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		Size		
455	TBSP-G.III-20	S & F Bronze Ball valve with SS Ball and SS Spindle as per IS - Class - I, Indian make heavy type - 15 mm NB Size	Each	221.00
456	TBSP-G.III-21	S & F Bronze Ball valve with SS Ball and SS Spindle as per IS - Class - I, Indian make heavy type - 20 mm NB Size	Each	319.00
457	TBSP-G.III-22	S & F Bronze Ball valve with SS Ball and SS Spindle as per IS - Class - I, Indian make heavy type - 25 mm NB Size	Each	449.00
458	TBSP-G.III-23	S & F Bronze Ball valve with SS Ball and SS Spindle as per IS - Class - I, Indian make heavy type - 32 mm NB Size	Each	795.00
459	TBSP-G.III-24	S & F Bronze Ball valve with SS Ball and SS Spindle as per IS - Class - I, Indian make heavy type - 40 mm NB Size	Each	1,094.00
460	TBSP-G.III-25	S & F Bronze Ball valve with SS Ball and SS Spindle as per IS - Class - I, Indian make heavy type - 50 mm NB Size	Each	1,643.00
461	TBSP-G.III-26	S & F Bronze Compact pressure reducing valve (Screwed) as per IS - Class -I, Indian make heavy type- 15 mm NB Size	Each	1,427.00
462	TBSP-G.III-27	S & F Bronze Compact pressure reducing valve (Screwed) as per IS - Class -I, Indian make heavy type- 20 mm NB Size	Each	1,816.00
IV	SUB-SECTION	LABOUR CHARGES FOR G.I PLUMBING		
463	TBSP-G.IV-01	Taking branch water connection from the existing 25 mm nominal size GI pipe including cutting threading, etc., complete with fitting	Each	217.00
464	TBSP-G.IV-02	Taking branch water connection from the existing 20 mm nominal size GI pipe including cutting threading, etc., complete with fitting	Each	125.00
465	TBSP-G.IV-03	Taking branch water connection from the existing 15 mm nominal size GI pipe including cutting threading, etc., complete with fitting	Each	81.00
H	SECTION	PVC PIPES & FITTINGS (Materials shall be procured from the list of approved Brands/ Manufacturers/ Suppliers)		
I	SUB-SECTION	PVC PIPES		
466	TBSP-H.I-01	75 mm dia 3 M Single Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	290.00
467	TBSP-H.I-02	90 mm dia 3 M single Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	460.00
468	TBSP-H.I-03	110 mm dia 3 M Single Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	549.00
469	TBSP-H.I-04	75 mm dia 3 M Kg/sq.cm Double Socket PVC/SWR pipe - 4	Each	327.00
470	TBSP-H.I-05	90 mm dia 3 M Kg/sq.cm Double Socket PVC/SWR pipe - 4	Each	521.00
471	TBSP-H.I-06	110 mm dia 3 M Kg/sq.cm Double Socket PVC/SWR pipe - 4	Each	637.00
472	TBSP-H.I-07	75 mm dia 1828.8 mm (6'-0") Single Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	203.00
473	TBSP-H.I-08	90 mm dia 1828.8 mm (6'-0") Single Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	315.00
474	TBSP-H.I-09	110 mm dia 1828.8 mm (6'-0") Single Socket PVC/SWR		392.00



Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		pipe - 4 Kg/sq.cm	Each	
475	TBSP-H.I-10	75 mm dia 1828.8 mm (6'-0") Double Socket PVC/SWR pipe - 4Kg/sq.cm	Each	218.00
476	TBSP-H.I-11	90 mm dia 1828.8 mm (6'-0") Double /SWR pipe - 4Kg/sq.cm	Each	335.00
477	TBSP-H.I-12	110 mm dia 1828.8 mm (6'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	404.00
478	TBSP-H.I-13	75 mm dia 1219. mm (4'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	151.00
479	TBSP-H.I-14	90 mm dia 1219. mm (4'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	229.00
480	TBSP-H.I-15	110 mm dia 1219. mm (4'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	277.00
481	TBSP-H.I-16	75 mm dia 914.4mm (3'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	126.00
482	TBSP-H.I-17	90 mm dia 914.4mm (3'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	187.00
483	TBSP-H.I-18	110 mm dia 914.4mm (3'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	240.00
484	TBSP-H.I-19	75 mm dia 609.6mm (2'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	78.00
485	TBSP-H.I-20	90 mm dia 609.6mm (2'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	129.00
486	TBSP-H.I-21	110 mm dia 609.6mm (2'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	160.00
487	TBSP-H.I-22	160 MM dia 3 M Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	1,306.00
488	TBSP-H.I-23	75 mm dia 3 M Single Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	491.00
489	TBSP-H.I-24	90 mm dia 3 M single Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	789.00
490	TBSP-H.I-25	110 mm dia 3 M Single Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	938.00
491	TBSP-H.I-26	75 mm dia 3 M Kg/sq.cm Double Socket PVC/SWR pipe - 6	Each	538.00
492	TBSP-H.I-27	90 mm dia 3 M Kg/sq.cm Double Socket PVC/SWR pipe - 6	Each	851.00
493	TBSP-H.I-28	110 mm dia 3 M Kg/sq.cm Double Socket PVC/SWR pipe - 6	Each	1,036.00
494	TBSP-H.I-29	75 mm dia 1828.8 mm (6'-0") Single Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	323.00
495	TBSP-H.I-30	90 mm dia 1828.8 mm (6'-0") Single Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	500.00
496	TBSP-H.I-31	110 mm dia 1828.8 mm (6'-0") Single Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	596.00
497	TBSP-H.I-32	75 mm dia 1828.8 mm (6'-0") Double /SWR pipe - 6Kg/sq.cm	Each	344.00
498	TBSP-H.I-33	90 mm dia 1828.8 mm (6'-0") Double /SWR pipe - 6Kg/sq.cm	Each	521.00
499	TBSP-H.I-34	110 mm dia 1828.8 mm (6'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	644.00
500	TBSP-H.I-35	75 mm dia 1219. mm (4'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	234.00
501	TBSP-H.I-36	90 mm dia 1219. mm (4'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	362.00
502	TBSP-H.I-37	110 mm dia 1219. mm (4'-0") Double Socket		440.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		PVC/SWR pipe - 6 Kg/sq.cm	Each	
503	TBSP-H.I-38	75 mm dia 914.4mm (3'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	201.00
504	TBSP-H.I-39	90 mm dia 914.4mm (3'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	295.00
505	TBSP-H.I-40	110 mm dia 914.4mm (3'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	355.00
506	TBSP-H.I-41	75 mm dia 609.6mm (2'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	131.00
507	TBSP-H.I-42	90 mm dia 609.6mm (2'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	202.00
508	TBSP-H.I-43	110 mm dia 609.6mm (2'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	259.00
509	TBSP-H.I-44	160 mm dia 3 M Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	2,135.00
		<b>PVC-O PIPES</b>		
510	TBSP-H.I-45	Providing and supplying in ISI mark rigid PVC o Class-s/s pipe (push on joints) pressure pipes confirming to IS specifications no. 16647-2017 inclusive cost of EDPM gasket seals on joints including all statutory duties of Class 500 PN-12.5 of dia 110mm	1 RM	798.00
511	TBSP-H.I-46	Providing and supplying in ISI mark rigid PVC o Class-s/s pipe (push on joints) pressure pipes confirming to IS specifications no. 16647-2017 inclusive cost of EDPM gasket seals on joints including all statutory duties of Class 500 PN-12.5 of dia 160mm	1 RM	1,121.00
512	TBSP-H.I-47	Providing and supplying in ISI mark rigid PVC o Class-s/s pipe (push on joints) pressure pipes confirming to IS specifications no. 16647-2017 inclusive cost of EDPM gasket seals on joints including all statutory duties of Class 500 PN-12.5 of dia 200mm	1 RM	1,570.00
513	TBSP-H.I-48	Providing and supplying in ISI mark rigid PVC o Class-s/s pipe (push on joints) pressure pipes confirming to IS specifications no. 16647-2017 inclusive cost of EDPM gasket seals on joints including all statutory duties of Class 500 PN-12.5 of dia 250mm	1 RM	2,121.00
514	TBSP-H.I-49	Providing and supplying in ISI mark rigid PVC o Class-s/s pipe (push on joints) pressure pipes confirming to IS specifications no. 16647-2017 inclusive cost of EDPM gasket seals on joints including all statutory duties of Class 500 PN-12.5 of dia 315mm	1 RM	2,746.00
515	TBSP-H.I-50	Providing and supplying in ISI mark rigid PVC o Class-s/s pipe (push on joints) pressure pipes confirming to IS specifications no. 16647-2017 inclusive cost of EDPM gasket seals on joints including all statutory duties of Class 500 PN-12.5 of dia 400mm	1 RM	4,265.00
516	TBSP-H.I-51	Providing and supplying in ISI mark rigid PVC o Class-s/s pipe (push on joints) pressure pipes confirming to IS specifications no. 16647-2017 inclusive cost of EDPM gasket seals on joints including all statutory duties of Class 500 PN-16 of dia 110mm	1 RM	950.00
517	TBSP-H.I-52	Providing and supplying in ISI mark rigid PVC o Class-s/s pipe (push on joints) pressure pipes confirming to IS specifications no. 16647-2017 inclusive cost of EDPM gasket seals on joints including all statutory duties of Class 500 PN-16 of dia 160mm	1 RM	1,420.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
518	TBSP-H.I-53	Providing and supplying in ISI mark rigid PVC o Class-s/s pipe (push on joints) pressure pipes confirming to IS specifications no. 16647-2017 inclusive cost of EDPM gasket seals on joints including all statutory duties of Class 500 PN-16 of dia 200mm	1 RM	1,915.00
519	TBSP-H.I-54	Providing and supplying in ISI mark rigid PVC o Class-s/s pipe (push on joints) pressure pipes confirming to IS specifications no. 16647-2017 inclusive cost of EDPM gasket seals on joints including all statutory duties of Class 500 PN-16 of dia 250mm	1 RM	2,537.00
520	TBSP-H.I-55	Providing and supplying in ISI mark rigid PVC o Class-s/s pipe (push on joints) pressure pipes confirming to IS specifications no. 16647-2017 inclusive cost of EDPM gasket seals on joints including all statutory duties of Class 500 PN-16 of dia 315mm	1 RM	3,244.00
521	TBSP-H.I-56	Providing and supplying in ISI mark rigid PVC o Class-s/s pipe (push on joints) pressure pipes confirming to IS specifications no. 16647-2017 inclusive cost of EDPM gasket seals on joints including all statutory duties of Class 500 PN-16 of dia 400mm	1 RM	4,963.00
III	<b>SUB-SECTION</b>	<b>PVC FITTINGS</b>		
522	TBSP-H.II-01	Providing & Placing on Terrace (at all floor levels) polyethylene water storage tank with Double layer approved brand & manufacture with cover and suitable locking arrangement & making necessary holes for inlet & outlets and over flow pipes but without fittings & base support for tanks	1 Lit	9.00
523	TBSP-H.II-02	Supply of Plastic storage tank lid with hinges	Each	87.00
524	TBSP-H.II-03	Supply & Fixing 75 mm nominal size dia PVC elbow 1st quality	Each	55.00
525	TBSP-H.II-04	Supply & fixing 30 mm nominal size dia PVC flexible waste pipe of 914.4 mm length of 1st quality	Each	31.00
526	TBSP-H.II-05	Supply & Fixing 40 mm nominal size dia PVC solid waste pipe outlet	Each	104.00
527	TBSP-H.II-06	Supply & fixing Fancy PVC shelf including all fittings	Each	246.00
528	TBSP-H.II-07	Supply & fixing of PVC low level system with internal components & short bend: 10 Liters capacity Single Flush	Each	1,679.00
529	TBSP-H.II-08	Supply & fixing of PVC low level system with internal components & short bend: 10 liters capacity Dual Flush	Each	1,973.00
530	TBSP-H.II-09	Supply & fixing of PVC low level system with internal components & short bend: 8 Liters capacity single Flush	Each	950.00
531	TBSP-H.II-10	75 mm dia - Plain Bend 87.5 Degree - UPVC/SWR Pipe fittings	Each	58.00
532	TBSP-H.II-11	90 mm dia - Plain Bend 87.5 Degree - UPVC/SWR Pipe fittings	Each	81.00
533	TBSP-H.II-12	110 mm dia - Plain Bend 87.5 Degree - UPVC/SWR Pipe fittings	Each	96.00
534	TBSP-H.II-13	75 mm dia - Door Bend 87.5 Degree - UPVC/SWR Pipe fittings	Each	78.00
535	TBSP-H.II-14	90 mm dia - Door Bend 87.5 Degree - UPVC/SWR Pipe fittings	Each	109.00
536	TBSP-H.II-15	110 mm dia - Door Bend 87.5 Degree - UPVC/SWR	Each	123.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		Pipe fittings		
537	TBSP-H.II-16	75 mm dia - 45 Degree Bend - UPVC/SWR Pipe fittings	Each	45.00
538	TBSP-H.II-17	90 mm dia - 45 Degree Bend - UPVC/SWR Pipe fittings	Each	63.00
539	TBSP-H.II-18	110 mm dia - 45 Degree Bend - UPVC/SWR Pipe fittings	Each	81.00
540	TBSP-H.II-19	75 mm dia - Cleaning Pipe - UPVC/SWR Pipe fittings	Each	78.00
541	TBSP-H.II-20	90 mm dia - Cleaning Pipe - UPVC/SWR Pipe fittings	Each	112.00
542	TBSP-H.II-21	110 mm dia - Cleaning Pipe - UPVC/SWR Pipe fittings	Each	135.00
543	TBSP-H.II-22	75 mm dia - Single Tee - UPVC/SWR Pipe fittings	Each	68.00
544	TBSP-H.II-23	90 mm dia - Single Tee - UPVC/SWR Pipe fittings	Each	102.00
545	TBSP-H.II-24	110 mm dia - Single Tee - UPVC/SWR Pipe fittings	Each	124.00
546	TBSP-H.II-25	75 mm dia - Single Tee with Door - UPVC/SWR Pipe fittings	Each	84.00
547	TBSP-H.II-26	90 mm dia - Single Tee with Door - UPVC/SWR Pipe fittings	Each	124.00
548	TBSP-H.II-27	110 mm dia - Single Tee with Door - UPVC/SWR Pipe fittings	Each	148.00
549	TBSP-H.II-28	75 mm dia - Double Tee - UPVC/SWR Pipe fittings	Each	143.00
550	TBSP-H.II-29	90 mm dia - Double Tee - UPVC/SWR Pipe fittings	Each	209.00
551	TBSP-H.II-30	110 mm dia - Double Tee - UPVC/SWR Pipe fittings	Each	295.00
552	TBSP-H.II-31	75 mm dia - Double Tee with Door - UPVC/SWR Pipe fittings	Each	227.00
553	TBSP-H.II-32	90 mm dia - Double Tee with Door - UPVC/SWR Pipe fittings	Each	325.00
554	TBSP-H.II-33	110 mm dia - Double Tee with Door - UPVC/SWR Pipe fittings	Each	336.00
555	TBSP-H.II-34	75 mm dia - Single 'Y' - UPVC/SWR Pipe fittings	Each	85.00
556	TBSP-H.II-35	90 mm dia - Single 'Y' - UPVC/SWR Pipe fittings	Each	135.00
557	TBSP-H.II-36	110 mm dia - Single 'Y' - UPVC/SWR Pipe fittings	Each	156.00
558	TBSP-H.II-37	75 mm dia - Single 'Y' with Door - UPVC/SWR Pipe fittings	Each	109.00
559	TBSP-H.II-38	90 mm dia - Single 'Y' with Door - UPVC/SWR Pipe fittings	Each	170.00
560	TBSP-H.II-39	110 mm dia - Single 'Y' with Door - UPVC/SWR Pipe fittings	Each	195.00
561	TBSP-H.II-40	75 mm dia - Double 'Y' - UPVC/SWR Pipe fittings	Each	117.00
562	TBSP-H.II-41	90 mm dia - Double 'Y' - UPVC/SWR Pipe fittings	Each	181.00
563	TBSP-H.II-42	110 mm dia - Double 'Y' - UPVC/SWR Pipe fittings	Each	203.00
564	TBSP-H.II-43	75 mm dia - Double 'Y' with Door - UPVC/SWR Pipe fittings	Each	151.00
565	TBSP-H.II-44	90 mm dia - Double 'Y' with Door - UPVC/SWR Pipe fittings	Each	235.00
566	TBSP-H.II-45	110 mm dia - Double 'Y' with Door - UPVC/SWR Pipe fittings	Each	263.00
567	TBSP-H.II-46	75 mm dia - Coupler - UPVC/SWR Pipe fittings	Each	41.00
568	TBSP-H.II-47	90 mm dia - Coupler - UPVC/SWR Pipe fittings	Each	58.00
569	TBSP-H.II-48	110 mm dia - Coupler - UPVC/SWR Pipe fittings	Each	66.00
570	TBSP-H.II-49	90 x 75 mm dia - Reducer - UPVC/SWR Pipe fittings	Each	68.00
571	TBSP-H.II-50	110 x 75 mm dia - Reducer - UPVC/SWR Pipe fittings	Each	66.00
572	TBSP-H.II-51	90 x 110 mm dia - Reducer - UPVC/SWR Pipe fittings	Each	91.00
573	TBSP-H.II-52	63 mm dia - Vent Cowl - UPVC/SWR Pipe fittings	Each	12.00
574	TBSP-H.II-53	75 mm dia - Vent Cowl - UPVC/SWR Pipe fittings	Each	17.00
575	TBSP-H.II-54	90 mm dia - Vent Cowl - UPVC/SWR Pipe fittings	Each	20.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
576	TBSP-H.II-55	110 mm dia - Vent Cowl - UPVC/SWR Pipe fittings	Each	22.00
577	TBSP-H.II-56	40 mm dia - Pipe Clip - UPVC/SWR Pipe fittings - Pipe Clip - UPVC/SWR Pipe fittings	Each	14.00
578	TBSP-H.II-57	50 mm dia - Pipe Clip - UPVC/SWR Pipe fittings	Each	17.00
579	TBSP-H.II-58	63 mm dia - Pipe Clip - UPVC/SWR Pipe fittings	Each	17.00
580	TBSP-H.II-59	75 mm dia - Pipe Clip - UPVC/SWR Pipe fittings	Each	18.00
581	TBSP-H.II-60	90 mm dia - Pipe Clip - UPVC/SWR Pipe fittings	Each	20.00
582	TBSP-H.II-61	110 mm - Pipe Clip - UPVC/SWR Pipe fittings	Each	21.00
583	TBSP-H.II-62	160 mm dia - Pipe Clip - UPVC/SWR Pipe fittings	Each	41.00
584	TBSP-H.II-63	P' Trap ( Small without Air vent ) 110 mm - UPVC/SWR Pipe fittings	Each	215.00
585	TBSP-H.II-64	P' Trap ( Small with Air vent ) 110 mm - UPVC/SWR Pipe fittings	Each	237.00
586	TBSP-H.II-65	P' Trap (Big with Air vent ) 110 mm - UPVC/SWR Pipe fittings	Each	271.00
587	TBSP-H.II-66	P' Trap ( Big without Air vent ) 110 mm - UPVC/SWR Pipe fittings	Each	249.00
588	TBSP-H.II-67	Floor Trap (Bell Mouth ) 110 mm - UPVC/SWR Pipe fittings	Each	259.00
589	TBSP-H.II-68	Bell Mouth Trap 7 " ( 177.8 mm) - UPVC/SWR Pipe fittings	Each	375.00
590	TBSP-H.II-69	4" (101.6 mm ) Nahany Trap ( Without Jali with inlet)UPVC/SWR Pipe fittings	Each	129.00
591	TBSP-H.II-70	3" (75 mm nominal size ) Nahany Trap ( without Jali without inlet)UPVC/SWR Pipe fittings	Each	100.00
592	TBSP-H.II-71	4" (101.6 mm ) Nahany Trap ( without inlet with outJali)UPVC/SWR Pipe fittings	Each	124.00
593	TBSP-H.II-72	Mini Trap - UPVC/SWR Pipe fittings	Each	62.00
594	TBSP-H.II-73	3" (75 mm nominal size ) Nahany Trap with Jali - UPVC/SWR Pipe fittings	Each	117.00
595	TBSP-H.II-74	4" (101.6 mm ) multi floor trap with Jali- UPVC/SWR Pipe fittings	Each	165.00
596	TBSP-H.II-75	4" (101.6) multi floor trap with outJali- UPVC/SWR Pipe fittings	Each	129.00
597	TBSP-H.II-76	Round Jali - UPVC/SWR Pipe fittings	Each	29.00
598	TBSP-H.II-77	Square tile &Jali - UPVC/SWR Pipe fittings	Each	45.00
599	TBSP-H.II-78	Pipe connector ( with LIP ring) - UPVC/SWR Pipe fittings	Each	172.00
600	TBSP-H.II-79	Pipe connector ( with out LIP ring) - UPVC/SWR Pipe fittings	Each	134.00
601	TBSP-H.II-80	4" (101.6 mm ) Floor Trap - UPVC/SWR Pipe fittings	Each	158.00
602	TBSP-H.II-81	5" (127.mm ) floor Trap - UPVC/SWR Pipe fittings	Each	167.00
603	TBSP-H.II-82	75 mm dia - Door cap - UPVC/SWR Pipe fittings	Each	66.00
604	TBSP-H.II-83	90 mm dia - Door cap - UPVC/SWR Pipe fittings	Each	74.00
605	TBSP-H.II-84	110 mm dia - Door cap - UPVC/SWR Pipe fittings	Each	85.00
606	TBSP-H.II-85	75 mm dia - Socket plug - UPVC/SWR Pipe fittings	Each	62.00
607	TBSP-H.II-86	90 mm dia - Socket plug - UPVC/SWR Pipe fittings	Each	71.00
608	TBSP-H.II-87	110 mm dia - Socket plug - UPVC/SWR Pipe fittings	Each	74.00
609	TBSP-H.II-88	75 mm dia - Rubber ring for Socket - UPVC/SWR Pipe fittings	Each	11.00
610	TBSP-H.II-89	90 mm dia - Rubber ring for Socket - UPVC/SWR Pipe fittings	Each	12.00
611	TBSP-H.II-90	110 mm dia - Rubber ring for Socket - UPVC/SWR Pipe fittings	Each	14.00
612	TBSP-H.II-91	75 mm dia - Door Socket - UPVC/SWR Pipe fittings	Each	12.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
613	TBSP-H.II-92	90 mm dia - Door Socket - UPVC/SWR Pipe fittings	Each	14.00
614	TBSP-H.II-93	110 mm dia - Door Socket - UPVC/SWR Pipe fittings	Each	17.00
615	TBSP-H.II-94	LIP ring 110 mm - UPVC/SWR Pipe fittings	Each	80.00
616	TBSP-H.II-95	110mm x 90 mm - Internal Reducer - UPVC/SWR Pipe fittings	Each	104.00
617	TBSP-H.II-96	160 mm x 110 mm - Internal Reducer - UPVC/SWR Pipe fittings	Each	255.00
III	<b>SUB-SECTION</b>	<b>PVC PLUMBING ACCESSORIES</b>		
618	TBSP-H.III-01	Rubber Lubricant - 100 Grams	Each	35.00
619	TBSP-H.III-02	Rubber Lubricant - 250 Grams	Each	75.00
620	TBSP-H.III-03	Rubber Lubricant - 500 Grams	Each	135.00
621	TBSP-H.III-04	Rubber Lubricant - 1000 Grams	Each	249.00
622	TBSP-H.III-05	P' Trap with lip UPVC/SWR Pipe fittings	Each	339.00
623	TBSP-H.III-06	50 ml - Solvent Cement	Each	18.00
624	TBSP-H.III-07	100 ml - Solvent Cement	Each	30.00
625	TBSP-H.III-08	250 ml - Solvent Cement	Each	68.00
626	TBSP-H.III-09	500 ml - Solvent Cement	Each	133.00
627	TBSP-H.III-10	1000 ml - Solvent Cement	Each	259.00
IV	<b>SUB-SECTION</b>	<b>LABOUR CHARGES FOR PVC PLUMBING</b>		
628	TBSP-H.IV-01	Labour charges for laying, fixing and commissioning the PVC pipes including couplers/ bends/ tees etc. any diameter including fixing necessary fittings like bends, plugs, couplers, junctions, tees, etc. with solvent jointing as per standard practice	1 RM	99.00
629	TBSP-H.IV-02	Labour charges for laying, joining, welding, fixing and commissioning the PPR pipes including all specials such as couplers/ bends/ tees etc. including fixing necessary fittings like bends, plugs, couplers, junctions, tees, etc. with welding the joint as per standard practice - up to 40 mm dia	1 RM	45.00
630	TBSP-H.IV-03	Labour charges for laying, joining, welding, fixing and commissioning the PPR pipes including all specials such as couplers/ bends/ tees etc. including fixing necessary fittings like bends, plugs, couplers, junctions, tees, etc. with welding the joint as per standard practice - above 40 mm dia	1 RM	75.00
J	<b>SECTION</b>	<b>MISCELLANEOUS ITEMS</b>		
I	<b>SUB-SECTION</b>	<b>MISCELLANEOUS PLUMBING WORK ITEMS</b>		
631	TBSP-J.I-01	Supplying & Fixing solder joints up to 50 mm nominal size dia	Each	66.00
632	TBSP-J.I-02	Supplying & Fixing solution joints up to 50.8 dialst quality.	Each	14.00
633	TBSP-J.I-03	Chiseling the stone masonry wall for fixing of wooden blocks including finishing as directed by the department	Each	40.00
634	TBSP-J.I-04	Chiseling the stone masonry wall and repairs as directed by the department.	1 Rm	184.00
635	TBSP-J.I-05	Chiseling the brick masonry wall and repairs as directed by the department.	1 Rm	40.00
636	TBSP-J.I-06	Painting the flushing tank with white enamel paint	Each	115.00
637	TBSP-J.I-07	S & F internal cistern fittings for PVC flush tank	Each	995.00
638	TBSP-J.I-08	Repairing and over hauling flushing tank	Each	120.00
639	TBSP-J.I-09	Removing and refixing W.C s	Each	314.00
640	TBSP-J.I-10	Removing and refixing wash hand basins of any size with fittings complete	Each	280.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
641	TBSP-J.I-11	Removing 15 mm nominal size GI pipe and refixing the same	Mr.	87.00
642	TBSP-J.I-12	Removing 20 mm nominal size GI pipe and refixing the same	Mr.	99.00
643	TBSP-J.I-13	Removing 25 mm nominal size GI pipe and refixing the same	Mr.	143.00
644	TBSP-J.I-14	Removing 40 mm nominal size GI pipe and refixing the same	Rm	183.00
645	TBSP-J.I-15	Removing 50 mm nominal size GI pipe and refixing the same	Rm	212.00
646	TBSP-J.I-16	Cleaning the W.C with acid and Vim powder	Each	60.00
647	TBSP-J.I-17	Cleaning the Urinal with acid and Vim power	Each	60.00
648	TBSP-J.I-18	Cleaning the wash basin with acid and Vim powder	Each	60.00
649	TBSP-J.I-19	Cleaning the E.W.C with acid and Vim power	Each	60.00
650	TBSP-J.I-20	Cutting holes in C.C; basement & repairs Labour charges only	Each	138.00
651	TBSP-J.I-21	Cutting holes in stone masonry &basement and repairs Labour charges only	Each	92.00
652	TBSP-J.I-22	Cutting holes in Brick masonry &repairs Labour charges only	Each	62.00
653	TBSP-J.I-23	Cutting holes in RCC slab floor & repairs Labour charges only	Each	92.00
654	TBSP-J.I-24	Supplying & Fixing NP chain rubber and plug for basin	Each	45.00
655	TBSP-J.I-25	S & F 25 mm nominal size dia& 609.6 mm long aluminum anodized towel rod with brackets and aluminum screws	Each	175.00
656	TBSP-J.I-26	S & F 19.04 mm dia& 609.6 mm long aluminum anodized towel rod with brackets and aluminum screws	Each	153.00
657	TBSP-J.I-27	S & F 609.6 mm long 127 mm wide plate glass shelf with superior quality aluminum railing complete with aluminum screws	Each	224.00
658	TBSP-J.I-28	S & F 609.6 mm long 127 mm wide plate glass shelf only	Each	74.00
659	TBSP-J.I-29	Supplying & fixing 88.9 mm A.C cowls	Each	76.00
660	TBSP-J.I-30	Supplying & fixing A.C Cowl 63.5 mm dia	Each	53.00
661	TBSP-J.I-31	S & F 76.2 x 101.6 mm teak wood block complete	Each	29.00
662	TBSP-J.I-32	Supplying & Fixing 15 mm nominal size PVC connection with brass union nut C.P coated	Each	119.00
663	TBSP-J.I-33	Removing of 101.6 m or 75 mm nominal size CI pipe	1 RM	51.00
664	TBSP-J.I-34	Supplying & fixing 75 mm nominal size W.I clamps	Each	28.00
665	TBSP-J.I-35	Supplying and fixing TV shape mirror with plastic frame size 609.6 mm x 457 .2 mm	Each	544.00
666	TBSP-J.I-36	Supplying & fixing GI pipe plug of size 15 mm nominal size dia	Each	12.00
667	TBSP-J.I-37	Supplying & fixing 20 mm dia GI plug	Each	17.00
668	TBSP-J.I-38	Supplying and fixing 40 mm nominal size dia of GI plug	Each	85.00
669	TBSP-J.I-39	Supplying & fixing 50 mm nominal size dia of GI PLUG	Each	130.00
670	TBSP-J.I-40	Supplying & fixing 75 mm nominal size dia of GI PLUG	Each	233.00
671	TBSP-J.I-41	Supplying and fixing Rectangular Mirror Frameless of size 457 .2 mm x 609.6 mm	Each	1,562.00
672	TBSP-J.I-42	Supplying and fixing Rectangular Mirror Frameless of size 609.6 mm x 914.4 mm	Each	3,019.00
III	SUB-SECTION	POLYETHYLENE-ALUMINIUM-POLYETHYLENE		

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		<b>COMPOSITE PIPES</b>		
673	TBSP-J.II-01	S&F Polyethylene-Aluminum-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete for external works including laying pipes, fixing in position, testing and commissioning etc. : 16 mm OD pipe	1 RM	167.00
674	TBSP-J.II-02	S&F Polyethylene-Aluminum-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete for external works including laying pipes, fixing in position, testing and commissioning etc. : 20 mm	1 RM	207.00
675	TBSP-J.II-03	S&F Polyethylene-Aluminum-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete for external works including laying pipes, fixing in position, testing and commissioning etc. : 25mm	1 RM	260.00
676	TBSP-J.II-04	S&F Polyethylene-Aluminum-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete for external works including laying pipes, fixing in position, testing and commissioning etc. : 32 mm	1 RM	348.00
677	TBSP-J.II-05	S&F Polyethylene-Aluminum-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete for external works including laying pipes, fixing in position, testing and commissioning etc. : 40 mm	1 RM	456.00
678	TBSP-J.II-06	S&F Polyethylene-Aluminum-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete for external works including laying pipes, fixing in position, testing and commissioning etc.:50mmODpipe	1 RM	580.00



Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
679	TBSP-J.II-07	S&F Polyethylene-Aluminum-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete with MS Iron clamps at 1.0 M spacing including cutting, chasing walls, making good, laying pipes, fixing in position, testing and commissioning etc. 16 mm	1 RM	241.00
680	TBSP-J.II-08	S&F Polyethylene-Aluminum-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete with MS Iron clamps at 1.0 M spacing including cutting, chasing walls, making good, laying pipes, fixing in position, testing and commissioning etc. 20 mm	1 RM	289.00
681	TBSP-J.II-09	S&F Polyethylene-Aluminum-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, , couplers, connectors etc. complete with MS Iron clamps at 1.0 M spacing including cutting, chasing walls, making good, laying pipes, fixing in position, testing and commissioning etc. 25mm	1 RM	357.00
682	TBSP-J.II-10	S&F Polyethylene-Aluminum-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, , couplers, connectors etc. complete with MS Iron clamps at 1.0 M spacing including cutting, chasing walls, making good, laying pipes, fixing in position, testing and commissioning etc. 32 mm	1 RM	469.00
683	TBSP-J.II-11	S&F Polyethylene-Aluminum-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, , couplers, connectors etc. complete with MS Iron clamps at 1.0 M spacing including cutting, chasing walls, making good, laying pipes, fixing in position, testing and commissioning etc. 40 mm	1 RM	607.00
684	TBSP-J.II-12	S&F Polyethylene-Aluminum-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, , couplers,	1 RM	770.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		connectors etc. complete with MS Iron clamps at 1.0 M spacing including cutting, chasing walls, making good, laying pipes, fixing in position, testing and commissioning etc. 50 mm		
685	TBSP-J.II-13	S&F Polyethylene-Aluminum-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete including excavating trenches up to 1.0 M deep laying pipes, fixing in position, testing, refilling excavated earth and commissioning etc. 16 mm	1 RM	199.00
686	TBSP-J.II-14	S&F Polyethylene-Aluminum-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete including excavating trenches up to 1.0 M deep laying pipes, fixing in position, testing, refilling excavated earth and commissioning etc. 20 mm	1 RM	235.00
687	TBSP-J.II-15	S&F Polyethylene-Aluminum-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete including excavating trenches up to 1.0 M deep laying pipes, fixing in position, testing, refilling excavated earth and commissioning etc. 25mm	1 RM	284.00
688	TBSP-J.II-16	S&F Polyethylene-Aluminum-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete including excavating trenches up to 1.0 M deep laying pipes, fixing in position, testing, refilling excavated earth and commissioning etc. 32 mm	1 RM	366.00
689	TBSP-J.II-17	S&F Polyethylene-Aluminum-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete including excavating trenches up to 1.0 M deep laying pipes, fixing in position, testing, refilling excavated earth and commissioning etc. 40 mm	1 RM	468.00
III	<b>SUB-SECTION</b>	<b>OTHER VARIETIES OF PIPES</b>		
690	TBSP-J.III-01	S&F premium make CPVC Pipes of 15.90mm OD Pipe-	1 RM	149.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		SDR 13.5		
691	TBSP-J.III-02	S&F premium make CPVC Pipes of 22.20mm OD Pipe-SDR 13.5	1 RM	171.00
692	TBSP-J.III-03	S&F premium make CPVC Pipes of 28.60mm OD Pipe-SDR 13.5	1 RM	226.00
693	TBSP-J.III-04	S&F premium make CPVC Pipes of 34.90mm OD Pipe-SDR 13.5	1 RM	308.00
694	TBSP-J.III-05	S&F premium make CPVC Pipes of 41.30mm OD Pipe-SDR 13.5	1 RM	382.00
695	TBSP-J.III-06	S&F premium make CPVC Pipes of 54.00mm OD Pipe-SDR 13.5	1 RM	556.00
696	TBSP-J.III-07	S&F premium make CPVC Pipes of 15.90mm OD Pipe-SDR 11	1 RM	166.00
697	TBSP-J.III-08	S&F premium make CPVC Pipes of 22.20mm OD Pipe-SDR 11	1 RM	201.00
698	TBSP-J.III-09	S&F premium make CPVC Pipes of 28.60mm OD Pipe-SDR 11	1 RM	241.00
699	TBSP-J.III-10	S&F premium make CPVC Pipes of 34.90mm OD Pipe-SDR 11	1 RM	328.00
700	TBSP-J.III-11	S&F premium make CPVC Pipes of 41.30mm OD Pipe-SDR 11	1 RM	407.00
701	TBSP-J.III-12	S&F premium make CPVC Pipes of 54.00mm OD Pipe-SDR 11	1 RM	593.00
702	TBSP-J.III-13	Supply of 20mm x 1.9mm PN 10/PPR pipe conforming to DIN Standards 8077/8078	1 RM	51.00
703	TBSP-J.III-14	Supply of 25mm x 2.3mm PN 10/PPR pipe conforming to DIN Standards 8077/8078	1 RM	76.00
704	TBSP-J.III-15	Supply of 32mm x 2.9mm PN 10/PPR pipe conforming to DIN Standards 8077/8079	1 RM	121.00
705	TBSP-J.III-16	Supply of 40mm x 3.7mm PN 10/PPR pipe conforming to DIN Standards 8077/8079	1 RM	188.00
706	TBSP-J.III-17	Supply of 50mm x 4.6mm PN 10/PPR pipe conforming to DIN Standards 8077/8080	1 RM	336.00
707	TBSP-J.III-18	Supply of 63mm x 5.8mm PN 10/PPR pipe conforming to DIN Standards 8077/8081	1 RM	525.00
708	TBSP-J.III-19	Supply of 75mm x 6.8mm PN 10/PPR pipe conforming to DIN Standards 8077/8082	1 RM	730.00
709	TBSP-J.III-20	Supply of 90mm x 8.2mm PN 10/PPR pipe conforming to DIN Standards 8077/8083	1 RM	1,001.00
710	TBSP-J.III-21	Supply of 110mm x 10mm PN 10/PPR pipe conforming to DIN Standards 8077/8084	1 RM	1,482.00
711	TBSP-J.III-22	Supply of 20mm x 2.8mm PN 16/PPR pipe conforming to DIN Standards 8077/8078	1 RM	69.00
712	TBSP-J.III-23	Supply of 25mm x 3.5mm PN 16/PPR pipe conforming to DIN Standards 8077/8078	1 RM	108.00
713	TBSP-J.III-24	Supply of 32mm x 4.4mm PN 16/PPR pipe conforming to DIN Standards 8077/8079	1 RM	170.00
714	TBSP-J.III-25	Supply of 40mm x 5.5mm PN 16/PPR pipe conforming to DIN Standards 8077/8079	1 RM	262.00
715	TBSP-J.III-26	Supply of 50mm x 6.9mm PN 16/PPR pipe conforming to DIN Standards 8077/8080	1 RM	468.00
716	TBSP-J.III-27	Supply of 63mm x 8.6mm PN 16/PPR pipe conforming to DIN Standards 8077/8081	1 RM	735.00
717	TBSP-J.III-28	Supply of 75mm x 10.3mm PN 16/PPR pipe conforming to DIN Standards 8077/8082	1 RM	1,039.00
718	TBSP-J.III-29	Supply of 90mm x 12.3mm PN 16/PPR pipe	1 RM	1,481.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		conforming to DIN Standards 8077/8083		
719	TBSP-J.III-30	Supply of 110mm x 15.1mm PN 16/PPR pipe conforming to DIN Standards 8077/8084	1 RM	2,216.00
720	TBSP-J.III-31	Supply of 20mm x 3.4mm PN 20/PPR pipe conforming to DIN Standards 8077/8078	1 RM	81.00
721	TBSP-J.III-32	Supply of 25mm x 4.2mm PN 20/PPR pipe conforming to DIN Standards 8077/8078	1 RM	123.00
722	TBSP-J.III-33	Supply of 32mm x 5.4mm PN 20/PPR pipe conforming to DIN Standards 8077/8079	1 RM	199.00
723	TBSP-J.III-34	Supply of 40mm x 6.7mm PN 20/PPR pipe conforming to DIN Standards 8077/8079	1 RM	305.00
724	TBSP-J.III-35	Supply of 50mm x 8.3mm PN 20/PPR pipe conforming to DIN Standards 8077/8080	1 RM	541.00
725	TBSP-J.III-36	Supply of 63mm x 10.5mm PN 20/PPR pipe conforming to DIN Standards 8077/8081	1 RM	852.00
726	TBSP-J.III-37	Supply of 75mm x 12.5mm PN 20/PPR pipe conforming to DIN Standards 8077/8082	1 RM	1,208.00
727	TBSP-J.III-38	Supply of 90mm x 15mm PN 20/PPR pipe conforming to DIN Standards 8077/8083	1 RM	1,641.00
728	TBSP-J.III-39	Supply of 110mm x 18.3mm PN 20/PPR pipe conforming to DIN Standards 8077/8084	1 RM	2,583.00
729	TBSP-J.III-40	Supply of 20mm PPR Socket conforming to DIN Standards 8077/8084	Each	12.00
730	TBSP-J.III-41	Supply of 25mm PPR Socket conforming to DIN Standards 8077/8085	Each	17.00
731	TBSP-J.III-42	Supply of 32mm PPR Socket conforming to DIN Standards 8077/8086	Each	22.00
732	TBSP-J.III-43	Supply of 40mm PPR Socket conforming to DIN Standards 8077/8087	Each	39.00
733	TBSP-J.III-44	Supply of 50mm PPR Socket conforming to DIN Standards 8077/8088	Each	74.00
734	TBSP-J.III-45	Supply of 63mm PPR Socket conforming to DIN Standards 8077/8089	Each	141.00
735	TBSP-J.III-46	Supply of 75mm PPR Socket conforming to DIN Standards 8077/8090	Each	213.00
736	TBSP-J.III-47	Supply of 90mm PPR Socket conforming to DIN Standards 8077/8091	Each	407.00
737	TBSP-J.III-48	Supply of 110mm PPR Socket conforming to DIN Standards 8077/8092	Each	724.00
738	TBSP-J.III-49	Supply of 32mm PPR Core Flange conforming to DIN Standards 8077/8086	Each	44.00
739	TBSP-J.III-50	Supply of 40mm PPR Core Flange conforming to DIN Standards 8077/8087	Each	71.00
740	TBSP-J.III-51	Supply of 50mm PPR Core Flange conforming to DIN Standards 8077/8088	Each	91.00
741	TBSP-J.III-52	Supply of 63mm PPR Core Flange conforming to DIN Standards 8077/8089	Each	145.00
742	TBSP-J.III-53	Supply of 75mm PPR Core Flange conforming to DIN Standards 8077/8090	Each	169.00
743	TBSP-J.III-54	Supply of 90mm PPR Core Flange conforming to DIN Standards 8077/8091	Each	428.00
744	TBSP-J.III-55	Supply of 110mm PPR Core Flange conforming to DIN Standards 8077/8092	Each	553.00
745	TBSP-J.III-56	Supply of 20mm PPR Elbow conforming to DIN Standards 8077/8084	Each	20.00
746	TBSP-J.III-57	Supply of 25mm PPR Elbow conforming to DIN	Each	23.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		Standards 8077/8085		
747	TBSP-J.III-58	Supply of 32mm PPR Elbow conforming to DIN Standards 8077/8086	Each	45.00
748	TBSP-J.III-59	Supply of 40mm PPR Elbow conforming to DIN Standards 8077/8087	Each	79.00
749	TBSP-J.III-60	Supply of 50mm PPR Elbow conforming to DIN Standards 8077/8088	Each	147.00
750	TBSP-J.III-61	Supply of 63mm PPR Elbow conforming to DIN Standards 8077/8089	Each	286.00
751	TBSP-J.III-62	Supply of 75mm PPR Elbow conforming to DIN Standards 8077/8090	Each	462.00
752	TBSP-J.III-63	Supply of 90mm PPR Elbow conforming to DIN Standards 8077/8091	Each	857.00
753	TBSP-J.III-64	Supply of 110mm PPR Elbow conforming to DIN Standards 8077/8092	Each	1,590.00
754	TBSP-J.III-65	Supply of 20mm PPR Tee conforming to DIN Standards 8077/8084	Each	18.00
755	TBSP-J.III-66	Supply of 25mm PPR Tee conforming to DIN Standards 8077/8085	Each	31.00
756	TBSP-J.III-67	Supply of 32mm PPR Tee conforming to DIN Standards 8077/8086	Each	54.00
757	TBSP-J.III-68	Supply of 40mm PPR Tee conforming to DIN Standards 8077/8087	Each	95.00
758	TBSP-J.III-69	Supply of 50mm PPR Tee conforming to DIN Standards 8077/8088	Each	168.00
759	TBSP-J.III-70	Supply of 63mm PPR Tee conforming to DIN Standards 8077/8089	Each	339.00
760	TBSP-J.III-71	Supply of 75mm PPR Tee conforming to DIN Standards 8077/8090	Each	661.00
761	TBSP-J.III-72	Supply of 90mm PPR Tee conforming to DIN Standards 8077/8091	Each	959.00
762	TBSP-J.III-73	Supply of 110mm PPR Tee conforming to DIN Standards 8077/8092	Each	1,659.00
763	TBSP-J.III-74	Supply of 20mm PPR End Cap conforming to DIN Standards 8077/8084	Each	9.00
764	TBSP-J.III-75	Supply of 25mm PPR End Cap conforming to DIN Standards 8077/8085	Each	12.00
765	TBSP-J.III-76	Supply of 32mm PPR End Cap conforming to DIN Standards 8077/8086	Each	22.00
766	TBSP-J.III-77	Supply of 40mm PPR End Cap conforming to DIN Standards 8077/8087	Each	39.00
767	TBSP-J.III-78	Supply of 50mm PPR End Cap conforming to DIN Standards 8077/8088	Each	67.00
768	TBSP-J.III-79	Supply of 63mm PPR End Cap conforming to DIN Standards 8077/8089	Each	141.00
769	TBSP-J.III-80	Supply of 75mm PPR End Cap conforming to DIN Standards 8077/8090	Each	235.00
770	TBSP-J.III-81	Supply of 90mm PPR End Cap conforming to DIN Standards 8077/8091	Each	373.00
771	TBSP-J.III-82	Supply of 110mm PPR End Cap conforming to DIN Standards 8077/8092	Each	737.00
772	TBSP-J.III-83	Supply of 25mm x 20mm PPR Reducer conforming to DIN Standards 8077/8092	Each	15.00
773	TBSP-J.III-84	Supply of 32mm x 25mm PPR Reducer conforming to DIN Standards 8077/8092	Each	23.00
774	TBSP-J.III-85	Supply of 32mm x 20mm PPR Reducer conforming to	Each	22.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		DIN Standards 8077/8092		
775	TBSP-J.III-86	Supply of 40mm x 32mm PPR Reducer conforming to DIN Standards 8077/8092	Each	40.00
776	TBSP-J.III-87	Supply of 40mm x 25mm PPR Reducer conforming to DIN Standards 8077/8092	Each	39.00
777	TBSP-J.III-88	Supply of 40mm x 20mm PPR Reducer conforming to DIN Standards 8077/8092	Each	38.00
778	TBSP-J.III-89	Supply of 50mm x 20mm PPR Reducer conforming to DIN Standards 8077/8092	Each	58.00
779	TBSP-J.III-90	Supply of 50mm x 25mm PPR Reducer conforming to DIN Standards 8077/8092	Each	60.00
780	TBSP-J.III-91	Supply of 50mm x 32mm PPR Reducer conforming to DIN Standards 8077/8092	Each	61.00
781	TBSP-J.III-92	Supply of 50mm x 40mm PPR Reducer conforming to DIN Standards 8077/8092	Each	61.00
782	TBSP-J.III-93	Supply of 63mm x 20mm PPR Reducer conforming to DIN Standards 8077/8092	Each	131.00
783	TBSP-J.III-94	Supply of 63mm x 25mm PPR Reducer conforming to DIN Standards 8077/8092	Each	131.00
784	TBSP-J.III-95	Supply of 63mm x 32mm PPR Reducer conforming to DIN Standards 8077/8092	Each	132.00
785	TBSP-J.III-96	Supply of 63mm x 40mm PPR Reducer conforming to DIN Standards 8077/8092	Each	132.00
786	TBSP-J.III-97	Supply of 63mm x 50mm PPR Reducer conforming to DIN Standards 8077/8092	Each	133.00
787	TBSP-J.III-98	Supply of 75mm x 40mm PPR Reducer conforming to DIN Standards 8077/8092	Each	193.00
788	TBSP-J.III-99	Supply of 75mm x 50mm PPR Reducer conforming to DIN Standards 8077/8092	Each	194.00
789	TBSP-J.III-100	Supply of 75mm x 63mm PPR Reducer conforming to DIN Standards 8077/8092	Each	245.00
790	TBSP-J.III-101	Supply of 90mm x 63mm PPR Reducer conforming to DIN Standards 8077/8092	Each	468.00
791	TBSP-J.III-102	Supply of 90mm x 75mm PPR Reducer conforming to DIN Standards 8077/8092	Each	496.00
792	TBSP-J.III-103	Supply of 110mm x 63mm PPR Reducer conforming to DIN Standards 8077/8092	Each	624.00
793	TBSP-J.III-104	Supply of 110mm x 75mm PPR Reducer conforming to DIN Standards 8077/8092	Each	726.00
794	TBSP-J.III-105	Supply of 110mm x 90mm PPR Reducer conforming to DIN Standards 8077/8092	Each	783.00
795	TBSP-J.III-106	Supply of 25mm x 20mm x 25mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	38.00
796	TBSP-J.III-107	Supply of 32mm x 25mm x 32mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	65.00
797	TBSP-J.III-108	Supply of 32mm x 20mm x 32mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	66.00
798	TBSP-J.III-109	Supply of 40mm x 20mm x 40mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	107.00
799	TBSP-J.III-110	Supply of 40mm x 25mm x 40mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	108.00
800	TBSP-J.III-111	Supply of 40mm x 32mm x 40mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	111.00
801	TBSP-J.III-112	Supply of 50mm x 20mm x 50mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	153.00
802	TBSP-J.III-113	Supply of 50mm x 25mm x 50mm PPR Reducer Tee	Each	155.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		conforming to DIN Standards 8077/8092		
803	TBSP-J.III-114	Supply of 50mm x 32mm x 50mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	159.00
804	TBSP-J.III-115	Supply of 50mm x 40mm x 50mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	160.00
805	TBSP-J.III-116	Supply of 63mm x 20mm x 63mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	441.00
806	TBSP-J.III-117	Supply of 63mm x 25mm x 63mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	443.00
807	TBSP-J.III-118	Supply of 63mm x 32mm x 63mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	449.00
808	TBSP-J.III-119	Supply of 63mm x 40mm x 63mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	455.00
809	TBSP-J.III-120	Supply of 63mm x 50mm x 63mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	463.00
810	TBSP-J.III-121	Supply of 75mm x 50mm x 75mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	622.00
811	TBSP-J.III-122	Supply of 75mm x 63mm x 75mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	632.00
812	TBSP-J.III-123	Supply of 90mm x 50mm x 90mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	836.00
813	TBSP-J.III-124	Supply of 90mm x 63mm x 90mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	889.00
814	TBSP-J.III-125	Supply of 110mm x 75mm x 110mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	1,516.00
815	TBSP-J.III-126	Supply of 110mm x 90mm x 110mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	1,576.00
816	TBSP-J.III-127	Supply of 20mm x ½" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	118.00
817	TBSP-J.III-128	Supply of 25mm x ½" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	121.00
818	TBSP-J.III-129	Supply of 25mm x ¾" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	211.00
819	TBSP-J.III-130	Supply of 32mm x ½" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	214.00
820	TBSP-J.III-131	Supply of 32mm x ¾" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	222.00
821	TBSP-J.III-132	Supply of 32mm x 1" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	341.00
822	TBSP-J.III-133	Supply of 40mm x 1¼" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	503.00
823	TBSP-J.III-134	Supply of 50mm x 1½" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	703.00
824	TBSP-J.III-135	Supply of 63mm x 2" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	935.00
825	TBSP-J.III-136	Supply of 75mm x 2½" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	1,801.00
826	TBSP-J.III-137	Supply of 20mm x ½" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	182.00
827	TBSP-J.III-138	Supply of 25mm x ½" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	188.00
828	TBSP-J.III-139	Supply of 25mm x ¾" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	273.00
829	TBSP-J.III-140	Supply of 32mm x ¾" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	286.00
830	TBSP-J.III-141	Supply of 32mm x 1" PPR Male Threaded Adaptor	Each	530.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		conforming to DIN Standards 8077/8092		
831	TBSP-J.III-142	Supply of 40mm x 1¼" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	621.00
832	TBSP-J.III-143	Supply of 50mm x 1½" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	866.00
833	TBSP-J.III-144	Supply of 63mm x 2" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	1,333.00
834	TBSP-J.III-145	Supply of 75mm x 2½" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	2,132.00
835	TBSP-J.III-146	Supply of 20mm x ½" PPR Female Threaded Elbow conforming to DIN Standards 8077/8092	Each	125.00
836	TBSP-J.III-147	Supply of 25mm x ½" PPR Female Threaded Elbow conforming to DIN Standards 8077/8092	Each	132.00
837	TBSP-J.III-148	Supply of 25mm x ¾" PPR Female Threaded Elbow conforming to DIN Standards 8077/8092	Each	202.00
838	TBSP-J.III-149	Supply of 32mm x ½" PPR Female Threaded Elbow conforming to DIN Standards 8077/8092	Each	194.00
839	TBSP-J.III-150	Supply of 32mm x ¾" PPR Female Threaded Elbow conforming to DIN Standards 8077/8092	Each	226.00
840	TBSP-J.III-151	Supply of 32mm x 1" PPR Female Threaded Elbow conforming to DIN Standards 8077/8092	Each	376.00
841	TBSP-J.III-152	Supply of 20mm x ½" PPR Male Threaded Elbow conforming to DIN Standards 8077/8092	Each	188.00
842	TBSP-J.III-153	Supply of 25mm x ½" PPR Male Threaded Elbow conforming to DIN Standards 8077/8092	Each	206.00
843	TBSP-J.III-154	Supply of 25mm x ¾" PPR Male Threaded Elbow conforming to DIN Standards 8077/8092	Each	272.00
844	TBSP-J.III-155	Supply of 32mm x ½" PPR Male Threaded Elbow conforming to DIN Standards 8077/8092	Each	262.00
845	TBSP-J.III-156	Supply of 32mm x 1" PPR Male Threaded Elbow conforming to DIN Standards 8077/8092	Each	564.00
846	TBSP-J.III-157	Supply of 20mm x ½" PPR Female Threaded Tee conforming to DIN Standards 8077/8092	Each	122.00
847	TBSP-J.III-158	Supply of 25mm x ½" PPR Female Threaded Tee conforming to DIN Standards 8077/8092	Each	133.00
848	TBSP-J.III-159	Supply of 25mm x ¾" PPR Female Threaded Tee conforming to DIN Standards 8077/8092	Each	222.00
849	TBSP-J.III-160	Supply of 32mm x ½" PPR Female Threaded Tee conforming to DIN Standards 8077/8092	Each	234.00
850	TBSP-J.III-161	Supply of 32mm x ¾" PPR Female Threaded Tee conforming to DIN Standards 8077/8092	Each	262.00
851	TBSP-J.III-162	Supply of 32mm x 1" PPR Female Threaded Tee conforming to DIN Standards 8077/8092	Each	367.00
852	TBSP-J.III-163	Supply of 20mm x ½" PPR Male Threaded Tee conforming to DIN Standards 8077/8092	Each	189.00
853	TBSP-J.III-164	Supply of 25mm x ½" PPR Male Threaded Tee conforming to DIN Standards 8077/8092	Each	202.00
854	TBSP-J.III-165	Supply of 25mm x ¾" PPR Male Threaded Tee conforming to DIN Standards 8077/8092	Each	290.00
855	TBSP-J.III-166	Supply of 32mm x ½" PPR Male Threaded Tee conforming to DIN Standards 8077/8092	Each	295.00
856	TBSP-J.III-167	Supply of 32mm x ¾" PPR Male Threaded Tee conforming to DIN Standards 8077/8092	Each	313.00
857	TBSP-J.III-168	Supply of 32mm x 1" PPR Male Threaded Tee conforming to DIN Standards 8077/8092	Each	575.00



Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
858	TBSP-J.III-169	Supply of 20mm x ½” PPR Female Threaded Union conforming to DIN Standards 8077/8092	Each	485.00
859	TBSP-J.III-170	Supply of 25mm x ¾” PPR Female Threaded Union conforming to DIN Standards 8077/8092	Each	726.00
860	TBSP-J.III-171	Supply of 32mm x 1” PPR Female Threaded Union conforming to DIN Standards 8077/8092	Each	968.00
861	TBSP-J.III-172	Supply of 40mm x 1¼” PPR Female Threaded Union conforming to DIN Standards 8077/8092	Each	1,357.00
862	TBSP-J.III-173	Supply of 50mm x 1½” PPR Female Threaded Union conforming to DIN Standards 8077/8092	Each	2,181.00
863	TBSP-J.III-174	Supply of 63mm x 2” PPR Female Threaded Union conforming to DIN Standards 8077/8092	Each	3,463.00
864	TBSP-J.III-175	Supply of 20mm x ½” PPR Male Threaded Union conforming to DIN Standards 8077/8092	Each	556.00
865	TBSP-J.III-176	Supply of 25mm x ¾” PPR Male Threaded Union conforming to DIN Standards 8077/8092	Each	739.00
866	TBSP-J.III-177	Supply of 32mm x 1” PPR Male Threaded Union conforming to DIN Standards 8077/8092	Each	968.00
867	TBSP-J.III-178	Supply of 40mm x 1¼” PPR Male Threaded Union conforming to DIN Standards 8077/8092	Each	1,211.00
868	TBSP-J.III-179	Supply of 50mm x 1½” PPR Male Threaded Union conforming to DIN Standards 8077/8092	Each	2,300.00
869	TBSP-J.III-180	Supply of 63mm x 2” PPR Male Threaded Union conforming to DIN Standards 8077/8092	Each	3,875.00
870	TBSP-J.III-181	Supply of 20mm PPR Union conforming to DIN Standards 8077/8092	Each	108.00
871	TBSP-J.III-182	Supply of 25mm PPR Union conforming to DIN Standards 8077/8092	Each	124.00
872	TBSP-J.III-183	Supply of 32mm PPR Union conforming to DIN Standards 8077/8092	Each	204.00
873	TBSP-J.III-184	Supply of 20mm PPR Ball Valve conforming to DIN Standards 8077/8092	Each	194.00
874	TBSP-J.III-185	Supply of 25mm PPR Ball Valve conforming to DIN Standards 8077/8092	Each	257.00
875	TBSP-J.III-186	Supply of 32mm PPR Ball Valve conforming to DIN Standards 8077/8092	Each	268.00
876	TBSP-J.III-187	Supply of 40mm PPR Ball Valve conforming to DIN Standards 8077/8092	Each	548.00
877	TBSP-J.III-188	Supply of 50mm PPR Ball Valve conforming to DIN Standards 8077/8092	Each	637.00
878	TBSP-J.III-189	Supply of 63mm PPR Ball Valve conforming to DIN Standards 8077/8092	Each	1,031.00
879	TBSP-J.III-190	Supply of 75mm PPR Ball Valve conforming to DIN Standards 8077/8092	Each	1,697.00
880	TBSP-J.III-191	Supply of 90mm PPR Ball Valve conforming to DIN Standards 8077/8092	Each	2,422.00
881	TBSP-J.III-192	Supply of 20mm PPR Clamp conforming to DIN Standards 8077/8092	Each	12.00
882	TBSP-J.III-193	Supply of 25mm PPR Clamp conforming to DIN Standards 8077/8092	Each	16.00
883	TBSP-J.III-194	Supply of 32mm PPR Clamp conforming to DIN Standards 8077/8092	Each	18.00
884	TBSP-J.III-195	Supply of 40mm PPR Clamp conforming to DIN Standards 8077/8092	Each	20.00
885	TBSP-J.III-196	Supply of 20mm civic coupler where in the compound should confirm to IS 15778 CPVC pipe and IS 15225	Each	13.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5		
886	TBSP-J.III-197	Supply of 25mm civic coupler where in the compound should confirm to IS 15778 CPVC pipe and IS 15225 CPVC compound high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	17.00
887	TBSP-J.III-198	Supply of 32mm civic coupler where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	28.00
888	TBSP-J.III-199	Supply of 50mm civic coupler where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	84.00
889	TBSP-J.III-200	Supply of 20mm civic end cap where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	10.00
890	TBSP-J.III-201	Supply of 25mm civic end cap where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	14.00
891	TBSP-J.III-202	Supply of 32mm civic end cap where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	20.00
892	TBSP-J.III-203	Supply of 50mm civic end cap where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	63.00
893	TBSP-J.III-204	Supply of 25mm civic elbow where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	25.00
894	TBSP-J.III-205	Supply of 50mm civic elbow where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	130.00
895	TBSP-J.III-206	Supply of 50x32 mm civic reducing elbow where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	102.00
896	TBSP-J.III-207	Supply of 50mm civic tee where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	157.00
897	TBSP-J.III-208	Supply of 25x20mm civic reducer where in the compound should confirm to IS 15778 CPVC pipe and IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	19.00
898	TBSP-J.III-209	Supply of 32x25mm civic reducer where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	25.00
899	TBSP-J.III-210	Supply of 20x15mm CPVC brass fta where in the	Each	30.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5		
900	TBSP-J.III-211	Supply of 20mm civic elbow where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	17.00
901	TBSP-J.III-212	Supply of 32mm civic elbow where in the compound should confirm to IS 15778 CPVC pipe IS 15225CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	42.00
902	TBSP-J.III-213	Supply of 25x20 mm civic reducing tee where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	270.00
903	TBSP-J.III-214	Supply of 20x15mm civic brass elbow where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	144.00
904	TBSP-J.III-215	Supply of 32x20 mm civic reducing tee where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	10.00
905	TBSP-J.III-216	Supply of 50x20mm civic reducing tee where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	17.00
906	TBSP-J.III-217	Supply of 20x15mm civic brass tee where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	7.00
907	TBSP-J.III-218	Supply of 50X32MM civic reducing tee where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	18.00
NOTE	All the items to be used on work are of first quality & ISI and as approved by the Engineer In charge of the work.			
1	RATES			
a	All the prices of the material given in this section are excluding taxes but including cost of loading, cost of conveyance, unloading & stacking			
b	Supply Rates for all the materials are basic rates based on market rates/quoted rates/derived rates, excluding Taxes.			
c	The applicable GST (works contract) shall be added at applicable rate in Part B of the estimates.			
2	Colored porcelain items: 50% extra may be allowed on basic cost of white porcelain items excluding fittings			
3	SSR Rates for Sanitary & water supply items are purely for guidance for the officers for preparation of estimates vide Para 113 of APPWD code. Authority who prepares the estimate is however responsible for proper rates as envisaged in Para 45 of APPWD code.			



Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
<b>A</b>	<b>SECTION</b>	<b>S.W.G. PIPES &amp; FITTINGS</b>
		(Landing cost - including material VAT/ loading/ cost of conveyance/ unloading & stacking)
I	SUB-SECTION	SUPPLY & LAYING OF SWG PIPES - Any ISI Brand
II	SUB-SECTION	S.W.G. FITTINGS - Any ISI Brand
<b>C</b>	<b>SECTION</b>	<b>CENTRIFUGAL CI PIPES &amp; FITTINGS - IS : 1729</b>
I	SUB-SECTION	SUPPLY & LAYING OF CAST IRON PIPES - BIC/ NECO/ JayaswalNeco
II	SUB-SECTION	SUPPLYING & LAYING OF C.I. FITTINGS - BIC/ NECO/ JayaswalNeco
<b>D</b>	<b>SECTION</b>	<b>CENTRIFUGAL CI PIPES &amp; FITTINGS - IS : 3989</b>
I	SUB-SECTION	SUPPLY OF CENTRIFUGAL CI PIPES - BIC/ NECO/ JayaswalNeco
II	SUB-SECTION	SUPPLY OF C.I. SPUN FITTINGS - BIC/ NECO/ JayaswalNeco
<b>E</b>	<b>SECTION</b>	<b>VITREOUS CHINAWARE - SANITARY APPLIANCES</b>
I	SUB-SECTION	INDIAN WATER CLOSETS - Hindustan Sanitary ware/ Parryware/ Neycer/ CERA/Jaquar / Somany, Watertec, Kerovit by Kajaria
II	SUB-SECTION	FLOOR MOUNTED EWC - Hindustan Sanitary ware/ Parryware/ Neycer/ CERA/Jaquar / Somany, Watertec, Kerovit by Kajaria
III	SUB-SECTION	WALL MOUNTED EWC - Hindustan Sanitary ware/ Parryware/ Neycer/ CERA /Jaquar/ Somany, Watertec, Kerovit by Kajaria
IV	SUB-SECTION	CISTERNS FOR WATER CLOSETS - Hindustan Sanitary ware/ Parryware/ Neycer/ CERA /Jaquar / Somany, Watertec, Kerovit by Kajaria
V	SUB-SECTION	PLASTIC SEATS FOR WATER CLOSETS - Hindustan Sanitary ware/ Parryware/ Neycer/ CERA /Jaquar / Somany, Watertec, Kerovit by Kajaria
VI	SUB-SECTION	WASH HAND BASINS - Hindustan Sanitary ware/ Parryware/ Neycer/ CERA /Jaquar / Somany, Watertec, Kerovit by Kajaria/ DEC Industries PVT LTD SINKS - Goel Sinks, Futura
VII	SUB-SECTION	URINALS - Hindustan Sanitary ware/ Parryware/ Neycer/ CERA /Jaquar / Somany, Naturesani, Watertec, Kerovit by Kajaria, Bandhan, Merino
<b>F</b>	<b>SECTION</b>	<b>CP FITTINGS - TAPS/ FAUCETS &amp; ACCESSORIES</b>
I	SUB-SECTION	TAPS&FAUCETS - BIB TAPS - Seiko/ Senior/ Nice/ Senior/ Nice/ CERA/ Hindware - PREMIUM MAKE - Jaquar/ Hindware/ Plumber/ Parryware/ H & R Johnson, Karla / Essco / Somany/Kingston/Prayag Polymer/KUNCHAL ( Aluminium Udyog)/M/s Sumo Polyplast Pvt. Ltd ( Sumolex), Watertec, Ambani, Kerovit by Kajaria, Austro,/ ESS ESS/ BATHSENSE/ ROYALE/Futura/Player/Suki
II	SUB-SECTION	TAPS&FAUCETS - PILLAR TAPS - Seiko/ Senior/ Nice/ Senior/ Nice/ CERA/ Hindware- PREMIUM MAKE - Jaquar/ Hindware/ Plumber/ Parryware/ H & R Johnson, Karla / Essco / Somany/ Kingston/Prayag Polymer/ KUNCHAL ( Aluminium Udyog)/ M/s Sumo Polyplast Pvt. Ltd ( Sumolex), Watertec, Ambani, Kerovit by Kajaria, Austro/ ESS ESS/ BATHSENSE/ ROYALE/Futura/Player/Suki
III	SUB-SECTION	TAPS&FAUCETS - OTHER TAPS & SPOUTS - Seiko/ Senior/ Nice/ Senior/ Nice/ CERA/ Hindware - PREMIUM MAKE - Jaquar/ Hindware/ Plumber/ Parryware/ H & R Johnson, Karla / Essco /Somany/ Kingston/Prayag Polymer/ KUNCHAL ( Aluminium Udyog)/ M/s Sumo Polyplast Pvt. Ltd ( Sumolex) Watertec, Ambani, Kerovit by Kajaria, Austro/ ESS ESS / BATHSENSE/ ROYALE/Futura/Player/Suki
IV	SUB-SECTION	STOP & ANGLE VALVES - Seiko/ Senior/ Nice/ Senior/ Nice/ CERA/ Hindware - PREMIUM MAKE - Jaquar/ Hindware/ Plumber/ Parryware/ H & R Johnson, Karla / Essco / Somany/ Kingston/Prayag Polymer/ KUNCHAL ( Aluminium Udyog), Watertec, Ambani, Kerovit by Kajaria, Austro/ ESS ESS/ BATHSENSE/ ROYALE, Futura/Player/Suki
V	SUB-SECTION	COMBINATION FAUCETS - Seiko/ Senior/ Nice/ Senior/ Nice/ CERA/

		Hindware - PREMIUM MAKE - Jaquar/ Hindware/ Plumber/ Parryware/ H & R Johnson, Karla / Essco / Somany/ Kingston/Prayag Polymer/ KUNCHAL ( Aluminium Udyog) Watertec, Ambani, Kerovit by Kajaria, Austro / ESS ESS/ BATHSENSE/ ROYALE/Futura/Player/Suki
VI	SUB-SECTION	SHOWERS & FITTINGS - Seiko/ Senior/ Nice/ Senior/ Nice/ CERA/ Hindware - PREMIUM MAKE - Jaquar/ Hindware/ Plumber/ Parryware/ H & R Johnson, Karla / Essco / Somany/ Kingston/Prayag Polymer/ KUNCHAL ( Aluminium Udyog), Watertec, Ambani, Kerovit by Kajaria, Austro / ESS ESS/ BATHSENSE/ ROYALE/Futura/Player/Suki
VII	SUB-SECTION	MISCELLANEOUS CP FITTINGS - Seiko/ Senior/ Nice/ Senior/ Nice/ CERA/ Hindware- PREMIUM MAKE - Jaquar/ Hindware/ Plumber/ Parryware/ H & R Johnson, Karla / Essco / Somany/ Kingston/Prayag Polymer/ KUNCHAL ( Aluminium Udyog), Watertec, Ambani, Kerovit by Kajaria, Austro / ESS ESS/ BATHSENSE/ ROYALE/Futura/Player/Suki
<b>G</b>	<b>SECTION</b>	<b>G.I. PIPES &amp; FITTINGS</b>
I	SUB-SECTION	G.I. PIPES - Tata/ JSW/ Oswal/ Zenith
II	SUB-SECTION	G.I. FITTINGS - HB / Kirti/ R-Brand
III	SUB-SECTION	BRONZE (COPPER ALLOY) VALVES - Zoloto/ R-Brand
<b>H</b>	<b>SECTION</b>	<b>PVC PIPES &amp; FITTINGS</b>
I	SUB-SECTION	PVC PIPES - Prince/Sudhakar/Kisan/Supreme/ Astral/ Finolex/ Ajay/ Ashirvad/Birla Aerocon/Trueflo by Hindware/Prayag Polymer, Watertec, Austro, Nandi/ APOLLO PIPES LTD / DEC Industries PVT LTD/Vectus/Suki/Sentini PVC - O PIPES - CCAL
II	SUB-SECTION	PVC FITTINGS- Prince/Sudhakar/Kisan/Supreme/ Astral/ Finolex/ Ajay/ Ashirvad/ Birla Aerocon/ Trueflo by Hindware/Prayag Polymer, Watertec, Austro, Nandi/ APOLLO PIPES LTD / DEC Industries PVT LTD/Vectus/Suki/Sentini
III	SUB-SECTION	PVC PLUMBING ACCESSORIES - Prince/Sudhakar/Kisan/Supreme/ Astral/ Finolex/ Ajay/ Ashirvad/ Birla Aerocon/ Trueflo by Hindware, Watertec, Austro, Nandi/ APOLLO PIPES LTD /Vectus/Suki/Sentini
		PVC Tanks - Sintex, Aquatech, Nandi, Agarwal
		PVC - LLC Cisterns - Parryware/ Slimlines/ CERA/ Hindware/Prayag Polymer/ APOLLO PIPES LTD
<b>J</b>	<b>SECTION</b>	<b>MISCELLANEOUS ITEMS</b>
I	SUB-SECTION	POLYETHYLENE-ALUMINIUM-POLYETHYLENE COMPOSITE PIPES - Kitec/ Kisan/ Uniflex/M/s SumolexPolyplast Pvt. Ltd/ APOLLO PIPES LTD
II	SUB-SECTION	CPVC PIPES - Supreme/ Ashirvad/ Astral/ Prince / Kisan / Ajay/Birla Aerocon/ HindwareTrueflo/Sudhakar/Prayag Polymer/ M/s SumolexPolyplast Pvt. Ltd, Watertec, Ambani, Austro, Nandi/ DEC Industries PVT LTD , Suki/Sentini
III	SUB-SECTION	PPR PIPES - Supreme/ Ashirvad/ Astral/ Prince/ Kisan / SFMC / KPT/ M/s SumolexPolyplast Pvt. Ltd

# **ELECTRICAL ITEMS**





**PREAMBLE****SYSTEM OF DISTRIBUTION OF WIRING**

1.	The wiring shall be done from a distribution system through main & Sub-distribution boards.
2.	The system design and location of DBs shall be carefully selected.
3.	Each main and sub-distribution boards shall be controlled by an incoming circuit breaker.
4.	For Non-residential buildings, as far as possible, DBs shall be separate for light and power.
5.	Only MCCB / MCBs shall be used.
6.	“Power” wiring shall be kept separate and distinct from light wiring from the level of circuits.
7.	Conduit for light and power wiring shall be separate
8.	Essential / Non-essential/ UPS distribution : Each System will have a completely independent and separate distribution system starting from the main switch board up to final wiring point for each system.
9.	No switch board will have more than one source.
10.	Each main distribution board / Sub-distribution board will have spare outgoing MCBs for future expansion.
11.	I) All switch boards shall be installed at 1.2 to 1.4 Mt height from Finished Floor level as per the disable standards.
	II) all 6A sockets, 16A / 6A sockets shall be installed at the following positions, unless other wire specified.
	a) 1. NRB - 30 cm above floor level.
	2. RB - 30 cm above floor level until unless specified by Engineer -in charge.
	b) Kitchen - 30 Cm above platforms and away from sink / stove.
	c) Bathroom - No socket outlet is permitted for connecting a portable appliance there to.
	d) Power socket may be provided above 2Mts for fixed appliance and at least 1.0 m away from the shower.
1.	Sub Main Wiring :-
	Sub Main wiring shall mean the wiring from one main DB to other.
2.	Circuit Wiring :
	Circuit wiring shall mean the wiring from the DB to the 1 <sup>st</sup> tapping point inside the switch board, from where point wiring starts.
3.	Service Mains:-
	Service Mains shall mean the wiring from the supply pole / feeder pillar of SPDCL / NPDCL to main panel / main distribution board.
4.	Point Wiring:-
	A point wiring shall include necessary wiring to the following outlets from the controlling switch.
	a) Ceiling rose (in case of ceiling / exhaust fan points, light fittings, and call bells)
	b) Ceiling rose (in case of ceiling fan)
	c) Lamp holders
5.	Point wiring for socket outlet points-
	a) 10A socket on common switch board i.e including required wire leads.
	b) 10A - Separate Socket point i.e socket on separate board including wiring is called 6A separate socket point.
	c) 16A / 10A socket point
	16A point wiring will be measured on linear basis from respective tapping point to the 16A socket.
6.	Twin Control light Point:-
	A Light point controlled by two numbers of two-way switches. It is used in bedrooms, staircase points. The rates shall be 1.5 times normal light / fan point
7.	Multiple controlled call bell point wiring.
	In case of call bell points with a single call bell controlled from one outlet is same as light point.
	In case of call point with single call bell controlled from more than one place, the point shall be measured in parts i.e
	a) from call bell outlet to one of the nearest ceiling rose meant for connection to bell push treated as one point.
	b) Other bell pushes shall be measured the linear length as run of mains.
8.	<u>Wiring System:</u>
	“ FRLS / HFFR multi strand flexible copper cable are permitted to be used”.
	a) Wiring shall be done only with minimum 1.5 sq.mm flexible copper wire for light, fan, exhaust fan , call bell, 6A socket etc.
	b) Phase neutral and earth shall be same in size (i.e sq.mm).
	c) In wiring, no joints in wiring will be permitted anywhere except in switch box or at point outlet
	<u>Colour Coding :</u>
	Phase / Live - Red / yellow / Blue

	Neutral - Black
	Earth - Green
	d) For light / bell wiring shall be two wire system.
	e) For ceiling fan / exhaust fan / Separate socket wiring shall be three wire system .
	<u>Circuit main for switch boards:</u>
	Circuit main for switch board shall be 3 runs of 2.5sq.mm copper cable i.e for phase, neutral and earth. That is from DB to switch board.
	<u>Circuit Main for 16A socket :</u>
	Circuit mains for 16A sockets shall be 3 runs 4.0sq.mm from DB to 16A socket. Phase, neutral and earth conductor are equal in size (i.e sq.mm).
	<u>Circuit Main for AC socket:-</u>
	Circuit mains for AC socket shall be 3 Runs of 6.0sq.mm from DB to AC socket. Phase, neutral and earth conductor are equal in size (i.e sq.mm).
	Note: Power circuit rated more than 1KW, size as per calculations.
	<u>Capacity of Circuits:</u>
I	Lighting circuits shall feed light / fan / call bell points. Each circuit shall not have more than 800W connected load or more than 10 points. In case of LED lights, where load per point may be less, number of points may be suitably increased.
II	Power circuit in NRB will have only one outlet per circuit.
III	Each power circuit in residential buildings can feed following outlets.
	a) Not more than 2 Nos 16A socket outlets.
	b) Not more than 4 Nos 6A/ 10A socket outlets.
	c) Not more than 1 No 16A & 2Nos 6A out lets.
IV.	Load more than 1 KW shall be controlled by suitable rated MCB, and cable size shall be decided as per the load calculations and length of circuit mains.
V.	Load shall be distributed equally among the three phases.

**GUIDELINES FOR ELECTRICAL WORKS**

(For the Real Estate Development works coming under the purview of RERA)

**PREFACE**

Electrical supply and installation are an important and essential part of Building Services. Right from initial planning, design, selection of material, installation / method of construction; to testing, commissioning and maintenance; every aspect is governed by statutory provisions referring various Standards and Codes. All such norms are oriented to minimize risk, provide safe use, operation, functionality, and convenience throughout service life.

Any lapse in any of the above aspect may lead to severe effects on human life and devastation of assets. Occasions of electrical fires are increasing with the increasing use and electrical gadgets. Unfortunately, still it is seen that Electrical Installation is given least importance. Qualities and safeties are compromised out of connivance or lack of technical knowledge. Many times, electrical work gets executed through non-qualified persons not having required knowledge and permit in that regard. Such hired persons work on labour basis to whom non-standard material is supplied without any base of 'Design'. There is no person to supervise quality and safety aspects, most of which remains 'concealed' as the work gets completed.

In case of High-Rise buildings norms are more stringent. Fire hazard is more prominent risk factor as evacuation in high-rise building is a challenging task. Part 3 section 7 of NEC gives special guidelines in this regard.

The person who uses, operates electrical installation is not expected to know the real technical aspects of design, material used, quality of work, adherence to safety, compliance with statutory provisions. Under the circumstances it has become a need to set base line parameters. Plug the loop holes, get the work done adhering to norms and standards and make someone responsible so that in case of any lapse / mishap such person / agency can be made answerable.

The following guidelines / recommendations / mandates are basically given to execute work of Electrical Installation.

**1. ARCHITECTURAL / CIVIL WORK PROVISIONS RELATED TO ELECTRICAL INSTALLATION****1.1 Architectural Planning requirements**

At planning stage Architect shall discuss and consider requirements of Electrical Consultant / Contractor in respect with site and location\*of construction and in respect with drawings of building requirement of spaces, clearances, approach ways, raceways, shafts, recommended wall thickness, required provisions for prevention from fire hazard likely to originate from electrical installation.

\*If proposed construction is within vicinity of existing over-headline, underground cable compliance with Regulation 63 of CEA Safety Regulations shall be checked prior to commencement of any work on site.

Architect shall incorporate following points in the drawings related to services as per the applicable requirements.

**1.1.1 Site Plan**

Site plan shall show existing overhead electrical lines / underground cables if any and proposed construction within the boundaries of the area to be developed.

**1.1.2 Routes and service entry points**

Architectural drawings shall clearly mark electrical service entry points, cable routes below ground, through the building structure, so that detailing in electrical shop drawings will restrict the work within specified route and no conflict shall occur with

other building utility service. The drawings shall specify required horizontal and vertical clearance to be maintained between other utility services.

#### **1.1.3 Locations of Electrical Panels**

Locations and position for main and sub electrical panels shall be marked, and adequate space / room shall be allocated considering dimensions of panel, clearance in front, side and back. Consideration shall be given to space required for opening of the panel doors / racking out breakers, and approach boundaries (Refer NEC Part1 / section 24 Electrical Safety), and accessibility. Floor mounting panels shall preferably be located in separate Electrical Panel Rooms having outside door opening, required fire rating (two hours if not specified) and ventilation arrangement.

**NOTE** - Special consideration shall be given to this point in case of high-Rise buildings.

#### **1.1.4 Electrical meter rooms**

Meter rooms shall be separate. It shall be planned to have sufficient head room and clear space in front of meters, control switches (at least 1m). Space on wall shall be sufficient to accommodate required number of meters at suitable height so that readings can be taken without aid of any tackle. Also, the switchgears shall be at least 0.5 m above floor level and within such height to have an easy access for operation. The meter room shall be well ventilated, protected from external influences like sun, rain, water seepages, entry of rodents. Location of meter room shall be suitably adjacent or nearest to cable duct / shaft / vertical route of mains.

**NOTE** - Meter rooms shall not be located below staircases where above requirements could not be complied with.

#### **1.1.5 Movement of heavy / bulky electrical equipment**

For installation of electrical equipment within building which is likely to be heavy / bulky in size or removing it for maintenance, provision of adequate passages, stair ways or any alternate provision for its shifting / movement shall be considered.

#### **1.1.6 Shafts /ducts**

There shall be provision of shafts with required fire rating (2 hours if not mentioned specifically) for vertical electrical distribution which shall preferably be adjacent to electrical panels. Shafts shall be separate for electrical HT cables, LT power cables / bus-bar trunking and cable work of Extra Low Voltage systems like telephones, security system, fire alarm, signalling, BMS or data networking etc. If **independent shaft is not possible, there shall be an arrangement for segregation** in between, which shall have required fire rating same as that of shaft. No other utility service shall run through these shafts. Shafts shall be accessible at all levels with doors having fire rating as that of shaft and shall not open in fire escape staircase. All shafts shall have fire prevention provision as per National Building Code and fire safety requirements of local statutory authorities.

**NOTE** - As per CEA Reg.36 provision in respect of independent electrical service shaft is mandatory for all buildings above 15m height (High-Rise buildings).

#### **1.1.7 Interior design and Electrical Layouts**

It is recommended to prepare interior layouts so as to plan electrical points, locations of switch boards to suite the aesthetics, functionality as well as for comfort and ease of operation.

#### **1.1.8 Aesthetics and Electrical Safety**

To avoid conflicts between Architect from perspective of aesthetic and person executing electrical installation work from the point of view of safety requirements of electrical work, convenience and ease of installation and further maintenance depending on type of wiring (concealed / surface / hybrid), location of distribution boxes, requirement of under-floor trunking / false flooring / false ceiling, wall

partitions and openings to enter into / work within as per the need. These points shall be decided at planning stage.

#### **1.1.9 Illumination**

Within interior work number, type, size, and location of luminaries shall be decided and agreed upon mutually between Architect and Electrical Agency, considering technical parameters of lux level, CCT, heat dissipation, accessibility and maintainability.

#### **1.1.10 Ceiling Fans**

Location of ceiling fans shall suite recommended minimum clearance between ceiling / false ceiling and fan blade (225mm), floor level and fan blade(2400mm).Sweep of fan blades shall not obstruct light source. Location and size of fan shall also suite utility from the point of view of users and aesthetically match with false ceiling design.

**NOTE:** Sometimes due to afterthought provision of false ceiling, it creates problems affecting required clearances. Under some cases, replacement of down rod with suitable length may solve problem but in case of limited ceiling height It is not possible.

#### **1.1.11 Exhaust fans**

Wherever provision of exhaust fans is there, cross ventilation shall be considered to allow sufficient fresh air to enter into particular envelop, e.g. for toilets where exhaust fans are proposed, door under cuts or louvers preferably at lower level for cross ventilation shall be provided.

**NOTE:** Non provision of entry for fresh air creates negative pressure within the envelope increasing load on exhaust fan resulting into heating and subsequent failure.

#### **1.1.12 Earthing**

Location of earthing pits shall be shown on drawings so that those shall always remain open and accessible for testing and maintenance throughout the service period.

#### **1.1.13 Restricted Access**

Areas requiring restricted access to designated person, authorized to carry out electrical work therein shall be provided with necessary arrangements.

#### **1.1.14 Sub stations / Generators / Battery rooms**

Location of required civil structure shall be considered in advance with required height of room, door openings, firefighting system, ventilation etc.

### **1.2 Civil Planning and Constructional Requirements**

It is important to plan activities of civil construction and electrical works in detail on bar chart or similar tools available in project planning. The bar chart shall be updated and coordination be monitored to avoid conflicts, breakages and reworking . Following points give general guidelines.

#### **1.2.1 Fire rating**

The electrical panel rooms, doors, segregation arrangement within shaft shall have fire rating of 2 hours or as per requirements mentioned under NBC, Central Electricity Authority (measures related to Safety and Electric Supply) Regulations, 2010 and further amendments.

#### **1.2.2 Shafts / Ducts /Chambers**

Design and location of cable ducts, shafts, chambers, their covers, and entry points, shall be as per shop drawings provided by electrical agency and shall be in consultation with, considering further aspects of maintenance / repairs / replacement . Size of chambers shall be in consideration with bending radii of cables. At every flooring level, there shall be a provision to seal these shafts, so that in case of fire, it shall not spread, or smoke shall not pass from one floor to other.

**1.2.3 Openings and covers**

Manholes / opening of chambers shall not be less than 650mm x 550mm or 650mm India., where opening is intended for entry of person. Covers of manholes, chambers shall bear sufficient strength to withstand loads likely to be imposed on the structure. Covers shall be marked with the name of the service.

Openings / covers of Junction boxes / draw-in boxes / accessories in conduit systems with inspection openings shall always be accessible.

**1.2.4 Enclosures for underground cables**

Pipes to be used for cable as enclosures shall be of required diameter so that cable can pass through or removed from easily and have sufficient mechanical strength and shall be erected at required depth to suite requirements of IS 1255.

**1.2.5 Wall thickness**

Walls shall be of sufficient thickness to accommodate concealed boxes / switchboards / distribution boxes. So that installation of boxes will not affect strength of wall. Additional strengthening shall be considered if necessary.

**NOTE :** Depth of box may be 60 mm or vary depending on manufacturer's design. Under circumstances in 4"/100 mm wall it is not possible to accommodate these boxes back-to-back. Staggering may solve problem to certain extent.

**1.2.6 Structural strength**

In Wiring Installation where Cable Ladder, Tray system is used for cable management, its structure along with the load of cables which it is going to support, is likely to impose load on the primary structure of building. This situation occurs when supports of this system are fixed on building structure. For this building structure shall have capacity to bare the load.

At some locations there are chances of conduits getting crowded endangering structural strength due to number of circuits entering / passing out from the particular DB / panel. This situation may occur in beam, slab, and wall. If such situation is unavoidable necessary measures may be required to be taken to retain structural strength.

**1.2.7 Sleeves / core cutting**

As far as possible sleeves shall be got erected for entry of wires / cables through wall, flooring, RCC structure during construction to avoid core cutting, damages and reworking at finishing stage. Sometimes core cuttings may be required which shall be done with the consent of structural engineer and under supervision of civil engineer.

**1.2.8 Water leakages / seepages**

Design shall take into consideration possible seepages, leakages, accumulation, and ground in-surge of water, which is hazardous to electrical installation. Required provisions shall be made at such locations to prevent and work shall be executed with due care.

**1.2.9 Bathrooms /washrooms**

Within bathrooms / washrooms, location of showers, faucets shall be such that during use, water shall not splash on switch boards / electrical outlets / fittings.

**1.2.10 Tandems in Flat Slab post tension structures**

For flat slab post tension structure's locations of tandems marking shall be made to avoid puncture of / damage to tandems during electrical construction activity.

**1.2.11 Earthing**

Any construction work, including excavation, subsequent to construction of earthing electrode/s ; it shall not disturb / damage any part of earthing system. Any civil work on construction site shall not cause cover-up / concealing of any portion of electrical earthing system without notice and consent of person In- Charge of electrical work.

**1.2.12 Sub stations / Generators / Batteries**

Trenches, ventilation, approach roads shall be provided as per necessity.

**2. ELECTRICAL PROVISIONS****2.1 Statutory Obligations - Appointment of Licensed Electrical Contractor**

Reg .29(1) shall be strictly followed by the Developer and work shall be got done through Licensed Electrical Contractor who shall submit Test Report of the work carried-out by him.

Developer may take undertaking from the Licensed Electrical Contractor, who shall be responsible to do the work through the qualified workmen having required permit in that regard. He shall also see that the material to be used, work and workmanship shall conform to respective norms, standards, and Regulations.

**NOTE**-All hidden work shall be checked for conformity with the standards prior to get it concealed, shall be certified by the contractor.

**2.2 Statutory Obligations-Approvals /Permissions / Licenses**

Required approvals shall be taken as per related Rules and Regulations mentioned below prior to the commissioning and handing over the installation for beneficial use.

- Central Electricity Authority (measures related to safety and electric supply) Regulations 2010 and amendments 2015, 2018
- Reg. 32 - Generator Inspection and approval for commissioning.
- Reg. 36 - Multi-storied building (height above 15m): inspection and NOC for commencement of supply
- Reg. 43 -Transformer sub-station or any installation above 660V : inspection and approval before commencement of supply

See **Annexure C of above regulations** for extract of Regulations.

**2.3 Material**

Material used for Electrical Installation shall conform to the respective Indian standards or International standards where relevant Indian Standards are not available.

Technical Specification of material shall strictly adhere to the design, based on load, use, external influences and safety.

**2.4 Wiring Installation**

Electrical Installation shall conform to provisions from related sections of National Electrical Code (NEC) and National Building Code (NBC). See **Annexure A** for minimum / basic requirements from the point of view of Safety and functionality.

**2.5 Transformer sub-station**

Transformer sub-station providing supply to the building if located within building shall either use dry type transformer or a transformer filled with Synthetic Ester. Transformer filled with Natural ester shall be used only if transformer is sealed (without breather). For Transformer installed in separate room detached from building structure 7.5m away Mineral oil may be allowed.

**2.6 Generator standby supply**

For every high-rise building there must be a provision of generator supply as a standby arrangement which shall be of adequate capacity to cater load of all emergency systems for required time. Location and system of supply shall be such that functioning, and purpose of Generator will not be affected due to emergency like fire in building. If fire authority requires standby supply arrangement for fire-fighting system also, provision of generators shall be made accordingly.

**2.7 Handing over Documents**

It shall be a part of obligation on the developer to handover the documents belonging to the prospective owner for his information and which he will need him for reference and maintain as a record.

**2.8 MCBs**

For lighting circuit 6A MCB and for power circuit of power point 16A MCB shall be used. For lighting circuits MCBs of B series may be used. For independent circuit of plug points C series MCB shall be provided. Circuits providing supply for appliances like Air-Conditioner / water-pump shall be provided MCBs of 'C' series. AC above 1.5 TR maybe provided with MCB of 20 /25 A rating.

**2.9 RCDs**

Complete electrical installation must be protected against electrical shock by provision of Residual Current Device (also referred as ELCB/RCCB) having sensitivity of 30mA. RCDs may be provided more than one at suitable locations, to retain supply redundancy. In three phase DBs per phase protection maybe provided. For installation having load 10kw and above, it is also recommended to provide RCD of 300mA sensitivity at the source / point of supply to provide protection against Fire due to leakage currents.

**2.10 Main switchgears**

Depending on load provision of MCCBs, Circuit breakers shall be made with precise rating of overload, short-circuit etc.

**3. Provision in respect of High-Rise building****3.1 Supply isolation during Emergency**

Sub Regulation (3) of CEA Regulation No.36 provides for arrangement to completely isolate the supply at the time of emergency. It shall be interpreted as below:

**3.2** The provision of a device to isolate complete supply, also called Fireman's Switch, is aimed at restricting further danger of short circuits due to fire and spread of fire and shock hazard, restriction on use of Lifts and any other activity running on electrical supply which may aggravate the situation. However, supply to emergency services like rescue operation, Fire- Fighting shall not get affected with the operation of this control.

**3.3** Suitable arrangement shall be done at the point of supply to separate supply of emergency services make arrangements to identify and mark with instructions

**CEA (Measures related to Safety and Electric Supply) Regulations 2010 made under section 53 read with section 177 of Electrical Act 2003 Regulation 29(1):**

No electrical installation work, including additions, alterations, repairs and adjustments to existing installations, except such replacement of lamps fans, fuses, switches, domestic appliances of voltage not exceeding 250V and fittings as in no way alters its capacity or character, shall be carried out upon the premises of or on behalf of any consumer, supplier, owner or occupier for the purpose of supply to such consumer, supplier, owner or occupier except by an Electrical Contractor licensed in this behalf by the State Government and under the direct supervision of a person holding a certificate of competency and by a person holding a permit issued or recognised by the State Government.

**3.4 Regulation 12(1):**

All electric supply lines and apparatus shall be of sufficient rating for power, insulation and estimated fault current and of sufficient mechanical strength, for the duty cycle which they may be required to perform under the environmental conditions of installation, and shall be constructed, installed, protected, worked, and maintained in such a manner as to ensure safety of human beings, animals and property.

**3.5 Regulation 12(2):**

Save as otherwise provided in these regulations, the relevant code of practice of The Bureau of Indian Standards or National Electrical Code, if any, may be followed to carry out the purposes of this regulation and in the event of any inconsistency, the provisions of these regulations shall prevail.



**3.6 Regulation12(3):**

The material and apparatus used shall conform to the relevant specifications of the Bureau of Indian Standards or International Electro-Technical Commission where such specifications have already been laid down.

**3.7 Regulation12(4):**

All electrical equipment shall be installed above the Mean Sea level (MSL) as declared by local Municipal Authorities and where such equipment is to be installed in the basement, consumer shall ensure that the design of the basement should be such that there is no seepage or leakage or logging of water in the basement.

**3.8 Regulation 36 Provisions for supply and use of electricity in multistoried building more than15 meters in height: Regulation36 (3)**

The supplier or owner of the installation shall provide at the point of commencement of supply a suitable isolating device with cut-out or breaker to operate on all phases except neutral in the 3-phase,4-wire circuit and fixed in a conspicuous position at not more than1.70meters above the ground so as to completely isolate the supply to the building in case of emergency.

**SYSTEM OF DISTRIBUTION OF WIRING**

1. The wiring shall be done from a distribution system through main & Sub-distribution boards.
2. The system design and location of DBs will be properly selected.
3. Each main and sub-distribution boards shall be controlled by an incoming circuit breaker.
4. For Non-residential buildings, as far as possible, DBs shall be separate for light and power.
5. Only MCCB / MCBs shall be used.
6. "Power" wiring shall be kept separate and distinct from light wiring from the level of circuits.
7. Conduit for light and power wiring shall be separate
8. Essential / Non-essential/ UPS distribution : Each System will have a completely independent and separate distribution system starting from the main switch board up to final wiring point for each system.
9. No switch board will have more than one source.
10. Each main distribution board / Sub-distribution board will have spare outgoing MCBs for future expansion.
11. I) All switch boards shall be installed at 1.2 to 1.4 Mt height from Finished Floor level as per the disable standards.  
 II) all 6A sockets, 16A / 6A sockets shall be installed at the following positions, unless other wire specified.
  - a) 1. NRB - 30 cm above floor level.  
 2. RB - 30 cm above floor level until unless specified by Engineer -in charge.
  - b) Kitchen - 30 Cm above platforms and away from sink / stove.
  - c) Bath room - No socket outlet is permitted for connecting a portable appliance there
  - d) Power socket may be provided above 2Mts for fixed appliance and at least 1.0 m away from the shower.
1. **Sub Main Wiring:**  
 Sub Main wiring shall mean the wiring from one main DB to other.
2. **Circuit Wiring:**  
 Circuit wiring shall mean the wiring from the DB to the 1<sup>st</sup> tapping point inside the switch board, from where point wiring starts.
3. **Service Mains:**  
 Service Mains shall mean the wiring from the supply pole / feeder pillar of SPDCL / NPDCL to main panel / main distribution board.
4. **Point Wiring:**  
 A point wiring shall include shall include necessary wiring to the following outlets from the controlling switch.
  - a) Ceiling rose (in case of ceiling / exhaust fan points, light fittings and call bells)
  - b) Ceiling rose (in case of ceiling fan)
  - c) Lamp holders
5. **Point wiring for socket outlet points:**
  - a) 10A socket on common switch board i.e including required wire leads.
  - b) 10A - Separate Socket point i.e socket on separate board including wiring is called 6A separate socket point.
  - c) 16A / 10A socket point  
 16A point wiring will be measured on linear basis from respective tapping point to the 16A socket.
6. **Twin Control Light Point:**  
 A Light point controlled by two numbers of two way switches. It is used in bed rooms, stair case points. The rates shall be 1.5 times normal light / fan point

**7. Multiple controlled call bell point wiring.**

In case of call bell points with a single call bell controlled from one outlet is same as light point.

In case of call point with single call bell controlled from more than one place, the point shall be measured in parts i.e

- a) from call bell outlet to one of the nearest ceiling rose meant for connection to bell push treated as one point.
- b) Other bell pushes shall be measured the linear length as run of mains.

**8. Wiring System:**

“FRLSH / HFFR multi strand flexible copper cable are permitted to be used”.

- a) Wiring shall be done only with minimum 1.5 sq mm flexible copper wire for light, fan, exhaust fan, call bell, 6A socket etc.
- b) Phase neutral and earth shall be same in size (i.e sqmm).
- c) In wiring, no joints in wiring will be permitted anywhere except in switch box or at point out let

**Colour Coding:**

Phase / Live - Red / yellow / Blue

Neutral - Black

Earth - Green

- d) For light / bell wiring shall be two wire system.

- e) For ceiling fan / exhaust fan / Separate socket wiring shall be three wire system.

**Circuit main for switch boards:**

Circuit main for switch board shall be 3 runs of 2.5sqmm copper cable i.e for phase, neutral and earth. That is from DB to switch board.

**Circuit Main for 16A socket:**

Circuit mains for 16A sockets shall be 3 runs 4.0sqmm from DB to 16A socket. Phase, neutral and earth conductor are equal in size (i.e sqmm).

**Circuit Main for AC socket: -**

Circuit mains for AC socket shall be 3 Runs of 6.0sqmm from DB to AC socket. Phase, neutral and earth conductor are equal in size (i.e sqmm).

Note: Power circuit rated more than 1KW, size as per calculations.

**Capacity of Circuits:**

- I Lighting circuits shall feed light / fan / call bell points. Each circuit shall not have more than 800W connected load or more than 10 points. In case of LED lights, where load per point may be less, number of points may be suitably increased.
- II Power circuit in NRB will have only one outlet per circuit.
- III Each power circuit in residential buildings can feed following outlets.
  - a) Not more than 2 Nos 16A socket outlets.
  - b) Not more than 4 Nos 6A/ 10A socket outlets.
  - c) Not more than 1 No 16A & 2Nos 6A out lets.
- IV. Load more than 1 KW shall be controlled by suitable rated MCB and cable size shall be decided as per the load calculations and length of circuit mains.
- V. Load shall be distributed equally among the three phases.

**Mounting Height of light fixture / ceiling fans:**

- I Fittings shall be installed such that the lamp is at a height of 2.4 Mtr above floor level, unless otherwise directed by the Engineer-in charge.
- II Unless otherwise specified, all ceiling fans shall be hung 2.75 Mt above the floor.
- III All DBs shall be installed 5 Ft above the FFL.

**Non- Metallic Conduit System:-**

- I Recessed conduit work is generally suitable for all applications.
  - II Surface conduit work may be adopted in places like workshops etc where recessed work may not be possible to be done.
  - III Flexible Non-Metallic conduits shall be used only at terminations, wherever specified.
- Note: Non-Metallic conduit shall not be used for the following applications.
- 1. In concealed / in accessible places of combustible constructions where ambient temperature exceeds 60°C.
  - 2. In places where ambient temperature less than 5°.
  - 3. For suspension of fixtures.
  - 4. In areas exposed to sunlight.
  - 5. Radius of conduit pipe shall not be less than 7.5 Cm.
  - 6. No length of conduit shall have more than the equivalent of 4 quarter bends from outlet to outlet.
  - 7. Conduit pipes shall be fixed by staples, base saddles, placed at not more than 50 cm apart
  - 8. Saddles / Stapler shall be fixed at a distance of 15 cm from either side of the bends / JB/ Joints.

**Trunking cable Management System: -**

- i. This system using PVC trunking shall be adopted in residential buildings or office buildings where there is a need of tidy wiring system.
- ii PVC trunking for distribution of voice, Data and power should be used for cable management and should be compatible for adopting RJ45 Data socket and power socket or other wiring accessories like switches, indicators etc.
- iii Trunking shall have insulation rating of 5 Mega ohms.  
Trunking shall have the following fire resistances characteristics
  - a. Operating temperature between - 40°C to 60°C
  - b. Glow wire test - 960°C
  - c. Oxygen index - 50 ± 5
  - d. UL 94 - VO
- iv PVC trunking shall be of good quality PVC, free from defects like deformation, unevenness, blisters, cavities etc.
- v. The thickness of the mini trunking and adoptable trunking shall be 1mm minimum.
- vi. Joints in casing and capping shall be rear fed or cut diagonally in longitudinal section, and shall be smoothed down by filling to make the joints a very close fit as far as possible and without burrs. They shall be screwed at joints with two or more screws as wood be necessary.
- vii Joints arising out of bends or diversion shall be done using standard accessories like internal angle, external angle, flat angle, flat junctions (T) and end caps.
- viii In no case the radius of curvature of the cable inside a bend shall be less than 6 times their overall diameter
- ix No Screws or nails shall be used for fixing PVC cover to the body.
- x Mini trunking shall be of such a design that it holds the wires inside the trunking body (casing) at suitable intervals, so that at the time of opening of the trunking cover (capping), the wires may remain in position in the trunking body (casing) and do not fall out.

**Current Density:**

Bus bars shall be of sufficient Cross section area so that a current density of 0.8A / sqmm (80A/Sqcm) is not exceeding at a nominal current rating for align bus bars.  
1.2A / sqmm (120A / Sqm cm) for copper bus bars

**Cross section of Bus bars:**

Cross section of neutral bus bar shall be same as that of the phase bus bar.

**Bus bar Clearances: -**

1. The Minimum clearance to be maintained for enclosed indoor air insulated bus bars for medium voltage application shall be as follows.

Between	Minimum Clearance
Phase to earth	26 mm
Phase to Phase	32 mm
2. All bus bars in a panel board shall be copper up to 500A, and aluminium for bus bars above 500A

Note 1: For strip connection from bus bars to switch gear, the above clearance don't apply.

Note 2: The overlap of the bus bars at the joints shall be not less than area of cross section of bus bars.



**INDEX FOR ELECTRICAL ITEMS OF TELANGANA BUILDINGS SoR 2022-23**

Sl. NO.	INDEX	PAGE NOS	
		FROM	TO
	<b>SECTION - 1</b>		
1.1	M.S.CONDUIT PIPES		
1.2	PVC CONDUIT PIPES		
1.3	HOT DIP GALVANISED METAL BOXES		
1.4	T.W. BOARDS		
1.5	COPPER FLEXIBLE CABLES		
1.6	SERVICE MAINS AND FLAT CABLES OF ISI FOR SUBMERSIBLE MOTORS.		
1.7	FLUSH TYPE SWITCHES AND ACCESSORIES		
1.8	MINI MODULAR SWITCHES AND ACCESSORIES		
1.9	MODULAR SWITCHES AND ACCESSORIES		
	<b>SECTION - 2</b>		
2.1	PANEL MOUNTING SWITCH DISCONNECTOR FUSE UNITS		
2.2	ON LOAD CHANGE OVER SWITCHES. (OPEN EXECUTION)		
2.3	OFF LOAD CHANGE OVER SWITCHES IN SS ENCLOSURE		
2.4	REWIRABLE / DOUBLE BREAK SWITCHES IN SS ENCLOSURE		
2.5	HRC FUSE LINKS (BOLTED TYPE)		
2.6	PORCELAIN REWIRABLE FUSE UNITS.		
2.7	VOLTAGE SURGE PROTECTORS		
2.8	PANEL MOUNTING MCCBs		
2.9	RCCBs		
2.10	RCBOs		
2.11	ACBs		
2.12	RAISING MAINS		
2.13	SANDWITCH BUSDUCT		
2.14	MCBs		
2.15	ISOLATORS		
2.16	SPN DBs		
2.17	TPN DBs		
	<b>SECTION - 3</b>		
3.1	STREET LIGHT LUMINAIRES		
3.2	POST TOP LANTERN LUMINAIRES		
3.3	ACCESSORIES FOR MV / SV / MH LUMINAIRES		
3.4	LAMPS		
3.5	AUTOMATIC STREET LIGHT CONTROL SYSTEMS		
3.6	INTERNAL LUMINAIRES		
3.7	ACCESSORIES		
3.8	FLOURSCENT TUBES / CFL LAMPS		
3.9	LED LUMINAIRES INDOOR		
3.10	LED INDOOR LAMPS		
3.11	LED STREET LIGHTS		
3.12	LED DRIVERS		
	<b>SECTION - 4</b>		
4.1	U.G. CABLES, 11 KV H. T. XLPE CABLES		
4.2	11 KV H.T. XLPE CABLES		
4.3	CABLE GLANDS		
4.4	LUGS		
4.5	HEAT SHRINKABLE LT CABLE JOINTS		
4.6	11 KV 3 CORE HT CABLE STRAIGHT THROUGH JOINTS		
4.7	HT END TERMINATION KITS		
4.8	CABLE FAULT DETECTION		
4.9	DOUBLE WALLED CORRUGATED HDPE PIPE		
4.10	CABLE TRAYS		
	<b>SECTION - 5</b>		
5.1	CEILING AND EXHAUST FANS		
5.2	WATER HEATERS		
5.3	ACCESSORIES FOR WATER HEATERS		
5.4	STARTERS FOR MOTORS		
5.5	SINGLE PHASE SUBMERSIBLE MOTOR PUMP SETS		
5.6	THREE PHASE SUBMERSIBLE MOTOR PUMP SETS.		

Sl. NO.	INDEX	PAGE NOS	
		FROM	TO
5.7	SINGLE PHASE OPEN WELL SUBMERSIBLE MOTOR PUMP SETS.		
5.8	THREE PHASE OPEN WELL SUBMERSIBLE PUMP SETS.		
5.9	SINGLE PHASE MONO BLOCK MOTOR PUMP SETS.		
5.10	CONTROL PANEL BOARD FOR MOTORS		
5.11	UPVC PIPES AND FITTINGS		
5.12	REPAIRS TO MOTORS AND REWINDING, BEARINGS		
5.13	ACCESSORIES OF MOTORS		
	<b>SECTION - 6</b>		
6.1	AIR CONDITIONERS		
6.2	INVERTER SPLIT AC UNITS (COOLING ONLY)		
6.3	INVERTER CASSETTE TYPE AC UNITS		
6.4	TOWER MODEL TYPE AC UNITS		
6.5	REPAIRS TO AIR CONDITIONERS		
6.6	EVAPORATIVE AIR COOLING SYSTEM, THERMAL INSULATION		
6.7	STABILIZERS		
	<b>SECTION - 7</b>		
7.1	SWAGED POLES		
7.2	GARDEN POSTS		
7.3	OCTOGONAL POLES		
7.4	BRACKETS		
7.5	HIGH MAST POLES		
7.6	FEEDER PILLER BOX		
7.7	ERRECTION OF HIGH MAST POLES		
7.8	CONICAL POLES		
7.9	DECORATIVE DRAGON TYPE BRACKET WITH POLE		
7.10	THERMO PLASTIC POLE BOXES		
7.11	FOUNDATION AND ERRECTION CHARGES OF POLES		
7.12	G R P POLES		
7.13	CONTROL PANEL BOARD		
7.14	METERING EQUIPMENT		
7.15	SUB STATION EQUIPMENT		
7.16	TRANSFORMERS		
7.17	L.T. LINE MATERIALS AND LIGHTENING PROTECTIVE SYSTEM		
	<b>SECTION - 8</b>		
8.1	NET WORKING		
8.2	RACEWAYS AND JUNCTION BOXES		
8.3	EPABX SYSTEM		
	<b>SECTION - 9</b>		
9.1	MISCELLANIOUS ITEMS		
9.2	LEGEND PLATES		
9.3	COPPER / ALLUMINIUM / G.I. ITEMS (PER KG)		
9.4	SMC TYPE SUPPORTS FOR THE BUSBARS		
	<b>SECTION - 10</b>		
10.1	WIRELESS FIRE ALARAM SYSTEM		
10.2	ADDRESSABLE - FIRE ALARAM SYSTEM		
10.3	CONVENTIONAL - FIRE ALARAM SYSTEM		
10.4	POWDER BASED FIRE EXTINGUISHERS		
10.5	CLEAN AGENT FIRE EXTINGUISHERS		
10.6	WATER MIST FIRE EXTINGUISHERS		
10.7	FIRE HYDRANT AND SPRINKLER SYSTEM		
	<b>SECTION - 11</b>		
11.1	GENERATORS		
	<b>SECTION - 12</b>		
12.1	U P S SYSTEMS		
12.2	UPS BATTERY RACKS AND WIRE LEADS		
	<b>SECTION - 13</b>		
13.1	PUBLIC ADDRESSING SYSTEM		
	<b>SECTION - 14</b>		
14.1	OLD MATERIAL RATES		



SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		<b>SECTION - 1</b>			
	<b>1.1</b>	<b>M.S. CONDUIT PIPES</b>			
	<b>ELEC-1.1.1</b>	Supply of ISI, ----- dia, 1.6mm thickness MS conduit pipe as per IS 9537 Part II / 1981. Makes : NAI / Bharath / GB / BEC			
1	a	20mm	1	Mtr	114.00
2	b	25mm	1	Mtr	146.00
3	c	32mm	1	Mtr	209.00
	<b>ELEC-1.1.2</b>	Supply of ISI, ----- dia, 2.0mm thickness MS conduit pipe as per IS 9537 Part II / 1981. Makes : NAI / Bharath / GB / BEC			
4	a	40mm	1	Mtr	348.00
5	b	50mm	1	Mtr	437.00
		<b>HOT DIP GALVANIZED CONDUIT PIPES</b>			
	<b>ELEC-1.1.3</b>	Supply of ISI, ----- dia, 1.6mm thickness hot dip galvanized conduit pipe as per IS 9537 Part II / 1981. Makes : NAI / Bharath / GB / BEC			
6	a	20mm	1	Mtr	184.00
7	b	25mm	1	Mtr	222.00
8	c	32mm	1	Mtr	342.00
	<b>ELEC-1.1.4</b>	Supply of ISI, ----- dia, 2.0mm thickness hot dip galvanized conduit pipe as per IS 9537 Part II / 1981. Makes : NAI / Bharath / GB / BEC			
9	a	40mm	1	Mtr	544.00
10	b	50mm	1	Mtr	633.00
	<b>ELEC-1.1.5</b>	Supply of ----- MS Junction box normal range big size long neck.			
11	a	19 / 20 mm	1	No	30.00
12	b	25 mm	1	No	35.00
13	c	32 mm	1	No	92.00
14	d	40 / 38 mm	1	No	133.00
15	e	50 mm	1	No	260.00
	<b>ELEC-1.1.6</b>	Supply of-----MS Junction deep box.			
16	a	20/25mm	1	No	83.00
17	b	32mm	1	No	146.00
18	c	40mm	1	No	177.00
19	d	50mm	1	No	215.00
	<b>ELEC-1.1.7</b>	Supply of-----MS Inspection Bends.			
20	a	19/20mm	1	No	28.00
21	b	25mm	1	No	30.00
22	c	32mm	1	No	67.00
23	d	40/38mm	1	No	104.00
24	e	50mm	1	No	222.00
	<b>ELEC-1.1.8</b>	Supply of-----MS Inspection Tee.			
25	a	19/20mm	1	No	30.00
26	b	25mm	1	No	33.00
27	c	32mm	1	No	91.00
28	d	40/38mm	1	No	110.00
29	e	50mm	1	No	228.00
	<b>ELEC-1.1.9</b>	Supply of-----MS Inspection Elbow.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
30	a	19/20mm	1	No	24.00
31	b	25mm	1	No	25.00
32	c	32mm	1	No	71.00
33	d	40/38mm	1	No	91.00
34	e	50mm	1	No	202.00
	<b>ELEC-1.1.10</b>	Supply of MS Inspection 10 Guage G.I. checknut size			
35	a	19/20mm	100	Nos	253.00
36	b	25mm	100	Nos	316.00
37	c	32mm	100	Nos	645.00
38	d	40/38mm	100	Nos	974.00
39	e	50mm	100	Nos	1531.00
	<b>ELEC-1.1.11</b>	Supply of-----Saddles with Base.			
40	a	19/20mm	100	Nos	253.00
41	b	25mm	100	Nos	266.00
42	c	32mm	100	Nos	488.00
43	d	40/38mm	100	Nos	835.00
44	e	50mm	100	Nos	1057.00
	<b>ELEC-1.1.12</b>	Supply of-----20 guage Saddles.			
45	a	19/20mm	100	Nos	139.00
46	b	25mm	100	Nos	177.00
47	c	32mm	100	Nos	291.00
48	d	40/38mm	100	Nos	386.00
49	e	50mm	100	Nos	500.00
	<b>ELEC-1.1.13</b>	Supply of-----16 Guage socket coupler.			
50	a	19/20mm	12	Nos	72.00
51	b	25mm	12	Nos	85.00
52	c	32mm	12	Nos	197.00
53	d	38mm	12	Nos	354.00
54	e	40mm	12	Nos	202.00
55	f	50mm	12	Nos	582.00
	<b>ELEC-1.1.14</b>	Supply of-----Ball Socket.			
56	a	19mm	12	Nos	304.00
57	b	25mm	12	Nos	450.00
	<b>1.2</b>	<b>PVC CONDUIT PIPES &amp; CASING AND CAPING</b>			
	<b>ELEC-1.2.1</b>	Supply of ISI -----outer dia heavy grade with IS:9537 part 3 rigid PVC pipe. Makes : Sudhakar / Finolex / Modi / VIP / Precision / Universal / Million Plast / Gold / Polycab / DEC / Beljin / Champion / Austro			
58	a	20mm	1	Mtr	31.00
59	b	25mm	1	Mtr	42.00
	<b>ELEC-1.2.2</b>	Supply of ISI ----- outer dia medium grade, with IS:9537 part 3 rigid PVC pipe.Makes : Sudhakar / Finolex / Modi / VIP / Precision / Universal / Million Plast / Gold / Polycab / DEC / Beljin / Champion / Austro			
60	a	20mm	1	Mtr	23.00
61	b	25mm	1	Mtr	30.00
62	c	32mm	1	Mtr	49.00
63	d	40mm	1	Mtr	67.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
64	e	50mm	1	Mtr	95.00
	<b>ELEC-1.2.3</b>	Supply of ----- FRPP Flexible Conduit Pipe. Make: Precision or its equivalent as approved by the department			
65	a	20mm	1	Mtr	16.00
66	b	25 mm	1	Mtr	19.00
67	c	32 mm	1	Mtr	30.00
68	d	40 mm	1	Mtr	42.00
69	e	50 mm	1	Mtr	68.00
	<b>ELEC-1.2.4</b>	Supply of ----- PVC Flexible Couplings. Make: Precision or its equivalent as approved by the department			
70	a	19/20mm	1	No	14.00
71	b	25mm	1	No	18.00
72	c	32mm	1	No	32.00
73	d	38/40mm	1	No	35.00
74	e	50mm	1	No	71.00
	<b>ELEC-1.2.5</b>	Supply of ----- width Casing and Caping. Makes : Modi with ISI or its equivalent make as approved by the department			
75	a	19/20mm	1	Mtr	30.00
76	b	25mm	1	Mtr	38.00
77	c	32mm	1	Mtr	43.00
78	d	38/40mm	1	Mtr	73.00
79	e	50mm	1	Mtr	100.00
	<b>ELEC-1.2.6</b>	Supply of----- PVC Junction Boxes Normal. Makes : Sudhakar / Finolex / Modi / VIP / Precision DEC / Beljin / Champion / Austro			
79	a	19 / 20mm	1	No	24.00
80	b	25 mm	1	No	25.00
81	c	32 mm	1	No	44.00
82	d	40 mm	1	No	47.00
83	e	50 mm	1	No	66.00
	<b>ELEC-1.2.7</b>	Supply of PVC Junction Boxes Deep size Makes : Sudhakar / Finolex / Modi / VIP / Precision / DEC / Beljin / Champion / Austro			
84	a	19 / 20mm	1	No	29.00
85	b	25 mm	1	No	32.00
86	c	32 mm	1	No	52.00
87	d	40 mm	1	No	55.00
88	e	50 mm	1	No	80.00
	<b>ELEC-1.2.8</b>	Supply of ----- dia Medium grade PVC Bends. Makes : Sudhakar / Finolex / Modi / VIP / Precision / DEC / Beljin / Champion / Austro			
89	a	19 / 20mm	1	No	7.00
90	b	25 mm	1	No	10.00
	<b>ELEC-1.2.9</b>	Supply of -----dia Heavy Grade PVC Bends.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Makes : Sudhakar / Finolex / Modi / VIP / Precision / DEC / Beljin / Champion / Austro			
91	a	32 mm	1	No	23.00
92	b	40 mm	1	No	25.00
93	c	50 mm	1	No	36.00
94	ELEC-1.2.10	Dummy Cover to PVC junction boxes	1	No	6.00
	<b>Note:</b>	If Non-ISI Pipes / Non-ISI Casing & capping are used during execution of work, for arriving the Non-ISI Pipe / Non-ISI casing & capping rates 15% may be deducted from the finished Cost data of ISI Pipe.			
	<b>1.3</b>	<b>HOT DIP GALVANIZED METAL BOXES (MODULAR)</b>			
	<b>ELEC-1.3.1</b>	Supply of ----- Module box Makes : Similar to Switches Make			
95	a	1 or 2	1	No	71.00
96	b	3	1	No	101.00
97	c	4	1	No	120.00
98	d	6	1	No	164.00
99	e	8 or 9	1	No	213.00
100	f	12	1	No	258.00
		<b>MODULAR COVER FRAMES</b>			
	<b>ELEC-1.3.2</b>	Supply of ----- Modular Cover Frame. Makes : Legrand Arteor / Schneider Zen celo / Honeywell Blenge Plus / Cabtree Amare / Logus Platina / Gold Medal GIFA / GM-Zenova/ L&T- Englaze			
101	a	1 or 2	1	No	79.00
102	b	3	1	No	97.00
103	c	4	1	No	112.00
104	d	6	1	No	164.00
105	e	8 or 9	1	No	213.00
106	f	12	1	No	263.00
	<b>ELEC-1.3.3</b>	Supply of ----- Modular Cover Frame. Makes : Legrand Myrius / GM Four Five / Million mway / Goldmedal Curve / Anchor Roma viola / Havells Fabio / Panasonic Vision / Hager Insista / Benlo Vesta / C&S Primo / CPL Vysma / Polycab Levana / Salzar / Infinity			
107	a	1 or 2	1	No	70.00
108	b	3	1	No	85.00
109	c	4	1	No	101.00
110	d	6	1	No	138.00
111	e	8 or 9	1	No	170.00
112	f	12	1	No	207.00
		<b>METALLIC BOXES (MS)</b>			
	<b>ELEC-1.3.4</b>	Supply of ----- Metal Box			
113	a	4" x 4"	1	No	59.00
114	b	4" x 7"	1	No	69.00
115	c	6" x 6"	1	No	87.00
116	d	6" x 8"	1	No	116.00
117	e	8" x 10"	1	No	206.00
118	f	10" x 12"	1	No	260.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	<b>1.4</b>	<b>WOODEN BOARDS</b>			
	<b>ELEC-1.4.1</b>	Supply of Wooden Deep Boards / Wooden Deep Boxes of following Size or its equivalent.			
119	<b>a</b>	4" x 4"	1	No	12.00
120	<b>b</b>	4" x 7"	1	No	20.00
121	<b>c</b>	6" x 6"	1	No	24.00
122	<b>d</b>	6" x 8"	1	No	34.00
123	<b>e</b>	8" x 10"	1	No	53.00
124	<b>f</b>	10" x 12"	1	No	81.00
125	<b>g</b>	12" x 15"	1	No	122.00
	<b>ELEC-1.4.2</b>	Supply of Decolam Board of Size or its equivalent.			
126	<b>a</b>	4" x 4"	1	No	16.00
127	<b>b</b>	4" x 7"	1	No	27.00
128	<b>c</b>	6" x 6"	1	No	37.00
129	<b>d</b>	6" x 8"	1	No	48.00
130	<b>e</b>	8" x 10"	1	No	81.00
131	<b>f</b>	10" x 12"	1	No	122.00
132	<b>g</b>	12" x 15"	1	No	182.00
	<b>ELEC-1.4.3</b>	Supply of Peeta Board of Size ----- or its equivalent.			
133	<b>a</b>	9" x 14"	1	No	60.00
134	<b>b</b>	12" x 10"	1	No	62.00
135	<b>c</b>	15" x 20"	1	No	210.00
136	<b>d</b>	18" x 24"	1	No	303.00
137	<b>e</b>	18" x 30"	1	No	380.00
		<b>SCREWS</b>			
	<b>ELEC-1.4.4</b>	Supply of No.8 Screws of size-----			
138	<b>a</b>	12mm.	100	Nos	78.00
139	<b>b</b>	25mm.	100	Nos	97.00
140	<b>c</b>	30mm.	100	Nos	119.00
141	<b>d</b>	35/38mm.	100	Nos	128.00
142	<b>e</b>	50mm.	100	Nos	146.00
143	<b>f</b>	63/75mm.	100	Nos	178.00
	<b>1.5</b>	<b>COPPER FLEXIBLE CABLES (AS PER IS:694)</b>			
	<b>ELEC-1.5.1</b>	Supply of -----FRLSH / HFFR PVC insulated 1100V grade as per IS:694/1990, IS 17048 specification for Copper cable. Makes : Finolex / RR kabel / Havells / Polycab / Beljin (HFFR) / Ollvin(HFFR) / Finecab Gold (HFFR) / GM(HFFR) / Gold Medal(HFFR) / Million (HFFR) / KEI (HFFR) / V-Guard (HFFR). / DEC (HFFR) / Bonton (HFFR) and Avocab (HFFR) / Fortune Arrt (HFFR) / SPM (HFFR) / Sudhakar (HFFR) / Nakoda (HFFR) / HPL (HFFR) / GLOSTER (HFFR)			
144	<b>a</b>	1.5 Sqmm	100	Mtrs	2187.00
145	<b>b</b>	2.5 Sqmm	100	Mtrs	3535.00
146	<b>c</b>	4.0 Sqmm	100	Mtrs	5396.00
147	<b>d</b>	6.0 Sqmm	100	Mtrs	7970.00
148	<b>e</b>	10.0 Sqmm	100	Mtrs	13184.00
149	<b>f</b>	16.0 Sqmm	100	Mtrs	20825.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	<b>ELEC-1.5.2</b>	Supply of -----FRLSH / HFFR PVC insulated 1100V grade as per IS:694/1990 specification for Copper cable. Makes : RPG / Anchor / Power Flex / Sun Cab / Delton / Benlo / Gloster / Gemini / Nandicab / Savera Champion / Rhino / Unistar / Windsor / Payal / Pawancab			
150	<b>a</b>	1.5 Sqmm	100	Mtrs	1912.00
151	<b>b</b>	2.5 Sqmm	100	Mtrs	3100.00
152	<b>c</b>	4.0 Sqmm	100	Mtrs	4779.00
153	<b>d</b>	6.0 Sqmm	100	Mtrs	7131.00
154	<b>e</b>	10.0 Sqmm)	100	Mtrs	11611.00
155	<b>f</b>	16.0 Sqmm	100	Mtrs	19326.00
	<b>ELEC-1.5.3</b>	Supply of -----FRLS / HFFR PVC insulated 1100V grade as per IS:694/1990 specification for Copper cable. Makes : Khanthi / Vimal / Stanjo / Rajnigandha / Orbit			
156	<b>a</b>	1.5 Sqmm	100	Mtrs	1559.00
157	<b>b</b>	2.5 Sqmm	100	Mtrs	2506.00
158	<b>c</b>	4.0 Sqmm	100	Mtrs	3758.00
159	<b>d</b>	6.0 Sqmm	100	Mtrs	5645.00
160	<b>e</b>	10.0 Sqmm	100	Mtrs	9576.00
161	<b>f</b>	16.0 Sqmm	100	Mtrs	14688.00
162	<b>ELEC-1.5.5</b>	Supply of 23 / 0060 , 3 core (0.15 mm dia of each lead) twisted / flat heavy Copper wire. Makes : Finolex / RR Kabel / Havells / Polycab / GM / Million / V-Guard / Gold Medal / Kundancab / HPL / RPG / Nandicab / Nakoda / Payal / Finecab / Gemini / Vimal / Suncab	100	Mtrs	1200.00
		<b>NOTE : If FR Wires are used instead of FRLSH / HFFR during execution of work, for arriving the FR Flexible wires rates 20% may be deducted from the finished Cost data of Light / Fan / Separate Plug Points and Run of mains.</b>			
		<b>SHEATHED FLEXIBLE COPPER CABLES</b>			
	<b>ELEC-1.5.6</b>	Supply of ..... PVC / XLPE Insulated Sheathed Multi Core Bright Annealed Bare Copper Conductor Heavy Duty Industrial Cables for Voltage Grade upto 1100 Volts as per <b>IS: 694:1990</b> including all transportation charges etc complete. Makes : Finolex / RR kabel / Havells / Polycab / RPG / KEI / Gloster / V-Guard / Finecab / SPM / Gemini / Unistar / Windsor / Payal / Fortune Arrt / Avocab / Pawancab / Nakoda / HPL / Sudhakar / Bonton / Ollvin			
163	<b>a</b>	10 Sqmm Single Core	1	RM	128.00
164	<b>b</b>	16 Sqmm Single Core	1	RM	203.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
165	c	25 Sqmm Single Core	1	RM	317.00
166	d	35 Sqmm Single Core	1	RM	446.00
167	e	50 Sqmm Single Core	1	RM	634.00
168	f	70 Sqmm Single Core	1	RM	864.00
169	g	1.5 Sqmm 2 core	1	RM	56.00
170	h	2.5 Sqmm 2 Core	1	RM	88.00
171	i	4.0 Sqmm 2 Core	1	RM	128.00
172	j	6.0 Sqmm 2 Core	1	RM	184.00
173	k	10.0 Sqmm 2 Core	1	RM	317.00
174	l	16.0 Sqmm 2 Core	1	RM	389.00
175	m	1.5 Sqmm 3 core	1	RM	75.00
176	n	2.5 Sqmm 3 Core	1	RM	129.00
177	o	4.0 Sqmm 3 Core	1	RM	176.00
178	p	6.0 Sqmm 3 Core	1	RM	255.00
179	q	10.0 Sqmm 3 Core	1	RM	346.00
180	r	16.0 Sqmm 3 Core	1	RM	547.00
181	s	1.5 Sqmm 4 Core	1	RM	99.00
182	t	2.5 Sqmm 4 Core	1	RM	158.00
183	u	4.0 Sqmm 4 Core	1	RM	239.00
184	v	6.0 Sqmm 4 Core	1	RM	355.00
185	w	10.0 Sqmm 4 Core	1	RM	634.00
186	x	16.0 Sqmm 4 Core	1	RM	806.00
187	y	25.0 Sqmm 4 Core	1	RM	1325.00
188	z	35.0 Sqmm 4 Core	1	RM	1987.00
189	aa	50.0 Sqmm 4 Core	1	RM	2621.00
190	ab	70.0 Sqmm 4 Core	1	RM	3744.00
	<b>ELEC-1.5.7</b>	Supply of ..... PVC / XLPE Insulated Sheathed Multi Core Bright Annealed Bare Copper Conductor Heavy Duty Industrial Cables for Voltage Grade upto 1100 Volts as per IS: 694:1990 including all transportation charges etc complete.Makes : Sun cab / Powerflex / Delton / Airson / Savera Champion / Rhino			
191	a	10 Sqmm Single Core	1	RM	116.00
192	b	16 Sqmm Single Core	1	RM	183.00
193	c	25 Sqmm Single Core	1	RM	288.00
194	d	35 Sqmm Single Core	1	RM	418.00
195	e	50 Sqmm Single Core	1	RM	576.00
196	f	70 Sqmm Single Core	1	RM	821.00
197	g	1.5 Sqmm 2 core	1	RM	54.00
198	h	2.5 Sqmm 2 Core	1	RM	80.00
199	i	4.0 Sqmm 2 Core	1	RM	119.00
200	j	6.0 Sqmm 2 Core	1	RM	171.00
201	k	10.0 Sqmm 2 Core	1	RM	288.00
202	l	16.0 Sqmm 2 Core	1	RM	360.00
203	m	1.5 Sqmm 3 core	1	RM	73.00
204	n	2.5 Sqmm 3 Core	1	RM	122.00
205	o	4.0 Sqmm 3 Core	1	RM	164.00
206	p	6.0 Sqmm 3 Core	1	RM	242.00
207	q	10.0 Sqmm 3 Core	1	RM	324.00
208	r	16.0 Sqmm 3 Core	1	RM	504.00
209	s	1.5 Sqmm 4 Core	1	RM	92.00
210	t	2.5 Sqmm 4 Core	1	RM	139.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
211	u	4.0 Sqmm 4 Core	1	RM	221.00
212	v	6.0 Sqmm 4 Core	1	RM	337.00
213	w	10.0 Sqmm 4 Core	1	RM	590.00
214	x	16.0 Sqmm 4 Core	1	RM	763.00
215	y	25.0 Sqmm 4 Core	1	RM	1253.00
216	z	35.0 Sqmm 4 Core	1	RM	1872.00
217	aa	50.0 Sqmm 4 Core	1	RM	2448.00
218	ab	70.0 Sqmm 4 Core	1	RM	3456.00
	<b>ELEC-1.5.8</b>	Supply of ..... PVC / XLPE Insulated, Flexible Armouring Flexible Copper cable as per <b>IS 7098 / Part-I / 1988</b> including all transportation charges etc complete. Makes : Finolex / RR kabel / Havells / Polycab / RPG / KEI / Gloster / V-Guard / Finecab / SPM / Gemini / Unistar / Windsor / Payal / Fortune Arrt / Avocab / Pawancab / Nakoda / HPL / Sudhakar / Bonton / Ollvin			
219	a	1.5 Sqmm 2 Core	1	RM	85.00
220	b	2.5 Sqmm 2 Core	1	RM	104.00
221	c	4.0 Sqmm 2 Core	1	RM	164.00
222	d	6.0 Sqmm 2 Core	1	RM	214.00
223	e	10.0 Sqmm 2 Core	1	RM	353.00
224	f	16.0 Sqmm 2 Core	1	RM	482.00
225	g	1.5 Sqmm 3 Core	1	RM	108.00
226	h	2.5 Sqmm 3 Core	1	RM	141.00
227	i	4.0 Sqmm 3 Core	1	RM	183.00
228	j	6.0 Sqmm 3 Core	1	RM	283.00
229	k	10.0 Sqmm 3 Core	1	RM	367.00
230	l	16.0 Sqmm 3 Core	1	RM	518.00
231	m	1.5 Sqmm 4 Core	1	RM	135.00
232	n	2.5 Sqmm 4 Core	1	RM	178.00
233	o	4.0 Sqmm 4 Core	1	RM	265.00
234	p	6.0 Sqmm 4 Core	1	RM	361.00
235	q	10.0 Sqmm 4 Core	1	RM	655.00
236	r	16.0 Sqmm 4 Core	1	RM	1109.00
237	s	25.0 Sqmm 4 Core	1	RM	1714.00
238	t	35.0 Sqmm 4 Core	1	RM	2347.00
239	u	50.0 Sqmm 4 Core	1	RM	3326.00
240	v	70.0 Sqmm 4 Core	1	RM	5112.00
241	w	2.5 Sqmm 8 Core	1	RM	312.00
242	x	2.5 Sqmm 16 Core	1	RM	416.00
243	y	1.5 Sqmm 10 Core	1	RM	263.00
244	z	1.5 Sqmm 16 Core	1	RM	386.00
	<b>ELEC-1.5.9</b>	Supply of ..... PVC / XLPE Insulated, Flexible Armouring Flexible Copper cable as per <b>IS 7098 / Part-I / 1988</b> including all transportation charges etc complete. Makes : Delton / Airson / Rhino			
245	a	1.5 Sqmm 2 Core	1	RM	73.00
246	b	2.5 Sqmm 2 Core	1	RM	98.00
247	c	4.0 Sqmm 2 Core	1	RM	150.00
248	d	6.0 Sqmm 2 Core	1	RM	196.00



SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
249	e	10.0 Sqmm 2 Core	1	RM	324.00
250	f	16.0 Sqmm 2 Core	1	RM	454.00
251	g	1.5 Sqmm 3 Core	1	RM	98.00
252	h	2.5 Sqmm 3 Core	1	RM	129.00
253	i	4.0 Sqmm 3 Core	1	RM	170.00
254	j	6.0 Sqmm 3 Core	1	RM	255.00
255	k	10.0 Sqmm 3 Core	1	RM	324.00
256	l	16.0 Sqmm 3 Core	1	RM	468.00
257	m	1.5 Sqmm 4 Core	1	RM	122.00
258	n	2.5 Sqmm 4 Core	1	RM	165.00
259	o	4.0 Sqmm 4 Core	1	RM	233.00
260	p	6.0 Sqmm 4 Core	1	RM	337.00
261	q	10.0 Sqmm 4 Core	1	RM	612.00
262	r	16.0 Sqmm 4 Core	1	RM	1008.00
263	s	25.0 Sqmm 4 Core	1	RM	1368.00
264	t	35.0 Sqmm 4 Core	1	RM	2016.00
265	u	50.0 Sqmm 4 Core	1	RM	2880.00
266	v	70.0 Sqmm 4 Core	1	RM	4320.00
267	w	2.5 Sqmm 8 Core	1	RM	269.00
268	x	2.5 Sqmm 16 Core	1	RM	367.00
269	y	1.5 Sqmm 10 Core	1	RM	245.00
270	z	1.5 Sqmm 16 Core	1	RM	367.00
	1.6	<b>SERVICE MAINS AND FLAT CABLE OF ISI FOR SUBMERSIBLE MOTORS.</b>			
	ELEC-1.6.1	Supply of ----- WPSC (Weather Proof Single Core) ISI mark Alluminium Wire. Makes : Polycab / GM / Million / V-Guard / Gold Medal / Kundancab / HPL / RPG / Nandicab / Nakoda / Payal / Finecab / Gemini / Vimal / Suncab / Stanjo / Rajnigandha / Orbit / Airson / Beljin / Savera Champion / Rhino			
271	a	2.5 Sqmm	100	Mtrs	869.00
272	b	6.0 Sqmm	100	Mtrs	1764.00
273	c	10.0 Sqmm	100	Mtrs	1903.00
274	d	16 Sqmm	100	Mtrs	3175.00
	ELEC-1.6.2	Supply of ----- WPTC (Weather Proof Twin Core) ISI mark Alluminium Wire. Makes : Polycab / GM / Million / V-Guard / Gold Medal / Kundancab / HPL / RPG / Nandicab / Nakoda / Payal / Finecab / Gemini / Vimal / Suncab / Stanjo / Rajnigandha / Orbit / Airson / Beljin / Savera Champion. / Rhino			
275	a	6 Sqmm	100	Mtrs	3553.00
276	b	10 Sqmm	100	Mtrs	4284.00
	ELEC-1.6.3	Supply of 3 Core ----- Flat Copper cable of ISI for Submersible Motors. Makes : Finolex / RR Kabel / Havells / KEI / L&T			
277	a	1.5 Sqmm	100	Mtrs	7292.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
278	b	2.5 Sqmm	100	Mtrs	11248.00
279	c	4.0 Sqmm	100	Mtrs	16810.00
280	d	6.0 Sqmm	100	Mtrs	24720.00
281	e	10.0 Sqmm	100	Mtrs	40046.00
	<b>ELEC-1.6.4</b>	Supply of 3 Core ----- Flat Copper cable of ISI for Submersible Motors. Makes : Polycab / GM / Million / V-Guard / Gold Medal / Kundancab / HPL / RPG / Nandicab / Payal / Finecab / Gemini / Vimal / Suncab / Delton / Ollvin / Airson / Stanjo/ Nakoda / Beljin / Savera Champion / Rhino			
282	a	1.5 Sqmm	100	Mtrs	6922.00
283	b	2.5 Sqmm	100	Mtrs	10630.00
284	c	4.0 Sqmm	100	Mtrs	15944.00
285	d	6.0 Sqmm	100	Mtrs	23484.00
286	e	10.0 Sqmm	100	Mtrs	38069.00
	<b>1.7</b>	<b>FLUSH TYPE SWITCHES AND ACCESSORIES</b>			
	<b>ELEC-1.7.1</b>	Supply of ----- Makes : GM G Home / Gold Medal Olive / Million Zoom / Anchor Penta Cherry / Great white Omega / HPL / Vimal / CPL.			
287	a	6A 1 Way flush type Swich.	1	No	20.00
288	b	6A 2 Way flush type Swich.	1	No	23.00
289	c	6A 2 pin flush type Socket.	1	No	22.00
290	d	6A 3/2 pin flush type Socket with shutter.	1	No	29.00
291	e	6A flush type Neon Indicator.	1	No	22.00
292	f	6A Triangle Plug Top .	1	No	40.00
293	g	6A 1 Way flush type Bed Swich / Bell Push.	1	No	23.00
294	h	16A flush type Swich.	1	No	72.00
295	i	16A flush type Socket with shutter.	1	No	72.00
296	j	16A flush type Switch Socket combined (2 in one).	1	No	112.00
297	k	16A Triangle Plug Top.	1	No	56.00
298	l	Stepped type Electronic Regulator.	1	No	242.00
299	m	3 Plate Jumbo Ceiling Rose.	1	No	23.00
300	n	BH / SBH.	1	No	22.00
301	o	Pendent Holder / Adopter.	1	No	20.00
302	p	Telephone Jack with Connector	1	No	53.00
303	q	TV Antenna Outlet.	1	No	29.00
304	r	15A/10A Flush type Fuse.	1	No	36.00
305	s	32A DP Flush type	1	No	118.00
	<b>ELEC-1.7.2</b>	Supply of ----- Makes : GM / Million / Gold Medal / Anchor / Great white.			
306	a	Buzzer.	1	No	55.00
307	b	Ding Dong Bell.	1	No	116.00
308	c	Electronic Musical Bell.	1	No	266.00
309	d	Remote Bell.	1	No	641.00
310	e	MC Holder.	1	No	24.00
311	f	Spike Guard with 1 No Switch and 4 Nos Sockets.	1	No	545.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
312	g	Spike Guard with 4 No Switches and 4 Nos Sockets.	1	No	811.00
	1.8	<b>MINI MODULAR SWITCHES AND ACCESSORIES</b>			
	ELEC-1.8.1	Supply of ----- Makes : GM / Anchor / Million / Vimal / Gold Medal / CPL / Great White.			
313	a	6A 1 Way Mini Modular Switch with Cover Frame.	1	No	25.00
314	b	6A 2 Way Mini Modular Switch with Cover Frame.	1	No	29.00
315	c	6A 2 Pin Mini Modular Socket with Cover Frame.	1	No	26.00
316	d	6A 3/2 Pin Mini Modular Socket with Cover Frame.	1	No	39.00
317	e	6A Mini Modular Neon Indicator with Cover Frame.	1	No	31.00
318	f	6A Mini Modular Bed Switch / Bell Push with Cover Frame.	1	No	29.00
319	g	6A 1 Way Mini Modular Switch with Neon Indicator with Cover Frame.	1	No	31.00
320	h	6A Mini Modular Bell Push with Neon Indicator with Cover Frame.	1	No	43.00
321	i	16A Mini Modular Switch with Cover Frame.	1	No	87.00
322	j	16A (2 in one) Mini Modular Switch & Socket combined with Cover Frame.	1	No	119.00
323	k	16A Triangle Top with Cover Frame.	1	No	53.00
324	l	Mini Modular Stepped type Electronic Regulator with Cover Frame.	1	No	261.00
325	m	Mini Modular Telephone Jack with Connector with Cover Frame.	1	No	58.00
326	n	Mini Modular TV Antenna Outlet with Cover Frame.	1	No	39.00
327	o	16A/10A Mini Modular Flush Fuse with Cover Frame.	1	No	44.00
	1.9	<b>MODULAR SWITCHES AND ACCESSORIES</b>			
	ELEC-1.9.1	Supply of ----- Makes : Legrand Arteur / Schneider Zen celo / Honeywell Blenge Plus / Cabtree Amare / Logus Platina / Gold Medal GIFA / GM-Zenova/ L&T- Englaze			
328	a	6 / 10A 1 Way 1 Module Modular Switch	1	No	116.00
329	b	6 / 10A 2 Way 1 Module Modular Switch.	1	No	128.00
330	c	10A 2 Pin 2 Module Modular Socket.	1	No	117.00
331	d	10A 3/2 Pin 2 Module Modular Socket with shutter.	1	No	178.00
332	e	10A 1 Module Modular Switch with Neon Indicator.	1	No	144.00
333	f	10A Modular Bell Push with Neon Indicator.	1	No	173.00
334	g	16A / 10A Modular Flush Fuse with Neon Indicator.	1	No	156.00
335	h	16A / 20A 1 Way 1 Module Modular Switch.	1	No	156.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
336	i	16A / 20A 2 Way 1 Module Modular Switch.	1	No	175.00
337	j	20A 1 Way 1 Module Modular Switch with Indicator.	1	No	175.00
338	k	20A 2 Module Modular Socket with shutter.	1	No	238.00
339	l	16A / 6A 1 way 2 Module Combi Socket Modular Socket with shutter.	1	No	248.00
340	m	16A Triangle Top.	1	No	198.00
341	n	2 Module Modular type Electronic Fan Regulator.	1	No	592.00
342	o	Modular socket type Telephone jack with Connector.	1	No	125.00
343	p	Modular co-Axial socket type TV Antenna outlet.	1	No	125.00
344	q	25 to 32A Modular type Motor Starter Switch	1	No	633.00
345	r	Modular type buzzer	1	No	116.00
	<b>ELEC-1.9.2</b>	Supply of ----- Makes : Legrand Myrius / GM Four Five / Million mway / Goldmedal Curve / Anchor Roma viola / Havells Fabio / Panasonic Vision / Hager Insista / Benlo Vesta / C&S Primo / CPL Vysma / Polycab Levana / Salzar / Infinity			
346	a	6 / 10A 1 Way 1 Module Modular Switch	1	No	79.00
347	b	6 / 10A 2 Way 1 Module Modular Switch.	1	No	93.00
348	c	10A 2 Pin 2 Module Modular Socket.	1	No	81.00
349	d	10A 3/2 Pin 2 Module Modular Socket with shutter.	1	No	118.00
350	e	10A 1 Module Modular Switch with Neon Indicator.	1	No	93.00
351	f	10A Modular Bell Push with Neon Indicator.	1	No	115.00
352	g	16A / 10A Modular Flush Fuse with Neon Indicator.	1	No	106.00
353	h	16A / 20A 1 Way 1 Module Modular Switch.	1	No	106.00
354	i	16A / 20A 2 Way 1 Module Modular Switch.	1	No	122.00
355	j	20A 1 Way 1 Module Modular Switch with Indicator.	1	No	116.00
356	k	20A 2 Module Modular Socket with shutter.	1	No	173.00
357	l	16A / 6A 1 way 2 Module Combi Socket Modular Socket with shutter.	1	No	173.00
358	m	16A Triangle Top.	1	No	83.00
359	n	2 Module Modular type Electronic Fan Regulator.	1	No	480.00
360	o	Modular socket type Telephone jack with Connector.	1	No	83.00
361	p	Modular co-Axial socket type TV Antenna outlet.	1	No	81.00
362	q	25 to 32A Modular type Motor Starter Switch	1	No	567.00
363	r	Modular type buzzer	1	No	114.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		<b>SECTION - 2</b>			
	<b>2.1</b>	<b>PANEL MOUNTING SWITCH DISCONNECTOR FUSE UNITS (SDFU) AS PER IS: 13947</b>			
	<b>ELEC-2.1.1</b>	Supply of ----- TPN Switch Disconnecter Fuse Unit Cubical type without fuses.Makes : L&T / SCHNEIDER / C&S / ABB / SIEMENS			
364	<b>a</b>	32A	1	No	1300.00
365	<b>b</b>	63A	1	No	2220.00
366	<b>c</b>	125A	1	No	5310.00
367	<b>d</b>	200A	1	No	6950.00
368	<b>e</b>	250A	1	No	8320.00
369	<b>f</b>	400A	1	No	12800.00
370	<b>g</b>	630A	1	No	21700.00
	<b>ELEC-2.1.2</b>	Supply of ----- TPN Switch Disconnecter Fuse Unit Cubical type without fuses. Makes : Havells / HPL / Indo Asian / Standard / Vimal.			
371	<b>a</b>	32A	1	No	1100.00
372	<b>b</b>	63A	1	No	1600.00
373	<b>c</b>	125A	1	No	3700.00
374	<b>d</b>	200A	1	No	5510.00
375	<b>e</b>	250A	1	No	6210.00
376	<b>f</b>	400A	1	No	9490.00
377	<b>g</b>	630A	1	No	15750.00
	<b>2.2</b>	<b>ON LOAD CHANGEOVER SWITCHES (OPEN EXECUTION) AS PER IS:13947</b>			
	<b>ELEC-2.2.1</b>	Supply of-----4 Pole Change Over Switch on Load with open Execution. Makes : Socomec / L & T			
378	<b>a</b>	63A	1	No	5718.00
379	<b>b</b>	125A	1	No	10739.00
380	<b>c</b>	200A	1	No	14366.00
381	<b>d</b>	250A	1	No	20363.00
382	<b>e</b>	400A	1	No	31102.00
383	<b>f</b>	630A	1	No	36959.00
	<b>ELEC-2.2.2</b>	Supply of-----4 Pole Change Over Switch on Load with open Execution. Makes : ABB / Siemens / Havells / Indo Asian / HPL / Standard / C&S / Benlo.			
384	<b>a</b>	32A	1	No	1969.00
385	<b>b</b>	63A	1	No	5160.00
386	<b>c</b>	125A	1	No	10042.00
387	<b>d</b>	200A	1	No	13249.00
388	<b>e</b>	250A	1	No	18828.00
389	<b>f</b>	400A	1	No	29288.00
390	<b>g</b>	630A	1	No	35006.00
	<b>2.3</b>	<b>OFF LOAD CHANGE OVER SWITCHES IN SS ENCLOSURE AS PER IS:13947</b>			
	<b>ELEC-2.3.1</b>	Supply of ----- Off load Changeover Switch in sheet steel enclosure. Makes : HPL / Havells / Indo Asian /			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Sputnik / C&S			
391	a	32A 240V DP	1	No	1302.00
392	b	63A 415V FP	1	No	4515.00
393	c	100A 415V FP	1	No	6930.00
	<b>ELEC-2.3.2</b>	Supply of ----- Off load Changeover Switch in sheet steel enclosure. Makes : Million / Benlo / Gold Medal / Star/ Standard.			
394	a	32A 240V DP	1	No	746.00
395	b	63A 415V FP	1	No	2625.00
396	c	100A 415V FP	1	No	4935.00
	<b>2.4</b>	<b>REWIRABLE / DOUBLE BREAK SWITCHES IN SS ENCLOSURE AS PER IS:13947</b>			
	<b>ELEC-2.4.1</b>	Supply of ----- Rewirable Fuse Switch in SS enclosure. Makes : HPL / Havells / Indo Asian / C&S			
397	a	32A 240V SPN	1	No	924.00
398	b	32A 415V TPN	1	No	1430.00
399	c	63A 415V TPN	1	No	3245.00
400	d	100A 415V TPN	1	No	6050.00
	<b>ELEC-2.4.2</b>	Supply of ----- Double Break Switch in SS enclosure without fuses. Makes : HPL / Havells / Indo Asian / C&S			
401	a	100A 415V TPN	1	No	6050.00
402	b	200A 415V TPN	1	No	8910.00
	<b>ELEC-2.4.3</b>	Supply of ----- Rewirable Fuse Switch in SS enclosure. Makes : GM / Million / Sputnik / Sigma / Gold Medal / Benlo / Star.			
403	a	32A 240V SPN	1	No	616.00
404	b	32A 415V TPN	1	No	1012.00
405	c	63A 415V TPN	1	No	2310.00
406	d	100A 415V TPN	1	No	4510.00
	<b>ELEC-2.4.4</b>	Supply of ----- Double Break Switch in SS enclosure without fuses. Makes : GM / Million / Sputnik / Sigma / Gold Medal / Benlo / Star.			
407	a	100A 415V TPN	1	No	4631.00
408	b	200A 415V TPN	1	No	7590.00
	<b>2.5</b>	<b>HRC FUSE LINKS (BOLTED TYPE)</b>			
	<b>ELEC-2.5.1</b>	Supply of ----- HRC Fuse Links. Makes : L & T / C & S / Standard / HPL / Havells / Siemens / Indo Asian.			
409	a	Up to 32A	1	No	52.00
410	b	32A to 63A	1	No	79.00
411	c	125A to 200A	1	No	259.00
412	d	250A to 350A	1	No	374.00
413	e	400A	1	No	726.00
414	f	630A	1	No	1463.00
	<b>2.6</b>	<b>PORCELAIN REWIRABLE FUSE UNITS.</b>			
	<b>ELEC-2.6.1</b>	Supply of ----- Porcelain Rewirable Fuse Units.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Makes : C&S / GM / Sputnik / Kundancab / Million / Gold Medal / Vimal / Star / Benlo.			
415	a	32A 240V	1	No	101.00
416	b	32A 415V	1	No	132.00
417	c	63A 415V	1	No	270.00
418	d	100A 415V	1	No	506.00
	<b>ELEC-2.6.2</b>	Supply of ----- Porcelain Rewirable Fuse Units with extension strip.Makes : C&S / GM / Sputnik / Kundancab / Million / Gold Medal / Vimal / Star / Benlo.			
419	a	200A 415V	1	No	924.00
420	b	300A 415V	1	No	1221.00
	<b>2.7</b>	<b>VOLTAGE SURGE PROTECTORS</b>			
	<b>ELEC-2.7.1</b>	Supply of ----- Voltage Surge Protector. Make:Legrand / Siemens / Hager / L&T.			
421	a	2 Pole 2 Module 40 KA	1	No	9235.00
422	b	4 Pole 4 Module 40 KA	1	No	17204.00
423	c	2 Pole 2 Module 15/16 KA	1	No	7337.00
424	d	4 Pole 4 Module 15/16 KA	1	No	13789.00
	<b>2.8</b>	<b>PANEL MOUNTING MCCBs</b>			
	<b>ELEC-2.8.1</b>	Supply of ----- Adjustable, Confirms to IS/IEC 60947-2 having Breaking Capacity - ----KA with thermal magnetic release Panel Mounted. Makes : L&T- D sine / Schneider-NS NSX/Legrand -DP X3/ Siemens-3V / Hager-h3/C&S -Winbreak.			
425	a	63A 3 Pole MCCB, 16KA	1	No	8699.00
426	b	63A 4 Pole MCCB, 16KA	1	No	9781.00
427	c	125A 3 Pole MCCB, 25KA	1	No	10325.00
428	d	125A 4 Pole MCCB, 25KA	1	No	12486.00
429	e	160A 3 Pole MCCB, 25KA	1	No	13694.00
430	f	160A 4 Pole MCCB, 25KA	1	No	17881.00
431	g	250A 3 Pole MCCB, 35/36KA	1	No	23000.00
432	h	250A 4 Pole MCCB, 35/36KA	1	No	29878.00
433	i	400A 3 Pole MCCB, 35/36KA	1	No	31129.00
434	j	400A 4 Pole MCCB, 35/36KA	1	No	37611.00
435	k	630A 3 Pole MCCB, 50KA	1	No	44841.00
436	l	630A 4 Pole MCCB, 50KA	1	No	55502.00
437	m	800A 3 Pole MCCB, 50KA	1	No	79957.00
438	n	800A 4 Pole MCCB, 50KA	1	No	88596.00
	<b>ELEC-2.8.2</b>	Supply of -----Adjustable, Confirms to IS/IEC 60947-2 having Breaking Capacity -----KA with thermal magnetic release Panel Mounted. Makes : Havells / HPL / Indo Asian / Benlo / Delton / Standard.			
439	a	63A 3 Pole MCCB, 16KA	1	No	6071.00
440	b	63A 4 Pole MCCB, 16KA	1	No	8137.00
441	c	125A 3 Pole MCCB, 25KA	1	No	7938.00
442	d	125A 4 Pole MCCB, 25KA	1	No	10434.00
443	e	160A 3 Pole MCCB, 25KA	1	No	10764.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
444	f	160A 4 Pole MCCB, 25KA	1	No	14498.00
445	g	250A 3 Pole MCCB, 35/36KA	1	No	21275.00
446	h	250A 4 Pole MCCB, 35/36KA	1	No	25849.00
447	i	400A 3 Pole MCCB, 35/36KA	1	No	27270.00
448	j	400A 4 Pole MCCB, 35/36KA	1	No	32852.00
449	k	630A 3 Pole MCCB, 50KA	1	No	37489.00
450	l	630A 4 Pole MCCB, 50KA	1	No	45397.00
451	m	800A 3 Pole MCCB, 50KA	1	No	65898.00
452	n	800A 4 Pole MCCB, 50KA	1	No	73514.00
	<b>2.9</b>	<b>RCCBs CONFIRMS TO IEC : 61008 AND IS : 12640</b>			
	<b>ELEC-2.9.1</b>	Supply of ----- Makes : Legrand-DX3 / Schneider-Acti9 / Siemens / L&T Exora.			
453	a	40A 2 Pole RCCB 30mA.	1	No	3942.00
454	b	40A 2 Pole RCCB 100mA.	1	No	4238.00
455	c	40A 4 Pole RCCB 30mA.	1	No	4341.00
456	d	40A 4 Pole RCCB 100mA.	1	No	4579.00
457	e	63A 2 Pole RCCB 30mA.	1	No	4821.00
458	f	63A 2 Pole RCCB 100mA.	1	No	4865.00
459	g	63A 4 Pole RCCB 30mA.	1	No	5135.00
460	h	63A 4 Pole RCCB 100mA.	1	No	5841.00
	<b>ELEC-2.9.2</b>	Supply of Makes : ABB / Havells / HPL (Techno) / Hager / Indo Asian (Gold Plus) / C&S / Honeywell sentry / Delton / Benlo.			
461	a	40A 2 Pole RCCB 30mA.	1	No	3146.00
462	b	40A 2 Pole RCCB 100mA.	1	No	3096.00
463	c	40A 4 Pole RCCB 30mA.	1	No	3867.00
464	d	40A 4 Pole RCCB 100mA.	1	No	3739.00
465	e	63A 2 Pole RCCB 30mA.	1	No	4240.00
466	f	63A 2 Pole RCCB 100mA.	1	No	4062.00
467	g	63A 4 Pole RCCB 30mA.	1	No	4411.00
468	h	63A 4 Pole RCCB 100mA.	1	No	4304.00
	<b>2.10</b>	<b>RCBOs CONFIRMS TO IEC:61008 AND IS:12640</b>			
	<b>ELEC-2.10.1</b>	Supply of -----Makes : Legrand-DX3 / Schneider-Acti9 / Siemens / L&T Exora / Cabtree.			
469	a	40A 2 Pole RCBO 30mA.	1	No	6347.00
470	b	40A 2 Pole RCBO 100mA.	1	No	6932.00
471	c	40A 4 Pole RCBO 30mA.	1	No	7212.00
472	d	40A 4 Pole RCBO 100mA.	1	No	7630.00
473	e	63A 2 Pole RCBO 30mA.	1	No	7588.00
474	f	63A 2 Pole RCBO 100mA.	1	No	8033.00
475	g	63A 4 Pole RCBO 30mA.	1	No	8508.00
476	h	63A 4 Pole RCBO 100mA.	1	No	8676.00
477	<b>ELEC-2.10.2</b>	Supply of MCB type Change Over Switch 20A Double Pole 2 way 400V AC suitable to fix on Din Channel.	1	No	2512.00
	<b>2.11</b>	<b>PANEL MOUNTING ACBs (Microprocessor Based)</b>			



SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	<b>ELEC-2.11.1</b>	Supply of ----- Air Circuit Breaker Confirms to IS 13947-2, IEC 60947-2 and BS-EN 60947 with Micro processor based having over load, shot circuit and earth fault Protection. Makes : Siemens (Sentron- 3W) / L&T U Power / Schneider Master Pact / ABB Emax / C&S.Winmaster2 / Legrand DMX			
478	<b>a</b>	630A 3 Pole, 50kA, electrically fixed	1	No	142953.00
479	<b>b</b>	630A 3 Pole, 50kA, electrically drawout	1	No	191069.00
480	<b>c</b>	630A 4 Pole, 50kA, electrically fixed	1	No	177820.00
481	<b>d</b>	630A 4 Pole, 50kA, electrically drawout	1	No	237093.00
482	<b>e</b>	800A 3 Pole, 50kA, electrically drawout	1	No	202226.00
483	<b>f</b>	800A 4 Pole, 50kA, electrically drawout	1	No	249645.00
484	<b>g</b>	1000A 3 Pole, 50kA, electrically drawout	1	No	211989.00
485	<b>h</b>	1000A 4 Pole, 50kA, electrically drawout	1	No	266381.00
486	<b>i</b>	1250A 3 Pole, 50kA, electrically drawout	1	No	284511.00
487	<b>j</b>	1250A 4 Pole, 50kA, electrically drawout	1	No	348666.00
488	<b>k</b>	1600A 3 Pole, 50kA, electrically drawout	1	No	315194.00
489	<b>l</b>	1600A 4 Pole, 50kA, electrically drawout	1	No	376559.00
490	<b>m</b>	2000A 3 Pole, 50kA, electrically drawout	1	No	366797.00
491	<b>n</b>	2000A 4 Pole, 50kA, electrically drawout	1	No	446292.00
492	<b>o</b>	2500A 3 Pole, 50kA, electrically drawout	1	No	522999.00
493	<b>p</b>	2500A 4 Pole, 50kA, electrically drawout	1	No	641545.00
494	<b>q</b>	3200A 3 Pole, 50kA, electrically drawout	1	No	543919.00
495	<b>r</b>	3200A 4 Pole, 50kA, electrically drawout	1	No	683385.00
	<b>ELEC-2.11.2</b>	Supply of ----- Air Circuit Breaker Confirms to IS 13947-2, IEC 60947-2 and BS-EN 60947 with Micro processor based having over load, shot circuit and earth fault Protection Makes : HPL / Hager / Havells / Indo Asian.			
496	<b>a</b>	630A 3 Pole, 50kA, electrically fixed	1	No	129704.00
497	<b>b</b>	630A 3 Pole, 50kA, electrically drawout	1	No	172938.00
498	<b>c</b>	630A 4 Pole, 50kA, electrically fixed	1	No	160387.00
499	<b>d</b>	630A 4 Pole, 50kA, electrically drawout	1	No	213384.00
500	<b>e</b>	800A 3 Pole, 50kA, electrically drawout	1	No	181307.00
501	<b>f</b>	800A 4 Pole, 50kA, electrically drawout	1	No	225936.00
	<b>2.12</b>	<b>RAISING MAINS</b>			
	<b>ELEC-2.12.1</b>	Supply, instalation, testing and commisioning of .....Amp, .....KA breaking capacity (100% Neutral busbar) air insulated compact Raising mains/Bus Duct system made of CRCA sheet/Hot Galvanized steel encloser of thickness not less than 0.8 mm having degree of protection of IP 55 as per IEC/EN 61439-6, PVC/Plastic insulated reinforced with glass fibre four strip ALUMINIUM busbar in convinient sections including necessary end cover units suitable for 415 volts 3 phase, 4 wire, 50 Hz A.C. System,etc.,with necessary joints Fire			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		barrrier at each floor Provision of tapping at each floor/every meter,continuous earthing with 2 nos alluminium strip of suitable size (one on each side) including GI clamping brackets,angle iron brackets,steel fastners,connecting to earth system as required . Makes: Legrand (Zucchini) / C&S			
502	a	400Amp, 50 - 53KA	1	RM	11113.00
503	b	630Amp, 50 - 63KA	1	RM	13104.00
504	c	800 Amp, 50 - 76KA	1	RM	14864.00
505	d	1000 Amp, 50 - 76KA	1	RM	16506.00
506	e	1250 Amp, 50 - 76KA	1	RM	17136.00
507	f	1600 Amp, 50 - 76KA	1	RM	21420.00
508	ELEC-2.12.2	Supply and Fixing of Spring Bracket with fixing kit for Air Insulated Busduct / Raising Mains. Makes: Legrand (Zucchini) / C&S	1	No	6300.00
	ELEC-2.12.3	Supply and Fixing of ..... Amps Horizontal / Vertical bends for Air Insulated Bus Duct .Makes: Legrand (Zucchini) / C&S			
509	a	400Amp,	1	No	12600.00
510	b	630Amp,	1	No	14364.00
511	c	800 Amp,	1	No	14994.00
512	d	1000 Amp,	1	No	17514.00
513	e	1250 Amp,	1	No	18913.00
514	f	1600 Amp,	1	No	21294.00
	ELEC-2.12.4	Supply and Fixing of .....Amps Tap off box for Air Insulated Busduct. Makes : Legrand (Zucchini) / Schneider			
515	a	125Amp,	1	No	16107.00
516	b	250Amp,	1	No	23101.00
517	c	400 Amp,	1	No	31920.00
518	d	630 Amp,	1	No	35280.00
	2.13	<b>SANDWITCH BUSDUCT</b>			
	ELEC-2.13.1	Supply, instalation, testing and commisioning of .....Amp, .....KA breaking capacity (100% Neutral busbar) sandwich Busduct system made of CRCA sheet/Hot Galvanized steel encloser of thickness not less than 1.5mm having degree of protection of IP 55 as per IEC/EN 61439-6, PVC/Plastic insulated reinforced with glass fibre four strip ALUMINIUM busbar in convinent sections including end cover units suitable for 415 volts 3 phase, 4 wire, 50 Hz A.C. System,etc., with necessary joints Fire barrrier at each floor Provision of tapping at each floor/every meter,continuous earthing with 2 nos alluminium strip of suitable size (one on each side) including GI clamping brackets,angle iron brackets,steel fastners,connecting to earth system as required . Makes: Legrand (Zucchini) / L&T /			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Schneider / C&S / Siemens			
519	a	630A 36/40KA	1	RM	16157.00
520	b	800A 42/50KA	1	RM	17345.00
521	c	1000A 50KA	1	RM	19325.00
522	d	1250A 75KA	1	RM	21305.00
523	e	1600A 80KA	1	RM	28116.00
524	f	2000A 80KA	1	RM	29700.00
525	g	2500A 150KA	1	RM	41184.00
526	h	3200A 160KA	1	RM	47916.00
527	i	4000 A,160kA	1	RM	56760.00
	<b>ELEC-2.13.2</b>	Supply and Fixing of .....Amps Horizontal / Vertical bends for sandwich Bus Duct . Makes: Legrand (Zucchini) / L&T / Schiender / C&S /Siemens.			
528	a	630A	1	No	14388.00
529	b	800A	1	No	15180.00
530	c	1000A	1	No	16104.00
531	d	1250A	1	No	17424.00
532	e	1600A	1	No	19800.00
533	f	2000A	1	No	23100.00
534	g	2500A	1	No	29304.00
535	h	3200A	1	No	35376.00
536	i	4000 A	1	No	40788.00
	<b>ELEC-2.13.3</b>	Supply and Fixing of ..... Amps Copper Flexibles for three phases and neutral for Air Insulated / sandwichBusduct . Makes: Legrand (Zucchini) / L&T / Schiender /C&S/Siemens.			
537	a	400A	1	No	18975.00
538	b	630A	1	No	20240.00
539	c	800A	1	No	21505.00
540	d	1000A	1	No	24035.00
541	e	1250A	1	No	27830.00
542	f	1600A	1	No	32890.00
543	g	2000A	1	No	37950.00
544	h	2500A	1	No	44275.00
545	i	3200A	1	No	50600.00
546	j	4000 A	1	No	56925.00
	<b>ELEC-2.13.4</b>	Supply and fixing of Flange end for .....Amps for Air insulated Busdusts . Makes: Legrand (Zucchini) / Schiender / C&S / Siemens.			
547	a	400Amp,	1	No	11880.00
548	b	630Amp,	1	No	15840.00
549	c	800 Amp,	1	No	18480.00
	<b>ELEC-2.13.5</b>	Supply and fixing of Flange end for .....Amps for Sandwich Busdusts . Makes: Legrand (Zucchini) / L&T / Schiender / C&S / Siemens.			
550	a	400A	1	No	13860.00
551	b	630A	1	No	20460.00
552	c	800A	1	No	23760.00
553	d	1000A	1	No	25080.00
554	e	1250A	1	No	27456.00
555	f	1600A	1	No	29304.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
556	g	2000A	1	No	31680.00
557	h	2500A	1	No	35640.00
558	i	3200A	1	No	42240.00
559	j	4000 A	1	No	50160.00
	<b>ELEC-2.13.6</b>	Supply and Fixing of .....Amps Tap off box for Sandwich Busduct Makes: Legrand (Zucchini) / L&T / Schiender / C&S / Siemens..			
560	a	160A	1	No	12540.00
561	b	250A	1	No	21120.00
562	c	400A	1	No	23760.00
563	d	630A	1	No	29040.00
	<b>ELEC-2.13.7</b>	Supply and Fixing of .....Amps end cover for Sandwich Busduct Makes: Legrand (Zucchini) / L&T / Schiender / C&S / Siemens.			
564	a	400A -4000A	1	No	11352.00
	<b>ELEC-2.13.8</b>	Supply and Fixing of .....Amps expansion joint for Sandwich Busduct Makes: Legrand (Zucchini) / L&T / Schiender / C&S/siemens.			
565	a	400A	1	No	138600.00
566	b	630A	1	No	184800.00
567	c	800A	1	No	191400.00
568	d	1000A	1	No	192720.00
569	e	1250A	1	No	205920.00
570	f	1600A	1	No	213840.00
571	g	2000A	1	No	224400.00
572	h	2500A	1	No	232320.00
573	i	3200A	1	No	237600.00
574	j	4000 A	1	No	244200.00
	<b>ELEC-2.13.9</b>	Supply and Fixing of .....Amps rubber bellows for Sandwich Busduct Makes: Legrand (Zucchini) / L&T / Schiender / C&S / Siemens.			
575	a	400A -4000A	1	No	15180.00
	<b>2.14</b>	<b>MCBs (AS PER IS:60898-1:2002)</b>			
	<b>ELEC-2.14.1</b>	Supply of -----10KA, C/D Curve ISI Mark. Makes : Legrand-DX3 / Schneider-Acti9 / Siemens / L&T Exora / Cabtree / Indo Asian / BCH			
576	a	6-32A SP MCB	1	No	294.00
577	b	40-63A SP MCB	1	No	620.00
578	c	6-32A DP MCB	1	No	872.00
579	d	40-63A DP MCB	1	No	1411.00
580	e	6-32A TP MCB	1	No	1332.00
581	f	40-63A TP MCB	1	No	2064.00
582	g	6-32A FP MCB	1	No	1785.00
583	h	40-63A FP MCB	1	No	2651.00
	<b>ELEC-2.14.2</b>	Supply of -----10KA, C/D Curve ISI Mark. Makes : ABB / Havells / HPL(Techno) /			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Hager / C&S / Delton / Honeywell sentry / Benlo / Salzar			
584	a	6-32A SP MCB	1	No	229.00
585	b	40-63A SP MCB	1	No	503.00
586	c	6-32A DP MCB	1	No	712.00
587	d	40-63A DP MCB	1	No	976.00
588	e	6-32A TP MCB	1	No	1143.00
589	f	40-63A TP MCB	1	No	1590.00
590	g	6-32A FP MCB	1	No	1479.00
591	h	40-63A FP MCB	1	No	1996.00
	<b>ELEC-2.14.3</b>	Supply of ----- 10KA, C/D Curve ISI Mark. Makes : Gold Medal / GM / Milltec / Sputnik / Stanjo Amron.			
592	a	6-32A SP MCB	1	No	159.00
593	b	40-63A SP MCB	1	No	278.00
594	c	6-32A DP MCB	1	No	424.00
595	d	40-63A DP MCB	1	No	633.00
596	e	6-32A TP MCB	1	No	772.00
597	f	40-63A TP MCB	1	No	1202.00
598	g	6-32A FP MCB	1	No	999.00
599	h	40-63A FP MCB	1	No	1404.00
	<b>2.15</b>	<b>ISOLATORS CONFIRMS TO I E C 60947 PART-III</b>			
	<b>ELEC-2.15.1</b>	Supply of -----Isolator.Makes : Legrand-DX3 / Schneider-Acti9 / Siemens / L&T Exora / Cabtree / Indo Asian / BCH			
600	a	32A DP	1	No	496.00
601	b	40A DP	1	No	536.00
602	c	63A DP	1	No	712.00
603	d	40A TP	1	No	914.00
604	e	63A TP	1	No	1060.00
605	f	40A FP	1	No	1193.00
606	g	63A FP	1	No	1304.00
607	h	100A FP	1	No	1395.00
	<b>ELEC-2.15.2</b>	Supply of -----Isolator. Makes : ABB / Havells / HPL(Techno) / Hager / C&S / Honeywell sentry / Salzar			
608	a	32A DP	1	No	446.00
609	b	40A DP	1	No	468.00
610	c	63A DP	1	No	580.00
611	d	40A TP	1	No	808.00
612	e	63A TP	1	No	825.00
613	f	40A FP	1	No	949.00
614	g	63A FP	1	No	1020.00
615	h	100A FP	1	No	1282.00
	<b>ELEC-2.15.3</b>	Supply of -----Isolator. Makes : Gold Medal / GM / Milltec / Sputnik / Benlo / Stanjo Amron.			
616	a	32A DP	1	No	307.00
617	b	40A DP	1	No	363.00
618	c	63A DP	1	No	490.00
619	d	40A TP	1	No	530.00
620	e	63A TP	1	No	601.00
621	f	40A FP	1	No	796.00
	<b>2.16</b>	<b>SPN DISTRIBUTION BOARDS</b>			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		(AS PER IS:13032)			
		SPN DB			
	2.16.1	Supply of ----- Protection as per IS:13032 and suitable for-----S.P out goings and for 1 No Incommer etc complete.Makes : Legrand / Schneider / Siemens / L&T / Cabtree Xpro / ABB / C&S			
622	a	4 Way SPN DB with IP 20/30, 4 Nos	1	No	1165.00
623	b	4 Way SPN DB with IP 43, 4 Nos	1	No	1513.00
624	c	8 Way SPN DB with IP 20/30, 8 Nos	1	No	1344.00
625	d	8 Way SPN DB with IP 43, 8 Nos	1	No	1902.00
626	e	12 Way SPN DB with IP 20/30, 12 Nos	1	No	1596.00
627	f	12 Way SPN DB with IP 43, 12 Nos	1	No	2302.00
	2.16.2	Supply of ----- Protection as per IS:13032 and suitable for-----S.P out goings and for 1 No Incommer etc complete. Makes : Havells / HPL / Hager / Indo Asian (Gold Plus) / Delton / Honeywell sentry / Benlo / Panasonic.			
628	a	4 Way SPN DB with IP 20/30, 4 Nos	1	No	712.00
629	b	4 Way SPN DB with IP 43, 4 Nos	1	No	1242.00
630	c	8 Way SPN DB with IP 20/30, 8 Nos	1	No	936.00
631	d	8 Way SPN DB with IP 43, 8 Nos	1	No	1730.00
632	e	12 Way SPN DB with IP 20/30, 12 Nos	1	No	1060.00
633	f	12 Way SPN DB with IP 43, 12 Nos	1	No	2064.00
	2.16.3	Supply of -----Protection as per IS:13032 and suitable for-----S.P out goings and for 1 No Incommer etc complete. Makes : Gold Medal / GM / Milltec / Sputnik / Stanjo Amron.			
634	a	4 Way SPN DB with IP 20/30, 4 Nos	1	No	503.00
635	b	4 Way SPN DB with IP 43, 4 Nos	1	No	852.00
636	c	8 Way SPN DB with IP 20/30, 8 Nos	1	No	684.00
637	d	8 Way SPN DB with IP 43, 8 Nos	1	No	1159.00
638	e	12 Way SPN DB with IP 20/30, 12 Nos	1	No	837.00
639	f	12 Way SPN DB with IP 43, 12 Nos	1	No	1466.00
	2.17	TPN DISTRIBUTION BOARDS			
	2.17.1	Supply of -----Protection as per IS:13032 and suitable for -----S.P. out goings and for 1 No 4 pole Incommer (FP Isolator / MCB) etc completeMakes : Legrand / Schneider / Siemens / L&T / Hager / Cabtree Xpro / ABB / C&S			
640	a	(8+12) 4 Way TPN DB Horizontal with IP 20/30, 12 Nos	1	No	2399.00
641	b	(8+12) 4 Way TPN DB Horizontal with IP 43, 12 Nos	1	No	3988.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
642	c	(8+18) 6 Way TPN DB Horizontal with IP 43, 18 Nos	1	No	5858.00
643	d	(8+24) 8 Way TPN DB Horizontal with IP 43, 24 Nos	1	No	6542.00
	2.17.2	Supply of -----Protection as per IS:13032 and suitable for T.P. / S.P. out goings and for 1 No 4 pole Isolater / MCB Incommer etc complete Makes : Legrand / Schneider / Siemens / L&T / Hager / Cabtree Xpro / ABB / C&S			
644	a	4 Way VTPN DB with IP 43	1	No	10112.00
645	b	8 Way VTPN DB with IP 43	1	No	12998.00
	2.17.3	Supply of -----Protection as per IS:13032 and suitable for accommodating T.P. / S.P. as out goings and 125A / 160A 4 pole MCCB as Incommer etc complete Makes : Legrand / Schneider / Siemens / L&T / Hager / Cabtree Xpro.			
646	a	4 Way VTPN DB with IP 43	1	No	13110.00
647	b	8 Way VTPN DB with IP 43	1	No	16458.00
	2.17.4	Supply of ----- Protection as per IS:13032 and suitable for ----- S.P. out goings and for 1 No 4 pole Incommer (FP Isolator / MCB) etc complete Makes : GE / Havells / HPL / Benlo / Panasonic / Delton / Indo Asian (Gold Plus) / Honeywell sentry			
648	a	(8+12) 4 Way TPN DB Horizontal with IP 20/30, 12 Nos	1	No	2231.00
649	b	(8+12) 4 Way TPN DB Horizontal with IP 43, 12 Nos	1	No	3514.00
650	c	(8+18) 6 Way TPN DB Horizontal with IP 43, 18 Nos	1	No	4882.00
651	d	(8+24) 8 Way TPN DB Horizontal with IP 43, 24 Nos	1	No	5579.00
	2.17.5	Supply of ----- Protection as per IS:13032 and suitable for T.P. / S.P. out goings and for 1 No (FP Isolator / MCB) incommer etc complete Makes : GE / Havells / HPL / Hager / Indo Asian (Gold Plus) / Honeywell sentry / Benlo.			
652	a	4 Way VTPN DB with IP 43	1	No	8718.00
653	b	8 Way VTPN DB with IP 43	1	No	10600.00
	2.17.6	Supply of ----- Protection as per IS:13032 and suitable for ----- S.P. out goings and for 1 No 4 pole Incommer (FP Isolator / MCB) etc complete Makes : Gold Medal / GM / Miltec / Sputnik / Stanjo Amron.			
654	a	(8+12) 4 Way TPN DB Horizontal with IP 20/30, 12 Nos	1	No	1981.00
655	b	(8+12) 4 Way TPN DB Horizontal with IP 43, 12 Nos	1	No	2567.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
656	c	(8+18) 6 Way TPN DB Horizontal with IP 43, 18 Nos	1	No	3348.00
657	d	(8+24) 8 Way TPN DB Horizontal with IP 43, 24 Nos	1	No	3933.00
	2.17.7	Supply of ----- Protection as per IS:13032 and suitable for T.P. / S.P. outgoing and for 1 No (FP Isolator / MCB) Incommer etc complete Makes : Gold Medal / GM / Miltec / Sputnik / Stanjo Amron.			
658	a	4 Way VTPN DB with IP 43	1	No	5049.00
659	b	8 Way VTPN DB with IP 43	1	No	8048.00
	2.17.8	Supply of -----Plug and Socket with SS enclosure. Makes : Legrand / Schneider / Siemens / L&T / Hager / Cabtree Xpro / ABB / C&S			
660	a	20A SP	1	No	1444.00
661	b	20A TP	1	No	2721.00
662	c	32A TP	1	No	3202.00
	2.17.9	Supply of -----Plug and Socket with SS enclosure. Makes : Havells / HPL / Benlo / Panasonic / Delton / Indo Asian (Gold Plus) / Honeywell sentry			
663	a	20A SP	1	No	921.00
664	b	20A TP	1	No	1869.00
665	c	32A TP	1	No	2343.00
	2.17.10	Supply of -----Plug and Socket with SS enclosure. Makes : Gold Medal / GM / Milltec / Sputnik.			
666	a	20A SP	1	No	697.00
667	b	20A TP	1	No	1451.00
668	c	32A TP	1	No	2024.00
	2.17.11	Supply of -----Metal Enclosure with IP 20/30 Protection. Makes : Legrand / Schneider / Siemens / L&T / Hager / Cabtree Xpro / ABB / C&S			
669	a	SP	1	No	434.00
670	b	DP/TP/FP	1	No	614.00
	2.17.12	Supply of ----- Metal Enclosure with IP 20/30 Protection. Makes : Havells / HPL / Benlo / Panasonic / Delton / Indo Asian (Gold Plus) / Honeywell sentry			
671	a	SP	1	No	391.00
672	b	DP/TP/FP	1	No	573.00
	2.17.13	Supply of ----- Metal Enclosure with IP 20/30 Protection. Makes : Gold Medal / GM / Milltec / Sputnik.			
673	a	SP	1	No	351.00
674	b	DP/TP/FP	1	No	490.00
		<b>SECTION - 3</b>			
	3.1	<b>POST TOP LED LUMINAIRES</b>			
675	ELEC-3.1.1	Supply of 15-20W aesthetically designed	1	No	6064.00



SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		LED post top lantern with die cast aluminium spigot, prismatic diffuser etc suitable for pole mounting complete with all accessories. Makes : Crompton / Bajaj / Surya / Havells / Phillips / Panasonic / Halonix / K Lite / Wipro / Polycab / FIEM / Jaquar .			
676	ELEC-3.1.2	Supply of 30-35W decorative LED post top lantern with die cast aluminium spigot, spun aluminium powder coated top cover, aluminium pressure die cast heat sink, opel PC diffuser and clear acrylic etc suitable for pole mounting complete with all accessories. Makes : Crompton / Bajaj / Surya / Havells / Phillips / Panasonic / Halonix / K Lite / Wipro / Polycab / FIEM / Jaquar .	1	No	9702.00
677	ELEC-3.1.3	Supply of 40-45W decorative LED post top lantern with die cast aluminium spigot, spun aluminium powder coated top cover, aluminium pressure die cast heat sink, opel PC diffuser and clear acrylic etc suitable for pole mounting complete with all accessories. Makes : Crompton / Bajaj / Surya / Havells / Phillips / Panasonic / Halonix / K Lite / Wipro / Polycab / FIEM / Jaquar .	1	No	11521.00
	3.2	<b>AUTOMATIC STREET LIGHT CONTROL SYSTEMS</b>			
	ELEC-3.2.1	Supply and fixing of Automatic Street Light Control System with Optical Sensor, Low voltage / High voltage trip and reset, operating voltage 150 - 280V AC, 50 HZ with suitable SMC enclosure of IP 54 protection, MCBs of Legrand / Schneider / L&T / Siemens of 10KA C/D curve and Contactor suitable to control the load of ----- <b>Single phase</b> load with necessary clamping arrangements. Makes : Swadep Nature Switch / Light Mate / L&T / Siemens / Bajaj			
678	a	1 KW	1	No	10395.00
679	b	3 KW	1	No	13052.00
680	c	5 KW	1	No	13629.00
	ELEC-3.2.2	Supply and fixing of Automatic Street Light Control System with Optical Sensor, Low voltage / High voltage trip and reset, operating voltage 380 - 450 V AC, 50 HZ with suitable SMC enclosure of IP 54 protection, MCBs of Legrand / Schneider / L&T / Siemens of 10KA C/D curve and Contactor suitable to control the load of ----- <b>Three phase</b> load with necessary clamping arrangements.Makes : Swadep Nature Switch / Light Mate / L&T / Siemens /			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Bajaj			
681	a	5 KW	1	No	17094.00
682	b	8 KW	1	No	17672.00
683	c	12 KW	1	No	21368.00
684	d	15 KW	1	No	25850.00
685	e	25 KW	1	No	33957.00
	ELEC-3.2.3	Supply and fixing of Automatic Street Light Controller with optical micro scanner low voltage/ High Voltage trip and reset operating voltage 150 - 280V AC, with stands upto 440V , 50 HZ with suitable ABS enclosure of IP 54 protection, suitable to control the load of 10A of single phase with necessary arrangements etc complete. Makes : Swadeep / Super tech ( Light Mate )/ L&T / Siemens / Bajaj			
686	a	SLASM-01-10A /equivalent (Dusk to Dawn)	1	No	3850.00
687	b	SLASM-02-10A /equivalent ( Time setting after 4 hr)	1	No	4950.00
688	c	SLASM-03-10A /equivalent ( Time setting 4hr, 6Hr, 8Hr)	1	No	4620.00
	ELEC-3.2.4	Supply and fixing of Automatic Street Light Control system with CCMS to schedule the timing of lights ( Reprogrammed based on astronomical clock or on field or through central control), ON / OFF switch ( On field or centrally). CCMS system to capture the energy usage and other parameters at predetermined interval and store data for 30 days, download data in field via mobile app or mobile dash board, system protection against surges, upgrade formwork on field using a communication device via WIFI / GSM and GPRS low voltage / High Voltage Trip, Overload cutoff and operating voltage 382 - 450 Volts, 50 Hzs with SMC enclosure of IP 54 protection, MCBs of Legrand / Schneider/ Hager, single pole C curve of breaking capacity 10 kA and power contactor / Latching Relay suitable to control the load ----- KW of single phase / three phase with necessary clamping arrangement. etc complete. Makes : Swadeep / Super tech ( Light Mate ) / iScientific Techsolutions Labs			
689	a	3 KW	1	No	15000.00
690	b	5 KW	1	No	18000.00
691	c	8 KW	1	No	22000.00
692	d	12 KW	1	No	26000.00
693	e	15 KW	1	No	29000.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
694	f	18 KW	1	No	33000.00
695	g	25 KW	1	No	42000.00
	<b>ELEC-3.2.5</b>	Supply and fixing of Automatic Street Light Control system with <b>smart energy meter / CCMS</b> to schedule the timing of lights ( Reprogrammed based on astronomical clock or on field or through central control), ON / OFF switch ( On field or centrally). CCMS system to capture the energy usage and other parameters at predetermined interval and store data for 30 days, download data in field via mobile app or mobile dash board, system protection against surges, upgrade formwork on field using a communication device via WIFI / GSM and GPRS low voltage / High Voltage Trip, Overload cutoff and operating voltage 382 - 450 Volts, 50 Hzs with SMC enclosure of IP 54 protection, MCBs of Legrand / Schneider/ Hager, single pole C curve of breaking capacity 10 kA and power contactor / Latching Relay suitable to control the load ----- KW of single phase / three phase with necessary clamping arrangement. etc complete. Makes : Swadeep /Super tech ( Light Mate ) / iScientific Techsolutions Labs			
696	a	3 KW	1	No	25000.00
697	a	5 KW	1	No	28000.00
698	a	8 KW	1	No	32000.00
699	a	12 KW	1	No	36000.00
700	a	15 KW	1	No	39000.00
701	a	18 KW	1	No	43000.00
702	a	25 KW	1	No	52000.00
	<b>3.3</b>	<b>ACCESSORIES</b>			
		Makes For the Following Items : Phillips / Crompton / Bajaj / Surya / HPL / Havells.			
703	<b>ELEC-3.3.1</b>	Supply of 9/13W VPIT Ballast for CFL with ISI mark.	1	No	102.00
704	<b>ELEC-3.3.2</b>	Supply of 18W VPIT Ballast for CFL with ISI mark.	1	No	96.00
705	<b>ELEC-3.3.3</b>	Supply of 20W / 40W Copper Wound Ballast.	1	No	128.00
706	<b>ELEC-3.3.4</b>	Supply of 18/20W VPIT Ballast.	1	No	128.00
707	<b>ELEC-3.3.5</b>	Supply of 36/40W VPIT Ballast of makes Phillips / Crompton / Bajaj / Surya.	1	No	168.00
708	<b>ELEC-3.3.6</b>	Supply of 40W Starter of makes Phillips / Crompton / Bajaj / Surya.	1	No	9.00
709	<b>ELEC-3.3.7</b>	Supply of Rotor holder(FTL).	1	No	17.00
710	<b>ELEC-3.3.8</b>	Supply of HID Lamp holder.	1	No	43.00
711	<b>ELEC-3.3.9</b>	Supply of CFL holder of makes Phillips / Crompton / Bajaj / Surya.	1	No	26.00
712	<b>ELEC-3.3.10</b>	Supply of FTL Starter holder.	1	No	13.00
		Makes For the Following Items : Fortune Arrt / Style Lamp / Mahita Electro /			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Capart			
713	ELEC-3.3.11	Supply of 9/13W VPIT Ballast for CFL with ISI mark.	1	No	88.00
714	ELEC-3.3.12	Supply of 18W VPIT Ballast for CFL with ISI mark.	1	No	88.00
715	ELEC-3.3.13	Supply of 20W / 40W Copper Wound Ballast.	1	No	118.00
716	ELEC-3.3.14	Supply of 18/20W VPIT Ballast.	1	No	117.00
717	ELEC-3.3.15	Supply of 36/40W VPIT Ballast of makes Phillips / Crompton / Bajaj / Surya.	1	No	136.00
718	ELEC-3.3.16	Supply of 40W Starter of makes Phillips / Crompton / Bajaj / Surya.	1	No	8.00
719	ELEC-3.3.17	Supply of Rotor holder(FTL).	1	No	15.00
720	ELEC-3.3.18	Supply of HID Lamp holder.	1	No	34.00
721	ELEC-3.3.19	Supply of CFL holder of makes Phillips / Crompton / Bajaj / Surya.	1	No	21.00
722	ELEC-3.3.20	Supply of FTL Starter holder.	1	No	10.00
723	ELEC-3.3.21	Supply of 36W Electronic Ballast with total harmonic distortion is less than 10% for FTL. Makes : Phillips / Crompton / Bajaj / Surya / HPL / Havells.	1	No	492.00
724	ELEC-3.3.22	Supply of 36W Electronic ballast with power factor greater than 0.9 to 0.95 suitable for FTL. Make : Crompton / Bajaj / Havells or its equivalent.	1	No	221.00
725	ELEC-3.3.23	Supply of Bulk head fitting with cast aluminium enamel painted body with water tight, clear glass with wire guard hinged with lock and key arrangements etc., complete. Makes : Bajaj / Crompton / Surya.	1	No	280.00
726	ELEC-3.3.24	Supply of single fancy bracket with glass shade best Indian make	1	No	173.00
727	ELEC-3.3.25	Supply of double fancy bracket with glass shade best Indian make	1	No	309.00
	<b>3.4</b>	<b>FLOURSCENT TUBES / CFL LAMPS</b>			
		Makes for the following items: Phillips / Crompton / Bajaj / Surya / Style Lamp / Mahita Electro / Capart.			
728	ELEC-3.4.1	Supply of 40W-60W Lamp.	1	No	11.00
729	ELEC-3.4.2	Supply of Night Lamp.	1	No	10.00
730	ELEC-3.4.3	Supply of 18/20W fluorescent tube. Makes : Phillips / Crompton / Bajaj / Surya.	1	No	37.00
731	ELEC-3.4.4	Supply of 36/40W fluorescent tube. Makes : Phillips / Crompton / Bajaj / Surya.	1	No	40.00
732	ELEC-3.4.5	Supply of 36/40W fluorescent tube. Makes : Fortune Arrt / Style lamp / Mahita Electro / Capart	1	No	34.00
733	ELEC-3.4.6	Supply of 28W T5 fluorescent tube. Makes : Crompton / Bajaj / Phillips / Surya / Havells.	1	No	107.00
	ELEC-3.4.7	Supply of ----- Pin type CFL Lamp.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Makes : Phillips / Crompton / Bajaj / Surya / Havells / HPL / Halonix.			
734	a	9W	1	No	67.00
735	b	11W	1	No	72.00
736	c	13W	1	No	94.00
737	d	18W	1	No	103.00
738	e	26W	1	No	143.00
739	f	36W	1	No	120.00
	<b>ELEC-3.4.8</b>	Supply of -----Retrofit tiny CFL.Makes : Phillips / Crompton / Bajaj / Surya / Havells / HPL / Halonix.			
740	a	Up to 5W	1	No	103.00
741	b	Up to 8W	1	No	112.00
742	c	Up to 10/11W	1	No	120.00
743	d	Up to 13/14W	1	No	98.00
744	e	15W	1	No	160.00
745	f	Up to 18/20W Retrofit CFL.	1	No	152.00
746	g	23W Retrofit CFL.	1	No	178.00
747	h	Up to 25/26W Retrofit CFL.	1	No	178.00
	<b>3.5</b>	<b>LED LUMINAIRES INDOOR</b>			
	<b>ELEC-3.5.1</b>	Supply and transportation of ----- LED <b>Spot Light</b> Recessed mounting with housing made of Powder coated Pressure die cast aluminium, IP20, with wide operating voltage range, Power factor > 0.9, Surge protection: > 2KV, System efficacy of >100 lumens/watt, CCT: 3000K - 6500K as desired by the department and as per IS, CRI >80, and THD is less than 15% etc., complete with 5 years warranty with BIS Certification. LUMINAIRE MAKE : Phillips / OSRAM / Wipro / Crompton / Bajaj / Havells / Jaquar / IB LED / Panasonic / Halonix / HPL / Syska / Eveready / Surya / Keselec/ FIEM / Arraystorm / GM / Goldmedal. LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / LG LEDs.			
748	a	5 W / 6 W +/-10% (>= 600 Lumens)	1	No	484.00
749	b	7 W +/-10% (>= 700 Lumens)	1	No	977.00
	<b>ELEC-3.5.2</b>	Supply and transportation of -----LED <b>Spot Light</b> Recessed mounting with housing made of Powder coated Pressure die cast aluminium , IP20, with wide operating voltage range, Power factor > 0.9, Surge protection: > 2KV, System efficacy of >90 lumens/watt, CCT: 3000K - 6500K as desired by the department and as per IS, CRI >80, and THD is less than 15% etc., complete with 5 years warranty. LUMINAIRE MAKE : Fortune Arrt / Capart / Kashyap BLU / Million / Trinic / Sieger / Stanjo / Promptec / Lighting			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Technologies / Renesola / C&S / RR Electric / Rhino			
750	a	5 W / 6 W +/-10% ( $\geq$ 550 Lumens)	1	No	340.00
751	b	7 W +/-10% ( $\geq$ 650 Lumens)	1	No	748.00
	<b>ELEC-3.5.3</b>	Supply and transportation of ----- - LED <b>Spot Light</b> Recessed mounting with housing made of Powder coated Pressure die cast aluminium , IP20, with wide operating voltage range, Power factor > 0.9, Surge protection: > 2KV, System efficacy of >80 lumens/watt, CCT: 3000K - 6500K as desired by the department and as per IS, CRI >80, and THD is less than 15% etc., complete with 5 years warranty. LUMINAIRE MAKE : Cosmo / VRILISO / Pro-Lite / Scintilla / JSTC Solar / Vimal / Taiyolux / Link Well / RYON / Kiran / Pharox / Mulex / Benlo.			
752	a	5 W / 6 W +/-10% ( $\geq$ 500 Lumens)	1	No	310.00
753	b	7 W +/-10% ( $\geq$ 600 Lumens)	1	No	578.00
	<b>ELEC-3.5.4</b>	Supply and transportation of ----- ----- <b>back lit LED Down Light</b> Recessed / Surface mounting round / square with housing made of Powder coated Pressure die cast aluminium housing with extended heat sink, with Protruded high efficiency diffuser, IP20, with wide operating voltage range, Power factor > 0.9, Surge protection: > 2KV, System efficacy of >100 lumens/watt, CCT: 3000K - 6500K as desired by the department and as per IS, CRI >80, and THD is less than 15% etc., complete with 5 years warranty with BIS Certification. LUMINAIRE MAKE : Phillips / OSRAM / Wipro / Crompton / Bajaj / Havells / Jaquar / IB LED / Panasonic / Halonix / HPL / Syska / Eveready / Surya / Keselec / FIEM / Arraystorm / GM / Goldmedal LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / LG LEDs.			
754	a	12 W +/-10% ( $\geq$ 1200 Lumens)	1	No	1351.00
755	b	15 W +/-10% ( $\geq$ 1500 Lumens)	1	No	1445.00
756	c	18 W +/-10% ( $\geq$ 1800 Lumens)	1	No	1666.00
757	d	24 W +/-10% ( $\geq$ 2400 Lumens)	1	No	1870.00
	<b>ELEC-3.5.5</b>	Supply and transportation of ----- <b>back lit LED Down Light</b> Recessed / Surface mounting round/ square with housing made of Powder coated Pressure die cast aluminium housing with extended heat sink, with Protruded high efficiency diffuser, IP20, with wide operating voltage range, Power factor > 0.9, Surge protection: > 2KV, System efficacy of >90			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		lumens/watt, CCT: 3000K - 6500K as desired by the department and as per IS, CRI >80, and THD is less than 15% etc., complete with 5 years warranty. LUMINAIRE MAKE : Fortune Arrt / Capart / Kashyap BLU / Million / Trinic / Sieger / Stanjo / Promptec / Lighting Technologies / Renesola / C&S / Luker / RR Electric / Rhino			
758	a	12 W +/-10% (>= 1100 Lumens)	1	No	1020.00
759	b	18 W +/-10% (>= 1600 Lumens)	1	No	1190.00
	ELEC-3.5.6	Supply and transportation of ----- <b>back lit</b> LED Down Light Recessed / Surface mounting with housing made of Powder coated Pressure die cast aluminium housing with extended heat sink, with Protruded high efficiency diffuser, IP20, with wide operating voltage range, Power factor > 0.9, Surge protection: > 2KV, System efficacy of >80 lumens/watt, CCT: 3000K - 6500K as desired by the department and as per IS, CRI >80, and THD is less than 15% etc., complete with 5 years warranty. LUMINAIRE MAKE : Cosmo / VRILISO / Pro-Lite / Scintilla / JSTC Solar / Vimal / Taiyolux / Link Well / RYON / Lumens (India) / Kiran / Pharox / Mulex / Benlo / Savitha / Accent/Deepal.			
760	a	12 W +/-10% (>= 1000 Lumens)	1	No	680.00
761	b	18 W +/-10% (>= 1400 Lumens)	1	No	935.00
	ELEC-3.5.7	Supply and transportation of ----- <b>edge lit</b> LED slimline panel light Housing made of Pressure die cast aluminium with Powder coated, round / Square with Protruded high efficiency diffuser, IP20, with wide operating voltage range, Power factor > 0.9, Surge protection: > 2KV, System efficacy of >90 lumens/watt, CCT: 3000K - 6500K as desired by the department and as per IS, CRI >80, and THD is less than 15% etc., complete with 2 years warranty with BIS Certification. LUMINAIRE MAKE : Phillips / OSRAM / Wipro / Crompton / Bajaj / Havells / Jaquar / IB LED / Panasonic / Halonix / HPL / Syska / Eveready / Surya / Keselec/ FIEM / Arraystorm / GM / Goldmedal LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / LG LEDs.			
762	a	6W +/-10% (>= 540 Lumens)	1	No	561.00
763	b	12W +/-10% (>= 1080 Lumens)	1	No	765.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
764	c	15W +/-10% (>= 1350 Lumens)	1	No	1020.00
765	d	18W +/-10% (>= 1620 Lumens)	1	No	1105.00
	ELEC-3.5.8	Supply and transportation of -----edge lit LED slimline panel Light Housing made of Pressure die cast aluminium with Powder coated, round / Square with Protruded high efficiency diffuser, IP20, with wide operating voltage range, Power factor > 0.9, Surge protection: > 2KV, System efficacy of >80 lumens/watt, CCT: 3000K - 6500K as desired by the department and as per IS, CRI >80, and THD is less than 15% etc., complete with 2 years warranty. LUMINAIRE MAKE : Fortune Arrt / Capart / Kashyap BLU / Million / Trinic / Sieger / Stanjo / Promptec / Lighting Technologies / Renesola / C&S / Luker / RR Electric / Rhino			
766	a	12W +/-10% (>= 960 Lumens)	1	No	629.00
767	b	18W +/-10% (>= 1440 Lumens)	1	No	892.00
	ELEC-3.5.9	Supply and transportation of ----- edge lit LED slimline panel Light Housing made of Pressure die cast aluminium with Powder coated, round / Square with Protruded high efficiency diffuser, IP20, with wide operating voltage range, Power factor > 0.9, Surge protection: > 2KV, System efficacy of >70 lumens/watt, CCT: 3000K - 6500K as desired by the dept. and as per IS, CRI >80, and THD is less than 15% etc., complete with 2 years warranty. LUMINAIRE MAKE : Cosmo / VRILISO / Pro-Lite / Scintilla / JSTC Solar / Vimal / Taiyolux / Link Well / RYON / Kiran / Pharox / Mulex / Benlo / Savitha / Accent/Deepal.			
768	a	12W +/-10% (>= 940 Lumens)	1	No	569.00
769	b	18W +/-10% (>= 1260 Lumens)	1	No	824.00
770	ELEC-3.5.10	Supply and transportation of 20W +/-10%, >/ 2000 lumens, 1200mm length LED retro tube light, housing made with alluminium anodised body, wide operating voltage with double side connection, PF≥0.9, Surge protection: > 2KV, THD<15%, with inbuilt driver and frosted cover CCT: 3000K - 6500K as desired by the department and as per IS specifications, minimum CRI≥80,.etc complete with 5 years warranty with BIS Certification.LUMINAIRE MAKE: Phillips / OSRAM / Wipro / Crompton / Bajaj / Havells / Jaquar / IB LED / Panasonic / Halonix / HPL / Syska / Eveready / Surya / Keselec/ FIEM / Arraystorm / GM / Goldmedal	1	No	589.00



SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / LG LEDs.			
771	ELEC-3.5.11	Supply and transportation of 20W +/-10%, 1900 lumens, 1200mm length LED retro tube light, housing made with alluminium anodised body, wide operating voltage, double side connection, with PF $\geq$ 0.9, Surge protection: > 2KV, THD<10%, with inbuilt driver and frosted cover CCT: 3000K - 6500K as desired by the department and as per IS specifications, minimum CRI $\geq$ 80,.etc.complete with 5 years warranty. LUMINAIRE MAKE: Fortune Arrt / Capart / Kashyap BLU / Million / Trinic / Sieger / Stanjo / Promptec / Lighting Technologies / Renesola / C&S / Luker / RR Electric / Rhino	1	No	484.00
772	ELEC-3.5.12	Supply and transportation of 20W +/-10%, 1800 lumens, 1200mm length LED retro tube light, housing made with alluminium anodised body, wide operating voltage, with double side connection, with PF $\geq$ 0.9, Surge protection: > 2KV, THD<15%, with inbuilt driver and frosted cover CCT: 3000K - 5700K, minimum CRI $\geq$ 70,.etc.,complete with 5 years warranty. LUMINAIRE MAKE : Cosmo / VRILISO / Pro-Lite / Scintilla / JSTC Solar / Vimal / Taiyolux / Link Well / RYON / Lumens (India) / Kiran / Pharox / Mulex / Benlo / Savitha / Accent.	1	No	444.00
773	ELEC-3.5.13	Supply and transportation of 20W +/-10%, >/ 2000 lumens, 1200mm length LED retro tube light, housing made with glass body, wide operating voltage with Single / double side connection, PF $\geq$ 0.9, Surge protection: > 2KV, THD<15%, with inbuilt driver and frosted cover CCT: 3000K - 6500K as desired by the department and as per IS specifications, minimum CRI $\geq$ 80,.etc complete with 5 years warranty with BIS Certification.LUMINAIRE MAKE: Phillips / OSRAM / GE Venture / Wipro / Crompton / Bajaj / Havells / Jaquar / IB LED / Panasonic / Halonix / HPL / Syska / Eveready / Surya / Keselec / Arraystorm / GM / Goldmedal LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / LG LEDs.	1	No	343.00
774	ELEC-3.5.14	Supply and transportation of 20W +/-10%, >/ 2000 lumens, 1200mm	1	No	424.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		length LED retro tube light, housing made with PC body, wide operating voltage with Single / double side connection, PF $\geq$ 0.9, Surge protection: > 2KV, THD<15%, with inbuilt driver and frosted cover CCT: 3000K - 6500K as desired by the department and as per IS specifications, minimum CRI $\geq$ 80,.etc complete with 5 years warranty with BIS Certification. LUMINAIRE MAKE: Phillips / OSRAM / GE Venture / Wipro / Crompton / Bajaj / Havells / Jaquar / IB LED / Panasonic / Halonix / HPL / Syska / Eveready / Surya / Keselec/ FIEM / Arraystorm / GM / Goldmedal LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / LG LEDs.			
775	ELEC-3.5.15	Supply and transportation of 10W, 1000 lumens, 600mm length LED batten tube light, housing made with PC body, wide operating voltage with Single / double side connection, PF $\geq$ 0.9, Surge protection: > 2KV, THD<15%, with inbuilt driver and frosted cover CCT: 3000K - 6500K as desired by the department and as per IS specifications, minimum CRI $\geq$ 80,.etc complete with 5 years warranty with BIS Certification. LUMINAIRE MAKE: Phillips / OSRAM / GE Venture / Wipro / Crompton / Bajaj / Havells / Jaquar / IB LED / Panasonic / Halonix / HPL / Syska / Eveready / Surya / Keselec / Arraystorm / GM / Goldmedal LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / LG LEDs.	1	No	425.00
776	ELEC-3.5.16	Supply and transportation of 22W +/- 10% , >/ 2300 lumens, 1200mm length LED light housing made with alluminium anodised body, wide operating voltage with PF $\geq$ 0.9, Surge protection: > 2KV, THD<10%, with inbuilt driver and frosted cover CCT: 3000K - 6500K as desired by the department as per IS, minimum CRI $\geq$ 80 etc., complete with 5 years warranty with BIS Certification with BIS Certification.LUMINAIRE MAKE: Phillips / OSRAM / GE Venture / Wipro / Crompton / Bajaj / Havells / Jaquar / IB LED / Panasonic / Halonix / HPL / Syska / Eveready / Surya / Keselec/ FIEM / Arraystorm / GM / Goldmedal LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / LG LEDs.	1	No	680.00
	ELEC-3.5.17	Supply and Transportation of .....Edge lit, 2' x2' (600mm x			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		600mm) slim panel LED luminaire Square Housing Made of Aluminum alloy with corrosion resistant powder coat, with high efficiency acrylic wide diffuser, with wide operating voltage range, Power factor > 0.9, Surge protection >2KV, System efficacy of >90 lumens/watt, CCT: 3000K - 6500K as desired by the department, CRI >80, and THD is less than 15% with non integrated driver etc., complete with 2 years warranty with BIS Certification. LUMINAIRE MAKE : Phillips / OSRAM / GE Venture / Wipro / Crompton / Bajaj / Havells / Jaquar / IB LED / Panasonic / Halonix / HPL / Syska / Eveready / Surya / Keselec / FIEM / Arraystorm / GM / Goldmedal LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / LG LEDs.			
777	a	32-36W (>=3240 Lumens)	1	No	3077.00
778	b	40-42W (>=3600 Lumens)	1	No	3400.00
779	c	45W (>=4050 Lumens)	1	No	3570.00
780	ELEC-3.5.18	Supply and Transportation of 36W <b>Edge lit</b> , 2' x2' (600mm x 600mm) slim panel LED luminaire Square Housing Made of Aluminum alloy with corrosion resistant powder coat, with high efficiency acrylic wide diffuser, with wide operating voltage range, Power factor > 0.9, Surge protection >2KV, System efficacy of >80 lumens/watt, CCT: 3000K - 6500K as desired by the department, CRI >80, and THD is less than 15% with non integrated driver etc., complete with 2 years warranty. LUMINAIRE MAKE: Fortune Arrt / Capart / Kashyap BLU / Million / Trinic / Sieger / Stanjo / Promptec / Lighting Technologies / Renesola / C&S / Luker / RR Electric / Rhino	1	No	2737.00
781	ELEC-3.5.19	Supply and Transportation of 36W <b>Edge lit</b> 2' x2' (600mm x 600mm) Slim panel LED luminaire Square Housing Made of Aluminum alloy with corrosion resistant powder coat, with high efficiency acrylic wide diffuser, with wide operating voltage range, Power factor > 0.9, Surge protection >2KV, System efficacy of >70 lumens/watt, CCT: 3000K - 6500K as desired by the department, CRI >80, and THD is less than 15% with non integrated driver etc., complete with 2 years warranty.LUMINAIRE MAKE : Cosmo / VRILISO / Pro-Lite / Scintilla / JSTC Solar / Vimal / Taiyolux / Link Well /	1	No	2541.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		RYON / Lumens (India) / Kiran / Pharox / Mulex / Benlo / Savitha / Accent/Deepal.			
	<b>ELEC-3.5.20</b>	Supply and Transportation of ----- ----- <b>Back lit, 2' x2' (600mm x 600mm)</b> Recessed / Surface mounted LED luminaire made of CRCA sheet housing with powder coated with high efficiency acrylic wide diffuser, with wide operating voltage range, Power factor > 0.9, Surge protection >2KV, System efficacy of >100 lumens/watt, CCT: 3000K - 6500K as desired by the department, CRI >80, and THD is less than 15% etc., complete with 5 years warranty with BIS Certification. LUMINAIRE MAKE : Phillips / OSRAM / GE Venture / Wipro / Crompton / Bajaj / Havells / Jaquar / IB LED / Panasonic / Halonix / HPL / Syska / Eveready / Surya / Keselec / FIEM / Arraystorm / GM / Goldmedal LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / LG LEDs.			
782	<b>a</b>	30-36 W +/-10% (>=3600 Lumens)	1	No	3153.00
783	<b>b</b>	40-42 W +/-10% (>=4200 Lumens)	1	No	3315.00
784	<b>c</b>	45 W +/-10% (>=4500 Lumens)	1	No	3519.00
	<b>ELEC-3.5.21</b>	Supply and Transportation of ----- <b>Back lit, 2' x2' (600mm x 600mm)</b> Recessed / Surface mounted LED luminaire made of CRCA sheet housing with powder coated with high efficiency acrylic wide diffuser, with wide operating voltage range, Power factor > 0.9, Surge protection >2KV, System efficacy of >90 lumens/watt, CCT: 3000K - 6500K as desired by the department, CRI >80, and THD is less than 15% etc., complete with 5 years warranty. LUMINAIRE MAKE: Fortune Arrt / Capart / Kashyap BLU / Million / Trinic / Sieger / Stanjo / Promptec / Lighting Technologies / Renesola / C&S / Luker / RR Electric / Rhino			
785	<b>a</b>	36 W +/-10% (>=3200 Lumens)	1	No	2541.00
786	<b>b</b>	45 W +/-10% (>=4000 Lumens)	1	No	3077.00
	<b>ELEC-3.5.22</b>	Supply and Transportation of ----- <b>Back lit, 2' x2' (600mm x 600mm)</b> Recessed / Surface mounted LED luminaire made of CRCA sheet housing with powder coated with high efficiency acrylic wide diffuser, with wide operating voltage range, Power factor > 0.9, Surge protection >2KV, System efficacy of >80 lumens/watt, CCT: 3000K - 6500K as desired by the department,			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		CRI >80, and THD is less than 15% etc., complete with 5 years warranty.LUMINAIRE MAKE : Cosmo / VRILISO / Pro-Lite / Scintilla / JSTC Solar / Vimal / Taiyolux / Link Well / RYON / Lumens (India) / Kiran / Pharox / Mulex / Benlo / Savitha / Accent/Deepal.			
787	a	36 W +/-10% (>=2900 Lumens)	1	No	2388.00
788	b	45 W +/-10% (>=3600 Lumens)	1	No	2635.00
789	ELEC-3.5.23	Supply and transportation of MS frame with powder coating suitable for 600mm x 600mm LED panel light.	1	No	504.00
790	ELEC-3.5.24	Supply & Fixing of pre wired Patty type batten frame made with CRCA sheet powder coated suitable for LED tube light.	1	No	144.00
791	ELEC-3.5.25	Supply & Fixing of decorative pre wired box type fixture made with CRCA sheet powder coated suitable for 4' LED tube light	1	No	280.00
	<b>3.60</b>	<b>LED INDOOR LAMPS</b>			
	ELEC-3.6.1	Supply of -----with input voltage 90 to 300V, Colour temperature 3000k - 6500k, Beam angle 170 - 220 degrees, B22 base. Makes: Phillips / OSRAM / Crompton / Eveready / Bajaj / Havells / Pharox / Halonix / Greenlites / IB LED/ Jaquar / C&S / GM / / FIEM / Gold Medal / Million / Syska.			
792	a	0.5W LED Lamp	1	No	41.00
793	b	3.0W LED Lamp	1	No	93.00
794	c	5.0W LED Lamp	1	No	102.00
795	d	7.0W LED Lamp	1	No	109.00
796	e	9.0W LED Lamp	1	No	127.00
797	f	12.0W LED Lamp	1	No	191.00
798	g	15.0W LED Lamp	1	No	212.00
799	h	18.0W LED Lamp	1	No	276.00
800	i	30.0W LED Lamp	1	No	574.00
801	j	40.0W LED Lamp	1	No	744.00
802	k	50.0W LED Lamp	1	No	977.00
803	ELEC-3.6.2	Supply of LED Candel Lamp for shandliers. Makes: Phillips / OSRAM / Crompton / Eveready / Bajaj / Havells / Pharox / Halonix / Greenlites / IB LED/ Jaquar / C&S / GM / Gold Medal / Million / Syska.	1	No	245.00
	<b>3.7</b>	<b>LED STREET LIGHTS</b>			
	ELEC-3.7.1	Supply and transportation of ..... LED Street light Body made of high grade pressure die - cast Aluminium alloy with corrosion resistant powder coat, having protective toughened glass cover, Suitable lens on LEDs, Less Glare, IP 66 (Silicon gasket ensures Optical & Electrical compartments are IP 66) protected, wide operating voltage range,			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		P.F > 0.90, System having efficacy >110 lumens/watt, with Ingress protection IP66, Potted driver, Driver surge protection >10KV, THD<15%, CCT: 3000-6500K as desired by the department and as per IS, CRI>70, Inbuilt Electrical protections like Over voltage, short circuit, Over load, Open Circuit, Miswiring, etc complete with BIS certification with 5 years warranty. The contractor has to furnish the manufacturer warranty letter, LM 79 and LM 80 certificates. LUMINAIRE MAKE : PHILIPS / OSRAM / GE Venture / CROMPTON / BAJAJ / Surya / Wipro / Jaquar / Eveready / Halonix / Keselec / HAVELLS / POLYCAB / SURYA / SYSKA / Capart / Fortune Arrt / FIEM / Panasonic / Arraystorm / GM / Goldmedal / Silicon / Leksa / Orient / HPL LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / LG LEDs.			
804	a	20 W +/-10% (>=2000 Lumens)	1	No	1615.00
805	b	30 W +/-10% (>=3000 Lumens)	1	No	2253.00
806	c	43 / 45 W +/-10% (>=4500 Lumens)	1	No	3236.00
807	d	60 / 65 W +/-10% (>=6500 Lumens)	1	No	4845.00
808	e	72 W +/-10% (>=7200 Lumens)	1	No	5270.00
809	f	90W +/-10% (>=9000 Lumens)	1	No	7182.00
810	g	100 W +/-10% (>=10000 Lumens)	1	No	7990.00
811	h	110 W +/-10% (>=11000 Lumens)	1	No	8840.00
812	i	120 W +/-10% (>=12000 Lumens)	1	No	9350.00
813	j	150 W +/-10% (>=15000 Lumens)	1	No	11475.00
814	k	180 W +/-10% (>=18000 Lumens)	1	No	12495.00
815	l	210 W +/-10% (>=21000 Lumens)	1	No	17000.00
	ELEC-3.7.2	Supply and transportation of ..... LED Street light Body made of high grade pressure die - cast Aluminium alloy with corrosion resistant powder coat, having protective toughened glass cover, Suitable lens on LEDs, Suitable lens on LEDs, Less Glare, IP 66 (Silicon gasket ensures Optical & Electrical compartments are IP 66) protected, wide operating voltage range, P.F > 0.90, System having efficacy >100 lumens/watt, with Ingress protection IP66, Driver surge protection >10KV, THD<15%, CCT: 3000- 6500K as desired by the department and as per IS, CRI>70, Inbuilt Electrical protections like Over voltage, short circuit, Over load, Open Circuit, Miswiring, etc complete with 5 years warranty. The contractor has to furnish the manufacturer warranty letter, LM 79 and LM 80 certificates.LUMINAIRE MAKE : VIN / MILLION / C&S / RR			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Electric / IB LED / MIC / Promptec / Luker / Lumens (India) / Sieger / Renesola / TRINIC / STANJO / Rhino			
816	a	20 W +/-10% ( $\geq$ 1800 Lumens)	1	No	1462.00
817	b	30 W +/-10% ( $\geq$ 2700 Lumens)	1	No	2125.00
818	c	43 / 45 W +/-10% ( $\geq$ 4050 Lumens)	1	No	3060.00
819	d	60 / 65 W +/-10% ( $\geq$ 5850 Lumens)	1	No	4335.00
820	e	72 W +/-10% ( $\geq$ 6480 Lumens)	1	No	4760.00
821	f	90W +/-10% ( $\geq$ 8100 Lumens)	1	No	6460.00
822	g	100 W +/-10% ( $\geq$ 9000 Lumens)	1	No	7225.00
823	h	110 W +/-10% ( $\geq$ 9900 Lumens)	1	No	8075.00
824	i	120 W +/-10% ( $\geq$ 10800 Lumens)	1	No	8415.00
	<b>ELEC-3.7.3</b>	Supply and transportation of ..... LED Street light Body made of high grade pressure die - cast Aluminium alloy with corrosion resistant powder coat, having protective toughened glass cover, Suitable lens on LEDs, Less Glare, IP 66 (Silicon gasket ensures Optical & Electrical compartments are IP 66) protected, wide operating voltage range, P.F > 0.90, System having efficacy >90 lumens/watt, with Ingress protection IP66, Driver surge protection >10KV, THD<15%, CCT: 3000- 6500K as desired by the department and as per IS, CRI>70, Inbuilt Electrical protections like Over voltage, short circuit, Over load, Open Circuit, Miswiring, etc complete with 5 years warranty. The contractor has to furnish the manufacturer warranty letter, LM 79 and LM 80 certificates. LUMINAIRE MAKE : COSMO / KASHYAP BLU / PRO-LITE / SCINTILLA / TAIYOLUX / LINK WELL / RYON / Mulex / Kiran / Benlo / Savitha / Accent/Deepal.			
825	a	20 W +/-10% ( $\geq$ 1600 Lumens)	1	No	1402.00
826	b	30 W +/-10% ( $\geq$ 2400 Lumens)	1	No	2040.00
827	c	43 / 45 W +/-10% ( $\geq$ 3600 Lumens)	1	No	2890.00
828	d	60 / 65 W +/-10% ( $\geq$ 5200 Lumens)	1	No	4080.00
829	e	90W +/-10% ( $\geq$ 7200 Lumens)	1	No	6120.00
830	f	100 W +/-10% ( $\geq$ 8000 Lumens)	1	No	6800.00
831	g	110 W +/-10% ( $\geq$ 8800 Lumens)	1	No	7650.00
832	h	120 W +/-10% ( $\geq$ 9600 Lumens)	1	No	7905.00
		<b>LED FLOOD LIGHTS</b>			
	<b>ELEC-3.7.4</b>	Supply and transportation of ..... LED Flood light Luminaire made of pressure die cast aluminum housing with powder coated, having toughened glass cover, Suitable lens on LEDs, IP 66 (Silicon gasket ensures Optical & Electrical compartments are IP 66 )protected, wide operating voltage range , P.F > 0.90, System having efficacy >110 lumens/watt, with Ingress protection IP66, Driver surge protection >10KV,			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		THD<15%, CCT: 3000- 6500K as desired by the department and as per IS, CRI>70, Inbuilt Electrical protections like Over voltage, short circuit, Over load, Open Circuit, Miswiring, etc complete with BIS certification with 5 years warranty. The contractor has to furnish the manufacturer warranty letter, LM 79 and LM 80 certificates. LUMINAIRE MAKE : PHILIPS / OSRAM / GE Venture / CROMPTON / BAJAJ / Surya / Wipro / Jaquar / Eveready / Halonix / Keselec / HAVELLS / POLYCAB / SURYA / SYSKA./ Capart / Fortune Arrt / FIEM / Arraystorm / GM / Goldmedal / Panasonic / Silicon / Leksa / Orient / HPL LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / LG LEDs.			
833	a	60 W +/-10% (>=6000 Lumens)	1	No	5729.00
834	b	90 W +/-10% (>=9000 Lumens)	1	No	8022.00
835	c	120 W +/-10% (>=12000 Lumens)	1	No	10773.00
836	d	150 W +/-10% (>=15000 Lumens)	1	No	13811.00
837	e	200 W +/-10% (>=20000 Lumens)	1	No	16690.00
838	f	250 W +/-10% (>=25000 Lumens)	1	No	19536.00
	ELEC-3.7.5	Supply and transportation of ..... LED Flood light Luminaire made of pressure die cast aluminum housing with powder coated, having toughened glass cover, Suitable lens on LEDs, IP 66 (Silicon gasket ensures Optical & Electrical compartments are IP 66 )protected, wide operating voltage range , P.F > 0.90, System having efficacy >100 lumens/watt, with Ingress protection IP66, Driver surge protection >10KV, THD<15%, CCT: 3000- 6500K as desired by the department and as per IS, CRI>70, Inbuilt Electrical protections like Over voltage, short circuit, Over load, Open Circuit, Miswiring, etc complete with 5 years warranty. The contractor has to furnish the manufacturer warranty letter, LM 79 and LM 80 certificates. LUMINAIRE MAKE : VIN / MILLION / C&S / RR Electric / IB LED / MIC / Promptec / Luker / Lumens (India) / Sieger / Renesola / TRINIC / STANJO / Rhino			
839	a	60 W +/-10% (>=5400 Lumens)	1	No	4828.00
840	b	90 W +/-10% (>=8100 Lumens)	1	No	7140.00
841	c	120 W +/-10% (>=10800 Lumens)	1	No	8967.00
842	d	150 W +/-10% (>=13500 Lumens)	1	No	10608.00
	ELEC-3.7.6	Supply and transportation of ..... LED Flood light Luminaire made of pressure die cast aluminum housing with powder coated, having toughened glass cover, Suitable lens on LEDs, IP 66 (Silicon			



SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		gasket ensures Optical & Electrical compartments are IP 66 )protected, wide operating voltage range , P.F > 0.90, System having efficacy >90 lumens/watt, with Ingress protection IP66, Driver surge protection >10KV, THD<15%, CCT: 3000-6500K as desired by the department and as per IS, CRI>70, Inbuilt Electrical protections like Over voltage, short circuit, Over load, Open Circuit, Miswiring, etc complete with 5 years warranty.The contractor has to furnish the manufacturer warranty letter, LM 79 and LM 80 certificates. LUMINAIRE MAKE : COSMO / KASHYAP BLU / PRO-LITE / SCINTILLA / TAIYOLUX / LINK WELL / RYON / Mulex / Kiran / Benlo / Savitha / Accent/Deepal.			
843	a	60 W +/-10% (>=4800 Lumens)	1	No	4224.00
844	b	90 W +/-10% (>=7200 Lumens)	1	No	6239.00
845	c	120 W +/-10% (>=9600 Lumens)	1	No	7845.00
846	d	150 W +/-10% (>=12000 Lumens)	1	No	9545.00
		<b>NOTE :</b> The concerned Engineer has to verify the following certificates and allow the product to use.			
		1. LM 79, LM 80 certificate			
		2. BIS Certificate			
		3. CRI / THD Certificate			
		4. Surge Protection > 2 KV for indoor & > 10 KV for outdoor			
		5. Manufacturer must produce NABL certified test reports			
		6. Guarantee letter from Manufacturer with project name			
		7.The Manufacturer Must have sufficient pick and paste machines.			
		8. The Manufacturer must of IP test facility.			
		9. The Manufacturer must use good lenses.			
		10. The field engineers has to verify the rates and models propose in estimate.			
	ELEC-3.7.7	Supply and transportation of ..... LED High Bay Luminaire with high power COB LED made of pressure diecast aluminium housing with powder coated,Supply Input voltage 120 - 270 V AC, P.F > 0.90, high power LED's, System efficacy >100 lm / W and junction temprature < 70°C, with Ingress protection IP65, IK05, Driver surge protection 4KV, external Surge protection ≥ 5KV with wide/ Narrow beam optics, THD<10% at 110 Volts AC, driver efficiency >90%, CCT: 3000K - 5700K, minimum CRI>70, etc., complete with BIS certification with warranty 5			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		years warranty. The contractor has to furnish the manufacturer warranty letter, LM 79 and LM 80 certificates.LUMINAIRE MAKE : PHILIPS / OSRAM / GE Venture / CROMPTON / BAJAJ / Wipro / Jaquar / Panasonic / Eveready / Halonix / Keselec / HAVELLS / SURYA / SYSKA / Arraystorm / GM / Goldmedal / Leksa / Orient LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / LG LEDs.			
847	a	60 W +/-10% (>6000 Lumens)	1	No	7267.00
848	b	90 W +/-10% (>9000 Lumens)	1	No	8882.00
849	c	120 W +/-10% (>12000 Lumens)	1	No	10497.00
850	d	150 W +/-10% (>15000 Lumens)	1	No	12112.00
851	ELEC-3.7.8	Supply and transportation of 10W LED Bulk head fitting with milky diffuser heat sink integrated with housing with all accessories etc complete with 5 years warranty warranty. LUMINAIRE MAKE : PHILIPS / OSRAM / GE / CROMPTON / BAJAJ / Keselec / Fortune Arrt / HALONIX / HAVELLS / HPL / SYSKA / SURYA / Arraystorm / GM / Goldmedal / Jaquar / Panasonic / Leksa / Orient LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / LG LEDs.	1	No	910.00
	ELEC-3.7.9	Supply and transportation of ..... LED well glass fitting madeup of pressure die cast alluminium, integrated heat sink, dedicated mounting bracket, with all accessories etc complete with 5 years warranty warranty. LUMINAIRE MAKE : PHILIPS / OSRAM / GE / CROMPTON / BAJAJ / Keselec / Fortune Arrt / HALONIX / HAVELLS / HPL / SYSKA / SURYA / Arraystorm / GM / Goldmedal / Jaquar / Panasonic / Leksa / Orient LED MAKE : PHILIPS LUMILEDS / CREE / NICHIA / OSRAM / SAMSUNG / LG LEDs.			
852	a	25 W +/-10% (>=2500 Lumens)	1	No	2550.00
853	b	35 W +/-10% (>=3500 Lumens)	1	No	3060.00
854	c	40 W +/-10% (>=4000 Lumens)	1	No	3655.00
855	d	45 W +/-10% (>=4500 Lumens)	1	No	4080.00
	3.8	<b>LED DRIVERS</b>			
	ELEC-3.8.1	Supply and transportation of LED Driver with input line voltage 120V-270V AC, 50Hz with surge protection more than 2.5 KV, IP20, suitable for----- LED down lighter. MAKES : PHILIPS / OSRAM / GE / CROMPTON / BAJAJ / Keselec / HALONIX / HAVELLS / HPL / SURYA / SYSKA / Jaquar / Arraystorm / GM / Goldmedal			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
856	a	6 W / 9 W	1	No	279.00
857	b	12 W / 18 W / 20W / 22 W LED	1	No	411.00
858	c	36W	1	No	635.00
859	d	40 W / 45 W	1	No	767.00
	<b>ELEC-3.8.2</b>	Supply and transportation of LED Driver with input line voltage 120V-270V AC, 50Hz with surge protection more than 2.5 KV, IP20, suitable for----- LED down lighter.MAKES : PHAROX / AVNI / GOLDWYN / KRIPA LIGHTS / Fortune Arrt / STANJO / GREENLITES / TRINIC / PRO-LITE / SCINTILLA / JSTC - SOLAR / INSTA POWER / MILLION / PANASONIC / VIN.			
860	a	6 W / 9 W	1	No	237.00
861	b	12 W / 18 W / 20W / 22 W LED	1	No	351.00
862	c	36W	1	No	545.00
863	d	40 W / 45 W	1	No	661.00
	<b>ELEC-3.8.3</b>	Supply and transportation of LED Driver with input line voltage 120V-270V AC, 50Hz with surge protection of 4.0 KV, IP20, suitable for -----LED street light fitting. Makes : PHILIPS / OSRAM / GE / CROMPTON / BAJAJ / Keselec / VIN / HALONIX / HAVELLS / HPL / SURYA / SYSKA / Jaquar / Arraystorm / GM / Goldmedal			
864	a	15-30W	1	No	464.00
865	b	45-80W	1	No	971.00
866	c	90-180W	1	No	1852.00
	<b>ELEC-3.8.4</b>	Supply and transportation of LED Driver with input line voltage 120V-270V AC, 50Hz with surge protection of 4.0 KV, IP20, suitable for -----LED street light fitting. MAKES : PHAROX / AVNI / GOLDWYN / KRIPA LIGHTS / Fortune Arrt / STANJO / GREENLITES / TRINIC / PRO-LITE / SCINTILLA / JSTC - SOLAR / INSTA POWER / MILLION / PANASONIC.			
867	a	15-30W	1	No	430.00
868	b	45-80W	1	No	914.00
869	c	90-180W	1	No	1746.00
		<b>INTEGRATED STREET LIGHTING</b>			
	<b>ELEC-3.8.5</b>	Supply and transportation of Integrated IP 65 Solar Street Light with ABS + Polycarbonate body , Poly crystal Solar panel with pool white SMD LED Light, Beam angle 120 degrees, Reflector, Charging time is minimum 6 Hrs and maximum 8 Hrs, Lighting Time 10 to 12 Hrs (Subject to using dusk to dawn / Induction Mode / Duration Mode of Timers), used High efficiency LiFe PO 4, Battery, Dusk to dawn sensor, Induction Mode, Auto dim and Auto Bright, Motion			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		sensor and also facilitate duration based timer of 2 / 4 / 6 Hrs. MAKES : Havells / Lightmate / Bajaj			
870	a	5 W	1	No	4500.00
871	b	10 W	1	No	6700.00
872	c	15 W	1	No	9200.00
873	d	20 W	1	No	11400.00
874	e	25 W	1	No	13100.00
875	f	30 W	1	No	14000.00
		<b>SECTION - 4</b>			
	<b>4.1</b>	<b>U.G. CABLES</b>			
	<b>ELEC-4.1.1</b>	Supply of ----- XLPE insulated, 1100V grade armoured aluminium cable with ISI mark as per specification confirming to IS:7098 (Part - I) Makes : Torrent / Unicab / Universal / Polycab / Havells / Gloster / KEI / Finolex / Payal / RR kable / Beljin / Ollvin / Finecab / RPG / V - Guard / Orbit / Fortune Arrt / Gemscab / Bonton / SPM / Unistar / Windsor/ Avocab / Pawancab / Nakoda / Suncab			
876	a	4 Sqmm 2 Core	1	Mtr	153.00
877	b	6 Sqmm 2 Core	1	Mtr	178.00
878	c	10 Sqmm 2 Core	1	Mtr	216.00
879	d	6 Sqmm 4 Core	1	Mtr	216.00
880	e	10 Sqmm 4 Core	1	Mtr	241.00
881	f	16 Sqmm 4 Core	1	Mtr	268.00
882	g	25 Sqmm 3.5 Core	1	Mtr	340.00
883	h	35 Sqmm 3.5 Core	1	Mtr	408.00
884	i	50 Sqmm 3.5 Core	1	Mtr	539.00
885	j	70 Sqmm 3.5 Core	1	Mtr	695.00
886	k	95 Sqmm 3.5 Core	1	Mtr	903.00
887	l	120 Sqmm 3.5 Core	1	Mtr	1110.00
888	m	150 Sqmm 3.5 Core	1	Mtr	1258.00
889	n	185 Sqmm 3.5 Core	1	Mtr	1544.00
890	o	240 Sqmm 3.5 Core	1	Mtr	1959.00
891	p	300 Sqmm 3.5 Core	1	Mtr	2393.00
892	q	400 Sqmm 3.5 Core	1	Mtr	3003.00
	<b>4.2</b>	<b>11 KV H.T. XLPE CABLES</b>			
	<b>ELEC-4.2.1</b>	Supply of -----HT XLPE (E) insulated 11000 V grade armoured Cable, as per IS specification confirming to IS 7098/II/85 with latest amendments. Makes : Torrent / Unicab / Universal / Polycab / Havells / KEI / RPG / Gloster.			
893	a	35 Sqmm 3 Core	1	Mtr	938.00
894	b	50 Sqmm 3 Core	1	Mtr	1066.00
895	c	70 Sqmm 3 Core	1	Mtr	1270.00
896	d	95 Sqmm 3 Core	1	Mtr	1510.00
897	e	120 Sqmm 3 Core	1	Mtr	1715.00
898	f	150 Sqmm 3 Core	1	Mtr	1944.00
899	g	185 Sqmm 3 Core	1	Mtr	2304.00
900	h	240 Sqmm 3 Core	1	Mtr	2839.00
901	i	300 Sqmm 3 Core	1	Mtr	3199.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	<b>ELEC-4.2.2</b>	Supply of -----HT XLPE (E) insulated 33000 V grade armoured Cable, as per IS specification confirming to IS 7098/II/85 with latest amendments. Makes : Torrent / Unicab / Universal / Polycab / Havells / KEI / Gloster			
902	<b>a</b>	95 Sqmm 3 Core	1	Mtr	2374.00
903	<b>b</b>	120 Sqmm 3 Core	1	Mtr	2638.00
904	<b>c</b>	150 Sqmm 3 Core	1	Mtr	2886.00
905	<b>d</b>	185 Sqmm 3 Core	1	Mtr	3166.00
906	<b>e</b>	240 Sqmm 3 Core	1	Mtr	3627.00
907	<b>f</b>	300 Sqmm 3 Core	1	Mtr	4087.00
908	<b>g</b>	400 Sqmm 3 Core	1	Mtr	4732.00
	<b>4.3</b>	<b>CABLE GLANDS</b>			
		<b>SINGLE COMPRESSION HEAVY DUTY GLANDS FOR ARMOURED CABLES</b>			
	<b>ELEC-4.3.1</b>	Supply of heavy duty type single compression brass cable glands duly nickel plated complete with brass checknut, outer sheath sealing rubber ring and washers suitable for ----- -----XLPE insulated armoured cable etc complete. Makes: SMI / Commet / Dowels.			
909	<b>a</b>	Up to 16.0 Sq.mm 2 Core	1	No	108.00
910	<b>b</b>	Up to 16.0 Sq.mm 4 Core	1	No	138.00
911	<b>c</b>	25 Sqmm to 50.0 Sq.mm 3.5 Core	1	No	199.00
912	<b>d</b>	70 Sqmm to 95.0 Sq.mm 3.5 core	1	No	306.00
913	<b>e</b>	120 Sqmm to 150.0 Sq.mm 3.5 core	1	No	514.00
914	<b>f</b>	185 Sq.mm 3.5 core	1	No	636.00
915	<b>g</b>	240 Sq.mm 3.5 core	1	No	735.00
916	<b>h</b>	300 Sq.mm 3.5 core	1	No	919.00
917	<b>i</b>	400 Sq.mm 3.5 core	1	No	1072.00
		<b>DOUBLE COMPRESSION HEAVY DUTY GLANDS FOR ARMOURED CABLES</b>			
	<b>ELEC-4.3.2</b>	Supply of heavy duty type double compression weather proof type brass cable glands duly nickel plated as per BS 6121 and IP66 complete with brass checknut, outer sheath sealing gasket suitable for -----XLPE insulated armoured cable etc complete. Makes: SMI / Commet / Dowels.			
918	<b>a</b>	Up to 16.0 Sq.mm 2 Core	1	No	230.00
919	<b>b</b>	10 Sq.mm 4 Core	1	No	230.00
920	<b>c</b>	16 to 25 Sq.mm 4 Core	1	No	306.00
921	<b>d</b>	35 Sq mm 3.5 Core	1	No	377.00
922	<b>e</b>	50 Sq mm 3.5 Core	1	No	483.00
923	<b>f</b>	70 to 95 Sq.mm 4 Core	1	No	729.00
924	<b>g</b>	120 to 150 Sq.mm 4 Core	1	No	1011.00
925	<b>h</b>	185 Sq mm 3.5 Core	1	No	1240.00
926	<b>i</b>	240 Sq mm 3.5 Core	1	No	1639.00
927	<b>j</b>	300 Sq mm 3.5 Core	1	No	1898.00
928	<b>k</b>	400 Sq mm 3.5 Core	1	No	2174.00
		<b>SHROUDS FOR DOUBLE COMPRESSION</b>			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		<b>GLANDS</b>			
	<b>ELEC-4.3.3</b>	Supply and erecting of PVC shrouds for double compression brass cable glands suitable for -----XLPE insulated armoured cable etc complete.			
929	<b>a</b>	Up to 16.0 Sq.mm 2 Core	1	No	10.00
930	<b>b</b>	10 Sq.mm 4 Core	1	No	16.00
931	<b>c</b>	16 to 25 Sq.mm 4 Core	1	No	16.00
932	<b>d</b>	35 Sq mm 3.5 Core	1	No	25.00
933	<b>e</b>	50 Sq mm 3.5 Core	1	No	29.00
934	<b>f</b>	70 to 95 Sq.mm 4 Core	1	No	40.00
935	<b>g</b>	120 to 150 Sq.mm 4 Core	1	No	40.00
936	<b>h</b>	185 Sq mm 3.5 Core	1	No	61.00
937	<b>i</b>	240 Sq mm 3.5 Core	1	No	61.00
938	<b>j</b>	300 Sq mm 3.5 Core	1	No	89.00
939	<b>k</b>	400 Sq mm 3.5 Core	1	No	89.00
		<b>EARTH TAGS FOR GLANDS</b>			
	<b>ELEC-4.3.4</b>	Supply and erecting of brass earth tag for cable glands suitable for--- etc complete.			
940	<b>a</b>	up to 10.0 Sq.mm	1	No	16.00
941	<b>b</b>	16 to 35.0 Sq.mm	1	No	16.00
942	<b>c</b>	50.0 Sq.mm	1	No	23.00
943	<b>d</b>	70 to 95.0 Sq.mm	1	No	26.00
944	<b>e</b>	120 to 185.0 Sq.mm	1	No	36.00
945	<b>f</b>	240 to 300.0 Sq.mm	1	No	59.00
946	<b>g</b>	400.0 Sq.mm	1	No	81.00
	<b>4.4</b>	<b>LUGS</b>			
		<b>COPPER LUGS</b>			
	<b>ELEC-4.4.1</b>	Supply of heavy duty long barrel copper lugs confirming to I.S specifications suitable for ----- cable etc complete with nuts, bolts and washers. Makes: DMI / Jainson / Dowels or equivalent make as approved by the department			
947	<b>a</b>	Up to 16 Sq.mm	1	No	29.00
948	<b>b</b>	25 Sq.mm	1	No	39.00
949	<b>c</b>	35 Sq.mm	1	No	48.00
950	<b>d</b>	50 Sq.mm	1	No	67.00
951	<b>e</b>	70 Sq.mm	1	No	117.00
952	<b>f</b>	95 Sq.mm	1	No	144.00
953	<b>g</b>	120 Sq.mm	1	No	194.00
954	<b>h</b>	150 Sq.mm	1	No	229.00
955	<b>i</b>	185 Sq.mm	1	No	329.00
956	<b>j</b>	240 Sq.mm	1	No	475.00
957	<b>k</b>	300 Sq.mm	1	No	629.00
958	<b>l</b>	400 Sq.mm	1	No	921.00
		<b>ALLUMINIUM LUGS</b>			
	<b>ELEC-4.4.2</b>	Supply of heavy duty long barrel alluminium lugs confirming to I.S specifications suitable for ----- cable etc complete with nuts, bolts and washers. Makes: DMI / Jainson / Dowels or equivalent make as approved by the department			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
959	a	Upto 16 Sq.mm	1	No	17.00
960	b	25 Sq.mm	1	No	21.00
961	c	35 Sq.mm	1	No	24.00
962	d	50 Sq.mm	1	No	26.00
963	e	70 Sq.mm	1	No	33.00
964	f	95 Sq.mm	1	No	35.00
965	g	120 Sq.mm	1	No	49.00
966	h	150 Sq.mm	1	No	62.00
967	i	185 Sq.mm	1	No	81.00
968	j	240 Sq.mm	1	No	116.00
969	k	300 Sq.mm	1	No	154.00
970	l	400 Sq.mm	1	No	251.00
	<b>4.5</b>	<b>HEAT SHRINKABLE LT CABLE JOINTS</b>			
	<b>ELEC-4.5.1</b>	Supply and erecting of heat shrinkable straight through joint Indoor / Out door for L.T. XLPE Armoured 1100V grade cable complete with necessary accessories and suitable clamps including cost and conveyance of materials complete for -----with outer tubing seamless type etc complete for finished item of work. Makes : Raychem / Transeal / M Seal			
971	a	10 to 16 Sqmm 4 Core	1	No	2037.00
972	b	25 to 50 Sqmm 3.5 Core	1	No	2414.00
973	c	70 to 185 Sqmm 3.5 Core	1	No	3487.00
974	d	240 to 300 Sqmm 3.5 Core	1	No	6248.00
975	e	400 Sqmm 3.5 Core	1	No	8508.00
	<b>4.6</b>	<b>11 KV 3 CORE HT CABLE STRAIGHT THROUGH JOINTS</b>			
	<b>ELEC-4.6.1</b>	Providing and erecting heat shrinkable straight through joint for out door / indoor for H.T, XLPE Insulated armoured cable 11000V grade complete with necessary accessories and suitable clamps for -----cable including cost and conveyance of materials and all labour charges etc., complete with outer tubing tubular type. Makes : Raychem / Transeal / M Seal			
976	a	16 to 35Sqmm	1	No	20921.00
977	b	50 to 95Sqmm	1	No	25105.00
978	c	120 to 185Sqmm	1	No	32078.00
	<b>4.7</b>	<b>HT END TERMINATION KITS</b>			
	<b>ELEC-4.7.1</b>	Providing and erecting heat shrinkable indoor termination kit for 11 KV HT XLPE insulated armoured cable ----- with necessary materials etc., complete. Makes : Raychem / Transeal / M Seal			
979	a	70-95 Sqmm 3 core	1	No	11759.00
980	b	120 Sqmm 3 core	1	No	11926.00
981	c	150-185 Sqmm 3 core	1	No	12790.00
982	d	240-300 Sqmm 3 core	1	No	13669.00
	<b>ELEC-4.7.2</b>	Providing and erecting heat shrinkable outdoor termination kit for 11 KV HT XLPE			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		insulated armoured cable ----- with necessary materials etc., complete.Makes : Raychem / Transeal / M Seal			
983	a	70-95 Sqmm 3 core	1	No	17851.00
984	b	120 Sqmm 3 core	1	No	18131.00
985	c	150-185 Sqmm 3 core	1	No	19805.00
986	d	240-300 Sqmm 3 core	1	No	20363.00
	4.8	<b>CABLE FAULT DETECTION</b>			
987	ELEC-4.8.1	Cable Fault Detection for all types of LT underground cbles from 16 sq mm to 400 sq mm upto 250 Mtrs length of cable	1	Job	8050.00
988	ELEC-4.8.2	Cable Fault Detection for all types of HT underground cbles from 16 sq mm to 400 sq mm upto 250 Mtrs length of cable	1	Job	9200.00
	4.9	<b>DOUBLE WALLED CORRUGATED HDPE PIPE</b>			
	ELEC-4.9.1	Supply and Transportation of ..... double walled corrugated HDPE duct made as per specification BSEN - 500 86/IS 14930 Part-II with all accessories like couplers, bends, end caps, Ts etc., complete. Makes: DURA LINE (Dura Guard) / Bajaj / Gamson / Ultra Plus / CPE			
989	a	Outer dia 50mm and Inner dia 38mm	1	Mtr	105.00
990	b	Outer dia 63mm and Inner dia 51mm	1	Mtr	135.00
991	c	Outer dia 78mm and Inner dia 63mm	1	Mtr	164.00
992	d	Outer dia 90mm and Inner dia 76mm	1	Mtr	175.00
993	e	Outer dia 120mm and Inner dia 103.50mm	1	Mtr	273.00
994	f	Outer dia 160mm and Inner dia 136mm	1	Mtr	405.00
995	g	Outer dia 180mm and Inner dia 152mm	1	Mtr	531.00
996	h	Outer dia 200mm and Inner dia 170mm	1	Mtr	619.00
	4.10	<b>CABLE TRAYS</b>			
		<b>PERFORATED CABLE TRAYS</b>			
	ELEC-4.10.1	Supply, Transportation and Installation of ----- hot dip GI perforated cable tray <b>without cover</b> along with coupler plates, T's, Bends, Reducers, Anchor bolts, nuts, washers and slotted channels / Angle Iron Channels etc complete and the tray should be fitted on the wall / Ceiling etc. complete for finished item of work. (Makes: DEC/MNR/ H FAB or equivalent)			
		<b>Note:</b> Add 30% Extra for Perforated cable tray with cover on below rates.			
997	a	600mm x 75mm x 2mm thick	1	Mtr	1778.00
998	b	600mm x 50mm x 2mm thick	1	Mtr	1320.00
999	c	450mm x 50mm x 2mm thick	1	Mtr	1159.00
1000	d	300mm x 50mm x 2mm thick	1	Mtr	980.00
1001	e	150mm x 50mm x 2mm thick	1	Mtr	547.00
1002	f	100mm x 25mm x 2mm thick	1	Mtr	320.00
1003	g	75mm x 25mm x 2mm thick	1	Mtr	282.00
1004	h	600mm x 75mm x 1.6mm thick	1	Mtr	1426.00
1005	i	600mm x 50mm x 1.6mm thick	1	Mtr	1053.00
1006	j	450mm x 50mm x 1.6mm thick	1	Mtr	926.00



SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1007	k	300mm x 50mm x 1.6mm thick	1	Mtr	799.00
1008	l	150mm x 50mm x 1.6mm thick	1	Mtr	432.00
1009	m	100mm x 25mm x 1.6mm thick	1	Mtr	255.00
1010	n	75mm x 25mm x 1.6mm thick	1	Mtr	227.00
		<b>LADDER TYPE CABLE TRAYS</b>			
	<b>ELEC-4.10.2</b>	Supply, Transportation and Installation of ----- GI Ladder type cable tray along with required coupler plates, T's, Bends, Reducers, Anchor bolts, nuts, washers and slotted channels / Angle Iron Channels etc complete and the tray should be fitted on the wall / Ceiling etc. complete for finished item of work. (Makes: DEC/MNR/ H FAB or equivalent)			
1011	a	1000mm x 75mm x 2mm thick	1	Mtr	1411.00
1012	b	750mm x 75mm x 2mm thick	1	Mtr	1272.00
1013	c	600mm x 75mm x 2mm thick	1	Mtr	1118.00
1014	d	300mm x 50mm x 2mm thick	1	Mtr	698.00
1015	e	150mm x 50mm x 2mm thick	1	Mtr	559.00
		<b>SECTION - 5</b>			
	<b>5.1</b>	<b>FANS</b>			
1016	<b>ELEC- 5.1.1</b>	Supply, Transportation of energy efficient fan, 1200 mm sweep, aluminium body, consuming 28 W, BEE 5 star rated, ceiling fan with Brush Less Direct Current(BLDC) motor, class of insulation: B, 3 no's blades, 30 cm long down rod, 2 no's canopies, shackle'kit, safety rope, copper winding, Power Factor greater than 0.90, Service Value (CMMAV) greater than 8.5, Air delivery minimum 235 CMM, 350 RPM (tolerance as per IS:374-2019), THD less than 10%. with remote or compatible to electronic step type regulator unit for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise=75 degree C(max), insulation resistance more than 2 mega ohm, suitable for 230V, 50 HZ, single phase AC supply, earthing etc., including all standard accessories etc., complete. Makes : Atomberg (Efficio ) / Havells / Orient	1	No	2882.00
1017	<b>ELEC- 5.1.2</b>	Supply, Transportation of energy efficient fan, 1400 mm sweep, aluminium body, consuming 32 W, BEE 5 star rated, ceiling fan with Brush Less Direct Current(BLDC) motor, class of insulation: B, 3 no's blades, 30 cm long down rod, 2 no's canopies, shackle'kit, safety rope, copper winding, Power Factor greater than 0.90, Service Value (CMMAV) greater than 7.85, Air delivery minimum 270 CMM, 275 RPM( tolerance as per IS:374-2019), THD less than 10%. with remote or	1	No	3019.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		compatible to electronic step type regulator unit for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise = 75 degree C(max), insulation resistance more than 2 mega ohm, suitable for 230V, 50 HZ, single phase AC supply, earthing etc., including all standard accessories etc., complete. Makes : Atomberg (Efficio ) / Havells / Orient			
1018	ELEC- 5.1.3	Supply, Transportation of energy efficient decorative fan, 1200 mm sweep, aluminium body, consuming 28 W, BEE 5 star rated, ceiling fan with Brush Less Direct Current(BLDC)motor, class of insulation: B, 3 no's blades, 30 cm long down rod, 2 no's canopies, shackle kit, safety rope, copper winding, Power Factor greater than 0.90, Service Value (CMM/W) greater than 8.5, Air delivery minimum 235 CMM, 350 RPM (tolerance as per IS:374-2019), THD less than 10%, remote or compatible to electronic step type regulator unit for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise = 75 degree C (max), insulation resistance more than 2 mega ohm, suitable for 230V, 50 HZ, single phase AC supply, earthing etc., complete.Makes : Atomberg (Efficio + ) / Havells / Orient / RR / Halonix	1	No	3060.00
1019	ELEC- 5.1.4	Supply, Transportation of energy efficient decorative fan, 1400 mm sweep, aluminium body, consuming 35 W, BEE 5 star rated, ceiling fan with Brush Less Direct Current(BLDC)motor, class of insulation: B, 3 no's blades, 30 cm long down rod, 2 no's canopies, shackle kit, safety rope, copper winding, Power Factor greater than 0.90, Service Value (CMM/W) greater than 7.8, Air delivery minimum 270 CMM, 275 RPM (tolerance as per IS:374-2019), THD less than 10%, remote or compatible to electronic step type regulator unit for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise = 75 degree C (max), insulation resistance more than 2 mega ohm, suitable for 230V, 50 HZ, single phase AC supply, earthing etc., complete. Makes : Atomberg (Efficio + ) / Havells / Orient / RR / Halonix	1	No	3366.00
1020	ELEC-5.1.5	Supply of 12" (300mm) Cabin fan. Makes : Crompton / Havells ciera /	1	No	1934.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Orient AP12 / Panasonic / Halonix / RR.			
1021	ELEC-5.1.6	Supply of 16" (400 mm) BLDC 32 W Pedestal Fan with service value 2.7 CMM / Watt and with remote controller and with all accessories etc., Makes : Atomberg / Crompton / Orient / Havells / Halonix .	1	No	3019.00
1022	ELEC-5.1.7	Supply of 16" (400mm) BLDC 30 W Wall mounted Fan with service value 2.7 CMM / Watt with all accessories etc., Makes : Atomberg / Crompton / Orient / Havells / Halonix .	1	No	2805.00
	ELEC-5.1.8	Supply of -----Wall mounting / Pedestal Air CirculatorsMakes : Crompton / Havells Turbo Force / Orient / Almonard / Panasonic / Halonix / RR.			
1023	a	18" (450mm)	1	No	6096.00
1024	b	24" (600mm)	1	No	7445.00
	ELEC-5.1.9	Supply of ----- Light duty exhaust fan with metal blades etc complete Makes : Crompton / Havells Ventilair-DB / Orient hill air.			
1025	a	9" (225mm)	1	No	1451.00
1026	b	12" (300mm)	1	No	1615.00
	ELEC-5.1.10	Supply of ----- Ventilating exhaust fan with shutters etc complete Makes : Crompton / Havells Ventilair / Orient / Panasonic / Halonix / RR.			
1027	a	6" (150mm)	1	No	1462.00
1028	b	8" (200mm)	1	No	1687.00
	ELEC-5.1.11	Supply of -----, 900 RPM Heavy duty exhaust fan with metallic blades. Makes : Crompton / Almonard / Havells Turbo Force SP.			
1029	a	12" (300mm)	1	No	3183.00
1030	b	15" (375mm)	1	No	3756.00
1031	c	18" (450mm)	1	No	4903.00
	ELEC-5.1.12	Supply and fixing of GI louver shutter including GI mesh to avoid birds entry with necessary materials suitable for ----- Exhaust fan.			
1032	a	9"	1	No	157.00
1033	b	12"	1	No	169.00
1034	c	15" / 16"	1	No	185.00
1035	d	18"	1	No	202.00
	ELEC-5.1.13	Providing recessing -----thickness brick wall suitable for erection of exhaust fan up to 450mm sweep completed with grouting, nuts, bolts, plastering and colour wash to match the the colour of wall .			
1036	a	9"	1	No	260.00
1037	b	12"	1	No	450.00
1038	c	15" / 18"	1	No	562.00
1039	ELEC-5.1.14	Supply of 8" (200 mm) 20 W / 1500 RPM	1	No	1591.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		BLDC exhaust fan with necessary accessories etc., complete Makes : Atomberg / Crompton / Havells / Orient.			
	<b>5.2</b>	<b>WATER HEATERS</b>			
	<b>ELEC-5.2.1</b>	Supply, Transportation, Installation, Testing and commissioning of storage / Pressure type Vertical / Horizontal 230/250V single phase 2000 watts 5 Star rated water heater with ABS plastic body of ----- capacity to withstand up to 8.0 bar of water pressure including all standard accessories and dead weight pressure reducing valve on out let side, including cost of 2 Nos SS flexible braided hose pipe, testing and all labour charges etc., complete. Makes : Crompton / Jaquar / Venus / Racold / AO Smith / Havells / Bajaj or equivalent as approved by the Dept.			
1040	<b>a</b>	10 Ltrs	1	No	9800.00
1041	<b>b</b>	15 Ltrs	1	No	10882.00
1042	<b>c</b>	25 Ltrs	1	No	12734.00
	<b>5.3</b>	<b>ACCESSORIES FOR WATER HEATERS</b>			
1043	<b>ELEC-5.3.1</b>	Supply and Installation of Heating element of 1.5 / 2.0 / 3.0 KW.	1	No	494.00
1044	<b>ELEC-5.3.2</b>	Supply, Installation, Testing and Commissioning of thermostat with range 30° to 90°C adjustable and suitable for 25 to 50 Ltrs capacity.	1	No	334.00
1045	<b>ELEC-5.3.3</b>	Supply , Installation, Testing and Commissioning of pressure release valve for water heater of 15 to 50 Ltrs.capacity.	1	No	334.00
1046	<b>ELEC-5.3.4</b>	Supply, , Installation, Testing and Commissioning of Metallic / SS Flexible braided hose pipe	1	No	222.00
		<b>NOTE :</b> If it is only supply the material (without installation) reduce the prices by 5%			
	<b>5.4</b>	<b>STARTERS FOR MOTORS</b>			
	<b>ELEC-5.4.1</b>	Supply & Fixing of D.O.L Starter 250V, Single phase, 50Hz. With SS encloser comprising of contactor with bi-metalic relay with necessary push buttons, etc., complete suitable ----- Makes: Siemens / Crompton / L&T / BCH / ABB			
1047	<b>a</b>	Up to 3.0 HP.	1	No	990.00
1048	<b>b</b>	Upto 7.5.HP.	1	No	2310.00
1049	<b>c</b>	Upto 10.0.HP.	1	No	3850.00
	<b>ELEC-5.4.2</b>	Supply & Fixing of Star Delta Starter 415V, Three phase, 50Hz. With SS encloser comprising of contactor with bi-metalic relay with necessary push buttons, etc., complete suitable from ----			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Makes: Siemens / Crompton / L&T / BCH.			
1050	a	12.5 HP to 15.0 HP.	1	No	7480.00
1051	b	Above 15.0 HP up to 25.0 HP.	1	No	13695.00
1052	c	Above 25.0 HP up to 35.0 HP.	1	No	28368.00
1053	ELEC-5.4.3	Supply and erecting water level controller 230 / 415V AC, 2 way per under ground tank operation only.	1	No	1891.00
1054	ELEC-5.4.4	Supply and erecting water level controller 230 / 415V AC, 2 way per over head tank operation only.	1	No	2182.00
1055	ELEC-5.4.5	Supply and erecting Float sensor switch for water level controller working on 250V and rated current 8 A, with 2Mtr High quality wire.	1	No	727.00
1056	ELEC-5.4.6	Supply and erecting directly operated single phasing preventer complete erected and connected to power supply to operate in case of single phasing.	1	No	1164.00
1057	ELEC-5.4.7	Supply and erecting pump protection relay comprising current sensing phase failure and UV+OV relay with dry run and over load protection suitable for 3 phase pumps.	1	No	3637.00
	5.5	<b>SINGLE PHASE SUBMERSIBLE MOTOR PUMP SETS</b>			
	ELEC-5.5.1	Supply and Transportation of ----- ----- single phase ISI submersible motor pumpset suitable for 4" Bore well. Makes: Texmo / CRI / KSB / Aryan Varsha / Lubi / Falcon			
1058	a	0.75HP 8 Stage	1	No	17892.00
1059	b	1.00HP 10 Stage	1	No	20412.00
1060	c	1.00HP 15 Stage	1	No	21042.00
1061	d	1.50HP 21 Stage	1	No	25452.00
1062	e	2.00HP 25 Stage	1	No	30870.00
	ELEC-5.5.2	Supply and Transportation of ----- ----- single phase ISI submersible motor pumpset suitable for 4" Bore well. Makes: Flowell / Waterman / Ellen / Kirlosker / Samudra			
1063	a	0.75 HP 8 Stage	1	No	17010.00
1064	b	1.00 HP 10 Stage	1	No	19404.00
1065	c	1.00 HP 15 Stage	1	No	20034.00
1066	d	1.50 HP 21 Stage	1	No	24318.00
1067	e	2.00 HP 25 Stage	1	No	29106.00
	5.6	<b>THREE PHASE SUBMERSIBLE MOTOR PUMP SETS.</b>			
	ELEC-5.6.1	Supply and Transportation of star rated - -----Three phase ISI submersible motor pumpset suitable for 6" Bore well. Makes: Texmo / CRI / KSB / Aryan Varsha / Lubi / Falcon			
1068	a	3.00 HP 5-10 Stage	1	No	31749.00
1069	b	5.00 HP 5-10 Stage	1	No	35718.00
1070	c	5.00 HP 12-16 Stage	1	No	40104.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1071	d	7.50 HP 5-10 Stage	1	No	39582.00
1072	e	7.50 HP 12-16 Stage	1	No	43759.00
1073	f	7.50 HP 20-25 Stage	1	No	46861.00
1074	g	10.00 HP 12-18 Stage	1	No	46266.00
1075	h	10.00 HP 20-30 Stage	1	No	58069.00
1076	i	10.00 HP 35-40 Stage	1	No	65930.00
1077	j	12.50 HP 12-20 Stage	1	No	56167.00
1078	k	12.50 HP 24-40 Stage	1	No	68465.00
1079	l	15.00 HP 10-20 Stage	1	No	73537.00
1080	m	15.00 HP 24-40 Stage	1	No	76073.00
	<b>ELEC-5.6.2</b>	Supply and Transportation of star rated - -----Three phase ISI submersible motor pumpset suitable for 6" Bore well. Makes: Flowell / Waterman / Ellen / Kirlosker / Samudra			
1081	a	3.00 HP 5-10 Stage	1	No	29825.00
1082	b	5.00 HP 5-10 Stage	1	No	33103.00
1083	c	5.00 HP 12-16 Stage	1	No	37801.00
1084	d	7.50 HP 5-10 Stage	1	No	37254.00
1085	e	7.50 HP 12-16 Stage	1	No	41187.00
1086	f	7.50 HP 20-25 Stage	1	No	44460.00
1087	g	10.00 HP 12-16 Stage	1	No	43700.00
1088	h	10.00 HP 20-30 Stage	1	No	45011.00
1089	i	10.00 HP 35-40 Stage	1	No	53820.00
1090	j	12.50 HP 12-20 Stage	1	No	50600.00
1091	k	12.50 HP 24-40Stage	1	No	55775.00
1092	l	15.00 HP 10-20 Stage	1	No	60996.00
1093	m	15.00 HP 24-40 Stage	1	No	62100.00
	<b>5.7</b>	<b>SINGLE PHASE OPEN WELL SUBMERSIBLE MOTOR PUMP SETS.</b>			
	<b>ELEC-5.7.1</b>	Supply, Transportation and Installation of-----Single phase open well ISI submersible motor pumpset. Makes: Texmo / CRI / KSB / Aryan Varsha / Lubi / Falcon			
1094	a	1.00 HP	1	No	13524.00
1095	b	1.50 HP	1	No	15335.00
1096	c	3.00 HP	1	No	Deleted
	<b>ELEC-5.7.2</b>	Supply, Transportation and Installation of-----Single phase open well ISI submersible motor pumpset. Makes: Flowell / Waterman / Ellen / Samudra			
1097	a	1.00 HP	1	No	12800.00
1098	b	1.50 HP	1	No	14611.00
1099	c	3.00 HP	1	No	Deleted
	<b>5.8</b>	<b>THREE PHASE OPEN WELL SUBMERSIBLE PUMP SETS.</b>			
	<b>ELEC-5.8.1</b>	Supply, Transportation and Installation of ----- Three phase open well ISI submersible motor pumpset----- Makes: Texmo / CRI / KSB / Aryan Varsha / Lubi / Falcon			
1100	a	3.00 HP	1	No	28380.00
1101	b	5.00 HP	1	No	32802.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1102	c	7.50 HP	1	No	38962.00
1103	d	10.00 HP	1	No	40986.00
	<b>ELEC-5.8.2</b>	Supply, Transportation and Installation of ----- Three phase open well ISI submersible motor pumpset----- Makes: Varuna / Flowell / Waterman / Techno / Mahavir / unitek / Fitwell / Ellen / Karvel / LPS / Duke / Varsha / Ajantha / Samudra			
1104	a	3.00 HP	1	No	26790.00
1105	b	5.00 HP	1	No	30950.00
1106	c	7.50 HP	1	No	36743.00
1107	d	10.00 HP	1	No	38572.00
	<b>5.9</b>	<b>SINGLE PHASE MONO BLOCK MOTOR PUMP SETS.</b>			
1108	<b>ELEC-5.9.1</b>	Supply and Transportation of 0.5HP Single phase, 2880 RPM 50 Hz ISI Mono block CI body motor pumpset Makes: Texmo / CRI / KSB / Aryan Varsha / Lubi / Falcon	1	No	6958.00
1109	<b>ELEC-5.9.2</b>	Supply and Transportation of 0.5HP Single phase, 2880 RPM 50 Hz ISI Mono block CI body motor pumpset Makes: Flowell / Waterman / Ellen / Samudra	1	No	6679.00
	<b>ELEC-5.9.3</b>	Supply and Transportation of----- --Single phase ISI Mono block CI body motor pumpset----- Makes: Texmo / CRI / KSB / Aryan Varsha / Lubi / Falcon			
1110	a	1.00 HP (25x25mm).	1	No	11923.00
1111	b	1.50 HP (32x25mm).	1	No	15898.00
	<b>ELEC-5.9.4</b>	Supply and Transportation of----- --Single phase ISI Mono block CI body motor pumpset. Makes: Varuna / Flowell / Waterman / Ellen / LPS Varsha / Samudra			
1112	a	1.00 HP (25x25mm).	1	No	9601.00
1113	b	1.50 HP (32x25mm).	1	No	12802.00
	<b>ELEC-5.9.5</b>	Supply and Transportation of ----- ----- self priming Mono block IP44 motor pumpset----- Makes: Texmo / CRI / KSB / Aryan Varsha / Lubi / Falcon			
1113	a	0.5 HP Single phase	1	No	4750.00
1114	b	1.00 HP Single phase	1	No	5905.00
1114	c	1.50 HP Single phase	1	No	8900.00
	<b>ELEC-5.9.6</b>	Supply and Transportation of ----- ----- Mono block IP44 motor pumpset----- Makes: Texmo / CRI / KSB / Aryan Varsha / Lubi / Falcon			
1115	a	2.00 HP Three phase	1	No	18900.00
1116	b	3.00 HP Three phase	1	No	29040.00
1117	c	5.00 HP Three phase	1	No	32422.00
1118	d	7.50 HP Three phase	1	No	40700.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1119	e	10.0 HP Three phase	1	No	51400.00
	ELEC-5.9.7	Supply and Transportation of ----- -----self priming Mono block IP44 motor pumpset----- Makes: Flowell / Waterman/ Ellen / Samudra			
1120	a	0.5 HP Single phase	1	No	4500.00
1121	b	1.00 HP Single phase	1	No	4640.00
1122	c	1.50 HP Single phase	1	No	8000.00
	ELEC-5.9.8	Supply and Transportation of ----- ----- Mono block IP44 motor pumpset----- Makes: Flowell / Waterman/ Ellen / Samudra			
1123	a	2.00 HP Three phase	1	No	14850.00
1124	b	3.00 HP Three phase	1	No	21960.00
1125	c	5.00 HP Three phase	1	No	25530.00
1126	d	7.50 HP Three phase	1	No	30000.00
1127	e	10.0 HP Three phase	1	No	42000.00
	5.10	<b>CONTROL PANEL BOARD FOR MOTORS</b>			
1128	ELEC-5.10.1	Supply and Transportation of control panel for single phase submersible motors up to 3 HP @ 220V 50Hz operating range between 80 to 240V including supply and fixing of Direct - on - Line LTLK / SIEMENS / CROMPTON make Volt meter and Ammeter with starting and running capacitors assembled with ISI mark contactors and fitted with Legrand make ISI mark MCB etc., complete.	1	No	7734.00
1129	ELEC-5.10.2	Supply and Transportation of control panel for three phase submersible motors up to 5 HP @ 415V 50Hz operating fitted with supply and fixing of Direct - on - Line LTLK / BCH/ SIEMENS / CROMPTON make, 0-500V Volt meter and 0-30A Ammeter, Indication lamps, selector switches, CTS, 32A TP MCB, Single phase preventor,suitable contactor to with stand low voltage pick up and high voltage resistant, with ISI marked capacitors assembled with ISI mark contactors and fitted with Legrand make ISI mark MCB etc., complete.	1	No	12032.00
1130	ELEC-5.10.3	Supply and Transportation of control panel for three phase submersible motors above 5 HP up to 7.5 HP @ 415V 50Hz operating fitted with supply and fixing of Direct - on - Line LTLK / BCH/ SIEMENS / CROMPTON make, 0-500V Volt meter and 0-30A Ammeter, Indication lamps, selector switches, CTS, 32A TP MCB, Single phase preventor,suitable contactor to with stand low voltage pick up and high voltage resistant, with ISI marked capacitors assembled with ISI mark	1	No	14438.00



SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		contactors and fitted with Legrand make ISI mark MCB etc., complete.			
1131	ELEC-5.10.4	Supply and Transportation of control panel for three phase submersible motors above 7.5 HP to 12.5 HP @ 415V 50Hz operating fitted with supply and fixing of Direct - on - Line LTLK /BCH/ SIEMENS / CROMPTON make, 0-500V Volt meter and 0-30A Ammeter, Indication lamps, selector switches, CTS, 32A TP MCB, Single phase preventor, suitable contactor to with stand low voltage pick up and high voltage resistant, with ISI marked capacitors assembled with ISI mark contactors and fitted with Legrand make ISI mark MCB etc., complete.	1	No	16500.00
		<b>Note:</b> If it is Out door panel add 10% extra on above.			
	<b>5.11</b>	<b>UPVC PIPES AND FITTINGS</b>			
	ELEC-5.11.1	Supply and delivery of UPVC Raising Column Pipes for submersible motors with both ends square threaded, with rubber 'O' rings with smooth inner surface which can take the minimum load of 2100 to 4000 Kgs weights. Makes : Ashirvad / Finolex / Waterflo / Apollo / Falcon / Hindware			
1132	a	Nominal diameter of Standard 42 / 32mm UPVC pipe with standing upto 20 Kgs / CM2 upto 200 Mts	1	Mtr	189.00
1133	b	Nominal diameter of Standard 48 / 40mm UPVC pipe with standing upto 20 Kgs / CM2 upto 200 Mts	1	Mtr	223.00
1134	c	Nominal diameter of Standard 60 / 50 mm UPVC pipe with standing upto 20 Kgs / CM2 upto 200 Mts	1	Mtr	328.00
1135	d	Nominal diameter of Standard 75 / 65 mm UPVC pipe with standing upto 20 Kgs / CM2 upto 200 Mts	1	Mtr	439.00
1136	e	Nominal diameter of Standard 88 / 80 mm UPVC pipe with standing upto 20 Kgs / CM2 upto 200 Mts	1	Mtr	621.00
	ELEC-5.11.2	<b>SUITABLE HEAVY DUTY COUPLINGS FOR STANDARD PIPES</b>			
1137	a	Nominal diameter of heavy duty couplings 42/32 mm UPVC pipe (27 Kgs / CM 2) capable of with standing up to 27 Kgs /CM2 above 200 mts and upto 300 mts	1	No	59.00
1138	b	Nominal diameter of heavy duty couplings 48/40 mm UPVC pipe (27 Kgs/ CM 2) capable of with standing up to 27 Kgs/CM2 above 200 mts and upto 300 mts	1	No	90.00
1139	c	Nominal diameter of heavy duty couplings 60/50 mm UPVC pipe (27 Kgs /	1	No	97.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		CM 2) capable of with standing up to 27 Kgs/CM2 above 200 mts and upto 300 mts			
1140	d	Nominal diameter of heavy duty couplings 75/65 mm UPVC pipe (27 Kgs / CM 2 ) capable of with standing up to 27 Kgs / CM2 above 200 mts and upto 300 mts	1	No	110.00
1141	e	Nominal diameter of heavy duty couplings 88/80 mm UPVC pipe (27 Kgs / CM 2 ) capable of with standing up to 27 Kgs / CM2 above 200 mts and upto 300 mts	1	No	132.00
	<b>ELEC-5.11.3</b>	Supply and Delivery of CI Adopter Assembly Makes : Ashirvad / Finolex / Waterflo / Apollo.			
1142	a	1 1/2"	1	No	960.00
1143	b	2"	1	No	1258.00
1144	c	2 1/2"	1	No	1623.00
	<b>ELEC-5.11.4</b>	Supply and Delivery of pump guard assembly with 2Nos SS Powder coated flange and 2Nos SS Rods with nut and colter pin. Makes : Ashirvad / Finolex / Waterflo / Apollo.			
1145	a	1 1/2"	1	No	596.00
1146	b	2"	1	No	662.00
1147	c	2 1/2"	1	No	895.00
1148	d	3"	1	No	1325.00
	<b>5.12</b>	<b>REPAIRS TO MOTORS</b>			
1149	<b>ELEC-5.12.1</b>	Rewinding of motor of table fan / wall bracket fan / Cabin Fan including minor repairs, lubrication of ball bearings, bush bearings and replacing condencer, screws etc testing of fan for original speed.	1	No	600.00
1150	<b>ELEC-5.12.2</b>	Rewinding of motor of 900mm ceiling Fan including minor repairs, lubrication of ball bearings, bush bearings and replacing condencer, screws etc testing of fan for original speed.	1	No	626.00
1151	<b>ELEC-5.12.3</b>	Rewinding of motor of 1200mm / 1400mm ceiling Fan including minor repairs, lubrication of ball bearings, bush bearings and replacing condencer, screws etc testing of fan for original speed.	1	No	639.00
1152	<b>ELEC-5.12.4</b>	Rewinding of motor of 900 / 1400 RPM 300mm Exhaust Fan including minor repairs, lubrication of ball bearings, bush bearings and replacing condencer, screws etc testing of fan for original speed.	1	No	639.00
1153	<b>ELEC-5.12.5</b>	Rewinding of motor of 900 / 1400 RPM 375mm Exhaust Fan including minor repairs, lubrication of ball bearings, bush bearings and replacing condencer, screws etc testing of fan for original speed.	1	No	759.00
1154	<b>ELEC-5.12.6</b>	Rewinding of motor of 900 / 1400 RPM 450mm Exhaust Fan including minor repairs, lubrication of ball bearings, bush	1	No	1065.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		bearings and replacing condenser, screws etc testing of fan for original speed.			
	<b>ELEC-5.12.7</b>	Rewinding of Electric motor up to and including.....HP, 3 Phase up to 1400 RPM of all types and makes with copper wire including minor repairs, lubrication of ball bearings, bush bearings and replacing condenser, screws etc testing of motor for original speed.			
1155	<b>a</b>	Up to 1.00 HP	1	No	1961.00
1156	<b>b</b>	Above 1.00 HP up to 2.00 HP	1	No	2197.00
1157	<b>c</b>	Above 2.00 HP up to 3.00 HP	1	No	2636.00
1158	<b>d</b>	Above 3.00 HP up to 5.00 HP	1	No	4392.00
1159	<b>e</b>	Above 5.00 HP up to 7.50 HP	1	No	5271.00
1160	<b>f</b>	Above 7.50 HP up to 10.00 HP	1	No	6295.00
1161	<b>g</b>	12.50 HP up to 15.00 HP	1	No	7321.00
	<b>ELEC-5.12.8</b>	Rewinding of Submersible pums motor up to and including.....HP, 3 Phase up to 1400 RPM of all types and makes with copper wire including minor repairs, lubrication of ball bearings, bush bearings and replacing condenser, screws etc testing of motor for original speed.			
1162	<b>a</b>	Up to 5.00 HP	1	HP	1815.00
1163	<b>b</b>	Above 5.00 HP up to 25.00 HP	1	HP	2489.00
		<b>Note:</b> If it is in open well submersible rate shall be decreased by 40%			
	<b>ELEC-5.12.9</b>	Bearing of approved make for electric motor single phase / 3 phase AC ----- of all types.			
1164	<b>a</b>	Upto 1 HP	1	No	230.00
1165	<b>b</b>	Upto 2 to 3 HP	1	No	297.00
1166	<b>c</b>	Upto 5 to 7.5 HP	1	No	387.00
1167	<b>d</b>	Upto 10 to 12.5 HP	1	No	406.00
1168	<b>e</b>	Upto 15 to 20 HP	1	No	617.00
	<b>ELEC-5.12.10</b>	Supply of -----for table / cabin / pedestal / ceiling / exhaust fan complete with alignment of shaft and tested.			
1169	<b>a</b>	Bearing	1	No	176.00
1170	<b>b</b>	Bush / rubber / ring washers	1	No	94.00
1171	<b>c</b>	Capacitor	1	No	55.00
1172	<b>ELEC-5.12.11</b>	EICHER model 11:10 with 100 H.P. direct injection 4 stroke engine with one spare wheel 3800 mm cabin high deck with jangla (full body) (4 wheeler) for generator	1	No	600000.00
	<b>5.13</b>	<b>ACCESSORIES OF MOTORS</b>			
	<b>ELEC-5.13.1</b>	Supply, Transportation and fixing of suitable pump guard set (2Nos SS), Flanges set (2 Nos) to protect and safe guard the pump and Motor from vibrations while starting and switching of the pumpset.			
1173	<b>a</b>	OD 42mm	1	No	418.00
1174	<b>b</b>	OD 48mm	1	No	495.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1175	c	OD 60mm	1	No	710.00
1176	d	OD 75mm	1	No	853.00
1177	e	OD 80mm	1	No	1100.00
	<b>ELEC-5.13.2</b>	Supply, Transportation and fixing of seamless cast iron adopter assembly (Two Nos at bottom of the pipe to coupling to the pump set and the other at top end of the pipes) for installing the pump set with pipes including cost and conveyance of all materials, taxes etc., complete.			
1178	a	OD 42mm	1	No	611.00
1179	b	OD 48mm	1	No	710.00
1180	c	OD 60mm	1	No	930.00
1181	d	OD 75mm	1	No	1199.00
1182	e	OD 80mm	1	No	1430.00
	<b>ELEC-5.13.3</b>	Supply, Transportation and fixing of ----- -----90 degree bend with length of 20cm (Center to face) galvanised GI bends heavy duty with threaded at both ends for installing the pump set including cost and conveyance of all materials, taxes etc., complete.			
1183	a	50mm dia	1	No	248.00
1184	b	65mm dia	1	No	333.00
1185	c	80mm dia	1	No	420.00
	<b>ELEC-5.13.4</b>	Supply, Transportation and fixing of following MS threaded Flanges 2 Nos with nuts and bolts including cost and conveyance of all materials, taxes etc., complete.			
1186	a	50mm dia MS flanges set (2 Nos) 150mm dia OD, 12mm thick each flange with required dia bolts and nuts.	1	No	319.00
1187	b	65mm dia MS flanges set (2 Nos) 165mm dia OD, 12mm thick each flange with required dia bolts and nuts.	1	No	452.00
1188	c	80mm dia MS flanges set (2 Nos) 175mm dia OD, 12mm thick each flange with required dia bolts and nuts.	1	No	480.00
	<b>ELEC-5.13.5</b>	Supply and erecting cast iron foot wall ball type / Flat type of size .....dia with strainer for negetive suction etc complete.			
1189	a	80mm	1	No	4950.00
1190	b	100mm	1	No	7150.00
1191	c	150mm	1	No	17600.00
1192	d	200mm	1	No	29700.00
	<b>ELEC-5.13.6</b>	Supply, Transportation and fixing of ----- ----- 450mm length, 12mm thickness and 75mm wide MS Clamp set with required nuts and bolts.			
1193	a	40mm dia	1	No	374.00
1194	b	50mm dia	1	No	438.00
1195	c	65mm dia	1	No	461.00
1196	d	80mm dia	1	No	613.00
1197	e	150mm dia galvanised bore cover	1	No	235.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1198	f	150mm dia stainless steel bore cover	1	No	461.00
		<b>SECTION - 6</b>			
		<b>AIR CONDITIONERS</b>			
	<b>6.1</b>	<b>SPLIT Acs</b>			
	<b>ELEC-6.1.1</b>	Supply and Transportation of split AC unit with high wall mounted 100% copper indoor unit and outdoor condensing unit Hermetically sealed compressor suitable for operation on 230V, 50Hz, 1Phase AC supply capable of performing cooling dehumidifying air circulating and filtering with cooling and condensing units with 3.0 mts of copper piping, insulation kit and 4 mts of 3 core copper flexible chord (Voltage range 160- 264 volts) and cordless remote control with 5 years warranty compressor and comprehensive maintenance for 2 years			
1199	a	<b>1.5 TR 3 Star</b> capable of delivering 18000 BTU/hr Carrier / Daikin / Blue Star / Hitachi or equivalent	1	No	37058.00
1200	b	<b>2.0 / 1.8 TR 2-3 Star</b> capable of delivering 21600 BTU/hr and above of makes Daikin / Thoshiba / O General / Carrier / Blue Star / Hitachi or equivalent	1	No	44629.00
	<b>6.2</b>	<b>INVERTER SPLIT AC UNITS (COOLING ONLY)</b>			
	<b>ELEC-6.2.1</b>	Supply and Transportation of of INVERTER Model Cool type split AC unit with high wall mounted Single Split 100% copper indoor and outdoor condensing unit Hermetically sealed compressor suitable for operation on 230V, 50Hz, 1Phase AC supply capable of performing Heat cool dehumidifying air circulating and filtering with cooling and condensing units with 3.0 mts of copper piping, insulation kit and 4 mts of 4 core copper flexible chord (Voltage range 160- 264 volts) and cordless remote control with with warranty of compressor for 5 years iand comprehensive maintenance for 2 years			
1201	a	<b>1.5 TR 4 Star</b> capable of delivering 18000 BTU/hr and above with operating on refrigerant R-32 / R-410 Makes : Daikin / Blue Star / Toshibha / Carrier / Hitachi or equivalent	1	No	39690.00
1202	b	<b>1.5 TR 5 Star</b> capable of delivering 18000 BTU/hr and above with operating on refrigerant R-32 / R-410 Makes : Daikin / Toshibha / Carrier / Blue Star / Hitachi or equivalent	1	No	46658.00
1203	c	<b>2.0 / 1.8 TR 4 Star</b> capable of delivering 21600 BTU/hr and above with operating on refrigerant R-32 / R-410 Makes : Daikin	1	No	53581.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		/ Toshiba / Carrier / Blue Star / Hitachi or equivalent			
1204	d	<b>2.0 / 1.8 TR 5 Star</b> capable of delivering 21600 BTU/hr and above with operating on refrigerant R-32 / R-410 Makes : Daikin / Toshiba / Carrier / Blue Star / Hitachi or equivalent	1	No	59844.00
	<b>6.3</b>	<b>INVERTER CASSETTE TYPE AC UNITS</b>			
	<b>ELEC-6.3.1</b>	Supply and Transportation of Inverter Cassette type AC unit with ceiling mounted indoor unit and outdoor condensing unit Hermetically sealed compressor suitable for operation on AC supply capable of performing cooling dehumidifying air circulating and filtering with cooling and condensing units etc complete with Wireless remote controller, but without refrigerent piping and cable.with 2 years warranty and annual maintenance contract.			
1205	a	<b>1.5 TR 4 Star</b> capable of delivering 18000 BTU/hr and above with operating on refrigerant R-32 / R-410 Makes : Daikin / Bluestar / Hitachi / Mitsubishi Electric / Toshiba or equivalent	1	No	60690.00
1206	b	<b>1.5 TR 5 Star</b> capable of delivering 18000 BTU/hr and above with operating on refrigerant R-32 / R-410 Makes : Daikin / Bluestar / Hitachi / Mitsubishi Electric / Toshiba or equivalent	1	No	73600.00
1207	c	<b>2.0 TR 4 Star</b> capable of delivering 24000 BTU/hr and above with operating on refrigerant R-32 / R-410 Makes : Daikin / Bluestar / Hitachi / Mitsubishi Electric / Toshiba or equivalent	1	No	76000.00
1208	d	<b>2.0 TR 5 Star</b> capable of delivering 24000 BTU/hr and above with operating on refrigerant R-32 / R-410 Makes : Daikin / Bluestar / Hitachi / Mitsubishi Electric / Toshiba or equivalent	1	No	81200.00
1209	e	<b>2.5 TR 4 Star</b> capable of delivering 30000 BTU/hr and above with operating on refrigerant R-32 / R-410 Daikin / Bluestar / Hitachi / Mitsubishi Electric / Toshiba or equivalent	1	No	98280.00
1210	f	<b>2.5 TR 5 Star</b> capable of delivering 30000 BTU/hr and above with operating on refrigerant R-32 / R-410 Daikin / Bluestar / Hitachi / Mitsubishi Electric / Toshiba or equivalent	1	No	110400.00
1211	g	<b>3.5 TR 4 Star</b> Three Phase capable of delivering 42000 BTU/hr and above with operating on refrigerant R-32 / R-410	1	No	116640.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Daikin / Bluestar / Hitachi / Mitsubishi Electric / Toshiba or equivalent			
1212	h	<b>3.5 TR 5 Star</b> Three Phase capable of delivering 42000 BTU/hr and above with operating on refrigerant R-32 / R-410 Daikin / Bluestar / Hitachi / Mitsubishi Electric / Toshiba or equivalent	1	No	129600.00
1213	i	<b>4.0 TR 4 Star</b> Three Phase capable of delivering 48000 BTU/hr and above with operating on refrigerant R-32 / R-410 Daikin / Bluestar / Hitachi / Mitsubishi Electric / Toshiba or equivalent	1	No	118800.00
1214	j	<b>4.0 TR 5 Star</b> Three Phase capable of delivering 48000 BTU/hr and above with operating on refrigerant R-32 / R-410 Daikin / Bluestar / Hitachi / Mitsubishi Electric / Toshiba or equivalent	1	No	131760.00
		<b>NON - INVERTER CASSETTE TYPE AC UNITS</b>			
	<b>ELEC-6.3.2</b>	Supply and Transportation of Non - Inverter Cassette type AC unit with ceiling mounted indoor unit and outdoor condensing unit Hermetically sealed compressor suitable for operation on AC supply capable of performing cooling dehumidifying air circulating and filtering with cooling and condensing units etc complete with Wireless remote controller, but without refrigerent piping and cable with 2 years warranty and annual maintenance contract.			
1215	a	<b>1.5 TR 3 Star</b> capable of delivering 18000 BTU/hr and above with operating on refrigerant R-32 / R-410 Daikin / Bluestar / Hitachi / Mitsubishi Electric / Toshiba or equivalent	1	No	56000.00
1216	b	<b>1.9/2.0 TR 3 Star</b> capable of delivering 24000 BTU/hr and above with operating on refrigerant R-32 / R-410 Daikin / Bluestar / Hitachi / Mitsubishi Electric / Toshiba or equivalent	1	No	65000.00
1217	c	<b>3.0 TR 2 Star</b> capable of delivering 30000 BTU/hr and above with operating on refrigerant R-32 / R-410 Daikin / Bluestar / Hitachi / Mitsubishi Electric / Toshiba or equivalent	1	No	98000.00
		<b>CHILLED WATER CASSETTE UNITS</b>			
	<b>ELEC-6.3.3</b>	Supply, Transportation, Installation, Testing and Commissioning of ----- Chilled water Cassette unit complete with 3 speed having coil section, blower section, filter section, condensate drain pump, insulated extended drain tray, Supports, Copper piping connections, unions, incoming cable from MCB / Isolator to unit, 12 - 24 V step down			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Transformer for PIBC valve , Spring Return Actuators etc.,. Extended tray should be accommodated with Ball valves, PIBC motorized valves etc.,			
		Digital thermostat with remote sensing element with Cassette Unit Switch ON / OFF control compatible to the PIBC valve to control the room temperature to be included BMS etc., complete for finished item of work. Makes : Carry Air / Bhutoria or equivalent			
1218	a	1 TR (400CFM) 1Way	1	No	36750.00
1219	b	1 TR (400CFM) 2Way	1	No	38850.00
1220	c	1 TR (400CFM) 4Way	1	No	40950.00
1221	d	1.5 TR (600CFM) 1Way	1	No	45150.00
1222	e	1.5 TR (600CFM) 2Way	1	No	47250.00
1223	f	1.5 TR (600CFM) 4Way	1	No	50400.00
1224	g	2 TR (800CFM) 1Way	1	No	47250.00
1225	i	2 TR (800CFM) 4Way	1	No	53550.00
1226	j	2.5TR (1000CFM) 4Way	1	No	58800.00
1227	k	3.0 TR (1200CFM) 4Way	1	No	60900.00
1228	l	3.75 TR (1500CFM) 4Way	1	No	63000.00
	<b>ELEC-6.3.4</b>	Supply, installation, testing and commissioning of modulating 2 way valve with package assembly with on / off actuator, required control cabling between valve and actuator etc complete for finished item of work.			
1229	a	Valve Package Assembly 2 way 20mm / PIBC valve (DN 20) with Modulating actuator.	1	No	13000.00
1230	b	Valve Package Assembly 2 way 25mm / PIBC valve (DN 25) with Modulating actuator.	1	No	14000.00
	<b>6.4</b>	<b>TOWER MODEL TYPE AC UNITS</b>			
	<b>ELEC-6.4.1</b>	Supply and Transportation of Slim line / Tower Model/Verticool type split AC unit with 100% copper indoor unit and floor mounted outdoor condensing unit Hermetically sealed Scroll compressor suitable for operation on AC supply capable of performing cooling dehumidifying air circulating and filtering with cooling and condensing units etc complete with cordless remote control with 2 years warranty and annual maintenance contract.			
1231	a	2.4 TR Three Phase capable of delivering 39600 BTU/hr and above with operating on refrigerant R-32 / R-410 Daikin / Bluestar / Hitachi or equivalent	1	No	86416.00
1232	b	3.0 / 3.3 TR Three Phase capable of delivering 39600 BTU/hr and above with operating on refrigerant R-32 / R-410 Daikin / Bluestar / Hitachi or equivalent	1	No	94743.00



SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1233	c	4.0 / 3.8 TR Three Phase capable of delivering 45600 BTU/hr and above with operating on refrigerant R-32 / R-410 Daikin / Bluestar / Hitachi or equivalent	1	No	100188.00
1234	d	4.5 / 4.6 TR Three Phase capable of delivering 55200 BTU/hr and above with operating on refrigerant R-32 / R-410 Daikin / Bluestar / Hitachi or equivalent	1	No	105633.00
	<b>6.5</b>	<b>AIR HANDLING UNITS</b>			
	<b>ELEC-6.5.1</b>	Supply, installation, testing and commissioning of factory built chilled water double skin type horizontal/vertical floor/ceiling mounted air handling unit made of minimum 40mm thick panels consisting of pre-plastisized GI casing of thickness not less than 0.8mm outside layer and 0.8mm inside layer with polyurethane (PUF)/ mineral wool insulation between them. All doors and floor of AHU shall be of same thickness as of casing. The AHU shall be complete with blower section with AMCE certified blower suitable for static pressure of required.			
		Cooling coil section with aluminum finned copper tubes (tube thickness not less than 0.5mm), cooling coil of 6 row deep, filter section with 50mm thick metal mesh/washable synthetic type Air Pre Filter with filtration efficiency 90% down to 10 micron particle size, suitable drive package with TEFC drive motor with efficiency Class IE3 or EFF1 which ever is more efficient suitable for 415+/- 10% volts, 50 Hz, 3 Phase AC supply, drine connection, stainless steel (20G drain pan)with insulation, Auto purge valve wherever required necessary vibration isolation arrangement etc., complete as follows. The AHU shall be forward / backward curved centrifugal fan, Belt driven motor / Plug Fan. The AHU coil shall be AHRI/Eurovent certified. TSP 50 mmMakes : System Air / VTS / Carry Air / Edge Tec			
1235	a	1200 CFM ( 3.0 TR )	1	No	60000.00
1236	b	2000 CFM ( 5.0 TR )	1	No	100000.00
1237	c	2400 CFM ( 6.0 TR )	1	No	120000.00
1238	d	2800 CFM ( 7.0 TR )	1	No	140000.00
1239	e	3200 CFM ( 8.0 TR )	1	No	160000.00
1240	f	4000 CFM ( 10.0 TR )	1	No	200000.00
1241	g	4400 CFM ( 11.0 TR )	1	No	220000.00
1242	h	4800 CFM ( 12.0 TR )	1	No	240000.00
1243	i	5600 CFM ( 14.0 TR )	1	No	280000.00
1244	j	6000 CFM ( 15.0 TR )	1	No	300000.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1245	k	7200 CFM ( 18.0 TR )	1	No	360000.00
1246	l	8000 CFM ( 20.0 TR )	1	No	400000.00
1247	m	9200 CFM ( 23.0 TR )	1	No	460000.00
1248	n	9600 CFM ( 24.0 TR )	1	No	480000.00
1249	o	10000 CFM ( 25.0 TR )	1	No	500000.00
	<b>6.6</b>	<b>CHILLED WATER PIPING</b>			
1250	<b>ELEC-6.6.1</b>	<p>Supplying, laying/ fixing, testing and commissioning of following nominal sizes of chilled water piping (with necessary clamps, vibration isolators and fittings but excluding valves, strainers, gauges etc.) duly insulated with TF quality expanded polystyrene moulded pipe section of density 20 kg/cu.m., as per specifications and as required complete in all respect.</p> <p>Note : The Pipes of sizes 150mm &amp; below shall be M.S. 'C' class as per IS : 1239 and pipes size above 150mm shall be welded black steel pipe heavy class as per IS: 3589, from minimum 6.35mm thick M.S. Sheet for pipes upto 350 mm dia. and from minimum 7mm thick MS sheet for pipes of 400 mm dia and above</p>			
		<p>1. MS Pipe duly insulated with EPS and covered with 26 gauge aluminium cladding sheet.</p> <p>Insulation for the chilled water piping Inside the AHU room &amp; Plant room with : TF quality expanded polystyrene moulded pipe section of density 20 kg/cu.m after a thick coat of adhesive wrapping with 500g polythene faced hessain and finally applying 26gauge aluminium sheet cladding., as per specifications and as required complete in all respect.</p>			
1251	a	400mm dia pipe with 75mm thk insulation	1	Mtr	12500.00
1252	b	300mm dia pipe with 75mm thk insulation	1	Mtr	9800.00
1253	c	250mm dia pipe with 75mm thk insulation	1	Mtr	8850.00
1254	d	200mm dia pipe with 75mm thk insulation	1	Mtr	5900.00
1255	e	150mm dia pipe with 75mm thk insulation	1	Mtr	5600.00
1256	f	100mm dia pipe with 50mm thk insulation	1	Mtr	2700.00
1257	g	80 mm dia pipe with 50mm thk insulation	1	Mtr	2400.00
1258	h	65 mm dia pipe with 50mm thk insulation	1	Mtr	2000.00
1259	i	50 mm dia pipe with 50mm thk insulation	1	Mtr	1700.00
1260	j	40 mm dia pipe with 50mm thk insulation	1	Mtr	1400.00
1261	k	32 mm dia pipe with 50mm thk insulation	1	Mtr	1200.00
1262	l	25 mm dia pipe with 50mm thk insulation	1	Mtr	875.00
1263	<b>ELEC-6.6.2</b>	<p>Supplying, laying/ fixing, testing and commissioning of following nominal sizes of chilled water piping (with necessary clamps, vibration isolators and fittings but excluding valves, strainers, gauges etc.) duly insulated with TF quality expanded polystyrene moulded pipe section of density 20 kg/cu.m., as per</p>			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		specifications and as required complete in all respect.Note : The Pipes of sizes 150mm & below shall be M.S. 'C' class as per IS : 1239 and pipes size above 150mm shall be welded black steel pipe heavy class as per IS: 3589, from minimum 6.35mm thick M.S. Sheet for pipes upto 350 mm dia. and from minimum 7mm thick MS sheet for pipes of 400 mm dia and above			
		MS Pipes with insulated with EPS covered with 7 mil fibreglass fabric & AF590 Lag coating Insulation for the chilled water piping Inside the HVAC shafts & inside building etc : TF quality expanded polystyrene moulded pipe section of density 20 kg/cu.m and shall be covered with 7 mil fibreglass fabric finished with AF5590 Lag coating., as per specifications and as required complete in all respect. Makes: Tata / Jindal			
1264	a	300mm dia pipe with 75mm thk insulation	1	Mtr	9500.00
1265	b	250mm dia pipe with 75mm thk insulation	1	Mtr	8500.00
1266	c	200mm dia pipe with 75mm thk insulation	1	Mtr	6900.00
1267	d	150mm dia pipe with 75mm thk insulation	1	Mtr	5700.00
1268	e	100mm dia pipe with 50mm thk insulation	1	Mtr	3400.00
1269	f	80 mm dia pipe with 50mm thk insulation	1	Mtr	2400.00
1270	g	65 mm dia pipe with 50mm thk insulation	1	Mtr	2200.00
1271	h	50 mm dia pipe with 50mm thk insulation	1	Mtr	1600.00
1272	i	40 mm dia pipe with 50mm thk insulation	1	Mtr	1450.00
1273	j	32 mm dia pipe with 50mm thk insulation	1	Mtr	1400.00
1274	k	25 mm dia pipe with 50mm thk insulation	1	Mtr	980.00
1275	ELEC-6.6.3	Supplying, laying/ fixing, testing and commissioning of following nominal sizes of chilled water piping (with necessary clamps, vibration isolators and fittings but excluding valves, strainers, gauges etc.) duly insulated with TF quality expanded polystyrene moulded pipe section of density 20 kg/cu.m., as per specifications and as required complete in all respect.Note : The Pipes of sizes 150mm & below shall be M.S. 'C' class as per IS : 1239 and pipes size above 150mm shall be welded black steel pipe heavy class as per IS: 3589, from minimum 6.35mm thick M.S. Sheet for pipes upto 350 mm dia. and from minimum 7mm thick MS sheet for pipes of 400 mm dia and above			
		MS Pipes with insulated with EPS covered with chicken wire mesh and finised with sand cement plaster. Insulation for the chilled water piping out			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		side the building buried in ground : TF quality expanded polystyrene moulded pipe section of density 20 kg/cu.m after a thick coat of adhesive wrapping with 500g polythene faced hessain and secured with 0.5mm x 20mm G.I wire mesh and two coats of cement plaster (each layer not less than 10mm) as per specifications and as required complete in all respect.			
1276	a	400mm dia pipe with 75mm thick insulation	1	Mtr	12500.00
1277	b	300mm dia pipe with 75mm thick insulation	1	Mtr	10700.00
1278	c	250 mm dia pipe with 75mm thick insulation	1	Mtr	9600.00
1279	d	200 mm dia pipe with 75mm thick insulation	1	Mtr	7600.00
	<b>6.7</b>	<b>REPAIRS TO AIR CONDITIONERS</b>			
1280	<b>ELEC-6.7.1</b>	Supply, Fabrication of 1set MS bracket suitable for fixing out door unit of split AC unit.	1	Set	914.00
	<b>ELEC-6.7.2</b>	Providing 2 runs of Copper tubes for suction and liquid between indoor and outdoor unit for split/Casseete Air-Conditioner including foaming etc., complete.			36750.00
1281	a	1. 3/4" x 3/8" 2. 5/8" x 1/4" 3. 1/2" x 1/4" or equivalent sizes	1	Mtr	943.00
1282	b	7/8" x 1/2"	1	Mtr	1496.00
1283	c	1 1/8" x 5/8"	1	Mtr	1749.00
1284	<b>ELEC-6.7.3</b>	Supply of 1.0 / 1.5 Ton brand new Rotary type sealed compressor.	1	No	7770.00
1285	<b>ELEC-6.7.4</b>	Supply of 2.0 Ton brand new Rotary type sealed compressor.	1	No	8820.00
1286	<b>ELEC-6.7.5</b>	Multi speed Fan Motor suitable for 1.0 / 1.5 / 2.0 Ton Window A.C.Unit of makes Crompton / AU.	1	No	1523.00
1287	<b>ELEC-6.7.6</b>	Fan motor capacitor 6 mfd by new capacitor for A.C machine of 1.0 1.5 / Ton Capacity.	1	No	152.00
1288	<b>ELEC-6.7.7</b>	Thermostat switch suitable for 1.0 / 1.5 / 2.0 Ton A.C.Unit.	1	No	394.00
1289	<b>ELEC-6.7.8</b>	Starting capacitor of 80 to 120 mfd. by new approved make capacitor suitable for compressor motor of 1.0 / 1.5 Ton A.C. Unit.	1	No	194.00
1290	<b>ELEC-6.7.9</b>	Running capacitor of 36 mfd by new approved make capacitor suitable for compressor motor of 1.0 / 1.5 Ton A.C.Unit.	1	No	231.00
1291	<b>ELEC-6.7.10</b>	Relay by approved make having pickup voltage 220 Volts and dropout voltage 120 Volts suitable for 1.0 /1.50 Ton A.C. Unit.	1	No	215.00
1292	<b>ELEC-6.7.11</b>	Filter and capillary tube including	1	No	467.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		welding etc., complete for 1.0 / 1.5 / 2.0 Ton A.C.Unit.			
1293	ELEC-6.7.12	Air filter suitable for 1.50 Ton Window A.C.Unit P.V.C. / NYLON.	1	No	215.00
1294	ELEC-6.7.13	Air filter suitable for 1.50 Ton Split A.C.Unit P.V.C. / NYLON.	1	No	457.00
1295	ELEC-6.7.14	Rewiring the entire Window type 1.50 Ton A.C.unit with 2.5 Sq.mm Flexible copper cable and putting the same in working conditions.	1	No	310.00
1296	ELEC-6.7.15	Complete servicing of 1.0 - 2.0 TR AC unit with cleaning the condensor cooling Coil etc., by blower and oiling the Fan Motor and Cleaning all parts and putting the machine in working condition.	1	No	525.00
1297	ELEC-6.7.16	Fan blade for 1.0 / 1.5 Ton A.C.Machine.	1	No	536.00
1298	ELEC-6.7.17	Grill of 1.0 / 1.5 ton A.C. Machine (for assembled Units).	1	No	935.00
1299	ELEC-6.7.18	Grill of 1.0 / 1.5 ton A.C. Machine of branded units.	1	No	1617.00
1300	ELEC-6.7.19	Rotary / Selector switch for window AC.	1	No	110.00
1301	ELEC-6.7.20	Flushing the line, leak testing, leak stopping, vaccumming, dehydrating and charging the gas in the refrigeration system for 1.0 / 1.5 / 2.0 Ton Window A.C.Unit.	1	No	1607.00
1302	ELEC-6.7.21	Flushing the line, leak testing, leak stopping, vaccumming, dehydrating and charging the gas in the refrigeration system for 1.5 / 2.0 Ton Split A.C.Unit.	1	No	2247.00
1303	ELEC-6.7.22	Spray painting of Refrigerator using good quality paint after scraping the surface etc.	1	No	772.00
1304	ELEC-6.7.23	Sealed compressor of 1/8 HP suitable for 165 to 185 Ltrs. Capacity Refrigerator.	1	No	2951.00
1305	ELEC-6.7.24	Sealed compressor of 1/6 HP suitable for 285 / 310 Ltrs. Capacity Refrigerator.	1	No	3570.00
1306	ELEC-6.7.25	Supply of fan motor by new 1/10 to 1/12 H.P 1250 RPM fan motor for Water Cooler of 80-150 Ltrs.	1	No	1523.00
1307	ELEC-6.7.26	Gun metal Bush for fan motor.	1	No	121.00
1308	ELEC-6.7.27	Resistance type regulator for ceiling fans 900/1200/1400mm sweep complete erected on existing board.	1	No	42.00
1309	ELEC-6.7.28	Installation of Split Air Conditioners.	1	No	1680.00
1310	ELEC-6.7.29	Removing of existing Split Air Conditioners without damaging to copper pipe.	1	No	452.00
1311	ELEC-6.7.30	Installation of Cassette type Split Air Conditioners.	1	No	3360.00
1312	ELEC-6.7.31	Installation of Tower type Split Air Conditioners.	1	No	2783.00
1313	ELEC-6.7.32	Supply, Fabrication of 1set MS bracket suitable for fixing out door unit of ductable AC unit.	1	Set	1785.00
	<b>6.8</b>	<b>EVAPORATIVE AIR COOLING SYSTEM</b>			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1314	ELEC-6.8.1	Supply ,Transportation, Installation,testing and commissioning of single phase evaporative air cooling unit with a capacity of 8000 CFM consisting cabinet and water tank made of polypropylene material, blower water pump of 40W, single phase 1.20 KW motor axial type fan with variable speed, 20 micron filtration, noise level less than 78 dBA with auto cleaning and water lack protection etc complete. Makes: Cool Breeze / Breeze Air or equivalent	1	No	97800.00
1315	ELEC-6.8.2	Supply ,Transportation, Installation,testing and commissioning of single phase evaporative air cooling unit with a capacity of 11000 - 12000 CFM consisting cabinet and water tank made of polypropylene material, blower water pump of 40W, single phase 1.20 KW / 1.5 KW motor axial type fan with variable speed, 20 micron filtration, noise level less than 78 dBA with auto cleaning and water lack protection etc complete. Makes: Cool Breeze / Breeze Air	1	No	115550.00
1316	ELEC-6.8.3	Supply ,Transportation, Installation,testing and commissioning of three phase evaporative air cooling unit with a capacity of 17000 CFM consisting cabinet and water tank made of polypropylene material, blower water pump of 60W, three phase, 3.0 KW motor, axial type fan with 2 speed, 20 micron filtration, noise level less than 78 dBA with auto cleaning and water lack protection etc complete. Makes: Cool Breeze / Breeze Air or equivalent	1	No	160000.00
	ELEC-6.8.4	Supply, Factory fabrication, Transportation and erection of ..... guage GI sheet Rectangular ducting with minimum 120 GSM as per SMACNA complete with neoprene rubber gaskets, Elbows, sheet metal / Angle iron / C-cleats / TPF Flanges as required, G.I.fasteners, bolts, nuts and washers, guide vanes as required, supports shall be galvanised threaded rods etc complete. Makes : Tata / Zindal			
1317	a	18 Guage (1.2 mm)	1	Sqft	145.00
1318	b	20 Guage (1.0 mm)	1	Sqft	133.00
1319	c	22 Guage (0.8 mm)	1	Sqft	121.00
1320	d	24 Guage ( 0.6 mm)	1	Sqft	100.00
	ELEC-6.8.5	Supply, Factory fabrication, Transportation and erection of ..... guage GI sheet Spiral / Round ducting			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		with minimum 120 GSM as per SMACNA complete with neoprene rubber gaskets, Elbows, sheet metal / Angle iron / C-cleats as required, G.I.fasteners, bolts, nuts and washers, guide vanes as required, supports shall be galvanised threaded rods etc complete. 9 /12 mm thick self adhesive class 'O' nitrille rubber insulation shall be done inside the ducting. Makes : Tata / Zindal			
1321	a	18 Guage (1.2 mm)	1	Sqft	161.00
1322	b	20 Guage (1.0 mm)	1	Sqft	147.00
1323	c	22 Guage (0.8 mm)	1	Sqft	133.00
1324	d	24 Guage ( 0.6 mm)	1	Sqft	106.00
		<b>THERMAL INSULATION</b>			
	<b>ELEC-6.8.6</b>	Supply and fixing of .....mm thickness closed cell nitrile rubber (Class O) insulation on existing duct after applying 2 coats of cold setting adhesive (CPRX Compound). The joints shall be sealed with 50mm wide and 3mm thick self adhesive nitrile rubber tape insulation complete as per specifications. Thermal conductivity should not exceed 0.037W/mk,			
1325	a	6 mm	1	Sqmt	438.00
1326	b	9 mm	1	Sqmt	618.00
1327	c	12 mm / 13 mm	1	Sqmt	822.00
1328	d	19 mm	1	Sqmt	986.00
1329	e	25 mm	1	Sqmt	1424.00
	<b>ELEC-6.8.7</b>	Supply and fixing of .....mm thickness closed cell nitrile rubber (Class O) insulation on existing duct after applying 2 coats of cold setting adhesive (CPRX Compound). The joints shall be sealed with 50mm wide and 3mm thick self adhesive nitrile rubber tape insulation complete with star bond coating , thermal conductivity should not exceed 0.037W/mk, and covered with 24 guage alluminium cladding as per specifications for out door applications.			36750.00
1330	a	6 mm	1	Sqmt	538.00
1331	b	9 mm	1	Sqmt	729.00
1332	c	12 mm / 13 mm	1	Sqmt	980.00
1333	d	19 mm	1	Sqmt	1196.00
1334	e	25 mm	1	Sqmt	1676.00
1335	<b>ELEC-6.8.8</b>	Supply and fixing of 40mm thick thermocole insulation of 16 kg density with GI mesh and 12mm thick cement mortor plastering for out door unit.	1	Sqft	81.00
1336	<b>ELEC-6.8.9</b>	Supply and fixing of 40mm thick glasswool of 24 kg density with alluminium foil insulation for indoor duct.	1	Sqft	66.00
1337	<b>ELEC-6.8.10</b>	Supply, installation, testing and	1	Sqft	957.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		commissioning of GI volume control duct damper complete with neoprene rubber gaskets, nuts, bolts, flanges etc as per specifications. The thickness of the damper frame shall be 16 guage and damper plate shall be 18 / 16 guage.			
1338	ELEC-6.8.11	Supply and fixing of alluminium powder coated supply air grill with volume control dampers.	1	Sqft	735.00
1339	ELEC-6.8.12	Supply and fixing of alluminium powder coated supply air grill without volume control dampers. (Architect shall approve the shade of epoxy power coating for the grills for supply and return air)	1	Sqft	633.00
1340	ELEC-6.8.13	Supply and fixing of alluminium powder coated supply air diffuser with volume control dampers. (Architect shall approve the shade of epoxy power coating for the grills for supply and return air)	1	Sqft	837.00
1341	ELEC-6.8.14	Supply and fixing of alluminium powder coated supply air diffuser without volume control dampers. (Architect shall approve the shade of epoxy power coating for the diffuser for supply and return air)	1	Sqft	718.00
1342	ELEC-6.8.15	Supply and fixing of angular iron frame with 2 coats of zincromat red oxide for installation of air cooling unit.	1	No	5216.00
1343	ELEC-6.8.16	Installation and commissioning charges for air cooling unit.	1	No	4344.00
	ELEC-6.8.17	Supply, installation, testing and commissioning of the drain pipe with CPVC pipes with all accessories and insulation with 6mm thick closed cell nitrile rubber of the following sizes, with all required accessories Makes : Astral / Ashirvad or equivalent approved by the department			
1344	a	25 mm	1	Mtr	239.00
1345	b	32 mm	1	Mtr	302.00
1346	c	40 mm	1	Mtr	392.00
1347	d	50 mm	1	Mtr	458.00
	<b>6.9</b>	<b>LOW SIDE WORK</b>			
1348	ELEC-6.9.1	Lifting, shifting of unit to terrace, installation, testing & commissioning of VRV / VRF outdoor units of the following capacities with required supports with necessary bolts, screws and nut etc complete upto 7th floor			
	a	12HP	1	No	5957.00
	b	14HP	1	No	6958.00
	c	16HP	1	No	7935.00
	d	18HP	1	No	8941.00



SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	e	20HP	1	No	9948.00
	f	24 HP	1	No	11926.00
1349	ELEC-6.9.2	Shifting of Unit to room , Installation,Testing & Commissioning of VRV / VRF indoor units (4way- Cassette) of the following capacities required supports with necessary bolts, screws and nut etc complete .			
	a	4-way Cassette type Indoor A.C units	1	No	2875.00
	b	Concealed type ducted type Indoor A.C units	1	No	4600.00
1350	ELEC-6.9.3	Supply, installation, testing and commisioning of 2 runs of following sizes of all refrerent liquid and gas piping using eddy current free hard copper pipes and fittings like elbows, couplers, T - joints, Brass fittings "U" loops, expansion loops, refnet joints etc, for VRV / VRF System.	1	Mtr	1639.00
		Insulation of pipes using 19mm for supply and 13mm returns thick elastometric closed cell nitrile rubber insulation materials having class "O" for fire properties structural clamps with hard PVC pipes sleeve under the clamp to protect insulation at supports tagging to enable tracing connectivity to respective units as per drawings to be generated by the agency submission of test reports in approved format forms a part of this item scope, making up of any leakages including supply, labour, consumables, refrigerant top up and incidental expenses. Makes : Mandev/or Equivalent as approved by the department			
		a)12.7 X 28.6mm b)15.9 X 28.6mm c)19.1 X 34.9mm d)19.1 X 41.3mm e)22.2 X 41.3mm			
1351	ELEC-6.9.4	Supply, transportation and installation of Hot- Dip GI floor mounting support stands for VRF outdoor units (positioned on Terrace or floor level), as per the standards with all necessary components, etc (Big Foot System)			
	a	Upto and below12 HP	1	No	6900.00
	b	12 to 20HP	1	No	11926.00
	c	22HP to 40HP	1	No	23840.00
1352	ELEC-6.9.5	Supply and installation of 2 core 1.5 sqmm core copper control cabling between ductable split IDU & ODU in 25mm medium grade pvc pipe with all supprts etc complete (AR) Makes : Finolex / RR/ Havells or Equivalent as approved by the department	1	Mtr	Deleted
1353	ELEC-6.9.6	Pressure testing and commissioning of total VRV System with required Gas	1	HP	840.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		charging etc complete			
1354	ELEC-6.9.7	Supply, transportation and installation of Copper piping outdoor insulation covered with fibre glass cloth, coated with UV paint	1	Mtr	224.00
1355	ELEC-6.9.8	Supply, installation ,testing and commissioning of fire damper with fuse link UL-555 certified	1	Sqft	667.00
1356	ELEC-6.9.9	Supply, installation ,testing and commissioning of Acoustic insulation 10 mm thick open cell nitrile rubber	1	Sqft	82.00
1357	ELEC-6.9.10	Supply,installation,testing & commissioning of underdeck insulation 25mm thickness, density to be 32kg/cum the material should be Class O chemically cross linked closed cell polyethylene sheet covered with Alupet foil. Insulation to be provided complete for fittings, adhesive etc all as per specifications. The insulation shall be stuck directly to the roof using proper fixing.	1	Sqft	55.00
	<b>6.10</b>	<b>STABILIZERS</b>			
	<b>ELEC-6.10.1</b>	Supply of ----- Stabilizer Makes : V-Guard / Real Guard / Uni Stab / ITL.			
1358	a	0.5 KVA	1	No	966.00
1359	b	1.0 KVA .	1	No	1575.00
1360	c	3.0 KVA	1	No	1995.00
1361	d	4.0 KVA	1	No	2625.00
1362	e	5.0 KVA	1	No	3150.00
	<b>ELEC-6.10.2</b>	Supply of ----- Stabilizer Makes :Keeline / Soft Line / Capri.			
1363	a	0.5 KVA	1	No	756.00
1364	b	1.0 KVA .	1	No	1355.00
1365	c	3.0 KVA	1	No	1743.00
1366	d	4.0 KVA	1	No	2394.00
1367	e	5.0 KVA	1	No	2877.00
	<b>6.11</b>	<b>ACCESS CONTROL SYSTEM</b>			
		<b>BOOM BARRIER</b>			
1368	ELEC-6.11.1	<b>Boom Barrier 6Mtr (IP 54)</b> Supply, Installation, Testing and Commissioning of Electromechanical motorized Automatic Boom Barrier of Boom length 6 Mtr with 100% duty cycle, Boom rest, Microprocessor controlled control panel, push buttons, 24VDC motor with all accessories required such as Optical Sensor, integration with smart cards, proximity based access control systems and VFD Drive etc.,This shall be with safety features like Induction and safety loop, remote operating facility with remote control unit. Make : Godrej / Vigi Guard / Gunnebo / Magnetic / Automatic Systems or equivalent as approved by the	1	No	168300.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		intelligence department			
1369	ELEC-6.11.2	<b>Boom Barrier 4Mtr (IP 54)</b> Supply, Installation, Testing and Commissioning of Electromechanical motorized Automatic Boom Barrier of Boom length 4 Mtr with 100% duty cycle, Boom rest, Microprocessor controlled control panel, push buttons, 24VDC motor with all accesories required such as Optical Sensor, integration with smart cards, proximity based access control systems and VFD Drive etc., This shall be with safety features like Induction and safety loop, remote operating facility with remote control unit. Make : Godrej / Vigi Guard / Gunnebo / Magnetic / Automatic Systems or equivalent as approved by the intelligence department	1	No	156200.00
1370	ELEC-6.11.3	<b>Boom Barrier 3Mtr (IP 54)</b> Supply, Installation, Testing and Commissioning of Electromechanical motorized Automatic Boom Barrier of Boom length 3 Mtr with 100% duty cycle, Boom rest, Microprocessor controlled control panel, push buttons, 24VDC motor with all accesories required such as Optical Sensor, integration with smart cards, proximity based access control systems and VFD Drive etc., This shall be with safety features like Induction and safety loop, remote operating facility with remote control unit. Make : Godrej / Vigi Guard / Gunnebo / Magnetic / Automatic Systems or equivalent as approved by the intelligence department	1	No	145200.00
1371	ELEC-6.11.4	<b>Boom Barrier 1.5 Mtr (Two wheeler) (IP 54)</b> Supply, Installation, Testing and Commissioning of Electromechanical motorized Automatic Boom Barrier of Boom length 1.5 Mtr with 100% duty cycle, Boom rest, with Microprocessor controlled control panel, push buttons, 24VDC motor, with all accesories required such as Optical Sensor, integration with smart cards, proximity based access control systems and VFD Drive etc. This shall be with safety features like Induction and safety loop, remote operating facility with remote control unit. Make : Godrej / Vigi Guard / Gunnebo / Magnetic / Automatic Systems or equivalent as approved by the intelligence department approved by the	1	No	111100.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		intelligence department.			
1372	ELEC-6.11.5	Supply, Installation, Testing and Commissioning of Long range Card Readers having 3/6 Meter high SS Pole for Mounting Long Range Vehicle Tag Reader(>10Mtrs) and Smart Card Reader along with Outdoor Enclosure for Smart Card Reader with necessary accessories. -IP 66 Rated having smart card reader with 14 Inch Read Range for Two Wheeler's and Visitor Cars, -Long range Vehicle Tag Reader IP 66 Rated having Read range of >10 Meters for reading vehicle tags.	1	No	97900.00
1373	ELEC-6.11.6	Supply, Installation, Testing, Commissioning of UHF Gen 2 Passive Vehicle Tags capable of application on Car windshields(which will be programmed for operation of the boom barriers). Make: Matrix / HID / Honeywell or equivalent as approved by the intelligence department	1	No	387.00
1374	ELEC-6.11.7	Traffic Bollard (K-4 rated) : Supply, Installation, Testing and Commissioning of ultra-high resistance to impact and weather Bollard unit consisting of Single blocking bollards with hydraulic drive unit installation on concrete plinth & speed control, Shall be reliable in operation even after power failure, weld free bollard cylinder, auto wiping arrangement, low maintenance and can be operated with remote control switch, Control panel with push buttons accessories enclosed in an outdoor cabinet. Make: FAAC/ Gunnebo / TESCON / ATG Access or equivalent as approved by the intelligence department (approved by NABL )	1	No	825000.00
		Note :			
		1. CE Certification of Bollards			
		2. 2000 Hr Salt Spray Certificate by NABL Lab.			
		3. Tested Life of 10 Million Operations			
		4. HPU must be IP 68 Certified from NABL accredited Lab			
		5. Number of Blocks on Bollards - 3 / 4 5 / 6 Nos			
		<b>Under Vehicle Scanning System (UVSS)</b>			
1375	ELEC-6.11.8	Supply, Installation, Testing and Commissioning of Weather proof and outdoor type (IP 68) UVSS. It should be able to capture very high resolution and complete composite under body usage of	1	No	3080000.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		any vehicle passing over it, without the vehicle being stopped and also it should be able to capture complete image of the vehicle on accidentally stoppage on the UVSS system with same clarity by using a high quality line/ area scan CCD camera, with fish eye lens of high resolution & Loop based sensors, able to handle the vehicle speeds ranging from 5-30 Km/hr, automatically and dynamically adjusting the brightness and contrast of the system to ensure good quality images, irrespective of different light condition, automated number plate reading System (ANPRS) and recording.			
		There should be 3 or more additional cameras for capturing motion video images etc, It shall also include i7 based computer system with 8GB RAM, HDD 1TB Linux operated, Min 3 PCI slots or as required by the system for operation along with cables. The system shall have 1 KVA ONLINE UPS with backup of 01 hour and network port for connectivity along with all cables and fixing accessories. including all required civil works along with water draining system in case of water egress into the pit as specifications available in department. Make: Kritikal (Model of Zenscan/ NUVOSCAN )/or equivalent as approved by the intelligence department.			
		<b>Multi Zone Door Frame Metal Detection (MDFMDS)</b>			
1376	ELEC-6.11.9	Supply, Installation, Testing and Commissioning of Multi Zone (8 zone) Door frame metal detector ,should detect ferrous, Non Ferrus and Ferrite metals, rechargeable internal battery, traffic counter and capacity 30 person/ minute, etc as per the technical specification available in department. Make : RAPISCAN / or equivalent as approved by the intelligence department.	1	No	247500.00
		<b>Hand held metal detector (HHMD)</b>			
1377	ELEC-6.11.10	Supply, Installation, Testing and hand held metal detector of High sensitivity, detect large, medium and small and Very small objects, metals of ferros, Non Ferrous and Ferrite, should give a visible audible alarm, Visual indications for On, metal, charge, low battery etc. with inbuilt charger , rechargeable batteries etc., complete as per the specifications available in department. Make : RAPISCAN/ or equivalent as approved by	1	No	14520.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		the intelligence department.			
		<b>X-Ray Baggage scanner</b>			
1378	ELEC-6.11.11	Supply, Installation, Testing and Commissioning of X-Ray Baggage scanner have inspection tunnel dimension 600 x 400 $\pm$ 10%, conveyer height 694 mm + 10 mm approximately, 100 Kg or more capacity conveyor, speed of conveyor belt 0.18 & 3 m /s, movement of conveyor bidirectional, suitable to operate 170 - 230 V AC, 50 Hz, video display unit of 19" 2 CD/LED monitor high resolution, low radiation, flecker free, resolution at least 1280 x 1024 mm.	1	No	1936000.00
		Machine should have the feature of warning the operator by stopping of the belt incase of presence of high absorbing material in a baggage, recalling of images, archiving of more images, control desk with security provisions, locking provision, online recording facility, images can be recorded in CD R/W and a USB drive, suitable software as per the technical specification available in department. Make : RAPISCAN/ or equivalent as approved by the intelligence department.			
		<b>SECTION - 7</b>			
		<b>SWAGED POLES / OCTOGONAL POLES, GARDEN POSTS AND ACCESSORIES</b>			
	<b>7.1</b>	<b>SWAGED POLES</b>			
1379	ELEC-7.1.1	Fabrication, supply and transportation of all sizes swaged poles up to site confirming to IS 2713 / 1980 specifications. The pole should be painted with primary coat of red oxide and black bituminous paint up to ground level with base plate, including cost of all materials etc., complete.(Rate per K. G)	1	Kg	85.00
	<b>7.2</b>	<b>M S POLES FOR GARDEN POSTS</b>			
1380	ELEC-7.2.1	Fabrication and Supply of M.S. Poles for garden posts with 'B' class 60.25mm outer dia with base plate and suitable pole cap including cost and conveyance of all material including fixing of luminaire and labour charges etc., complete. (Rate per K. G)	1	Kg	74.00
1381	ELEC-7.2.2	Supply of different sizes of M. S. Pipe brackets (Rate per K.G)	1	Kg	74.00
	<b>7.3</b>	<b>OCTOGONAL POLES</b>			
	ELEC-7.3.1	Fabrication, Transportation and supply of hot-dip galvanized Octogonal Pole with BSEN - 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with door opening arrangement, including chain for anti theft mechanism, supply of suitable			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		boards with bakelite sheet, din channel for MCB's as per IS specification suitable to withstand the wind speed of 180 KMPH for ..... Makes: BAJAJ / VALMONT / TRANSRAIL / SKIPPER / UTKARSH / LAASMA / CONSOUL / Lysaght pole			
1382	a	7.00 Mtrs height Pole having dimensions Bottom 130mm, Top 70mm with 3mm thick, base plate 220 x 220 x 12mm and 4 Nos of M20 x 700mm long 'J' bolts along with template or equivalent.	1	No	12348.00
1383	b	7.50 Mtrs height Pole having dimensions Bottom 130mm, Top 70mm with 3mm thick, base plate 220 x 220 x 12mm and 4 Nos of M20 x 700mm long 'J' bolts along with template or equivalent.	1	No	13230.00
1384	c	8.00 Mtrs height Pole having dimensions of Bottom 135mm, Top 70mm with 3mm thick, base plate 225 x 225 x 16mm and 4 Nos of M20 x 750 mm long 'J' bolts along with template or equivalent.	1	No	14553.00
1385	d	9 Mtrs height Pole having dimensions Bottom 155mm, Top 70mm with 3mm thick, base plate 260 x 260 x 16mm and 4 Nos of M24 x 750mm long 'J' bolts along with template or equivalent.	1	No	18632.00
1386	e	10 Mtrs height Pole having dimensions Bottom 175mm, Top 70mm with 3mm thick, base plate 275 x 275 x16mm and 4 Nos of M24 x 750mm long 'J' bolts along with template or equivalent.	1	No	21168.00
1387	f	12 Mtrs height Pole having dimensions Bottom 240mm, Top 90mm with 4mm thick, base plate 320 x320 x20mm and 4 Nos of M24 x 850mm long 'J' bolts along with template or equivalent.	1	No	29768.00
	<b>7.4</b>	<b>BRACKETS</b>			
	<b>ELEC-7.4.1</b>	Fabrication, Transportation and supply of ----- standard Bracket made with MS galvanized 50mm dia Pipe.Makes: BAJAJ / VALMONT / TRANSRAIL / SKIPPER / UTKARSH / LAASMA / CONSOUL / Lysaght pole			
1388	a	1.0 Mtr Length Single Arm	1	No	1433.00
1389	b	1.0 Mtr length Double Arm	1	No	1776.00
1390	c	1.50 Mtr Length Single Arm	1	No	1896.00
1391	d	1.50 Mtr length Double Arm	1	No	3197.00
	<b>ELEC-7.4.2</b>	Fabrication, Transportation and supply of -----complete with all accessories with MS galvanized 50mm dia Pipe. Makes: BAJAJ / VALMONT / TRANSRAIL / SKIPPER / UTKARSH / LAASMA / CONSOUL / Lysaght pole			
1392	a	1.0 Mtr sword type or any decorative Single arm bracket with dooms	1	No	4025.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1393	b	1.0 Mtr sword type or any decorative double arm bracket with dooms.	1	No	4741.00
1394	c	1.5 Mtr sword type or any decorative Single arm bracket with dooms	1	No	4520.00
1395	d	1.5 Mtr sword type or any decorative double arm bracket with dooms.	1	No	5899.00
	<b>ELEC-7.4.3</b>	Fabrication, Transportation and supply of -----bracket with PU paint complete with all accessories with MS galvanized 50mm dia Pipe. Makes: BAJAJ / VALMONT / TRANSRAIL / SKIPPER / UTKARSH / LAASMA / CONSOUL / Lysaght pole			
1396	a	1.5 Mtr decorative galvanized Single arm	1	No	5326.00
1397	b	1.5 Mtr decorative galvanized double arm	1	No	10055.00
	<b>7.5</b>	<b>HIGH MAST POLES</b>			
1398	<b>ELEC-7.5.1</b>	Fabrication, transportation and supply of 12 Mtrs Polygon High Mast with single section of 3mm thick of Bottom 360mm and Top 150mm dia with BSEN - 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate, having a base plate of size 520mm dia 16mm thick with its accessories. Mast shall be in single section for 12 Mtrs . Mast shall be hot dip galvanized and suitable for wind velocity of 180 KMPH as per IS 875 part 3 including head frame, 2 point suspension system with steel rope 6mm dia (7/19) construction double drum winch / power tool , and necessary cable trailer connections and single speed motor with M 24 x 800 mm foundation bolts of required quantity, suitable for 6 luminaires with GLS type aviation twin lamp.Makes : BAJAJ / VALMONT / TRANSRAIL / SKIPPER / UTKARSH / LAASMA / CONSOUL	1	No	116865.00
1399	<b>ELEC-7.5.2</b>	Fabrication, transportation and supply of 16 Mtrs Polygon High Mast with two sections of Bottom 4mm thick and Top section with 3mm thick with GLS type aviation lamp of Bottom 360mm and Top 150mm dia with BSEN - 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate, having a base plate of size 560mm dia 25mm thick with its accessories. Mast shall be in 2 sections and should be hot dip galvanized and suitable for wind velocity of 180 KMPH as per IS 875 part 3 including head frame, 2 point suspension system with steel rope 6mm dia (7/19) construction double drum winch / power tool, and necessary cable trailer connections and single speed motor with M 24 x 800 mm foundation bolts of	1	No	152145.00



SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		required quantity, suitable for 6 Flood lights, with GLS type aviation twin lamp Makes : BAJAJ / VALMONT / TRANSRAIL / SKIPPER / UTKARSH / LAASMA / CONSOUL			
1400	ELEC-7.5.3	Fabrication, transportation and supply of 20 Mtrs Polygon High Mast with two sections of Bottom 4mm thick and Top section with 3mm thick of Bottom 410mm and Top 150mm dia with BSEN - 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate, having a base plate of size 570mm dia 25mm thick with its accessories. Mast shall be in 2 sections and should be hot dip galvanized and suitable for wind velocity of 180 KMPH as per IS 875 part 3 including head frame, 2 point suspension system with steel rope 6mm dia (7/19) construction double drum winch / power tool, and necessary cable trailer connections and single speed motor with M 24 x 800 mm foundation bolts of required quantity, suitable for 12 flood lights, with GLS type aviation twin lamp. Makes : BAJAJ / VALMONT / TRANSRAIL / SKIPPER / UTKARSH / LAASMA / CONSOUL	1	No	189630.00
	<b>7.6</b>	<b>FEEDER PILLER BOX</b>			
	ELEC-7.6.1	Supply and fixing of suitable out door feeder piller box of size made with 14 SWG CRCA sheet with double door arrangement, making powder coating after processing of 7 Tank process, lock and key, hinges, rubber gasket, danger board, suitable angle iron stand for mounting the feeder pillar with cement concrete, including Supply and fixing of Legrand / Schnieder make ----- ----- as out goings, indication lamps, din channel, 6 Sqmm 3 core copper cable for individual light control, connectors, bus bars, shroudings, gland plates and provision for 3 phase energy meter etc., complete for finished item of work and suitable wiring provision for connecting the nature switch with following.			
1401	a	40A 4 Pole Isolator as incomer, 6 Nos 6-32A SP MCBs	1	No	24680.00
1402	b	63A, 4 Pole isolator as incomer, 6 Nos 6-32A SP MCBs	1	No	24814.00
1403	c	63A, 4 Pole isolator as incomer, 9 Nos 6-32A SP MCBs	1	No	25747.00
	ELEC-7.6.2	Supply and fixing of suitable out door feeder piller box of size made with 14 SWG CRCA sheet with double door			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		arrangement, making powder coating after processing of 7 Tank process, lock and key, hinges, rubber gasket, danger board, suitable angle iron stand for mounting the feeder pillar with cement concrete, including Supply and fixing of Legrand / Schnieder make ----- as out goings, indication lamps, din channel, 6 Sqmm 3 core copper cable for individual light control, connectors, bus bars, shroudings, gland plates and provision for 3 phase energy meter etc., complete for finished item of work and suitable wiring provision for connecting the nature switch with following.			
1404	a	40A-63A, 4 Pole MCB as incomer, 6 Nos 6-32A SP MCBs	1	No	26280.00
1405	b	63A, 4 Pole MCB as incomer, 9 Nos 6-32A SP MCBs	1	No	27081.00
	<b>7.7</b>	<b>ERRECTION OF HIGH MAST POLES</b>			
1406	ELEC-7.7.1	Earth work exacavation with a approximate quantity of 4.0 Cum for errection of 12 Mtrs high mast and refilling with a quantity of 0.53 Cum of PCC 1:4:8, 1.50 Cum M 20 grade concrete and (80 Kgs) reinforced steel of 12mm / 10mm / 8mm, Soil bearing capacity of 10 T/Sqm, Anchor plate with cost and conveyance of all above materials including labour charges for errection of High Mast and Carraige etc complete including soil testing.	1	No	32456.00
1407	ELEC-7.7.2	Earth work exacavation with a approximate quantity of 6.0 Cum for errection of 16 Mtrs high mast and refilling with a quantity of 0.65 Cum of PCC 1:4:8, 2.60 Cum M 20 grade concrete and (110 Kgs) reinforced steel of 12mm / 10mm / 8mm, Soil bearing capacity of 10 T/Sqm, Anchor plate with cost and conveyance of all above materials including labour charges for errection of High Mast and Carraige etc complete including soil testing.	1	No	41349.00
1408	ELEC-7.7.3	Earth work exacavation with a approximate quantity of 7.0 Cum for errection of 20 Mtrs high mast and refilling with a quantity of 0.75 Cum of PCC 1:4:8, 3.60 Cum M 20 grade concrete and (140 Kgs) reinforced steel of 12mm / 10mm / 8mm, Soil bearing capacity of 10 T/Sqm, Anchor plate with cost and conveyance of all above materials including labour charges for errection of High Mast and Carraige etc complete including soil testing.	1	No	52668.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	<b>7.8</b>	<b>CONICAL POLES</b>			
1409	<b>ELEC-7.8.1</b>	Fabrication, transportation and supply of MS hot dip galvanized 7.5 Mtrs long Conical poles with 3mm thick HT steel plate with a bottom 145mm dia and top 75mm dia, base plate of size 240mmx240mmx12mm thick welded to bottom of pole, terminal box with door size of 500mm x 100mm with all accessories connector and fuse base and a fixing arrangements for advertisements holdings, foundation bolts with washers and nuts 4 sets and as per the directions of field engineers during execution for finished item of work. Makes: BAJAJ / VALMONT / TRANSRAIL	1	No	14000.00
1410	<b>ELEC-7.8.2</b>	Fabrication, transportation and supply of MS hot dip galvanized 9.0 Mtrs long Conical poles with 3mm thick HT steel plate with a bottom 173mm dia and top 75mm dia, base plate of size 275mmx275mmx16mm thick welded to bottom of pole, terminal box with door size of 500mm x 100mm with all accessories connector and fuse base and a fixing arrangements for advertisements holdings, foundation bolts with washers and nuts 4 sets and as per the directions of field engineers during execution for finished item of work. Makes: BAJAJ / VALMONT / TRANSRAIL	1	No	18958.00
1411	<b>ELEC-7.8.3</b>	Fabrication, transportation and supply of MS hot dip galvanized 10.0 Mtrs long Conical poles with 3mm thick HT steel plate with a bottom 184mm dia and top 75mm dia, base plate of size 275mmx275mmx16mm thick welded to bottom of pole, terminal box with door size of 500mm x 100mm with all accessories connector and fuse base and a fixing arrangements for advertisements holdings, foundation bolts with washers and nuts 4 sets and as per the directions of field engineers during execution for finished item of work. Makes : BAJAJ / VALMONT / TRANSRAIL	1	No	23963.00
	<b>7.9</b>	<b>DECORATIVE DRAGON TYPE BRACKET WITH POLE</b>			
	<b>ELEC-7.9.1</b>	Fabrication, Transportation and supply of hot-dip galvanized Octagonal Pole with BSEN - 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with door opening arrangement, including the supply of suitable boards with bakelite			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		sheet and MCB's as per IS specification suitable to withstand the wind speed of 180 KMPH for <b>9 Mtrs Mounting height Pole</b> having dimensions Bottom 185 mm,. Top 70mm with 3mm thick, base plate 275 x 275 x 20mm and 4 Nos of M24 x 1000 long 'J' bolts along with templates Including Supply of 1.5M Dragon type decorative ----- Makes: VALMONT / BAJAJ / TRANSRAIL			
1412	<b>a</b>	galvanised Double Arm with PU Painted bracket.	1	No	29260.00
1413	<b>b</b>	galvanised Single Arm with PU Painted bracket.	1	No	25080.00
1414	<b>c</b>	Double arm Galvanised finish bracket.	1	No	25080.00
1415	<b>d</b>	Single arm Galvanised finish bracket.	1	No	22440.00
	<b>ELEC-7.9.2</b>	Fabrication, Transportation and supply of hot-dip ----- Curved Octagonal Pole with BSEN - 10025 grade S 355 JO steel plate for shaft Including Supply of 0.2M long Single arm bracket, IS 2062 for base plate with door opening arrangement, including the supply of suitable boards with bakelite sheet and MCB's as per IS specification suitable to withstand the wind speed of 180 KMPH for <b>9 Mtrs Mounting height Curved Pole</b> having dimensions Bottom 180mm,. Top 85mm with 3mm thick, base plate 400 x 400 x 20mm and 4 Nos of M24 x 750 long 'J' bolts along with templates.Makes: VALMONT / BAJAJ / TRANSRAIL			
1416	<b>a</b>	galvanized	1	No	24530.00
1417	<b>b</b>	galvanized PU Paint finish	1	No	33220.00
	<b>7.10</b>	<b>THERMO PLASTIC POLE BOXES</b>			
	<b>ELEC-7.10.1</b>	Supply of following sizes thermo plastic pole boxes IP 65 protection. Make : Hensel / Sintex / Sadhrish / EPP or equivalent			
1418	<b>a</b>	200X150X100	1	No	792.00
1419	<b>b</b>	250X200X120	1	No	979.00
1420	<b>c</b>	300X150X170	1	No	1144.00
1421	<b>d</b>	300X200X125	1	No	1232.00
1422	<b>e</b>	300X300X170	1	No	1628.00
1423	<b>f</b>	400X300X200	1	No	1760.00
1424	<b>g</b>	300X450X170	1	No	2222.00
1425	<b>h</b>	490X390X250	1	No	2453.00
1426	<b>i</b>	300X600X170	1	No	2640.00
	<b>7.11</b>	<b>FOUNDATION AND ERRECTION CHARGES OF POLES</b>			
1427	<b>ELEC-7.11.1</b>	Erection charges for 7.50 Mts long Octagonal pole on bridge kerb portion (R.C.C). duly provided 4 Nos 8" Anchor bolts/ M20xsuitable "J" type bolts etc duly drilling holes to RCC slab and with V.C.C.	1	No	3881.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		M.15 concrete for base concreting up to a height of 8" with necessary Reinforcement work etc. including cost and conveyance of all material and all labour charges etc. complete as directed by the department officers.			
1428	ELEC-7.11.2	Foundation and erection charges with special T&P, for 7.50 Mtrs long Octagonal / Conical pole duly erecting on base plate duly provided 4 Nos foundation bolts with nuts with providing of 0.45Mtrx0.45Mtrsx1.20 Mtr size M20 cc work vibrated concreting mixing with necessary steel (10kgs) reinforcement as directed by the field engineers during execution including centering, decentering, water curing as required, soil excavation, back filling, muffing removal and coil earthing including all labour charges and cost and conveyance of materials etc. complete.	1	No	5464.00
1429	ELEC-7.11.3	Foundation and erection charges with special T&P, for 9.00Mtrs / 10Mtrs long Octagonal / Conical pole duly erecting on base plate duly providing 4 Nos foundation bolts with nuts with providing of 0.60Mtrx0.60Mtrsx1.40 Mtr size M20 cc work vibrated concreting mixing with necessary steel (15kgs) reinforcement as directed by the field engineers during execution including centering, decentering, water curing as required, soil excavation, back filling, muffing removal and coil earthing including all labour charges and cost and conveyance of materials etc. complete.	1	No	7277.00
1430	ELEC-7.11.4	Foundation and erection charges with special T&P, for 12Mtrs long Octagonal / Conical pole duly erecting on base plate duly provided 4 Nos foundation bolts with nuts with providing of 0.67Mtrx0.67Mtrsx1.50 Mtr size M20 cc work vibrated concreting mixing with necessary steel (20kgs) reinforcement as directed by the field engineers during execution including centering, decentering, water curing as required, soil excavation, back filling, muffing removal and coil earthing including all labour charges and cost and conveyance of materials etc. complete.	1	No	9125.00
	<b>7.12</b>	<b>G R P POLES</b>			
	ELEC-7.12.1	Supply and transportation of following glass reinforced polymer (GRP) composite			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		type Conical pole with single arm bracket of length 1Mtr and internal junction box including labour charges etc., complete. Makes: Bajaj / Valmont / Kemrock / Sumip.			
1431	a	3.00 Mtrs height, Bottom dia 130-143mm, Top 76-89mm, AV thickness 6mm and to withstand maximum wind velocity 155Km/Hr	1	No	11109.00
1432	b	4.00 Mtrs height, Bottom dia 140-145mm, Top 76-89mm, AV thickness 6mm and to withstand maximum wind velocity 155Km/Hr	1	No	13886.00
1433	c	6.00 Mtrs height, Bottom dia 150-170mm, Top 76-89mm, AV thickness 6mm and to withstand maximum wind velocity 155Km/Hr	1	No	17630.00
1434	d	8.00 Mtrs height, Bottom dia 150-193mm, Top 76-89mm, AV thickness 6mm and to withstand maximum wind velocity 155Km/Hr	1	No	23305.00
1435	e	10.00 Mtrs height, Bottom dia 207-227mm, Top 76-89mm, AV thickness 6mm and to withstand maximum wind velocity 155Km/Hr	1	No	33689.00
	<b>ELEC-7.12.2</b>	Supply and transportation of base bracket suitable for glass reinforced polymer (GRP) composite type pole including labour charges etc., complete. Makes : Bajaj / Kemrock / Sumip.			
1436	a	For 3.00 Mtrs Pole	1	No	1860.00
1437	b	For 4.00 Mtrs Pole	1	No	1860.00
1438	c	For 6.00 Mtrs Pole	1	No	2234.00
1439	d	For 8.00 Mtrs Pole	1	No	2608.00
1440	e	For 10.00 Mtrs Pole	1	No	4485.00
	<b>7.13</b>	<b>CONTROL PANEL BOARD</b>			
	<b>ELEC-7.13.1</b>	Fabrication and erection of ----- sheet steel enclosure for power control cubicle panel / boxes etc., including cutting, bending drilling, welding and reveting etc., complete with cleaning with 7 tank process and painting with powder coating including cost and conveyance of all materials and labour charges.			
1441	a	14SWG CRCA (2mm)	1	Sq Mtrs	5110.00
1442	b	16 SWG CRCA(1.6mm)	1	Sq Mtrs	4770.00
1443	c	18SWG CRCA(1.25mm)	1	Sq Mtrs	4260.00
		<b>NOTE :</b> For Panels fabrication as per IEC 61439, the rate should be considered 1.4 times of above price			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	<b>7.14</b>	<b>METERING EQUIPMENT</b>			
	<b>ELEC-7.14.1</b>	Supply and erection of 0-500V ----- --- on existing panel board including connections etc., complete. MAKES : CONZERVE / ELMEASURE / L&T / SEIMENS.			
1444	<b>a</b>	Digital Volt meter	1	No	2200.00
1445	<b>b</b>	Analog Volt meter	1	No	440.00
	<b>ELEC-7.14.2</b>	Supply and erection of 0-100 / 200 / 400 / 600 / 1000 -----of size 96x96mm on existing panel board including connections etc., complete. MAKES : CONZERVE / ELMEASURE / L&T / SEIMENS.			
1446	<b>a</b>	Digital Ammeter	1	No	2200.00
1447	<b>b</b>	Analog Ammeter	1	No	440.00
1448	<b>ELEC-7.14.3</b>	Supply and erection of Digital frequency meter on existing panel board including connections etc., complete. MAKES : CONZERVE / ELMEASURE / L&T / SEIMENS.	1	No	2750.00
1449	<b>ELEC-7.14.4</b>	Supply and erection of Digital power factor meter, 3 phase, 4 wire balanced or unbalanced load 5A, 415V of size 96 x 96mm on existing panel board including connections etc., complete. MAKES : CONZERVE / ELMEASURE / L&T / SEIMENS.	1	No	2750.00
	<b>ELEC-7.14.5</b>	Supply and erection of L.T. 3phase Digital multifunction -----for measuring all the parameters (Voltage, Current, Frequency, Power factor, KW, KVA, KWH, KVA, KVAH, KVAR and THD Events) on existing box panel board including connections etc., complete. MAKES : CONZERVE / ELMEASURE / L&T / SEIMENS.			
1450	<b>a</b>	energy meter Class I with LED display	1	No	7150.00
1451	<b>b</b>	energy meter Class I RS 485 with LED display	1	No	8250.00
1452	<b>c</b>	energy meter Class 0.5 RS 485 with LED display	1	No	9680.00
1453	<b>d</b>	energy meter Class I with LCD display	1	No	8250.00
1454	<b>e</b>	energy meter Class I RS 485 with LCD display	1	No	9240.00
1455	<b>f</b>	energy meter Class 0.5 RS 485 with LCD display	1	No	10780.00
1456	<b>g</b>	bidirectional import / export energy meter Class I with LED display	1	No	15785.00
1457	<b>h</b>	bidirectional import / export energy meter Class I RS 485 with LED display	1	No	16808.00
1458	<b>i</b>	bidirectional import / export energy meter Class I with LCD display	1	No	16808.00
1459	<b>j</b>	bidirectional import / export energy	1	No	17820.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		meter Class I RS 485 with LCD display			
	<b>ELEC-7.14.6</b>	Supply and erection of ----- -----Makes : L&T / C&S / SALZAR / HPL / Siemens			
1460	<b>a</b>	Selector switch for Voltmeter / Ammeter on the existing panel including connections etc., complete.	1	No	193.00
1461	<b>b</b>	LED indication lamps on the existing panel board.	1	No	149.00
1462	<b>c</b>	Push buttons on the existing panel board.	1	No	83.00
1463	<b>ELEC-7.14.7</b>	Supply and erection of LT current transformer with bar primary 100/5A to 1000 / 5A ratio in the existing panel including connections etc., complete. MAKE : KAPPA	1	No	484.00
	<b>ELEC-7.14.8</b>	Supply and fixing of----- Electronic energy Meter, 240V AC, 50 HZ as per IS13010 up to 40A range with 200% over load capacity complete with connections etc., complete on the existing board. Makes : CONZERVE / ELMEASURE / MECO / HPL / HAVELLS.			
1464	<b>a</b>	Single phase	1	No	1084.00
1465	<b>b</b>	Three phase	1	No	3124.00
	<b>ELEC-7.14.9</b>	Supply and fixing of ----- APFC Relay with connection etc complete. Makes : L&T / Siemens / EPCOS / Schneider / Elmeasure			
1466	<b>a</b>	8 Stage	1	No	14322.00
1467	<b>b</b>	12 Stage	1	No	16170.00
1468	<b>c</b>	14 Stage	1	No	19173.00
	<b>ELEC-7.14.10</b>	Supply and fixing of ----- Rating capacitor duty contactor Makes : L&T / Siemens / Meher			
1469	<b>a</b>	3.0 KVAR	1	No	1779.00
1470	<b>b</b>	5.0 KVAR	1	No	1860.00
1471	<b>c</b>	8.5 KVAR	1	No	2148.00
1472	<b>d</b>	10.0 KVAR	1	No	2333.00
1473	<b>e</b>	12.5 KVAR	1	No	2495.00
1474	<b>f</b>	15.0 KVAR	1	No	3465.00
1475	<b>g</b>	20.0 KVAR	1	No	4019.00
1476	<b>h</b>	25.0 KVAR	1	No	4505.00
1477	<b>i</b>	50.0 KVAR	1	No	12451.00
	<b>ELEC-7.14.11</b>	Supply and fixing of detuned reactor 7% 3 phase 440V range ----- Makes : L&T / Siemens / Meher			
1478	<b>a</b>	5.0 KVAR	1	No	9009.00
1479	<b>b</b>	10.0 KVAR	1	No	14207.00
1480	<b>c</b>	12.5 KVAR	1	No	15766.00
1481	<b>d</b>	15.0 KVAR	1	No	17672.00
1482	<b>e</b>	20.0 KVAR	1	No	20617.00
1483	<b>f</b>	25.0 KVAR	1	No	21830.00
1484	<b>g</b>	50.0 KVAR	1	No	34650.00



SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1485	h	75.0 KVAR	1	No	51629.00
1486	i	100.0 KVAR	1	No	70340.00
	<b>ELEC-7.14.12</b>	Supply of MPP type heavy duty capacitor of operating voltage Makes:L&T/Siemens/Schneider/Epcos.			
1487	a	not less than 440V of cylindrical type of 1 KVAR to 2 KVAR	1	KVAR	374.00
1488	b	not less than 480V of cylindrical type more than 2 KVAR	1	KVAR	363.00
1489	c	not less than 440V of box type of 1 KVAR to 4 KVAR	1	KVAR	484.00
1490	d	not less than 480V of box type of 5 KVAR to 50 KVAR	1	KVAR	440.00
	<b>7.15</b>	<b>SUB STATION EQUIPMENT / SERVICING</b>			
1491	<b>ELEC-7.15.1</b>	Carryout routine maintenance, servicing and testing of 630A to 1000A L.T.ACB by cleaning fixed contacts, moving contacts and arcchutes including servicing and putting the ACB in perfect working condition after detting all relay and ON, OFF mechanism etc done with only manufacturing companies	1	No	6353.00
1492	<b>ELEC-7.15.2</b>	Carryout routine maintenance and servicing of LT.Cubical pannel board having approximately 15 to 22 Nos of switches cleaning with power brower and servicing the contacts, tightning the connection of incoming and outgoing cables, and clicking the operating machanism for smooth functioning of switches and putting them in smooth working condition.	1	No	3032.00
1493	<b>ELEC-7.15.3</b>	Routine maintenance of transformer in operation covering insulation resistance oil, break down strength. Reconditioning / replacement of silicazel, cleaning of transformer and topping upto oil level if required (extra cost will be paid for oil).	1	No	5198.00
1494	<b>ELEC-7.15.4</b>	Testing of Transformer oil for dielectric breakdown strength.	1	No	713.00
1495	<b>ELEC-7.15.5</b>	Testing of Insulation Resistance H.T. / LT copper / aluminium coils for Transformers.	1	No	359.00
	<b>ELEC-7.15.6</b>	Removing the existing transformer from the plinth / Pole and refixing the standby transformer of following capacity including connections etc., complete----- -----			
1496	a	Upto 315 KVA	1	No	5610.00
1497	b	500 / 1000 KVA	1	No	7854.00
	<b>ELEC-7.15.7</b>	Replacing old and unserviceable gasket of top cover plate of transformer having following capacity -----			
1498	a	Upto 315 KVA	1	No	890.00
1499	b	500 / 1000 KVA	1	No	1247.00
	<b>ELEC-7.15.8</b>	Replacing old and unserviceable gasket of			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		bushing for the following Transformer capacity.			
1500	a	Upto 315 KVA H.T.	1	No	359.00
1501	b	Upto 500 / 1000 KVA H.T.	1	No	659.00
1502	c	Upto 315 KVA L.T.	1	No	832.00
1503	d	Upto 500 / 1000 KVA L.T.	1	No	1709.00
	<b>ELEC-7.15.9</b>	Replacement the H.T. / L.T. burntout winding coils of distribution transformer including rewinding, varnishing and vaccuming etc.,duly retaining the removed burnt winding coils by the Contractor / Firm -----			
1504	a	For copper coils	1	Kg	738.00
1505	b	For aluminium coils	1	Kg	484.00
	<b>ELEC-7.15.10</b>	Painting with 2 coats Zinchromate red oxide duly scraping existing paint followed by 2 coats of hammerton grey paint etc., complete.-----			
1506	a	Upto 500 KVA	1	No	3366.00
1507	b	630 / 1000 KVA	1	No	4488.00
	<b>ELEC-7.15.11</b>	Replacing ----- for distribution Transformer by new one.			
1508	a	H.T bushing	1	No	396.00
1509	b	H.T bushing metal parts	1	No	429.00
1510	c	L.T bushing Upto 315 KVA	1	No	187.00
1511	d	L.T bushing for 500 / 1000 KVA	1	No	198.00
1512	e	L.T bushing metal parts 100 KVA	1	No	341.00
1513	f	L.T bushing metal parts 250 / 315 KVA	1	No	561.00
1514	g	L.T bushing metal parts 500 KVA	1	No	1463.00
1515	h	L.T bushing metal parts 1000 KVA	1	No	2244.00
	<b>ELEC-7.15.12</b>	Drying the repaired transformer with appropriate heat / air -----			
1516	a	Upto 315 KVA	1	No	3366.00
1517	b	500 / 1000KVA	1	No	4719.00
	<b>ELEC-7.15.13</b>	Loading and Unloadng of transformer from site to Workshop or vice verse-----			
1518	a	Upto 500 KVA	1	No	5049.00
1519	b	630 / 1000 KVA	1	No	7634.00
	<b>ELEC-7.15.14</b>	Filtration of transformer oil as per ISS specifications filters to die electric strength above 40 KV-----			
1520	a	At site	1	Ltr	11.00
1521	b	At workshop	1	Ltr	8.00
1522	<b>ELEC-7.15.15</b>	Transformer oil tested as per IS-335 - 1972 ( per Ltr)	1	Ltr	134.00
		<b>SERVICING OF DBs</b>			
	<b>ELEC-7.15.16</b>	Servicing of DBs duly opening the top cover checking the circuits, tigheting the screws, applying tape wherever required and making propoer dressing etc complete.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1523	a	4 Way SPN DB	1	No	48.00
1524	b	8 Way SPN DB	1	No	97.00
1525	c	12 Way SPN DB	1	No	145.00
1526	d	4 Way TPN DB	1	No	145.00
1527	e	8 Way TPN DB	1	No	290.00
1528	f	12 Way TPN DB	1	No	436.00
1529	g	4 Way VTPN DB with MCCBs / MCB Circuits	1	No	242.00
1530	h	8 Way VTPN DB with MCCBs / MCB Circuits	1	No	363.00
1531	i	12 Way VTPN DB with MCCBs / MCB Circuits	1	No	484.00
		<b>SERVICING OF HT VCBs</b>			
1532	ELEC-7.15.17	Carryout routine maintenance, servicing and testing of 630A to 3000A HT VCB by cleaning fixed contacts, moving contacts and arcchutes including servicing and putting the VCB in perfect working condition after detting all relay and ON, OFF mechanism etc done with only manufacturing companies / Authorised dealers of respective switch gears	1	No	9900.00
		<b>POWER QUALITY ANALYSIS</b>			
1533	ELEC-7.15.18	Carrying out power quality analysis of the existing load at point of supply/ or as directed with the use of necessary equipment ( At 10 points) and recording voltage, current, frequency, KW, KVA, KVAR,PF,THDV, THDI, Load imbalance, preparation and submission of detailed analysis report with remedial measure.	1	day	28600.00
		<b>Note 1:</b> Above job is carriedout irrespective of measuremnts at various electrical panels/ load centers (Upto 10 pts) <b>Note 2:</b> For estimating, one day shall be considered number of hours of one normal working day and it should be actual time required for measurement at site.			
		<b>THERMOGRAPHY</b>			
1534	7.15.19	Service Charges towards Thermography at site with FLIR make E5 thermal Imaging Camera with CRIP Resolution of 10,800-pixel detector and 2% accuracy including all required jobs	1	Job	38500.00
	7.16	<b>TRANSFORMERS</b>			
	ELEC-7.16.1	Supply and Transportation of ----- KVA TRANSFORMER with all test reports. The Transformer shall be designed and manufactured as per IS:1180 OCTC with level - I with initial filling of oil as per IS 335-1993. The basic details of the Transformer are as under. Makes: Kirloskar / PETE / Esennar / Voltamp / Crompton / ABB / Schneider.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Scheduled Rate
		1. Quantity : 1 2. Rated KVA : .....KVA 3. Service & Location: Continuous Outdoor Distribution Transformer 4. Mounting : Plinth. 5. Wound : Copper Double wound 6. Type : Core type oil immersed 7. Cooling : ONAN 8. Temp Rise : 40°C in oil, 45°C by resistance 9. Vector Group: Dyn 11 10. Primary Connection : Delta 11. Nominal Voltage / Current : _____ 12. Highest system Voltage: 12000V 13. Primary Frequency :50 HZ +/- 3% 14. Number of Phases : 3 15. Primary wires: 3 16. Secondary connection : Star 17. Secondary Volts / Current : 433V 18. Secondary phases : 3 19. Secondary wires: 4 20. Taps on primary winding for primary voltage variation : +5% to - 10% in steps of 2.5% of 7 position (6 Steps)		
		21. Terminal arrangement. a.HV: HT terminal box as per the site condition. b. LV: Cable box suitable to receive ----- -----Sq.mm XLPE cable 22. LV:One separate terminal for earthing. 23. Total Losses at 50% Loading [Watts] [Max] --- as per IS 24. Total Losses at 100% Loading [Watts] [Max]--- as per IS 25. Percentage Impedance at 75 deg. C at ----- as per IS 26. No Load current: Less than 2% of full load current.		
		<u>27. Standrad Fittings &amp; Accessories.</u> a. Rating and terminal marking plate: One b. Lifting Lugs:Two c. Off-circuit tap switch :One d. Earthing Terminals :Two e. Radiators ( Attachable) :Adequate f. Explosion vent with Diaphragm :One g. Conservator with Drain plug:one h. Oil filling hole with cap :One i. Oil level indicator : One j. Dehydrating Silicagel Breather : One k. Terminal Arrangement: HV With Treminal Box l. Terminal Arrangement : LV Cable Box m. Separate Neutral Bushing : One n. Filter valve with blanking plate : One o. Drain cum filter valve with blanking plate : One p. Air release device : One		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		q. Thermometer Pocket : One r. Four :Unidirectional flat rollers s. One :10Cm dial thermometer(Rigid stem type)			
1535	a	160 KVA Copper Wound Transformer	1	No	776160.00
1536	b	200 KVA Copper Wound Transformer	1	No	847107.00
1537	c	250 KVA Copper Wound Transformer	1	No	873180.00
1538	d	315 KVA Copper Wound Transformer	1	No	1164240.00
1539	e	400 KVA Copper Wound Transformer	1	No	1428620.00
1540	f	500 KVA Copper Wound Transformer	1	No	1502598.00
1541	g	630 KVA Copper Wound Transformer	1	No	1671898.00
1542	h	1000 KVA Copper Wound Transformer	1	No	2010254.00
1543	i	1250 KVA Copper Wound Transformer	1	No	2272500.00
1544	j	1600 KVA Copper Wound Transformer	1	No	3245000.00
1545	k	2000 KVA Copper Wound Transformer	1	No	4077600.00
	<b>ELEC-7.16.2</b>	Supply and Transportation of ----- KVA TRANSFORMER with all test reports. The Transformer shall be designed and manufactured as per IS:1180 OCTC with <b>level - I</b> with initial filling of oil as per IS 335-1993. The basic details of the Transformer are as under. Makes: Thota / Power Tech or equivalent			
		1. Quantity : 1 2. Rated KVA : .....KVA 3. Service & Location: Continuous Outdoor Distribution Transformer 4. Mounting : Plinth. 5. Wound : Copper Double wound 6. Type : Core type oil immersed 7. Cooling : ONAN 8. Temp Rise : 40°C in oil, 45°C by resistance 9. Vector Group: Dyn 11 10. Primary Connection : Delta 11. Nominal Voltage / Current : _____ 12. Highest system Voltage: 12000V 13. Primary Frequency :50 HZ +/- 3% 14. Number of Phases : 3 15. Primary wires: 3 16. Secondary connection : Star 17. Secondary Volts / Current : 433V 18. Secondary phases : 3 19. Secondary wires: 4 20. Taps on primary winding for primary voltage variation : +5% to - 10% in steps			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		of 2.5% of 7 position (6 Steps)			
		21. Terminal arrangement. a.HV: HT terminal box as per the site condition. b. LV: Cable box suitable to receive -- -----Sq.mm XLPE cable 22. LV:One separate terminal for earthing. 23. Total Losses at 50% Loading [Watts] [Max] --- as per IS 24. Total Losses at 100% Loading [Watts] [Max]--- as per IS 25.Percentage Impedance at 75 deg. C at ----- as per IS 26. No Load current: Less than 2% of full load current.			
		<u>27. Standrad Fittings &amp; Accessories.</u> a. Rating and terminal marking plate: One    b. Lifting Lugs:Two    c. Off-circuit tap switch :One    d. Earthing Terminals :Two e. Radiators ( Attachable) :Adequate    f. Explosion vent with Diaphragm :One g. Conservator with Drain plug:one    h. Oil filling hole with cap :One    i. Oil level indicator : One    j. Dehydrating Silicagel Breather : One    k. Terminal Arrangement: HV With Treminal Box l. Terminal Arrangement : LV Cable Box m. Separate Neutral Bushing : One    n. Filter valve with blanking plate : One o. Drain cum filter valve with blanking plate : One    p. Air release device : One    q. Thermometer Pocket : One    r. Four :Unidirectional flat rollers    s. One :10Cm dial thermometer(Rigid stem type)			
1546	a	100 KVA Copper Wound Transformer	1	No	378900.00
1547	a	160 KVA Copper Wound Transformer	1	No	606375.00
1548	b	200 KVA Copper Wound Transformer	1	No	667013.00
1549	c	250 KVA Copper Wound Transformer	1	No	727650.00
	ELEC-7.16.3	Supply and Transportation of 3 Phase, 50 Hz, Dry type, Indoor type copper wound Transformer designed and manufactured as per IS 2026-1977 and IS 11171-1985, connected delta on primary side and Star on secondary side with additional neutral brought out on load side, 11000V / (433V / 415V) with HV off load tap changing + 5% to -5% in steps of 2.5%, temperature rise by the resistance 90°C complete with test reports with the following standard mountings. Makes: Kirloskar / PETE / Esennar /			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Voltamp / Crompton / ABB / Schneider.			
		1. Rated KVA : .....KVA (Cast Resin) 2. Service: Indoor 3. Mounting : Floor. 4. Copper wound : Double. 5. Type of cooling : ANAN. 6. Insulation Class : Class F 7. Temperature rise by resistance : 90°C 8. Vector Group: Dyn 11			
		9. Primary Connection : Delta10. Primary Volts : 1100011. Primry Frequency : 5012.Primary Phases : 313. Primary wires: 314. Secondary connection : Star15. Secondary Volts : 433V / 415V16. Secondary phases : 317. Secondary wires: 418. Taps on primary winding for primary voltage variation :+5.0% to - 10.0% in steps of 2.5% through links.			
		19. Terminal arrangement.			
		a. HV: Cable end box b. LV : Cable end box			
		20. No load losses (Watts): ..... As per IS specifications			
		21. Load losses (Watts): .....As per IS specifications			
		22. Impedance(Z%) : .....As per IS specifications			
		23. Fittings & Accessories. a. Rating and terminal marking plate b. Earthing terminals c. Lifting Lugs d. Winding temperature Indicator e. Seperate neutral bushing f. Uni directional flat rollers.			
1550	a	250 KVA Copper Wound Cast Resin Transformer	1	No	1218815.00
1551	b	315 KVA Copper Wound Cast Resin Transformer	1	No	1540800.00
1552	c	400 KVA Copper Wound Cast Resin Transformer	1	No	1920269.00
1553	d	500 KVA Copper Wound Cast Resin Transformer	1	No	2126558.00
1554	e	630 KVA Copper Wound Cast Resin Transformer	1	No	2440660.00
1555	f	750 KVA Copper Wound Cast Resin Transformer	1	No	2701401.00
1556	g	1000 KVA Copper Wound Cast Resin Transformer	1	No	2886345.00
1557	h	1250 KVA Copper Wound Cast Resin Transformer	1	No	3525000.00
1558	i	1600 KVA Copper Wound Cast Resin Transformer	1	No	4340330.00
1559	j	2000 KVA Copper Wound Cast Resin Transformer	1	No	5344758.00
1560	ELEC-7.16.4	Supply, Installation, Testing and	1	No	652800.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Commissioning of OLTC for transformers with RTCC etc., complete.			
		<b>NOTE 1 :</b> All Test reports to be submitted			
		<b>NOTE 2.</b> 2% may be added on the above price towards Installation, Testing and Commissioning			
		<b>NOTE 3 :</b> If level 2 transformer is to be supplied then increase the price by 10%			
1561	ELEC-7.16.5	Supply , Fabrication, Transportation and fixing of Box type RS Joist pole made with 2 Nos 175X85 mm ( ISMB Modified ) or equivalent about 30'-0 length / 9.1 mtrs length poles welded together including excavation of pit, coil earthing, Special T&P, painting of Pole with 1 coat of Red oxide and 2 coats of alluminium paint, CC 1:3:6 upto ground and 1:2:4 for Couping work, 200A AB Switch, HG fuse sets, required angle iron channels, clamps, nuts and bolts, 11KV pin insulators, 2Nos GI pipe earthings as per the IS with brick massonry chamber including labour and transportation charges etc., complete.	1	No	87846.00
1562	ELEC-7.16.6	Supply, Fabrication, Transportation and erection of DP structure made with 2 Nos 175mm x 85mm ( ISMB Modified ) or equivalent about 30'-0 length / 9.1 mtrs length RS joist pole erection of the same Including excavation of pit in all kinds of soil including breaking stones, concreting with (1:3:6) mixture base plate, coil earthing back filling, 1:2:4 for coupling including red oxide primary painting and two coats of aluminium painting etc., complete as required with following as per CEIG norms.	1	No	153731.00
		a). 400A AB Switch-1No			
		b) HG Fuse sets-1No			
		c). LAS-1set.			
		d) Required Number of 11KV pin and disc insulators.			
		e) Required length of 100X50mm and 75X40 mm ISMC chanell iron including two coats of redoxide and two coats of enamil paint ect for finished item of work.			
		f) 11KV pin insulators and disc insulators.			
		g) AB switch operating pipe with handle and lock and key arrangements.			
		h). "0" SWG or 8.25 mm dia hard drawn bare copper wire including copper binding wire etc., complete as required including connections.			
		i) 40X6mm GI strip for the DP structure earthing.			
		j) 25X6mm copper strip for lightning			



SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		arrestors earthing.			
		k) 600X600mmX3,15mm thick copperplate earthings as per NEC with brick massonary chambers - 2 Nos			
		l) GI pipe earthing for the Double pole structure with brick massonry chambers as per IS - 2 Nos			
1563	ELEC-7.16.7	Providing independent earthing for Important equipment with 40mm dia 'B' class 2.5m long G.I pipe and 19mm dia 'B' class G.I pipe of 0.3mtr. long connected with reducer providing G.I funnel with mesh enclosed in C.C/ brick massonry chamber of 450m x 450m x 400mm with R.C.C. Slab cover duly providing staggered holes filling with 20Kg Salt and 40Kg Charcoal or 40Kg bentonite powder from the bottom of the pipe giving earth connection from electrode through G.I strip of 40 x 6mm x 200mm length with all accessories and labour charges complete, as per IS specifications 732/1982 (Part II)	1	No	5836.00
		<b>NOTE :</b> Whenever providing full length of electrode is not possible due to the obstruction of water tube / rock, the length of electrode may be reduced and additional earthing may be done to meet earth resistance.			
1564	ELEC-7.16.8	Providing independent earthing by exacavating a pit to a depth of 2.25Mtr in all soils as per size specified in the data for Sophisticated Electronic equipment with 600mm x 600mm x 3.15mm thick copper plate rigidly fixed to 19mm dia 'B' Class G.I Pipe of 2.5Mtr lengthwith funnel as per National Electric Code and earth connection from electrode GI strip of 40mm x 5mm x 200mm length to be bolted with nut bolts to G.I.pipe including 25mm x 3mm copper strip of 6Mtrs length connected from plate to GI strip including filling with 20Kg Salt and 40Kg Charcoal or 40Kg bentonite powder from the bottom of the pipe and providing CC / Brick massonry chamber 450mmX450mmX400mm and covered with R.C.C. Slab including all accessories and labour charges etc complete as per IS specification 732/1982 (Part II).	1	No	16670.00
		<b>NOTE:</b> In location where the full length of electrode is not possible due to meeting a water table /rock. The electrode may be reduced length and two earths may be done to meet earth resistance.			
1565	ELEC-7.16.9	Providing transformer plinth 1.2 x 1.2 x	1	No	17364.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		1.5 mtr in size with necessary excavation in ground at the bottom with 150mm thick 1:2:4 cement concrete raft at the bottom and top and 225mm thick wall constructed in stone masonry and remaking hollow portion shall be filled with stone chips duly plastered 20mm thick outsides including watering etc., complete.			
1566	ELEC-7.16.10	Providing CTPT plinth 600mm x 600mm x 2.1 mtr in size with necessary excavation in ground at the bottom with 150mm thick 1:2:4 cement concrete raft at the bottom and top duly plastered 20mm thick outsides including watering etc., complete.	1	No	13892.00
1567	ELEC-7.16.11	Providing independent earthing for Important equipment with 100mm dia Heavy gauge C.I ( Cast iron ) pipe with Flange 2.5m long enclosed in C.C/ brick massonry chamber of 450m x 450m x 400mm with R.C.C. Slab cover duly providing staggered holes filling with salt and charcoal from the bottom of the pipe giving earth connection from electrode through flange with all accessories and labour charges complete, as per IS specifications 732/1982 (Part II)	1	No	9550.00
1568	ELEC-7.16.12	Supply, Transportation, Installation and Commissioning of 11 KV, 630A, 25 KA Outdoor type Load Break Switch as detailed below with suitable CC foundation and 2 Nos GI pipe earthing with brick massonry chambers etc complete for finished item of work. a) Load break switch: 11KV, 630A, 25 KA with fuse trip, earth switch, manually operated spring charged mechanism with 2 no + 2 NC. b) HT HRC fuse upto 63A - 3 nos. c) Bus bar connection. d) Indication lamps. e) Manual trip Push button. Make : Megawin / Pentagon / Venkateshwara / Jyothi.	1	No	146440.00
1569	ELEC-7.16.13	Supply, Installation, Testing and commissioning of indoor type floor mounted metal clad VCB panel with 3 Nos VCBs, totally enclosed and fully inter locked horizontal draw out , horizontal isolated type breaker as per IS 13118 Specifications and as amended upto date and additional specifications, having capacities mentioned below, single break, trip free mechanism, motorised operated spring / manually charged and	1	No	1537305.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Scheduled Rate
		auto/manually closed breaker suitable for use on 11KV, 3 Phase, 50 HZ AC supply with short circuit fault level of 350 / 500 MVA, complete with self contained, fully inter locked rack in and rack out mechanism, air insulated but encapsulated copper bus bars of 630A capacity, breaker featured with mechanical ON/OFF indicator with hand trip device, spring charging motor, 110V DC closing and tripping coil, safety shutter assembly, shunt trip coil and auxiliary switch of 4 NO + 4 NC and equipped with the following switchgears and accessories including connections suitable for XLPE 11 KV cable, cable entry from bottom, end termination with heat shrinkable jointing material etc as required including construction of suitable CC works for VCB's etc complete.Makes:Kirloskar / Schneider / Siemens / ABB		
		<b>INCOMER - 1 No</b>		
		Vacuum circuit breaker electrical drawout type TP 11 KV 630 A not less than 16 KA rated short circuit rating current -1No		
		POTENTIAL TRANSFORMER:1 No. 11000 / 110 Volts PT, Class 1 accuracy, 100 VA burden with HT/LT fuses.		
		CURRENT TRANSFORMER: 3 Nos epoxy resin cast CTs of ratio 50 -- 300 A / 5A, 15VA burden and accuracy class 1.0 for metering and class 5P10 for protection		
		<b>METERING</b>		
		1No Digital type Ammeter and selector switch of makes CONZERV/EQVT		
		1 No digital type Voltmeter with 0-15KV range, selector switch for Voltmeter of makes CONZERV/EQVT		
		1No Digital Multifunction meter of makes CONZERV/EQVT		
		Heater ON/OFF switch with space heater and thermostat, single phase switch with socket cubical lamp for panel illumination with door limit switch ,MCB's for AC & DC control.		
		LED indication lamps for breaker on, breaker off, spring charge indication, trip circuit healthy with push button, Auto trip indication meter, Auxiliary contact for service test position (4No + 4 NC) service and test positions and R/Y/B indication lamps.		
		PROTECTION: 1 Nos. Microprocessor based IDMTL 3 over current and 1 earth		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Scheduled Rate
		fault relay with Over current, earth fault and short circuit protection.		
		High speed tripping relay		
		ANNUNCIATION: 8 Window annunciation panel with push buttons and hooters.		
		POWER PACK: Supply, Installation, testing and commissioning of Power pack with 230V input and 110V DC continuous output suitable for closing / tripping / indication of 3 Nos VCBs with 2.5sqmm FRLS copper cable etc as required.		
		<b>OUTGOINGS - 2 Nos</b>		
		630A VCBs draw out type TP 11 KV 630 A not less than 16 KA rated short circuit rating current.		
		Each breaker shall consist the following.		
		CURRENT TRANSFORMER: Epoxy resin cast CTs of ratio 50 -- 300 A / 5A, 15VA burden and accuracy class 1.0 for metering and class 5P10 for protection - 3 Nos		
		Digital type Ammeter and selector switch - 1 No Makes : CONZERV / EQVT		
		Digital Multifunction meter - 1 No Makes: CONZERV / EQVT		
		PROTECTION : Microprocessor based IDMTL 3 over current and 1 earth fault relay with Over current, earth fault and short circuit protection - 1 No		
		High speed tripping relay		
		Auxiliary relay for bucholz A/T, OTI A/T, WTI A/T		
		Heater ON/OFF switch with space heater and thermostat, single phase switch with socket cubical lamp for panel illumination with door limit switch ,MCB's for AC & DC control.		
		<b>INDICATION LAMPS:</b> LED indication lamps for breaker on, breaker off, spring charge indication, trip circuit healthy with push button, Auto trip indication meter, Auxiliary contact for service test position ( 4No+ 4 NC) service and test positions and R/Y/B indication lamps.		
		<b>ANNUNCIATION:</b> 8 Window annunciation panel with push buttons and hooters.		
		1 No. rear entry cable box suitable to receive 11 KV, 1 run of 3CX 120 sqmm cable(XLPE) .		
		1 set of misc items like control fuses , control wiring , inter connections, nuts, bolts, bus trunking including all connected accessories etc.		
		1 Set of 11 KV, 630A, 350 / 500 MVA alluminium Bus Bar.		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Note : If out going breaker quantity is increased, Rs.3.75 Lakhs per each breaker to be added to the above.			
1570	ELEC-7.16.14	<p>Supply,transpotation,installation,testing and commissioning of HT INDOOR type single panel switchgear with VCB of floor mounted, metal clad 11KV, 630A, not less than 16 KA (350 / 500 MVA) VCB Panel, with 1No VCBs totally enclosed and horizontal drawout type, horizontal isolation type breaker as per IS 13118 as amended upto date and additional specifications having capacities as mentioned below , single break trip free mechanism, motorised/manually charged and auto manually closing breaker suitable for use on 12KV,3phase,50HZ AC supply with self contained fully interlocked rackin and rackout mechanism air insulated alluminium Busbars of 630A capacity, Breaker featured with ON/OFF indicator with hand trip device, spring relief coil, shunt trip coil and auxillary switch of 6NO + 6NC and equiped with following switchgears and accessories incomming connections suitable for 3x95Sqmm XLPE 11KV Cable as required etc complete with adaptor box for outgoing termination.Makes: Kirloskar / Schneider / Siemens / Crompton Greaves / ABB</p> <p>INCOMING : 11KV, 630A,not less than ----</p> <p>- KA VCB - 1No.</p> <p>POTENTIAL TRANSFORMER : 11000 / 110 Volts PT, Class 1 accuracy, 100 VA burden with HT/LT fuses.</p> <p>Makes: ECS / SILKANS / PRAGATHI / NARAYAN POWER TECH or EQVT - 1 No</p> <p>Digital Voltmeter 0-15KV along with Selector switch and protection fuses/MCB for HT metering upto 15KV on incoming side -1No</p> <p>Makes: CONZERV / ELMEASURE or EQVT</p> <p>Dual core dual ratio Current transformers with 50 -- 300 A / 5 amp, 15VA burden and accuracy class 1 for metering &amp; class 5P10 for protection of makes ECS / SILKANS / PRAGATHI / NARAYAN POWER TECH -3Nos</p> <p>0-300A Digital Type Ammeter with selector switch -1No</p> <p>Makes : CONZERV / ELMEASURE or EQVT</p> <p>Microprocessor based non directional combined 2 over current &amp; one earth fault relay -1No</p> <p>Makes: EASUN REYROLLE or equivalent</p> <p>POWER PACK: Supply, Installation, testing</p>	1	No	585640.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		and commissioning of Power pack with 230V input and 110V DC continuous output suitable for closing / tripping / indication of VCB with 2.5sqmm FRLS copper cable etc as required. Master trip relay-1No Makes: EASUN REYROLLE or equivalent (Makes) Three element transformer fault auxiliary relay - 2 Nos Makes: EASUN REYROLLE or equivalent Breaker control switch-1No Makes: Switron or equivalent Local / Remote switch-1No Makes: Switron or equivalent Indicating lamps-1set Makes: Vaishnov or equivalent Reputed brand Space heater & thermostat -2Nos Makes: Eltek or equivalent MCB's of suitable current rating - 3 Nos Anti pumping relay -1No Makes: Reputed brand with ISI mark Electronic Audio alarm system with hooter -1No Makes : Reputed brand Auxiliary plug & socket of 230VAC/10A - 1No Makes: Reputed brand with ISI mark Panel illumination lamp 230V/40W -1No Makes: Reputed brand with ISI mark			
1571	ELEC-7.16.15	Supply,transpotation,installation,testing and commissioning of HT OUTDOOR type single panel switchgear with VCB of floor mounted, metal clad 11KV, 630A, not less than 16 -KA (350 / 500 MVA) VCB Panel, with 1No VCBs totally enclosed and horizontal drawout type, horizontal isolation type breaker as per IS 13118 as amended upto date and additional specifications having capacities as mentioned below , single break trip free mechanism, motorised/manually charged and auto manually closing breaker suitable for use on 12KV , 3phase, 50HZ AC supply with self contained fully interlocked rackin and rackout mechanism air insulated alluminium Busbars of 630A capacity, Breaker featured with ON/OFF indicator with hand trip device, spring relief coil, shunt trip coil and auxillary switch of 6NO + 6NC and equiped with following switchgears and accessories incomming connections suitable for 3x95Sqmm XLPE 11KV Cable as required etc complete with adaptor box for outgoing termination.	1	No	658845.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		<p>Makes: Kirloskar / Schneider / Siemens / Crompton Greaves / ABB</p> <p>Dual core dual ratio Current transformers with 50 -- 300 A / 5 amp, 15VA burden and accuracy class 1 for metering &amp; class 5P10 for protection - 3 Nos</p> <p>Makes : ECS / SILKANS / PRAGATHI / NARAYAN POWER TECH</p> <p>0-300A Digital Type Ammeter with selector switch - 1No</p> <p>Makes : CONZERV / ELMEASURE or EQVT</p> <p>Microprocessor based non directional combined 2 over current &amp; one earth fault relay - 1No</p> <p>Makes: EASUN REYROLLE or equivalent</p> <p>POWER PACK: Supply, Installation, testing and commissioning of Power pack with 230V input and 110V DC continuous output suitable for closing / tripping / indication of VCB with 2.5sqmm FRLS copper cable etc as required.</p> <p>Master trip relay-1No</p> <p>Makes: EASUN REYROLLE or equivalent (Makes)</p> <p>Three element transformer fault auxiliary relay - 2 Nos</p> <p>Makes: EASUN REYROLLE or equivalent</p> <p>Breaker control switch-1No</p> <p>Makes: Switron or equivalent</p> <p>Local/Remote switch-1No</p> <p>Makes: Switron or equivalent</p> <p>Indicating lamps-1set</p> <p>Makes: Vaishnov or equivalent Reputed brand</p> <p>Space heater &amp; thermostat -2Nos</p> <p>Makes: Eltek or equivalent</p> <p>MCB's of suitable current rating- - 3 Nos</p> <p>Anti pumping relay -1No</p> <p>Makes: Reputed brand with ISI mark</p> <p>Electronic Audio alarm system with hooter -1No</p> <p>Makes : Reputed brand</p> <p>Auxiliary plug &amp; socket of 230VAC/10A - 1No</p> <p>Makes: Reputed brand with ISI mark</p> <p>Panel illumination lamp 230V/40W -1No</p> <p>Makes: Reputed brand with ISI mark</p>			
	<b>7.17</b>	<b>L.T. LINE MATERIALS AND LIGHTENING PROTECTION SYSTEM</b>			
1572	<b>ELEC-7.17.1</b>	Supply and erecting approved make 11KV, 5KA metal oxide lightning arrestors suitable for 11 KV supply with necessary materials on existing cross arm.	1	No	2046.00
	<b>ELEC-7.17.2</b>	Supply and erecting porcelain ----- ---- insulator suitable for 11KV line with suitable hardware on existing cross arms.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1573	a	Disc type	1	No	641.00
1574	b	Pin type	1	No	327.00
1575	c	Post type	1	No	725.00
1576	ELEC-7.17.3	Supply and erecting porcelain pin/shackle type insulator suitable for L. T.	1	No	117.00
1577	ELEC-7.17.4	Supply and erection of approved make 11 KV outdoor type gang operated Air Break switch of 200 A capacity with 3 post pin type insulator per phase, mounted in Horizontal / Vertical position with necessary channels on cross arms with adequate length of 'C' class GI pipe for operating handle provided with Lock & Key at suitable height from ground level with necessary clamps.	1	No	8419.00
1578	ELEC-7.17.5	Supply and erection of approved make 11 KV outdoor type gang operated Air Break switch of 400 A capacity with 3 post pin type insulator per phase, mounted in Horizontal / Vertical position with necessary channels on cross arms with adequate length of 'C' class GI pipe for operating handle provided with Lock & Key at suitable height from ground level with necessary clamps.	1	No	9950.00
1579	ELEC-7.17.6	Supply and erection of approved make 11KV, H.G fuse set with insulation complete with Fuse holders, Fuse barrel with metal fittings, fuse element mounted on M.S. channel with working current 15A capacity complete with cost and conveyance of all materials.	1	No	5511.00
1580	ELEC-7.17.7	Supply and erection of approved make 33 KV, H.G fuse set with insulation complete with Fuse holders, Fuse barrel with metal fittings, fuse element mounted on M.S. channel with working current 15A capacity complete with cost and conveyance of all materials.	1	No	5511.00
1581	ELEC-7.17.8	Supply of 7/3.15 AAA C all Aluminium annealed conductor Rabbit.	1	Km	37502.00
1582	ELEC-7.17.9	Supply of 7/2.50 AAA C all Aluminium annealed conductor Weasel.	1	Km	22960.00
1583	ELEC-7.17.10	Supply of 9.1 Mtr PSSC Pole 280 Kg Working load.	1	No	5358.00
1584	ELEC-7.17.11	Supply of 8.0 Mtr PSSC Pole 140 Kg Working load.	1	No	2908.00
1585	ELEC-7.17.12	Supply of 175 x 85 mm / 150 x 75 mm RS Joist.	1	Kg	101.00
		<b>AB CABLES</b>			
	ELEC-7.17.13	Supply and stringing of LT Single / Three phase 3 / 4 Wire Aerial Bunched stranded aluminium conductor XLPE/HDPE insulated conductor twisted over bare all aluminium alloy messenger wire of 1100 V confirming to IS: 14255/1995.			



SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1586	a	2X16+1x25	1	Mtr	140.00
1587	b	2X25+1x25	1	Mtr	200.00
1588	c	3X25+1x25	1	Mtr	251.00
1589	d	3X35+1x25	1	Mtr	340.00
1590	e	3X50+1x35	1	Mtr	470.00
1591	f	3X70+1x50	1	Mtr	630.00
1592	g	3X95+1x70	1	Mtr	870.00
		<b>LIGHTNING PROTECTION</b>			
1593	ELEC-7.17.14	Supply and installation of advanced lighting protection with 205 -580mm height and 4.60 - 4.940 kgs, and having Rod length 760mm, weight 1.795 kgs with stainless steel rod, working on the principle of (ESE) Early Streamer Emission technology, having a coverage radius of 79 Mts under level 1 protection and 107 Mtrs radius under level 4 protection when mounted on 5 - 15 mts height of existing lattice tower giving level 1 protection and anticipation emission time of 60 - 72 micro seconds. The ESE should be manufactured according to standard NFC 17-102 : 2011 and CE certified including functional integrity etc Complete. Make : EARTHPLUS (THUNDER GUARD) / NIMBUS / KALRE / FOREND./Equivalent approved make.	1	No	131100.00
1594	ELEC-7.17.15	Installation and commissioning of advanced lighting protection systems which includes 1. 50mm dia C class GI mast with base plate of length 5.0 Mtrs with FRP collar (Insulating bush).2. Laying of CC Bed 3. Installation of Lighting Rod4. Laying of Down conductor5. Installation of Counter6. Installation of Earth Electrodes 7. Interconnection between the Electrodes8. Specialised supporting guy wire and all fitting accessories.9. Termination of down conductor to earth bus etc complete	1	No	33580.00
1595	ELEC-7.17.16	Supply of electro-Mechanical counter Makes: EARTHPLUS (THUNDER GUARD) / NIMBUS / KALRE / FOREND.	1	Pt	17250.00
1596	ELEC-7.17.17	Providing earth electrode of low carbon steel rod, <b>UL listed</b> of 25 mm dia, 3 Mtr long, coated with copper of 254 microns thickness, CPRI tested for short time current withstand test of 25 kA, coating thickness, environmental test (Salt Mist Test), Bend test, Tensile strength, Yield / tensile ratio, Electrical Resistivity test, complete with clamps and 2 bags of Earthplus ULTRA high grade earthing compound IEC 62561-7 complaint Eco-friendly, Maintenance free, anti corrosive, lead-free, super conductive,	1	Pt	18762.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		mineral based high-grade earthing compound, to enhance soil conductivity. With resistance <0.20 ohms-meter, should be leach proof & sulphur free complete with earth inspection chamber of dimensions : Width : 320 mm x 320 mm, Height : 192 mm, Weight : 30 Kgs, Load bearing capacity : 5000 Kgs <b>including drilling of bore in any kind of soil.</b>			
		<b>SECTION - 8</b>			
	<b>8.1</b>	<b>NET WORKING</b>			
	<b>ELEC-8.1.1</b>	Supply of ----- telephone copper cable. Makes : Finolex / Delton / Surabi / Polycab			
1597	<b>a</b>	2 Pair, 0.5mm	100	Mtrs	1047.00
1598	<b>b</b>	5 Pair	100	Mtrs	2921.00
1599	<b>c</b>	10 Pair	1	Mtr	41.00
1600	<b>d</b>	20 Pair	1	Mtr	81.00
1601	<b>e</b>	50 Pair	1	Mtr	201.00
1602	<b>f</b>	100 Pair	1	Mtr	403.00
	<b>ELEC-8.1.2</b>	Supply of ----- Telephone distribution box with back mount frame, krone connector, powder coated metal body with lock and key arrangement.			
1603	<b>a</b>	10 pair	1	No	735.00
1604	<b>b</b>	20 pair	1	No	1116.00
1605	<b>c</b>	50 pair	1	No	2347.00
1606	<b>d</b>	100 pair	1	No	4184.00
1607	<b>e</b>	200 pair	1	No	8050.00
	<b>ELEC-8.1.3</b>	Supply of LAN Cable cat - Makes : D Link / AMP / Molex / Legrand / Krone.			
1608	<b>a</b>	6 UTP cable.	100	Mtrs	2415.00
1609	<b>b</b>	6 STP cable.	100	Mtrs	4600.00
	<b>ELEC-8.1.4</b>	Supply of Cat 6 RJ-45 information outlets including ----- plate. Makes : D Link / AMP / Molex / Legrand / Krone.			
1610	<b>a</b>	Duel face plate.	1	No	351.00
1611	<b>b</b>	Single face plate.	1	No	265.00
	<b>ELEC-8.1.5</b>	Supply of ----- manageable switches Makes : CISCO / Net Gear / HP / D link.			
1612	<b>a</b>	48 Port	1	No	15951.00
1613	<b>b</b>	24 Port	1	No	6900.00
1614	<b>c</b>	8 Port	1	No	1265.00
1615	<b>ELEC-8.1.6</b>	Supply of access point. Makes : CISCO-WAP321 or its equivalent in Net Gear / HP / D link.	1	No	12765.00
	<b>ELEC-8.1.7</b>	Supply of ----- length moulded patch cord. Makes : D Link / AMP / Molex / Legrand / Krone.			
1616	<b>a</b>	7 feet	1	No	230.00
1617	<b>b</b>	3 feet	1	No	207.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1618	ELEC-8.1.8	Supply of 24 port patch panels Makes : D Link / AMP / Molex / Legrand / Krone.	1	No	6670.00
	ELEC-8.1.9	<b>HDMI &amp; VGA CABLES</b>			
1619	a	Supply and erecting VGA cable to be laid in provided conduits and terminating as per specifications having 15mtr cord length with male/ female VGA connectors as per requirement complete.	1	No	2990.00
1620	b	Supply and installing HDMI cable low voltage grade as per standard specifications having 3 mtr cord length with male and female 19 pin HDMI connectors as per requirement at site.	1	No	1380.00
1621	c	Supply and installing HDMI cable low voltage grade as per standard specifications having 5 mtr cord length with male and female 19 pin HDMI connectors as per requirement at site.	1	No	2415.00
1622	d	Supply and installing HDMI cable low voltage grade as per standard specifications having 10 mtr cord length with male and female 19 pin HDMI connectors as per requirement at site.	1	No	4830.00
1623	e	Supply and installing HDMI cable low voltage grade as per standard specifications having 15 mtr cord length with male and female 19 pin HDMI connectors as per requirement at site.	1	No	6095.00
1624	f	Supply and installing HDMI cable low voltage grade as per standard specifications having 20 mtr cord length with male and female 19 pin HDMI connectors as per requirement at site.	1	No	7590.00
1625	g	Supply and installing HDMI cable low voltage grade as per standard specifications having 25 mtr cord length with male and female 19 pin HDMI connectors as per requirement at site.	1	No	11270.00
1626	h	Supply and installing Audio Video cable low voltage grade as per standard specifications having 15 mtr cord length with required connectors 3RCA X 3RCA cable complete.	1	No	6670.00
1627	i	Supply ,installation, testing and commissioning of DVI to high speed category 2 HDMI convertors supporting full HD 1080p, 2K and 4K video up to 30ft lengths, 3D having 24K gold plated 19 pin type A connectors with high flex CL3 - rated jacket. The convertor should be ROHS complaint.Audio Video cable low voltage grade as per standard specifications having 15 mtr cord length with required connectors 3RCA X 3RCA cable complete.	1	No	8625.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		<b>RACKS - WALL MOUNT</b>			
	<b>ELEC-8.1.10</b>	Supply and installation of ..... wall mounting net work rack with power spike including all accessories.			
1628	<b>a</b>	6U Wall	1	No	6388.00
1629	<b>b</b>	9U wall	1	No	7605.00
1630	<b>c</b>	12U wall	1	No	8822.00
1631	<b>d</b>	15U wall	1	No	10038.00
		<b>RACKS - FLOOR STAND</b>			
	<b>ELEC-8.1.11</b>	Supply and installation of IP 20, IK 08 ----- 600mm Width x 800mm Deep Floor mounting net work rack with all accessories like front and rear doors, fans, castors, cable manager, shelf, power distribution unit, hardware packet. <u>Mod cap floor stand</u> : Modular construction of the rack made of 4 vertical , 4 Horizontal and 4 depth alloy extruded multi folded hallow profiles bolted and joined together with links and corner blocks. 3 Pairs of support channels to equate the load evenly and castor provision at bottom side. <u>Painting shade</u> : Combination of RAL 7035 / 7037 fine texture - 60 to 80 microns. or RAL 9005 fine texture - 60 to 80 microns complies with standards : UL 2416, Din 41494, IEC EN 60529, IEC EN 62262, IEC EN 60068-2-11, ISO 9001-2008. Makes : HCL / VAL / Rittal / APW.			
1632	<b>a</b>	17U floor	1	No	36432.00
1633	<b>b</b>	24U floor	1	No	44712.00
1634	<b>c</b>	27U floor	1	No	49680.00
1635	<b>d</b>	32U floor	1	No	59616.00
1636	<b>e</b>	36U floor	1	No	66240.00
1637	<b>f</b>	42U floor	1	No	72864.00
	<b>ELEC-8.1.12</b>	Supply of ----- (Indoor / Out door), Single mode armourd, Optic fibre cable. Makes : D Link / AMP / Molex / Legrand / Krone.			
1638	<b>a</b>	6 Core	1	Mtr	Deleted
1639	<b>b</b>	12 Core	1	Mtr	Deleted
		24 Core	1	Mtr	Deleted
	<b>ELEC-8.1.13</b>	Supply of ----- fibre distribution unit. (FDU / LIU) loaded with couplers etc complete. Makes : D Link / AMP / Molex / Legrand / Krone.			
1640	<b>a</b>	6 port	1	No	7705.00
1641	<b>b</b>	12 port	1	No	9775.00
1642	<b>ELEC-8.1.14</b>	Supply of Subscriber connector (SC) to SC / LC patch card of 1 Mtr length.Makes : D Link / AMP / Molex / Legrand / Krone.	1	No	2070.00
1643	<b>ELEC-8.1.15</b>	Supply of single mode SC / LC to SC / LC	1	No	2300.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		patch card of 1 Mtr length. Makes : D Link / AMP / Molex / Legrand / Krone.			
1644	ELEC-8.1.16	Supply of single mode SC / LC to SC / LC patch card of 2 Mtr length. Makes : D Link / AMP / Molex / Legrand / Krone.	1	No	2875.00
1645	ELEC-8.1.17	Supply of Pigtails for fibre core connectivity. Makes : D Link / AMP / Molex / Legrand / Krone.	1	No	138.00
1646	ELEC-8.1.18	Supply of 6 Core single mode fibre optic cable armoured.	1	Mtr	86.00
1647	ELEC-8.1.19	Supply of 12 Core single mode fibre optic cable armoured.	1	Mtr	104.00
1648	ELEC-8.1.20	Supply of 24 Core single mode fibre optic cable armoured.	1	Mtr	161.00
	<b>8.2</b>	<b>RACEWAYS AND JUNCTION BOXES</b>			
	ELEC-8.2.1	Supply of ----- G I Raceways of 2mm thick with top cover and required hard ware etc complete. Makes : Legrand / MK / OBO or equivalent as approved by the department			
1649	a	100mm x 38mm	1	Mtr	569.00
1650	b	150mm x 38mm	1	Mtr	753.00
1651	c	300mm x 38mm	1	Mtr	1290.00
1652	d	100mm x 25mm	1	Mtr	544.00
1653	e	150mm x 25mm	1	Mtr	696.00
1654	f	300mm x 25mm	1	Mtr	1252.00
	ELEC-8.2.2	Supply of ..... G.I. Junction box of 2mm thick for direct access to cables at the inter section of Raceways.			
1655	a	172mm x 52mm	1	No	430.00
1656	b	222mm x 52mm	1	No	538.00
1657	c	372mm x 52mm	1	No	1037.00
		<b>EPABX SYSTEM</b>			
	<b>8.3</b>	<b>SMALL SYSTEM</b>			
1658	ELEC-8.3.1	IP Based digital Telephone (EPABX) system -----complied with following specifications: > IP @ Core, PCM/TDM, Non blocking, > Must Support PRI, E1, Analog Junctions > Must Support PC Console, > Must support Mobile SIP (Android and I O.S) > Must support Voice Mail > Must support Card based GSM > Inbuilt 8 Channel Auto Attendant > Inbuilt Call Details Software with search engine software > 4 Analog Trunks > 6 Digital Extensions > 32 Analog Extensions > 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires) > Expandable to 64 Analog Extensions or	1	No	91155.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		more <b>Approved Brands: NEC/ Alcatel/ Karel/ Unify</b>			
1659	ELEC-8.3.2	IP Based digital Telephone (EPABX) system -----complied with following specifications: > IP @ Core, PCM/TDM, Non blocking, > Must Support PRI, E1, Analog Junctions > Must Support PC Console, > Must support Mobile SIP (Android and I O.S) > Must support Voice Mail > Must support Card based GSM > Inbuilt 8 Channel Auto Attendant > Inbuilt Call Details Software with search engine software > 4 Analog Trunks > 6 Digital Extensions > 48 Analog Extensions > 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires) > Expandable to 64 Analog Extensions or more <b>Approved Brands: NEC/ Alcatel/ Karel/ Unify</b>	1	No	100107.00
1660	ELEC-8.3.3	IP Based digital Telephone (EPABX) system -----complied with following specifications: > IP @ Core, PCM/TDM, Non blocking, > Must Support PRI, E1, Analog Junctions > Must Support PC Console, > Must support Mobile SIP (Android and I O.S) > Must support Voice Mail > Must support Card based GSM > Inbuilt 8 Channel Auto Attendant > Inbuilt Call Details Software with search engine software > 4 Analog Trunks > 1 ISDN PRI Module > 6 Digital Extensions > 48 Analog Extensions > 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires) > Expandable to 64 Analog Extensions or more <b>Approved Brands: NEC/ Alcatel/ Karel/ Unify</b>	1	No	111132.00
1661	ELEC-8.3.4	IP Based digital Telephone (EPABX) system -----complied with following specifications: > IP @ Core, PCM/TDM, Non blocking, > Must Support PRI, E1, Analog Junctions > Must Support PC Console, > Must support Mobile SIP (Android and I O.S) > Must support Voice Mail > Must support Card based GSM	1	No	114660.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		> Inbuilt 8 Channel Auto Attendant > Inbuilt Call Details Software with search engine software > 4 Analog Trunks > 6 Digital Extensions > 64 Analog Extensions > 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires) > Expandable to 64 Analog Extensions or more <b>Approved Brands: NEC/ Alcatel/ Karel/ Unify</b>			
1662	ELEC-8.3.5	IP Based digital Telephone (EPABX) system -----complied with following specifications: > IP @ Core, PCM/TDM, Non blocking, > Must Support PRI, E1, Analog Junctions > Must Support PC Console, > Must support Mobile SIP (Android and I O.S) > Must support Voice Mail > Must support Card based GSM > Inbuilt 8 Channel Auto Attendant > Inbuilt Call Details Software with search engine software > 4 Analog Trunks > 1 ISDN PRI Module > 6 Digital Extensions > 64 Analog Extensions > 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires) > Expandable to 64 Analog Extensions or more <b>Approved Brands: NEC/ Alcatel / Karel / Unify</b>	1	No	125575.00
1663	ELEC-8.3.6	Analog Extension Card (with Caller ID) 8 extensions.	1	No	15325.00
1664	ELEC-8.3.7	Analog Extension Card (with Caller ID) 16 extensions.	1	No	19955.00
1665	ELEC-8.3.8	Analog Trunk Card (with Caller ID) 4 trunks.	1	No	16979.00
1666	ELEC-8.3.9	Analog Trunk Card (with Caller ID) 8 trunks.	1	No	21168.00
1667	ELEC-8.3.10	Digital Extension Card for 8 digital extensions:	1	No	19735.00
1668	ELEC-8.3.11	Digital Extension Card for 16 digital extensions:	1	No	33075.00
1669	ELEC-8.3.12	E1 Trunk Card or PRI Card 30 ISDN PRI or R2 trunk channels.	1	No	49613.00
	8.4	<b>LARGE SYSTEM</b>			
1670	ELEC-8.4.1	Supply, Installation, Testing and Commissioning of IP Based digital Telephone (EPABX) system--complied with following specifications: > IP @ Core, PCM/TDM switching, Non blocking, > Must Support PRI, E1, Analog Junctions	1	No	250598.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		> Must Support PC Console, > Must support Mobile SIP (Android and I O.S) > Must support Voice Mail > Must support Card based GSM > Inbuilt Call Details Software with search engine software > 8 Analog Trunks > 8 Digital Extensions > 96 Analog Extensions > 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires) > Expandable to 220 Ports wired or more at extra cost <b>Approved Brands: NEC/ Alcatel/ Karel/ Unify</b>			
1671	ELEC-8.4.2	Supply, Installation, Testing and Commissioning of IP Based digital Telephone (EPABX) system--complied with following specifications: > IP @ Core, PCM/TDM switching, Non blocking, > Must Support PRI, E1, Analog Junctions > Must Support PC Console, > Must support Mobile SIP (Android and I O.S) > Must support Voice Mail > Must support Card based GSM > Inbuilt Call Details Software with search engine software > 8 Analog Trunks> 1 PRI Trunk module > 8 Digital Extensions > 128 Analog Extensions > 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires) > Expandable to 220 Ports wired or more at extra cost <b>Approved Brands: NEC/ Alcatel/ Karel/ Unify</b>	1	No	380032.00
1672	ELEC-8.4.3	Supply, Installation, Testing and Commissioning of IP Based digital Telephone (EPABX) system--complied with following specifications: > IP @ Core, PCM/TDM switching, Non blocking, > Must Support PRI, E1, Analog Junctions > Must Support PC Console, > Must support Mobile SIP (Android and I O.S) > Must support Voice Mail > Must support Card based GSM > Inbuilt Call Details Software with search engine software > 8 Analog Trunks > 1 PRI Trunk module > 8 Digital Extensions > 160 Analog Extensions > 1 Digital Key Phone with minimum 16	1	No	456986.00



SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Keys (Must work only on 2 wires) > Inbuilt hotstandby for CPU and PSU. > Compatibility to run on DC -48v source. > Expandable to 220 Ports wired or more at extra cost <b>Approved Brands: NEC/ Alcatel/ Karel/ Unify</b>			
1673	ELEC-8.4.4	Supply, Installation, Testing and Commissioning of IP Based digital Telephone (EPABX) system--complied with following specifications: > IP @ Core, PCM/TDM switching, Non blocking, > Must Support PRI, E1, Analog Junctions > Must Support PC Console, > Must support Mobile SIP (Android and I O.S) > Must support Voice Mail > Must support Card based GSM > Inbuilt Call Details Software with search engine software > 8 Analog Trunks> 1 PRI Trunk module > 16 Digital Extensions > 224 Analog Extensions > 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires)> Inbuilt hotstandby for CPU and PSU. > Compatibility to run on DC -48v source. > Expandable to 400 Ports wired or more at extra cost <b>Approved Brands: NEC/ Alcatel/ Karel/ Unify</b>	1	No	636308.00
1674	ELEC-8.4.5	Supply, Installation, Testing and Commissioning of IP Based digital Telephone (EPABX) system--complied with following specifications: > IP @ Core, PCM/TDM switching, Non blocking, > Must Support PRI, E1, Analog Junctions > Must Support PC Console, > Must support Mobile SIP (Android and I O.S) > Must support Voice Mail > Must support Card based GSM > Inbuilt Call Details Software with search engine software > 8 Analog Trunks > 1 PRI Trunk module > 16 Digital Extensions > 304 Analog Extensions > 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires) > Inbuilt hotstandby for CPU and PSU. > Compatibility to run on DC -48v source. > Expandable to 400 Ports wired or more at extra cost <b>Approved Brands: NEC/ Alcatel/ Karel/ Unify</b>	1	No	737573.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1675	ELEC-8.4.6	Analog Extension Card (with Caller ID) 16 extensions.	1	No	21940.00
1676	ELEC-8.4.7	Analog Trunk Card (with Caller ID) 8 trunks.	1	No	21940.00
1677	ELEC-8.4.8	Digital Extension Card for 8 digital extensions:	1	No	21940.00
1678	ELEC-8.4.9	Digital Extension Card for 16 digital extensions:	1	No	36052.00
1679	ELEC-8.4.10	E1 Trunk Card or PRI Card 30 ISDN PRI or R2 trunk channels.	1	No	54133.00
1680	ELEC-8.4.11	IP CPU card for redundancy purpose	1	No	39470.00
1681	ELEC-8.4.12	PSU card for redundancy purpose	1	No	24035.00
1682	ELEC-8.4.13	Digital Key Telephone with 2 line display, 10 programmable keys, handsfree dialing.	1	No	9261.00
1683	ELEC-8.4.14	Digital Key Telephone with 2 line display, 16 programmable keys, fully handsfree talk back.	1	No	16207.00
1684	ELEC-8.4.15	IP Gateway card for 8 channels	1	No	45754.00
1685	ELEC-8.4.16	IP Gateway card for 16 channels	1	No	66150.00
1686	ELEC-8.4.17	SIP extensions licenses pack (5 SIP extensions)	1	No	4686.00
1687	ELEC-8.4.18	SIP extensions licenses pack (10 SIP extensions)	1	No	8214.00
1688	ELEC-8.4.19	IP phone with POE.	1	No	18522.00
1689	ELEC-8.4.20	4 port GSM card	1	No	48290.00
1690	ELEC-8.4.21	Expansion cabinet for 220 more extensions	1	No	91508.00
		<b>SECTION - 9</b>			
	<b>9.1</b>	<b>MISSILLANEOUS ITEMS</b>			
1691	ELEC-9.1.1	TW Seperators / Gutties	100	No	244.00
1692	ELEC-9.1.2	Rawl Plugs	100	No	43.00
1693	ELEC-9.1.3	PVC Grips	100	No	42.00
1694	ELEC-9.1.4	U Nails	100	No	42.00
1695	ELEC-9.1.5	Alluminium Link Clips	144	No	42.00
1696	ELEC-9.1.6	50 mm G.I.Nut and Bolts.	1	Set	21.00
1697	ELEC-9.1.7	63 to 100 mm G.I.Nut and Bolts.	1	Set	32.00
1698	ELEC-9.1.8	50 mm 0 Gauge Nails	1	Doz	58.00
1699	ELEC-9.1.9	63 to 100 mm 0 Gauge Nails	1	Doz	97.00
1700	ELEC-9.1.10	Hard Coke	1	Kg	26.00
1701	ELEC-9.1.11	Salt	1	Kg	21.00
1702	ELEC-9.1.12	PVC Cleats 2 Way	100	No	433.00
1703	ELEC-9.1.13	PVC Cleats 4 Way	100	No	580.00
1704	ELEC-9.1.14	Binding Wire	1	Kg	81.00
1705	ELEC-9.1.15	PVC / Cotton Insulation tape Role ( 10 Mtrs)	1	No	25.00
1706	ELEC-9.1.16	C.I.Knob	1	No	32.00
1707	ELEC-9.1.17	Stay tight set (Jum bracket 300 mm)	1	Pair	396.00
1708	ELEC-9.1.18	Stay clamp with bolts and Nuts)	1	Set	261.00
1709	ELEC-9.1.19	L.T.Guy insulator	1	No	101.00
1710	ELEC-9.1.20	12 / 15 MS plain rod fan hook	1	No	42.00
1711	ELEC-9.1.21	19 / 20 mm Steel tube fan down rod	1	Mtr	110.00
1712	ELEC-9.1.22	Consealed box PVC / MS with hook for fan	1	No	131.00
1713	ELEC-9.1.23	Supply and fixing of Anchor fastner with fan hook / Providing MS Fan hook with grouting and cement plastering.	1	No	107.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1714	ELEC-9.1.24	Coil Earthing	1	No	99.00
1715	ELEC-9.1.25	Cable route Indicators of size 152mm round / 102mm x 102mm / 152mm x 152mm	1	No	118.00
1716	ELEC-9.1.26	40 mm x 40 mm x 6 mm angle iron with 1 bolt.	1	Set	331.00
1717	ELEC-9.1.27	Mild Steel Items	1	Kg	81.00
1718	ELEC-9.1.28	Acrylic Cover of size 4" x 7" for night lamps.	1	No	26.00
1719	ELEC-9.1.29	TW / PVC Round Blocks	1	No	9.00
1720	ELEC-9.1.30	G.I.Funnel with Mesh 1/2" x 4"	1	No	108.00
1721	ELEC-9.1.31	Asbestos Sheet	1	Sqft	32.00
1722	ELEC-9.1.32	First Aid box 18" x 12" x 8"	1	No	1440.00
1723	ELEC-9.1.33	11 KV/22 KV Hand gloves	1	No	270.00
	<b>9.2</b>	<b>LEGEND PLATES</b>			
	<b>ELEC-9.2.1</b>	Danger Notice Plates of size ----- -----, shall comply with IS:2551-1982.			
1724	<b>a</b>	250x200mm,	1	No	272.00
1725	<b>b</b>	200x150mm,	1	No	243.00
1726	<b>c</b>	150x100mm,	1	No	121.00
1727	ELEC-9.2.2	Bus bar chamber 100mm x 40mm	1	No	58.00
1728	ELEC-9.2.3	Cable Alley 100mm x 40mm	1	No	58.00
1729	ELEC-9.2.4	Earth 40mm x 20mm	1	No	58.00
1730	ELEC-9.2.5	Auto / Manual	1	No	58.00
1731	ELEC-9.2.6	Semi oval type aluminium anodized legend plates ON / OFF / Forward / Reverse / Start / Stop / UP / DOWN / R Phase / Y Phase / B Phase / Trip / Open / Close / Left / Right / Motor on / Motor off / Accept / Retract / Reset / Emergency / Running / Pump off / Emergency Stop / Emergency on / Slow.	1	No	29.00
1732	ELEC-9.2.7	Shock instruction chart in English / Hindi / Telugu duly framed with front glass.	1	No	549.00
	ELEC-9.2.8	Supply of 1.0 Sqmm FRLS / HFFR PVC insulated 1100V grade as per IS:694/1990 specification for Copper cable.			
1733	<b>a</b>	Makes : Finolex / RR kabel / Havells / APAR EBXL / KEI / L&T / V-Guard.	100	Mtr	1279.00
1734	<b>b</b>	Makes : Polycab / HPL / RPG / Kundancab / Nakoda / Anchor / GM / Million / Gold Medal / Power Flex / Fine Cab / Sun Cab / Fortune Arrt / Bonton / Gloster / Gemini / Uniflex / Sudhakar / Nandicab.	100	Mtr	1126.00
1735	<b>c</b>	Makes : Benlo / Khanthi / Vimal / Stanjo / Airson / Rajnigandha / Orbit	100	Mtr	974.00
	<b>9.3</b>	<b>COPPER / ALLUMINIUM / G.I. ITEMS (PER KG)</b>			
1736	ELEC-9.3.1	Copper Plate / Strip / SWG wire No.8 / 10 / 14	1	Kg	994.00
1737	ELEC-9.3.2	Copper winding wire	1	Kg	1146.00
1738	ELEC-9.3.3	Copper winding wire with PVC Insulated of fine quality	1	Kg	1179.00
1739	ELEC-9.3.4	Alluminum Bus bars / Strips / Accessories	1	Kg	387.00
1740	ELEC-9.3.5	Alluminum winding wire	1	Kg	506.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1741	ELEC-9.3.6	G.I. Strip / Plate / Wire	1	Kg	93.00
	9.4	<b>DMC/ SMC TYPE SUPPORTS FOR THE BUSBARS</b>			
	ELEC-9.4.1	Supply of SMC type supports for the bus bars-----			
1742	a	50 x 70 x 14 mm	1	No	35.00
1743	b	60 x 70 x 14 mm	1	No	41.00
1744	c	70 x 70 x 14 mm	1	No	75.00
1745	d	300 x 50 x 10 mm	1	No	139.00
1746	e	350 x 52 x 10 mm	1	No	185.00
1747	f	420 x 60 x 12 mm	1	No	266.00
1748	ELEC-9.4.2	DMC Earth Flat Supports 20 x3 mm / 20x 6mm / 25 x 6mm / 25 x 3mm / 32 x 3 mm / 32 x 6mm / 40 x 3 mm / 40 x 6mm	1	No	58.00
1749	ELEC-9.4.3	Heat shrinkable sleeves for the Bus bars up to 70 Sqmm	1	Mtr	18.00
1750	ELEC-9.4.4	Heat shrinkable sleeves for the Bus bars above 70 Sqmm	1	Mtr	29.00
1751	ELEC-9.4.5	3 to 6.2 Volt series bulb LEDs/Normal bulbs	1000	Nos	1155.00
1752	ELEC-9.4.6	3 to 6.2 Volt series bulb with navar plate LEDs/normal bulbs.	1000	Nos	1502.00
1753	ELEC-9.4.7	Supply of Rotating machine	1	No	1386.00
1754	ELEC-9.4.8	Supply of 6mm thick MS Chekered plate.	1	Kg	92.00
1755	ELEC-9.4.9	Supply of fixing of 6mm thick Alluminium Chekered plate.	1	Kg	318.00
1756	ELEC-9.4.11	Cement	1	Kg	9.00
1757	ELEC-9.4.12	Cost of Sand	1	Cum	693.00
1758	ELEC-9.4.13	Cost of Bricks	1000	Nos	4620.00
1759	ELEC-9.4.14	Hylam Sheet	1	Sq.in	1.00
1760	ELEC-9.4.16	80mm Nominal Bore C.I.Earth Pipe of 3 Mtrs Length	1	No	3927.00
1761	ELEC-9.4.17	Earth work excacvation including all soils for trench	1	Cum	289.00
1762	ELEC-9.4.18	Earth work excacvation for all soils for Pole Pit for 3 to 6 Mtrs Pole	1	No	924.00
1763	ELEC-9.4.19	Earth work excacvation for all soils for Pole Pit for 7 to 11 Mtrs Pole	1	No	1386.00
1764	ELEC-9.4.20	Drilling of 16 Nos through holes of 12mm dia to G.I pipe	1	No	7.00
1765	ELEC-9.4.21	G.I Nuts, Bolts and Washers each set	1	Set	14.00
1766	ELEC-9.4.22	18" dia 2" thick hume pipe ring	1	No	289.00
1767	ELEC-9.4.23	18" dia 3" hume pipe ring	1	No	347.00
1768	ELEC-9.4.24	2" thick CC cover for hume pipe ring with handle.	1	No	151.00
	ELEC-9.4.25	Supply of Saddle / Clamps suitable for fixing -----			
1769	a	4 to 10 Sqmm 2 Core Cable.	100	Nos	266.00
1770	b	4 & 6 Sqmm 4 Core Cable.	100	Nos	266.00
1771	c	10 & 16 Sqmm 4 Core Cable.	100	Nos	347.00
1772	d	25 & 35 Sqmm 3.5 Core Cable.	100	Nos	405.00
1773	e	50 Sqmm 3.5 Core Cable.	100	Nos	578.00
1774	f	70 & 95 Sqmm 3.5 Core Cable.	100	Nos	636.00
1775	g	120 to 185 Sqmm 3.5 Core Cable.	100	Nos	809.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1776	<b>h</b>	240 & 300 Sqmm 3.5 Core Cable.	100	Nos	982.00
1777	<b>i</b>	400 Sqmm 3.5 Core Cable.	100	Nos	1271.00
	<b>ELEC-9.4.26</b>	Supply and fixing of PVC synthetic elastomer electrically insulated mat conforming to IS: 15652-2006 with----- -----			
1778	<b>a</b>	Class A insulation having 2mm thickness upto 3.3KV	1	Sq Mtr	4389.00
1779	<b>b</b>	Class B insulation having 2.5mm thickness upto 11KV	1	Sq Mtr	4505.00
1780	<b>c</b>	Class C insulation having 3mm thickness upto 33KV	1	Sq Mtr	4620.00
1781	<b>ELEC-9.4.27</b>	Supply of round bottom G.I sheet bucket of 9 Ltrs. Capacity as per IS:2546 made out of 24 gauge GI sheet with extra handle at bottom duly painted inside and red out side with printed with FIRE Mark for stand and hook and filled with sand and arranged to existing stand or hook.	1	No	312.00
1782	<b>ELEC-9.4.28</b>	Providing floor mounting stand for keeping 4No of fire bucket 1500mm length, 900mm height made out of 40x40x6mm angle iron welded with 4 hooks and duly painted with one coat of red lead and two coats of enamel paint.	1	No	1271.00
1783	<b>ELEC-9.4.29</b>	Supply and erection of conventional spike type air termination suitable to carry lightning stroke, made up of heavy grade 40 mm dia copper pipe of standard length of 5 Nos copper spikes fixed on copper ball as air terminals duly threaded in copper pipe erected in provided foundation in an approved manner	1	No	5544.00
		<b>SECTION - 10</b>			
	<b>10.1</b>	<b>WIRELESS FIRE ALARM SYSTEM</b>			
1784	<b>ELEC-10.1.1</b>	Supply and fixing of Wireless Repeater.The wireless repeater extends the communication range of detection by relaying data between receiver and remote wireless transmitter Including transportation, all taxes and all labour charges etc complete. Makes : Cease Fire / Visonic / Honeywell / Seaara	1	No	9660.00
1785	<b>ELEC-10.1.2</b>	Supply and fixing of Wireless Siren Strobe external wireless siren - a fully supervised power code outdoor (IP55) wireless Siren and strobe light. Designed for external installation. Wire - Free connection between control panel and siren. Convenient rapid no- mess installation. Separate fire alarm signals, 98db Piezo siren and high power strobe light. Weather resistant, IP55, 2-way communication for local and remote diagnostics. Plug-in power supply, NIMH	1	No	13570.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		rechargeable back-up power battery, transmits status, tamper, low- battery, supervisory and AC loss messages to the control panel, Tri- State tamper switch identifies screw manipulation removal of cover or playing from the wall Including transportation, all taxes and all labour charges etc complete. Makes : Cease Fire / Visonic / Honeywell / Seaara			
1786	ELEC-10.1.3	Supply and fixing of wireless Fully Supervised Smoke Detector, Photoelectric detection technology for superior detection sensitivity , sound and transmitted for smoke, tamper and low battery, works on power code protocol, easy programming and enrolling to the control panel, long life 9 volt alkaline or lithium battery Including transportation, all taxes and all labour charges etc complete.Makes : Cease Fire / Visonic / Honeywell / Seaara	1	No	6670.00
	<b>10.2</b>	<b>ADDRESSABLE - FIRE ALARM SYSTEM</b>			
	ELEC-10.2.1	Supply, Installation, testing and commissioning of EN54-2 Listed and UL approved based analog addressable ----- fire control panel expandable by minimum 2 additional loops with minimum 640 character LCD display. Each loop of panel shall have maximum capacity 250 analogue addressable devices, and shall have 20% of spare capacity, 240 volts A C Power supply, automatic battery charger, 24V SLA batteries suitable for operating the entire system including tack back units and the hooters/strobes for a minimum of 4 hours in battery condition the panel shall have suitable power amplifiers for hooter / strobes the panel shall be capable beeing integrated with the BMS system and shall include cost of supply, installation of any additional modules or interfaces required for the same. Makes: Siemens / Notifier / Edwards / Honeywell / Morley IAS / Bosch / Cooper / Appolo / Kartar			
1787	a	10 loop micro processor	1	No	634800.00
1788	b	8 loop micro processor	1	No	460000.00
1789	c	6 loop micro processor	1	No	425500.00
1790	d	4 loop micro processor	1	No	287500.00
1791	e	2 loop micro processor	1	No	241500.00
1792	f	1 loop micro processor	1	No	207000.00
	ELEC-10.2.2	Supply, Installation, testing and commissioning of EN54-2 Listed and LPCB approved----- based			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		analog addressable fire control panel expandable by minimum 2 additional loops with minimum 80 character LCD display 4 access levels 1000 events, historical logging, flash E-PROM, 240 volts A C Power supply, automatic battery charger, 24V SLA batteries suitable for operating the entire system including tack back units and the hooters/strobes for a minimum of 4 hours in battery condition the panel shall have suitable power amplifiers for hooter / strobes the panel shall be capable beeing integrated with the BMS system and shall include cost of supply, installation of any additional modules or interfaces required for the same. The panel shall be completed as per the specification and as required for fixing of above Micro processor based Fire Alarm control panel with zonal indictions and battery back up as per detailed specifications.Makes: Siemens / Morley IAS / Bosch / Ravel / Honeywell/Cooper Appolo / Kartar			
1793	a	10 loop micro processor	1	No	593400.00
1794	b	8 loop micro processor	1	No	419750.00
1795	c	6 loop micro processor	1	No	378350.00
1796	d	4 loop micro processor	1	No	256450.00
1797	e	2 loop micro processor	1	No	215050.00
1798	f	1 loop micro processor	1	No	195500.00
1799	ELEC-10.2.3	Supply, Installation, testing and commissioning of intellegent analogue addressable Repeater panel including the cost of mounting accessories complete as per specification as required. Makes: Notifier / Edwards / Honeywell / Morley IAS / Bosch / Cooper / Appolo / Kartar	1	No	121900.00
1800	ELEC-10.2.4	Supply and fixing of addressable wall mounting strobes cum hooters including the cost of mounting accessories complete as per specifications and as required including testing and commissioning. Makes: Notifier / Edwards / Honeywell / Morley IAS / Bosch / Cooper / Appolo / Kartar	1	No	4331.00
1801	ELEC-10.2.5	Supply and installation of addressable analogue manual call point with resetable flexible element to initiate alaram including the cost of mounting accessories etc. complete. Makes: Notifier / Edwards / Honeywell / Morley IAS / Bosch / Cooper / Appolo / Kartar	1	No	4155.00
1802	ELEC-10.2.6	Supply and instllation of intallegent	1	No	3363.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		analogue addressable photo electric smoke detector including cost of base plate etc., complete as per specification with required fittings and accessories.Makes: Notifier / Edwards / Honeywell / Morley IAS / Bosch/cooper / Appolo / Kartar			
1803	ELEC-10.2.7	Supply and installation of UL approved intellegent analogue addressable rate of rise cum fixed temparature heat detectors including the cost of base plate. 75mm dia MS outlet box for fixing of the detector base, mounting accessories etc., complete as per specifications and as required. Makes: Notifier / Edwards / Honeywell / Morley IAS / Bosch/Cooper / Appolo / Kartar	1	No	3149.00
1804	ELEC-10.2.8	Supply and installation of UL approved intellegent analogue addressable multi criterion detectors below false ceiling/on ceiling including the cost of base plate. 75mm dia MS outlet box for fixing of the detector base, mounting accessories etc., complete as per specifications and as required. Makes: Notifier / Edwards / Honeywell / Morley IAS / Bosch / Cooper / Appolo / Kartar	1	No	3326.00
1805	ELEC-10.2.9	Supply and Installation of UL approved intellegent analogue addressable Control Modules including the cost of mounting accessories complete as per specifications and as required. Makes: Notifier / Edwards / Honeywell / Morley IAS / Bosch/cooper / Appolo / Kartar	1	No	3679.00
1806	ELEC-10.2.10	Supply and Installation of UL approved intellegent analogue addressable monitor modules including the cost of mounting accessories complete as per specifications and as required. Makes: Notifier / Edwards / Honeywell / Morley IAS / Bosch/cooper / Appolo / Kartar	1	No	3679.00
1807	ELEC-10.2.11	Supply and Installation of UL approved intellegent analogue addressable fault isolator modules including the cost of mounting accessories complete as per specifications and complete as required. Makes: Notifier / Edwards / Honeywell / Morley IAS / Bosch/cooper / Appolo / Kartar	1	No	3540.00
1808	ELEC-10.2.12	Supply, Installation, testing and commissioning of UL approved intellegent	1	No	82810.00



SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		analogue addressable Repeater panel including the cost of mounting accessories complete as per specification as required. Makes: Siemens / Morley IAS / Bosch / Ravel / Honeywell/cooper / Appolo / Kartar			
1809	ELEC-10.2.13	Supply and fixing of addressable wall mounting strobes cum hooters including the cost of mounting accessories complete as per specifications and as required including testing and commissioning.Makes: Siemens / Morley IAS / Bosch / Ravel / Honeywell/cooper / Appolo / Kartar	1	No	3726.00
1810	ELEC-10.2.14	Supply and installation of addressable analogue manual call point with resetable flexible element to initiate alarm including the cost of mounting accessories etc. complete. Makes: Siemens / Morley IAS / Bosch / Ravel / Honeywell/cooper / Appolo / Kartar	1	No	4005.00
1811	ELEC-10.2.15	Supply and instllation of UL approved intellegent analogue addressable photo electric smoke detector including cost of base plate etc., complete as per specification with required fittings and accessories. Makes: Siemens / Morley IAS / Bosch / Ravel / Honeywell/cooper / Appolo / Kartar	1	No	3167.00
1812	ELEC-10.2.16	Supply and installation of UL approved intellegent analogue addressable rate of rise cum fixed temparature heat detectors including the cost of base plate. 75mm dia MS outlet box for fixing of the detector base, mounting accessories etc., complete as per specifications and as required. Makes: Siemens / Morley IAS / Bosch / Ravel / Honeywell/Cooper / Appolo / Kartar	1	No	3260.00
1813	ELEC-10.2.17	Supply and installation of UL approved intellegent analogue addressable multi criterion detectors below false ceiling/on ceiling including the cost of base plate. 75mm dia MS outlet box for fixing of the detector base, mounting accessories etc., complete as per specifications and as required. Makes: Siemens / Morley IAS / Bosch / Ravel / Honeywell/Cooper / Appolo / Kartar	1	No	3456.00
1814	ELEC-10.2.18	Supply and Installation of UL approved intellegent analogue addressable Control	1	No	3474.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Modules including the cost of mounting accessories complete as per specifications and as required. Makes: Siemens / Morley IAS / Bosch / Ravel / Honeywell/cooper / Appolo / Kartar			
1815	ELEC-10.2.19	Supply and Installation of UL approved intellegent analogue addressable monitor modules including the cost of mounting accessories complete as per specifications and as required. Makes: Siemens / Morley IAS / Bosch / Ravel / Honeywell/cooper / Appolo / Kartar	1	No	3279.00
1816	ELEC-10.2.20	Supply and Installation of UL approved intellegent analogue addressable fault isolator modules including the cost of mounting accessories complete as per specifications and complete as required.Makes: Siemens / Morley IAS / Bosch / Ravel / Honeywell/Cooper / Appolo / Kartar	1	No	3167.00
	10.3	<b>CONVENTIONAL - FIRE ALARM SYSTEM (Approved by LPCB / UL Listed)</b>			
	ELEC-10.3.1	Supply, Installation, testing and commissioning of conventional Micro processor based Fire Alarm panel with ---- ----- 12V SMF batteries etc., complete with all standard accessories. Makes: System Censor / Ravel / Vertex / Seaara / Appolo / Kartar / Reliance			
1817	a	2 zone	1	No	16100.00
1818	b	4 zone	1	No	16790.00
1819	c	6 zone	1	No	17020.00
1820	d	8 zone	1	No	17365.00
1821	e	10 zone	1	No	22713.00
1822	f	12 zone	1	No	25300.00
1823	g	14 zone	1	No	27600.00
1824	ELEC-10.3.2	Supply and installation of Repeater panel including the cost of mounting accessories complete as per specifications and as required. Makes: System Censor / Ravel / Vertex / Seaara / Appolo / Kartar / Reliance	1	No	13800.00
1825	ELEC-10.3.3	Supply and installation of duel tone electronic hooter of 85dB including the cost of mounting accessories complete as per specifications and as required. Makes: System Censor / Ravel / Vertex / Seaara / Appolo / Kartar / Reliance	1	No	805.00
1826	ELEC-10.3.4	Supply and installation of dust and vermin proof manual call point to initiate audio visual alarm including the cost of mounting accessories complete as per specifications and as required. Makes: System Censor / Ravel / Vertex /	1	No	667.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Seaara / Appolo / Kartar / Reliance			
1827	ELEC-10.3.5	Supply and installation of response indicators for above false ceiling detectors. Makes: System Censor / Ravel / Vertex / Seaara	1	No	150.00
1828	ELEC-10.3.6	Supply and installation of plug - in type multi criterion detectors including the cost of base plate. 75mm dia M.S. outlet box for fixing of the detector base. Mounting accessories etc., complete as per specifications as required. Makes: System Censor / Ravel / Vertex / Seaara / Appolo / Kartar / Reliance	1	No	1725.00
1829	ELEC-10.3.7	Supply and installation of plug - in type photo electric smoke detectors including the cost of base plate. 75mm dia MS outlet box for fixing of the detector base. Mounting accessories etc complete and as per specifications and as required. Makes: System Censor / Ravel / Vertex / Seaara / Appolo / Kartar / Reliance	1	No	1495.00
1830	ELEC-10.3.8	Supply and installation of plug - in type rate of rise cum fixed temperature heat detectors including the cost of base plate. 75mm dia MS outlet box for fixing of the detector base, mounting accessories etc., complete as per specifications and as required. Makes: System Censor / Ravel / Vertex / Seaara / Appolo / Kartar / Reliance	1	No	1380.00
		<b>BEAM DETECTORS</b>			
1831	ELEC-10.3.9	Supply, Installation, Testing and Commissioning of 4 wire conventionally single ended reflected type smoke detector with 8" receiver. The range of smoke detection is maximum 164 ft			37950.00
1832	ELEC-10.3.10	Supply, Installation, Testing and Commissioning of 4 wire conventionally single ended reflected smoke detector with 8" receiver. The range of smoke detection is maximum 325 ft			63250.00
	<b>10.4</b>	<b>POWDER BASED FIRE EXTINGUISHERS</b>			
1833	ELEC-10.4.1	Supply and fixing of ABC stored pressure squeeze grip type fire extinguishers, <b>9 kg capacity</b> , IS:15683 : 2006, filled with ABC Mono Ammonium Phosphate base powder-90 complete with discharge hose and wall mounting bracket, 2mm Mild Steel, EPDM Rubbers, Pressure Gauge, which work effectively on all class of fires (A, B, C & Electrical fires) with 5 years warranty Including transportation, all taxes and all labour charges etc complete.			
		Makes : Safex / Kenex / Bharat / Reliance	1	No	6032.00
1834	ELEC-10.4.2	Supply and fixing of ABC Powder <b>MAP 4</b>			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		<b>Kg Fire</b> extinguisher Mono ammonium phosphate power 90, stored pressure type, IS 15683 : 2006, pressure gauge <b>gross wt. 6.9 kg, empty wt. 2.9 kg, can Ht.440mm, Diameter 140mm, Discharge time less than 13 sec</b> , controllable discharge mechanism, range min. 4 mts applicable on classes A,B, C & electrically started fires, A- rating 3A, B-rating 34B, can construction: Deep drawn Co2 mig welding, wall construction: Forging & Machining, internal coating of can: Epoxy power coating, External coating of Can:Epoxy polyster powder coating, sheet metal thickness:1.60mm, Helium leakage detection tested, ISI & CE approved with 5 years warranty Including transportation, all taxes and all labour charges etc complete.			
		Makes : Safex / Kenex / Bharat / Reliance	1	No	4255.00
1835	ELEC-10.4.3	Supply and fixing of ABC Powder <b>MAP 2 Kg Fire</b> extinguisher Mono ammonium phosphate power 90, stored pressure type, IS 15683 : 2006, pressure gauge <b>gross wt. 3.6 kg, empty wt. 1.6 kg, can Ht.344mm, Diameter 108mm, Discharge time less than 8 sec</b> , controllable discharge mechanism, range min. 2 mts applicable on classes A,B, C electrically started fires, A- rating 2A, B-rating 21B, can construction: Deep drawn Co2 mig welding, wall construction: Forging & Machining, internal coating of can: Epoxy power coating, External coating of Can:Epoxy polyster powder coating, sheet metal thickness:1.60mm, Helium leakage detection tested, insta - alert, ISI & CE approved with 5 years warranty Including transportation, all taxes and all labour charges etc complete.			
		Makes : Safex / Kenex / Bharat / Reliance	1	No	2990.00
1836	ELEC-10.4.4	Supply and fixing of Ceiling Mounted ABC <b>MAP 90, 5 Kg</b> stored pressure type, pressure gauge, <b>Gross Wt. 7.7 kg, Empty Wt. 2.7 kg, Can Ht264mm , Dia 240mm, Discharge time : less than 8 sec</b> , IS 15683 : 2006 Auto discharge mechanism on temperature rise, Applicable on A,B,C, & Electrically - started fires, Can Construction: Forging & Machining, Internal coating of Can: Epoxy Power coating, External Coating of Can: Epoxy Polyster powder coating, sheet metal thickness:1.60mm , Helium leakage detection tested, ISI approved with 5 years warranty Including transportation,			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		all taxes and all labour charges etc complete.			
1836		Makes : Safex / Kenex / Bharat / Reliance	1	No	5750.00
		<b>AEROSOL GENERATION SYSTEM (AGS) AND FIRE EXTINGUISHERS</b>			
1837	ELEC-10.4.5	Supply, installation, testing and commissioning of Addressable Control panel for AGS system with monitoring system and provision of interactive TFT color Graphic Display with touch Screen Control and shall have built in feature of Mimic software which works on a Android based technology and a facility to show the layout location of the installation area and prescribed location of the devices during the fire accident. shall have minimum two level password protection. Shall have alert indication for missing device, contaminated device. The control panel shall have real-time clock (RTC) indicate time, date, month & year and along with a provision of Ethernet based circuit as if required. Makes : SALAMANDRA / SEAARA / AGS	1	No	47585.00
1838	ELEC-10.4.6	Supply, installation, testing and commissioning of Addressable Multi sensor with integrated smoke sensing chamber and heat sensing element. Addressable smoke detector shall operate on light scatter principle. The build-up of dirt or similar contamination on the sensing chamber shall be continually monitored by control panel, when it exceeds predetermined level; the panel has to indicate that the detector is in need of servicing. The detector shall have an integral microprocessor capable of making alarm decision based on alarm level set. The Obs/ft should be 0.5 obs/ft. The detector shall blink when the detector is addressed and glow steady on alarm. The detector shall have provision to alter the sensitivity from the panel. The detector shall have electronic free base. The detector and base construction shall be made of polycarbonate plastic. The detector shall be capable of reading from the control panel, i.e. health of the detector, alarm level setting. Latching the detector, isolating the detector from the control panel shall be possible. The detector shall preferably have twin LED's for 360 viewing angle. Makes : SALAMANDRA / SEAARA / AGS	1	No	2429.00
1839	ELEC-10.4.7	Supply, installation, testing and commissioning of addressable Loop	1	No	2816.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Powered Sounder with integral beacon within horn using high intensity LED technology. The sounder beacon shall work with loop power. No separate power supply with cable shall be used. The sounder beacon shall be addressable type. It shall have electronic addressing. No DIP/DIL switches are permitted for address setting in order to avoid unauthorized setting. The construction of the sounder beacon shall be made of polycarbonate plastic. The sounder beacon sound pressure level shall be 85 dB at 10ft.Makes : SALAMANDRA / SEAARA / AGS			
1840	ELEC-10.4.8	Supply, installation, testing and commissioning of addressable Control Module with built-in LED. The LED shall blink when it is addressed and it shall glow steady when it is actuated and it should have principle of working with NC/NO relay circuit. It should have a cross zoning facility with a inbuilt sounder. The control module shall have electronic addressing. The control contact rating shall be a minimum of 2 amps @ 24V DC (Resistive). The control module shall operate from SLC loop power. No external power/cable shall be used. Makes : SALAMANDRA / SEAARA / AGS	1	No	3205.00
1841	ELEC-10.4.9	Supply and installation of manually operated suppression system using Aerosol Generator System for all classes of fire with active substance of 3.3. Kg and does cooling effect with no re-ignition. The product with minimum life of 15 years and no maintenance. The discharge time should be 25 sec and has net weight of 4.6 kg and has a capacity to cover 60 m <sup>3</sup> and shall be confirmed to NFPA 2010 and has other national and international certificates.	1	No	72349.00
1842	ELEC-10.4.10	Supply of Auto Detection and Suppression System using Aerosol Generator System with required fittings as per standard composition for all classes of fire, With a provision to connect to detect smoke and heat with a obt/ft of 0.5 and flexibility of adjusting it for a temperature of 57/68/93/141 degree centigrade as per the site environment. The product Min Life shall be 15 years and no Maintenance. The Discharge time should be 78 sec. The Generator with a net weight of 10 kg Active Substance of 3.25 kg. and has	1	No	116534.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		diameter 220mm and height 220mm The Generator is suitable for Server Room, Electrical Storage and technical appliances, important documents area & etc. Makes : SALAMANDRA / SEAARA / AGS			
1843	ELEC-10.4.11	Supply of Auto Detection and Suppression System using Dry Sprinkler Generator as per standard composition for all classes of fire, with a provision to connect to detect smoke and heat with a obt/ft of 0.5 and flexibility of adjusting it for a temperature of 57/68/93/141 degree centigrade as per the site environment. The product Min Life shall be 15 years and no Maintenance. The Discharge time should be 21 sec. The Generator has a net weight of 1.2 kg. Active Substance of 0.3 kg and has diameter 20mm and height 135mm. The Generator is suitable for Server Room, Electrical Storage and technical appliances, important documents area & etc. Makes : SALAMANDRA / SEAARA / AGS	1	No	38845.00
1844	ELEC-10.4.12	Supply of Auto Detection and Suppression System using Aerosol Generator System as per standard composition with required fittings for all classes of fire, with a provision to connect to detect smoke and heat with a obt/ft of 0.5 and flexibility of adjusting it for a temperature of 57/68/93/141 degree centigrade as per the site environment. The product Min Life shall be 15 years and no Maintenance. The Discharge time should be 50 sec. The Generator has a net weight of 4.5 kg. Active Substance of 1.4 kg and has diameter 40mm and height 187mm. The Generator is suitable for Server Room, Electrical Storage and technical appliances, important documents area & etc. Makes : SALAMANDRA / SEAARA / AGS	1	No	68463.33
1845	ELEC-10.4.13	Supply of Aerosol Heat Starter Sprinkler used for Auto Detection and Suppression System for Aerosol Generator System for all Class of Fire. The heat Starter Sprinkler has various starter capacity, which ranges from +50c to +163c. The starter can cover up to 18 m2. The product Min Life shall be 15 years. The output power from the Starter is 3v and current 0.6A and operates at a temperature range of - 50c to +80c. The Starter Sprinkler is suitable for Server	1	No	8255.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Room, Electrical Storage and technical appliances, Important documents area etc. Makes : SALAMANDRA / SEAARA / AGS			
	<b>10.5</b>	<b>CLEAN AGENT FIRE EXTINGUISHERS</b>			
	<b>ELEC-10.5.1</b>	Supply and fixing of <b>2 Kg Fire</b> extinguisher Clean Agent HCFC 123, Stored pressure type, IS 15683 : 2006 pressure guage, <b>gross weight 3.7 Kg empty weight 1.7 Kg, can hight 344mm, Diameter 108mm, discharge time minimum 8 secs</b> , controllable discharge mechanism, range minimum 2 meters, applicable on class A,B,C and electrically started Fire, A rating 1A, B rating 21B, can construction: Deep drawn & CO2 mig welded, Valve construction: Forging & Machining, Internal coating of Can: Epoxy powder coating, External coating of can: Epoxy polyster powder coating, sheet metal thickness: 1.60 mm, Helium leak detection tested, ISI & CE approved, 5 Years warranty.			
1846		Makes : Safex / Kenex / Bharat.	1	No	11270.00
	<b>ELEC-10.5.2</b>	Supply and fixing of <b>4 Kg Fire</b> extinguisher Clean Agent HCFC 123, Stored pressure type, IS 15683 : 2006, pressure guage, <b>gross weight 6.9Kg empty weight 2.9 Kg, can hight 440mm, Diameter 140mm, discharge time minimum 8 secs</b> , controllable discharge mechanism, range minimum 2 meters, applicable on class A,B,C and electrically started Fire, A rating 1A, B rating 21B, can construction: Deep drawn & CO2 mig welded, Valve construction: Forging & Machining, Internal coating of Can: Epoxy powder coating, External coating of can: Epoxy polyster powder coating, sheet metal thickness: 1.60 mm, Helium leak detection tested, ISI & CE approved 5 Years warranty.			
1847		Makes : Safex / Kenex / Bharat.	1	No	21505.00
	<b>ELEC-10.5.3</b>	Supply & Fixing of <b>4.5Kg, CO2 Type Fire</b> Extinguisher, Trolley Mounted, Easy Weight Management, Used Unused Mechanism, Squeeze Grip, <b>Gross Weight 19.1 Kg, Empty Weight 14.6 Kg, Can Height 860MM, Diameter 140MM, Discharge time minimum 13 Secs</b> , Controllable discharge mechanism, Range minimum 2 Meters, Applicable on Class B,C & electrically started Fire, B Rating 13B, Can Construction : Hot Spinning / Forging, Valve Construction : Forging & Machining, Internal Coating of Can : Not			



SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Applicable, External Coating of Can : Spray Painting, Sheet metal thickness : 4.5MM, ISI & CE Approved, 2 Year Warranty Including transportation, all taxes and all labour charges etc complete.			
1848		Makes : Safex / Kenex / Bharat / Reliance	1	No	8395.00
1849	ELEC-10.5.4	Supply and fixing of Escape signage boards in Rigid Photo luminescent based glow in Dark rigid sheet with high intensity luminous properties with specification of Cease Fire or its equivalent make Model-1ES01	1	No	1334.00
	<b>10.6</b>	<b>WATER MIST FIRE EXTINGUISHERS</b>			
1850	ELEC-10.6.1	Supply & Fixing of Water Mist 9 Ltr. Fire Extinguisher : Gross Weight - 23.9 kg., Weight of the empty firefighting system without compressed air bottle and bottle valve - 14.9 kg., Can Height - 560 MM, Diameter - 204MM, Weight of the gun- 1.9kg, Nominal charge - 9 Ltr., Recoil - approx. 10N, Extinguishing Media Flow - 0.23 L/ sec, Water Discharge Hose - 13 MM, Discharge time minimum 25 Secs, Range minimum 10 Meters, Compressed Air to Gun - 10 MM, Applicable on Class A, B, C & Electrically started Fires, ARating-27A, BRating-233B, Compressed air bottle (volume/pressure) - 2L / 300bar, Operating pressure(dynamic)-approx 5.0 bar, Lancing distance of the extinguishing agent-in spray Approx. 7.0 m, in jet mode Approx, 12.0 m. Operation time- approx 40 sec, Extinguishing enhancement agent- Foam Additive, CE and ERDA approved, Sheet Metal Thickness - 1.5MM, 1 Year Warranty. Makes: Cease Fire or Equivalent	1	No	163000.00
1851	ELEC-10.6.2	Refilling of Fire extinguisher of DCP type by dismantling from site to work shop for refilling includes removing of existing powder and cleaning the cylinder, delivery pipe, nozzle internally and refilling new powder complete with reinstalling properly at site with necessary certificate including transportation and labour charges.	1	Kg	200.00
1852	ELEC-10.6.3	Refilling of Fire extinguisher of ABC type by dismantling from site to work shop for refilling includes removing of existing powder and cleaning the cylinder, delivery pipe, nozzle internally and refilling new powder complete with reinstalling properly at site with necessary certificate including	1	Kg	225.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		transportation and labour charges.			
1853	ELEC-10.6.4	Refilling of Fire extinguisher of CO2 type by dismantling from site to work shop for refilling includes removing of existing powder and cleaning the cylinder, delivery pipe, nozzle internally and refilling new powder complete with reinstalling properly at site with necessary certificate including transportation and labour charges.	1	Kg	175.00
	<b>10.7</b>	<b>FIRE HYDRANT AND SPRINKLER SYSTEM</b>			
	ELEC-10.7.1	Supply, Transportation, installation, testing and commissioning of electric driven main fire pump suitable for automatic operation and consisting of following complete in all respect as required a) Horizontal type, multistage, centrifugal, split casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 Kg / sq.cm. at highest and farthest outlet at specified flow of ----- lpm at ----- Mtr. head conforming to IS 1520 b) Suitable HP SQ cage induction motor, TEFC, synchronous speed 1500 RPM, suitable for operation on 415Volts, 3 phase 50 Hz. AC with IP 55 protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325 c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required. d) Suitable cement concrete foundation duly plastered with anti vibration pads. Makes of Pumps: Kirloskar / Mather&Platt. Makes of Motors: Siemens/ ABB/ Kirloskar			
1854	a	1620 LPM, 56 Mtr Head	1	Set	362250.00
1855	b	1620 LPM, 70 Mtr Head	1	Set	407675.00
1856	c	1620 LPM, 88 Mtr Head	1	Set	442750.00
	ELEC-10.7.2	Supply, Transportation, installation , testing and commissioning of electric driven main fire pump suitable for automatic operation and consisting of following : complete in all respect as required			
		a) Horizontal type, multistage, centrifugal, split casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 Kg / sq.cm. at highest and farthest outlet at specified flow of ----- lpm at ----- Mtr. head			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		conforming to IS 1520			
		b) Suitable HP SQ cage induction motor, TEFC, synchronous speed 1500 RPM, suitable for operation on 415Volts, 3 phase 50 Hz. AC with IP 55 protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325			
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.			
		d) Suitable cement concrete foundation duly plastered with anti vibration pads.			
		Makes of Pumps: Kirloskar / Mather&Platt.			
		Makes of Motors: Siemens/ ABB/ Kirloskar			
1857	a	2280 LPM, 56 Mtr Head	1	Set	374900.00
1858	b	2280 LPM, 70 Mtr Head	1	Set	422050.00
1859	c	2280 LPM, 88 Mtr Head	1	Set	465750.00
	<b>ELEC-10.7.3</b>	Supply, Transportation, installation , testing and commissioning of electric driven main fire pump suitable for automatic operation and consisting of following : complete in all respect as required.			
		a) Horizontal type, multistage, centrifugal, split casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 Kg / sq.cm. at highest and farthest outlet at specified flow of ----- lpm at----- Mtr. head conforming to IS 1520			
		b) Suitable HP SQ cage induction motor, TEFC, synchronous speed 1500 RPM, suitable for operation on 415Volts, 3 phase 50 Hz. AC with IP 55 protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325			
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.			
		d) Suitable cement concrete foundation duly plastered with anti vibration pads.			
		Makes of Pumps: Kirloskar / Mather&Platt.			
		Makes of Motors: Siemens/ ABB/ Kirloskar			
1860	a	2850 LPM, 56 Mtr Head	1	Set	409400.00
1861	b	2850 LPM, 70 Mtr Head	1	Set	456550.00
1862	c	2850 LPM, 88 Mtr Head	1	Set	489900.00
	<b>ELEC-10.7.4</b>	Supply, Transportation, installation, Testing and commissioning of diesel engine driven main fire pump suitable for automatic operation and consisting of			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		following : complete in all respect as required			
		a) Horizontal type, multistage, centrifugal pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 Kg / sq.cm. at highest and farthest outlet at specified flow of ----- lpm at ---Mtr head conforming to IS 1520			
		b) Suitable HP, 1500 RPM water cooled with radiator, diesel engine conforming to relevant BS & IS standard complete with auto starting mechanism, 12 Volts / 24 Volts electric starting equipment, Diesel Tank, exhaust pipe extended upto 1 m. outside pump house duly insulated with 50mm thick glass wool with 1.0mm thick aluminium sheet cladding, residential silencer, instruments and protection as per specification, stop solenoid for auto stop in the event of fault with audio indications, painted with post office red colour etc as required.			
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.			
		d) Suitable cement concrete foundation duly plastered with anti vibration pads.			
		Makes of Engines : Kirloskar / Cummins.			
		Makes of Pumps : Kirloskar / Mather&Platt			
1863	a	1620 LPM, 56 Mtr Head	1	Set	478400.00
1864	b	1620 LPM, 70 Mtr Head	1	Set	524400.00
1865	c	1620 LPM, 88 Mtr Head	1	Set	558900.00
	<b>ELEC-10.7.5</b>	Supply, Transportation, installation, Testing and commissioning of diesel engine driven main fire pump suitable for automatic operation and consisting of following : complete in all respect as required			
		a) Horizontal type, multistage, centrifugal pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 Kg / sq.cm. at highest and farthest outlet at specified flow of ----- lpm at----- Mtr head conforming to IS 1520			
		b) Suitable HP, 1500 RPM water cooled with radiator, diesel engine conforming to relevant BS & IS standard complete with auto starting mechanism, 12 Volts / 24 Volts electric starting equipment, Diesel Tank, exhaust pipe extended upto 1 m. outside pump house duly insulated with 50mm thick glass wool with 1.0mm			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		thick alluminium sheet cladding, residential silencer, instruments and protection as per specification, stop solenoid for auto stop in the event of fault with audio indications, painted with post office red colour etc as required.			
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.			
		d) Suitable cement concrete foundation duly plastered with anti vibration pads.			
		Makes of Engines : Kirloskar / Cummins.			
		Makes of Pumps : Kirloskar / Mather&Platt			
1866	a	2280 LPM, 56 Mtr Head	1	Set	646300.00
1867	b	2280 LPM, 70 Mtr Head	1	Set	693450.00
1868	c	2280 LPM, 88 Mtr Head	1	Set	726800.00
	<b>ELEC-10.7.6</b>	Supply, Transportation, installation, Testing and commissioning of diesel engine driven main fire pump suitable for automatic operation and consisting of following : complete in all respect as required			
		a) Horizontal type, multistage, centrifugal pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 Kg / sq.cm. at highest and farthest outlet at specified flow of ----- lpm at---- Mtr head conforming to IS 1520			
		b) Suitable HP, 1500 RPM water cooled with radiator, diesel engine conforming to relevant BS & IS standard complete with auto starting mechanism, 12 Volts / 24 Volts electric starting equipment, Diesel Tank, exhaust pipe extended upto 1 m. outside pump house duly insulated with 50mm thick glass wool with 1.0mm thick alluminium sheet cladding, residential silencer, instruments and protection as per specification, stop solenoid for auto stop in the event of fault with audio indications, painted with post office red colour etc as required.			
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.			
		d) Suitable cement concrete foundation duly plastered with anti vibration pads.			
		Makes of Engines : Kirloskar / Cummins.			
		Makes of Pumps : Kirloskar / Mather&Platt			
1869	a	2850 LPM, 56 Mtr Head	1	Set	732550.00
1870	b	2850 LPM, 70 Mtr Head	1	Set	779700.00
1871	c	2850 LPM, 88 Mtr Head	1	Set	813050.00
	<b>ELEC-10.7.7</b>	Supply, Transportation, installation ,			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		testing and commissioning of electric driven pressurisation / Jockey pump suitable for automatic operation and consisting of following : complete in all respect as required			
		a) Horizontal type, multistage, centrifugal pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal and flow of ----- lpm at ----- Mtr head conforming to IS 1520			
		b) Suitable HP SQ cage induction motor TEFC type suitable for operation on 415Volts, 3 phase 50 Hz. AC with IP 55 class of protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325			
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.			
		d) Suitable cement concrete foundation duly plastered with anti vibration pads.			
		Makes of Pumps : Kirloskar / Mather&Platt.			
		Makes of Motors : Siemens/ ABB/ Kirloskar			
1872	a	180 LPM, 56 Mtr Head	1	Set	61870.00
1873	b	180 LPM, 70 Mtr Head	1	Set	87515.00
1874	c	180 LPM, 88 Mtr Head	1	Set	110400.00
	<b>ELEC-10.7.8</b>	Supply, Transportation, installation , testing and commissioning of electric driven Terrace / Booster pump suitable for automatic operation and consisting of following : complete in all respect as required.			
		a) Horizontal type, multistage, centrifugal pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal and flow of ..... lpm at ..... Mtr head conforming to IS 1520			
		b) Suitable HP SQ cage induction motor TEFC type suitable for operation on 415Volts, 3 phase 50 Hz. AC with IP 55 class of protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325			
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.			
		d) Suitable cement concrete foundation duly plastered with anti vibration pads.			
		Makes of Pumps : Kirloskar / Mather&Platt.			
		Makes of Motors : Siemens / ABB / Kirloskar			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1875	a	900 LPM, 45 Mtr Head	1	Set	70150.00
1876	b	750 LPM, 35 Mtr Head	1	Set	63250.00
1877	c	450 LPM, 35 Mtr Head	1	Set	51750.00
		<b>CONTROL PANELS</b>			
1878	ELEC-10.7.9	Fabrication, supply,Transportation, Insallation testing & commissioning of Electrical control panel of cubical construction, floor mounted type, fabricated out of 2mm thick CRCA sheet, compartmentalised with hinged lockable doors, dust and vermin proof, powder coated of approved shade after 7 tank treatment process, cable alley, interconnection with suitable size copper conductor cable/solid copper strip, having switchgears and accessories, mountings and internal wiring, earth terminals, numbering etc. complete in all respect, suitable for main fire pump, pressurisation pump & diesel pump set complete with following in coming and Outgoings, suitable for operation on 415V, 3 phase, 50Hz Ac Supply.Makes of MCCBs : L&T / Siemens / Legrand / Schneider / ABB / HagerMakes of Meters : Schneider (Conzerve) / L&T / Elmeasure / Siemens	1	No	247940.00
		<u>INCOMING :</u>			
		250A, 50kA 4 Pole MCCB, lcs=100% lcu rating			
		Digital Voltmeter 0-500V with selector switch			
		Digital Ammeter (0-250 A) with selector swtich & CTs etc.			
		LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps			
		Set of Copper Bus Bar 300A			
		<u>OUTGOING :</u>			
		( Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps)			
		<u>MAIN FIRE PUMP</u>			
		125 A, 50kA TPN MCCB, lcs=100% lcu, with fully automatic Star/Delta starter suitable for 60 HP pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation selector switch for local/remote, auto/manual/OFF operation.			
		<u>JOCKEY PUMP</u>			
		63 A, 50kA TPN MCCB, lcs=100% lcu, with suitable protection, current sensing type single phase preventor complete with all			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.			
		<u>DIESEL ENGINE CONTROL</u>			
		Control for diesel engine comprising - Automatic/Manual selector switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication Water Temp and Engine on indication. Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0- 20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine System Controller.			
1879	ELEC-10.7.10	Designing, Supply, Transportation, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification Makes of MCCBs : L&T / Siemens / Legrand / Schneider / ABB / Hager Makes of Meters : Schneider (Conserve) / L&T / Elmeasure / Siemens	1	No	290950.00
		<u>INCOMING :</u>			
		400A, 50kA 4 Pole MCCB, Ics=100% Icu rating			
		Digital Voltmeter 0-500V with selector switch			
		Ammeter (0-400 A) with selector switch & CTs etc.			
		LED type RYB phase indicating lamps, ON, OFF, trip			
		indicating lamps			
		Set of Copper Bus Bar 500A			
		<u>OUTGOING :</u>			
		( Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps)			
		<u>MAIN FIRE PUMP</u>			
		200 A, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 75 hp pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required			



SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		for automatic operation, selector switch for local/remote, auto/manual/OFF operation.			
		JOCKEY PUMP			
		100 A, 50kA TPN MCCB, Ics=100% Icu, with suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.			
		DIESEL ENGINE CONTROL			
		Control for diesel engine comprising - Automatic/Manual selector switch & 3 attempt starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine System Controller			
1880	ELEC-10.7.11	Designing, Supply, Transportation, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specifications. Makes of MCCBs : L&T / Siemens / Legrand / Schneider / ABB / Hager Makes of Meters : Schneider (Conserve) / L&T / Elmeasure / Siemens	1	No	326600.00
		<u>INCOMING :</u>			
		630A, 50kA 4 Pole MCCB, Ics=100% Icu rating			
		Digital Voltmeter 0-500V with selector switch			
		Ammeter (0-630 A) with selector switch & CTs etc.			
		LED type RYB phase indicating lamps, ON, OFF, trip			
		indicating lamps			
		Set of Copper Bus Bar 800Amps			
		<u>OUT GOING :</u>			
		( Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF,			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		trip indicating lamps)			
		<u>MAIN FIRE PUMP</u>			
		250 A, 50kA TPN MCCB, lcs=100% lcu, with fully automatic Star/Delta starter suitable for 100 hp pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.			
		<u>JOCKEY PUMP</u>			
		125 A, 50kA TPN MCCB, lcs=100% lcu, with Suitable HP fully automatic Star/Delta starter with over load protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.			
		<u>DIESEL ENGINE CONTROL</u>			
		Control for diesel engine comprising - Automatic/Manual selector switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine System Controller.			
1881	ELEC-10.7.12	Designing, Supply, Transportation, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification Makes of MCCBs : L&T / Siemens / Legrand / Schneider / ABB / Hager Makes of Meters : Schneider (Conserve) / L&T / Elmeasure / Siemens	1	No	377200.00
		<u>INCOMING :</u>			
		400A, 50kA 4 Pole MCCB, lcs=100% lcu Rating			
		Digital Voltmeter 0-500V with selector switch			
		Ammeter (0-400 A) with selector switch & CTs etc.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		LED type RYB phase indicating lamps, ON, OFF, trip			
		indicating lamps			
		Set of Copper Bus Bar 500Amps			
		<u>OUT GOING :</u>			
		( Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps)			
		MAIN FIRE PUMPS			
		125 Amp, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 60 hp pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets			
		JOCKEY PUMP			
		63 Amp, 50kA TPN MCCB, Ics=100% Icu, with Suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets			
		DIESEL ENGINE CONTROL			
		Control for diesel engine comprising - Automatic/Manual selector switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indi Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine System Controller			
1882	ELEC-10.7.13	Designing, Supply, Transportation, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification Makes of MCCBs : L&T / Siemens / Legrand / Schneider / ABB / Hager Makes of Meters : Schneider (Conserve) / L&T / Elmeasure / Siemens	1	No	450800.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		<u>INCOMING :</u>			
		630A, 50kA 4 Pole MCCB, Ics=100% Icu Rating			
		Digital Voltmeter 0-500V with selector switch			
		Ammeter (0-630 A) with selector switch & CTs etc.			
		LED type RYB phase indicating lamps, ON, OFF, trip			
		indicating lamps			
		Set of Copper Bus Bar 800Amps			
		<u>OUT GOING :</u>			
		( Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps)			
		MAIN FIRE PUMP			
		200 Amp, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 75 hp pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets			
		JOCKEY PUMP			
		100 Amp, 50kA TPN MCCB, Ics=100% Icu, with Suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets			
		DIESEL ENGINE CONTROL			
		Control for diesel engine comprising - Automatic/Manual selector switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine System Controller.			
1883	ELEC-10.7.14	Designing, Supply, Transportation, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in	1	No	581900.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification Makes of MCCBs : L&T / Siemens / Legrand / Schneider / ABB / Hager Makes of Meters : Schneider (Conserve) / L&T / Elmeasure / Siemens			
		<u>INCOMING :</u>			
		800A, 50kA 4 Pole MCCB, Ics=100% Icu Rating			
		Digital Voltmeter 0-500V with selector switch			
		Ammeter (0-800 A) with selector switch & CTs etc.			
		LED type RYB phase indicating lamps, ON, OFF, trip			
		indicating lamps			
		Set of Copper Bus Bar 1000Amps			
		<u>OUT GOING :</u>			
		( Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps)			
		Main Fire Pump			
		250 Amp, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 100 hp pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets			
		JOCKEY PUMP			
		125 Amp, 50kA TPN MCCB, Ics=100% Icu, with Suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets			
		DIESEL ENGINE CONTROL			
		Control for diesel engine comprising - Automatic/Manual selector switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		relays and accessories for automatic operation of diesel engine System Controller			
		<b>MS PIPES</b>			
	<b>ELEC-10.7.15</b>	Supply, Transportation, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required Makes : Jindal Hissar / Tata pipes			
		<b>C' CLASS</b>			
1884	a	300 mm dia 'C' Class	1	Mtr	8000.00
1885	a	250 mm dia 'C' Class	1	Mtr	5099.00
1886	b	200 mm dia 'C' Class	1	Mtr	4099.00
1887	c	150 mm dia 'C' Class	1	Mtr	2903.00
1888	d	100 mm dia 'C' Class	1	Mtr	1902.00
1889	e	80 mm dia 'C' Class	1	Mtr	1296.00
1890	f	65 mm dia 'C' Class	1	Mtr	1014.00
1891	g	50 mm dia 'C' Class	1	Mtr	815.00
1892	h	40 mm dia 'C' Class	1	Mtr	634.00
1893	i	32 mm dia 'C' Class	1	Mtr	539.00
1894	j	25 mm dia 'C' Class	1	Mtr	414.00
		<b>B' CLASS</b>			
	<b>ELEC-10.7.16</b>	Supply, Transportation, laying, testing & commissioning of 'B' class heavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required Makes : Jindal Hissar / Tata pipes			
1895	a	250 mm dia 'B' Class	1	Mtr	4383.00
1896	b	200 mm dia 'B' Class	1	Mtr	3579.00
1897	c	150 mm dia 'B' Class	1	Mtr	2346.00
1898	d	100 mm dia 'B' Class	1	Mtr	1586.00
1899	e	80 mm dia 'B' Class	1	Mtr	1164.00
1900	f	65 mm dia 'B' Class	1	Mtr	910.00
1901	g	50 mm dia 'B' Class	1	Mtr	716.00
1902	h	40 mm dia 'B' Class	1	Mtr	496.00
1903	i	32 mm dia 'B' Class	1	Mtr	448.00
1904	j	25 mm dia 'B' Class	1	Mtr	365.00
		<b>GI PIPES</b>			
	<b>ELEC-10.7.17</b>	Supply, Transportation, laying, testing & commissioning of 'C' class heavy duty GI pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows,			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required Makes : Jindal Hissar / Tata pipes			
		<b>C' CLASS</b>			
1905	a	300 mm dia 'C' Class	1	Mtr	8000.00
1906	a	250 mm dia 'C' Class	1	Mtr	6200.00
1907	b	200 mm dia 'C' Class	1	Mtr	4860.00
1908	c	150 mm dia 'C' Class	1	Mtr	3270.00
1909	d	100 mm dia 'C' Class	1	Mtr	2200.00
1910	e	80 mm dia 'C' Class	1	Mtr	1540.00
1911	f	65 mm dia 'C' Class	1	Mtr	1250.00
1912	g	50 mm dia 'C' Class	1	Mtr	980.00
1913	h	40 mm dia 'C' Class	1	Mtr	750.00
1914	i	32 mm dia 'C' Class	1	Mtr	650.00
1915	j	25 mm dia 'C' Class	1	Mtr	480.00
		<b>B' CLASS</b>			
	<b>ELEC-10.7.18</b>	Supply, Transportation, laying, testing & commissioning of 'B' class heavy duty GI pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required Makes : Jindal Hissar / Tata pipes			
1916	a	250 mm dia 'B' Class	1	Mtr	5400.00
1917	b	200 mm dia 'B' Class	1	Mtr	4230.00
1918	c	150 mm dia 'B' Class	1	Mtr	3040.00
1919	d	100 mm dia 'B' Class	1	Mtr	1940.00
1920	e	80 mm dia 'B' Class	1	Mtr	1370.00
1921	f	65 mm dia 'B' Class	1	Mtr	1100.00
1922	g	50 mm dia 'B' Class	1	Mtr	870.00
1923	h	40 mm dia 'B' Class	1	Mtr	670.00
1924	i	32 mm dia 'B' Class	1	Mtr	570.00
1925	j	25 mm dia 'B' Class	1	Mtr	400.00
		<b>HYDRANT VALVES</b>			
	<b>ELEC-10.7.19</b>	Supply and fixing single headed internal / External hydrant valve with instantaneous Gunmetal/Stainless Steel coupling of 63 mm dia with cast iron wheel ISI marked conforming to IS 5290 (Type -A) with blank Gunmetal/Stainless Steel cap and chain as required : Make: Mini Max / Safex / Newage / Winco / Newtech / Padmini / Kartar			
1926	a	Single headed Gunmetal	1	No	8030.00
1927	b	Single headed Stainless Steel	1	No	6000.00
		<b>BUTTER FLY VALVES</b>			
	<b>ELEC-10.7.20</b>	Supply, testing and commissioning of			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		butterfly valve PN 1.6, with Bronze / Gun metal seat duly ISI marked complete with Nuts, Bolts, Washers, gaskets, conforming to IS 13095 of following sizes as required. Makes: Audco / Kirloskar / BDK / H-Shankar / Leader/ Zolotto / Intervolve / Honeywell / Kartar			
1928	a	250 mm . dia	1	No	18040.00
1929	b	200 mm . dia	1	No	7590.00
1930	c	150 mm dia	1	No	6270.00
1931	d	100 mm dia	1	No	4895.00
1932	e	80 mm dia	1	No	4455.00
		<b>NON RETURN VALVES(NRVS)</b>			
	<b>ELEC-10.7.21</b>	Supply, installation, testing and commissioning of dual plate non - return valve of following sizes confirming to IS: 5312 complete with rubber gasket, GI bolts, nuts, washers etc as required Makes: Audco / Kirloskar / BDK / H-Shankar / Leader/ Zolotto / Intervolve / Honeywell./ Kartar			
1933	a	200 mm dia	1	No	12320.00
1934	b	150 mm dia	1	No	9856.00
1935	c	100 mm dia	1	No	9185.00
1936	d	80 mm dia	1	No	6820.00
1937	e	50 mm dia	1	No	3355.00
		<b>WAFFER LUG TYPE BUTTER FLY VALVES</b>			
	<b>ELEC-10.7.22</b>	Supply and delivery of CI Wafer Lug type Butterfly Valves conforming to IS 13095/1991 (Reaffirmed 1998) including transportation etc., complete. Makes: Audco / Kirloskar / BDK / H-Shankar / Leader/ Zolotto / Intervolve / Honeywell/ Kartar			
1938	a	250 mm . dia	1	No	17490.00
1939	b	200 mm . dia	1	No	12210.00
1940	c	150 mm dia	1	No	7920.00
1941	d	100 mm dia	1	No	5280.00
1942	e	80 mm dia	1	No	3960.00
1943	f	50 mm dia	1	No	3190.00
		<b>Y-STAINER</b>			
	<b>ELEC-10.7.23</b>	Supply, installation, testing and commissioning of stainless steel Y-strainer fabricated out of 1.6 mm thick stainless steel, Grade 304, sheet with 3 mm dia holes with stainless steel flange.			
1944	a	250 mm . dia	1	No	26180.00
1945	b	200 mm . dia	1	No	21340.00
1946	c	150 mm dia	1	No	13200.00
1946	d	100 mm dia	1	No	6270.00
1947	e	80 mm dia	1	No	4400.00
1948	f	50 mm dia	1	No	2970.00
		<b>GUN METAL VALVES</b>			
	<b>ELEC-10.7.24</b>	Supply, installation, testing and commissioning of gun metal valves of			



SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		following sizes as required. Make: Newage / Winco / Padmini / Safex.			
1949	a	50 mm dia	1	No	1892.00
1950	b	40 mm dia	1	No	1518.00
1951	c	32 mm dia	1	No	1353.00
		<b>RRL HOSE PIPE</b>			
	<b>ELEC-10.7.25</b>	Supply and fixing 63mm dia, 15 mtr long RRL hose pipe with 63mm dia Male and Female Gun metal / SS couplings duly binded with GI wire, rivets etc conforming to IS 636 (Type -A) as required. Make: Mini Max / Safex / Newage / Winco / Newtech / Padmini / Kartar			
1952	a	Gun metal	1	No	5630.00
1953	b	SS couplings			4620.00
		<b>CP HOSE PIPES</b>			
	<b>ELEC-10.7.26</b>	Supply and fixing 63mm dia, 15 mtr long CP hose pipe with 63mm dia Male and Female Gun metal / SS couplings duly binded with GI wire, rivets etc conforming to IS 636 (Type -A) as required. Make: Mini Max / Safex / Newage / Winco / Newtech / Padmini. / Kartar			
1954	a	Gun metal	1	No	4800.00
1955	b	SS couplings	1	No	4400.00
		<b>HOSE REEL</b>			
1956	<b>ELEC-10.7.27</b>	Supply and fixing First -Aid Hose Reel with MS construction spray painted in Post office Red, Conforming to IS 884 with upto date amendments, complete with the following as required.	1	No	7035.00
		a) 36.6 Mtr Long 20mm (Nominal internal) dia water hose Thermoplastic / Textile reinforced / Rubber braided / Polypropylene Type - 2 as per IS:12585 Make: Eversafe / Newage / Newtech / SRI			
		b) 20mm (Nominal internal) dia gun metal globe valve and nozzle. Make: Newage / Winco / Padmini / Newtech / Safex.			
		c) Drum and brackets for fixing the equipments on wall.			
		d) Connections from riser with 25mm dia stop valve (gun metal) & MS pipe.			
		<b>CRCA HOSE BOX</b>			
1957	<b>ELEC-10.7.28</b>	Supply and fixing of hose cabinet of size 750mm X 600mm x 250mm made of No 16 gauge SWG CRCA sheet with 6mm thick glazed glass door including necessary locking arrangement suitable to accommodate 2 Nos 15 mtr long Hose	1	No	5130.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		pipe, 1 No branch pipe, mounted on wall OR raised brick platform and duly painted with Post office red externally and white internally with synthetic enamel paint complete in all respect, for external hydrant as required. Make: Mini Max / Safex / Newage / Winco / Newtech / Padmini. / Kartar			
		<b>NOZZLES</b>			
	<b>ELEC-10.7.29</b>	Supply and fixing 63mm dia Gun metal branch pipe with 20mm (Nominal internal diameter) size Gun metal / SS nozzle conforming to IS 903, suitable for instantaneous connection to interconnect hose pipe coupling as required. Make : Mini Max / Safex / Newage / Winco / Newtech / Padmini./ Kartar			
1958	<b>a</b>	Gun metal	1	No	2420.00
1959	<b>b</b>	SS couplings	1	No	1760.00
		<b>FIRE BRIGADE CONNECTION</b>			
	<b>ELEC-10.7.30</b>	Supply and fixing ---- way fire brigade connection of cast iron body with --- Nos Gun metal Male instantaneous inlet couplings complete with cap and chain as required for 150mm dia MS pipe connection, conforming to IS 904 as required. Make: Mini Max / Safex / Newage / Winco / Newtech / Padmini./ Kartar			
1960	<b>a</b>	4Way Fire brigade connection cast iron body with 4 Nos Gun metal male instantaneous	1	No	8400.00
1961	<b>b</b>	3Way Fire brigade connection cast iron body with 3 Nos Gun metal male instantaneous	1	No	7350.00
1962	<b>c</b>	2Way Fire brigade connection cast iron body with 2 Nos Gun metal male instantaneous	1	No	6300.00
		<b>AIRCUSION TANK (AIR VESSEL)</b>			
1963	<b>ELEC-10.7.31</b>	Supply and fixing air vessel made of 250 mm dia, 8 mm thick MS sheet, 1200mm in height with air release valve on top and flanged connection to riser, drain arrangement with 25mm dia Gun metal wheel valve, with required accessories, pressure gauge and painting with synthetic enamel paint of approved shade as required.	1	No	15750.00
		<b>SPRINKLERS</b>			
1964	<b>ELEC-10.7.32</b>	Supply, fixing, testing and commissioning of 15mm size quartzoid bulb type sprinklers of rating 68°C. pendent / side wall with required accessories. Makes: SAFEX / HD / TYCO / VIKING / NEWAGE / Newtech / SHARP / Kartar	1	No	504.00
1965	<b>ELEC-10.7.33</b>	Supply, fixing, testing and commissioning	1	No	1260.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		of 15mm size Concealed sprinkler of rating 68°C. with required accessories. Makes: SAFEX / HD / TYCO / VIKING / NEWAGE / SHARP / Kartar			
		<b>FLEXIBLE SPRINKLER HOSE PIPE</b>			
	<b>ELEC-10.7.34</b>	Supply, installation, testing & commissioning of sprinkler flexible pipe (UL Listed) of stainless steel complete with 15 NPT on reducer thread with maximum working pressure of 175 PSI test pressure of 875 PSI (Burst) with branch line (Inlet) 25mm NPT male thread to sprinkler head (Outlet) 15mm NPT female thread with reducer, nipple, 2 side brackets, center bracket, stockbar of following sizes complete as required. Makes: SAFEX / HD / TYCO / VIKING / NEWAGE / SHARP / Kartar			
1966	<b>a</b>	1500mm	1	No	1313.00
1967	<b>b</b>	1000-1200mm	1	No	1124.00
1968	<b>c</b>	700-800mm	1	No	935.00
		<b>PRESSURE SWITCHES AND FLOW SWITCHES</b>			
1969	<b>ELEC-10.7.35</b>	Supply and fixing of Pressure Switch in the MS pipe Line including connection etc as required. Make : Danfoss / Indfoss	1	No	2625.00
1970	<b>ELEC-10.7.36</b>	Supply and fixing of Flow Switches in 100mm dia MS pipe. Makes : System Sensor / Switzer	1	No	5250.00
1971	<b>ELEC-10.7.37</b>	Supply and fixing Flow Switches in 150 mm dia MS pipe. Makes : System Sensor / Switzer	1	No	7350.00
		<b>PRESSURE GAUGES</b>			
1972	<b>ELEC-10.7.38</b>	Supply, installation, testing and commissioning of Bourden type, stainless steel dial type pressure gauge with isolation valve and pipe having calibration of 0-16 kg/cm <sup>2</sup> . Makes : HGURU / FIEBIG	1	No	693.00
1973	<b>ELEC-10.7.39</b>	Supply, installation, testing and commissioning of 25mm dia Gate valve Makes : Zoloto / Leader / Honeywell / Kartar	1	No	1210.00
1974	<b>ELEC-10.7.40</b>	Supply, installation, testing and commissioning of 25mm dia Ball valve Makes : Zoloto / Leader / Honeywell / Kartar	1	No	671.00
		<b>AIR RELEASE VALVE</b>			
1975	<b>ELEC-10.7.41</b>	Supply, installation, testing and commissioning of 25 / 20mm dia Air Release Valve	1	No	1287.00
		<b>FIRE SAFETY AUDIT</b>			
1976	<b>ELEC-10.7.42</b>	Providing / Conducting complete fire audit including submission of fire audit report for the whole premises.	1	Sq Mtr	6.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		<b>ANTI CORROSIVE BITUMINOUS PAINT</b>			
	<b>ELEC-10.7.43</b>	Supply and wrapping the anti corrosive material for buried pipes with coating of Primer and wrapping with 4 mm thick polymer corrosion resistant tape as per IS : 10221 with 15 mm overlap as per standard specifications.			
1977	<b>a</b>	80mm nominal dia	1	Mtr	308.00
1978	<b>b</b>	100mm nominal dia	1	Mtr	407.00
1979	<b>c</b>	150mm nominal dia	1	Mtr	462.00
1979.a	<b>d</b>	200mm nominal dia	1	Mtr	649.00
		<b>VANE TYPE WATER FLOW DETECTOR</b>			
	<b>ELEC-10.7.44</b>	Providing, fixing, testing & commissioning of installation control valve of cast iron body, brass/bronze working parts comprising of water motor alarm, bronze seat clapper, clapper arm and hydraulically driven mechanical gong bell to sound continuous alarm when the wet riser/sprinkler system activates, pressure gauges, emergency releases, strainer, pressure switch, cock valve complete with drain valve and bypass, test control box, ball valves, MS pipe of required size, flanges, orifice plate, gasket etc of following sizes as required : Makes : HD / TYCO / NEWAGE or its equivalent make as desired by the department.			
1980	<b>a</b>	80mm dia	1	No	40656.00
1981	<b>b</b>	100mm dia	1	No	42460.00
1982	<b>c</b>	150mm dia	1	No	44220.00
		<b>DELUGE VALVE</b>			
	<b>ELEC-10.7.45</b>	Supplying, installation, testing & commissioning of deluge valve (to be used for water curtains) UL listed with wet pilot basic trim assembly for DVA with test and alarm, drip and drain valve with water motor gong complete as required. Makes : HD / TYCO / NEWAGE or its equivalent make as desired by the department.			
1983	<b>a</b>	50 mm dia	1	Set	79200.00
1984	<b>b</b>	80 mm dia	1	Set	81400.00
1985	<b>c</b>	100mm dia	1	Set	83600.00
1986	<b>d</b>	150mm dia	1	Set	101200.00
1987	<b>ELEC-10.7.46</b>	Supply, installation, testing & commissioning of water curtain nozzle 15mm dia nickel chrome plated brass, BSPT, K-factor as per design consideration complete as required.	1	No	605.00
1988	<b>ELEC-10.7.47</b>	Supply, installation, testing & commissioning of electric release trim assembly for deluge wall with two way solenoid valve, weather proof operation	1	No	6600.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		on 24 volts DC supply complete as required.			
1989	ELEC-10.7.48	Supply, installation, testing & commissioning of adjustable rosette plate for 15mm dia in white finish UL Listed or FM approved complete as required.	1	No	220.00
		<b>SLUICE VALVE</b>			
	ELEC-10.7.49	Supply, fixing, testing & commissioning of double flanged sluice valve of rating PN 1.6 with non rising spindle, bronze/gun metal seat, ISI marked complete with nuts, bolts, washers, gaskets and conforming to IS 780 of following sizes as required :			
1990	a	40 mm dia	1	Set	4950.00
1991	b	50 mm dia	1	Set	6600.00
1992	c	65 mm dia	1	Set	8800.00
1993	d	80 mm dia	1	Set	9350.00
1994	e	100 mm dia	1	Set	14300.00
1995	f	150 mm dia	1	Set	19800.00
1996	g	200 mm dia	1	Set	38500.00
1997	h	250 mm dia	1	Set	44000.00
1998	i	300 mm dia	1	Set	60500.00
1999		<b>ORIFICE PLATE</b>			
2000	ELEC-10.7.50	Supply and fixing orifice plate made out of 6 mm thick stainless steel (Grade 304) with orifice of required size to be fitted between flange & landing valve of external and internal hydrants to reduce pressure at the outlet to the level of 3.5 kg/cm <sup>2</sup> complete as required.	1	No	11000.00
		<b>SECTION - 11</b>			
	<b>11.1</b>	<b>GENERATORS SPECIFICATION</b>			
	ELEC-11.1.1	Supply, Transportation, erection and commissioning (Excluding Foundation) of 3 Phase, 415, 50Hz, water cooled multi cylinder diesel generator set with alternator of - - - KVA/ - - - - KW out put continuous rating directly coupled Engine and Alternator with guard and mounted on a common base plate of Robust construction and complete with standard control panel having IP-52 protection, Acoustic Enclosure as per CPCB norms , sound absorbing material, to restrict sound level up to 75 dB up to 1 mtr distance and as per CPCB norms etc as per following specifications mentioned below.			
		<b>A. Alternator :</b> Kirloskar / Stamford / Crompton Greaves / Leroy Somer make. The alternator of the output rating shall be 3 Phase, 415V, 50Hz, Ac , 0.8 P.F. lagging at 1500 RPM. The alternator is self excited, self regulated, and shall confirm to IS: 13364 of 1992 with			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		regulation of +5% from no load to full load. degree of protections shall be IP23.			
		<p><b>B.Diesel Engine :</b> Kirloskar / Cummins / Mahindra &amp; Mahindra / Greaves Cotton / Eicher / Ashok Leyland Diesel Engine start, developing suitable ----- BHP output at 1500 RPM with mechanical / electronic governing so as to enable the alternator to give - - - -KVA continuous output at 0.8 P.F. lagging at NTP conditions. The diesel engine shall be capable of providing 10% O/L for 1 Hr for every 11 Hrs of continuous running at full load. The engine with 1st filling of oil and Diesel etc.</p> <p>01. Exhaust pipe of required size and length with insulation as per the site condition with alluminium clading.</p> <p>02. Diesel tank suitable for 8 to 12 Hours running capacity.</p> <p>03. Residential Silencer.</p> <p>04. SMF Batteries with leads as per the Manufacturer standards</p>			
2001	a	15 KVA, 3 Phase, 415, 50 Hz, 19 BHP, water cooled multy cylinder diesel generator set with alternator of 15 KVA output continious rating at 0.8 p.f. Batteries.	1	No	432952.00
2002	b	30 KVA, 3 Phase, 415, 50 Hz, 40 to 42 BHP, water cooled multy cylinder diesel generator set with alternator of 30 KVA output continious rating at 0.8 p.f. Batteries.	1	No	560291.00
2003	c	40 KVA, 3 Phase, 415, 50 Hz, 56 BHP, water cooled multy cylinder diesel generator set with alternator of 40 KVA output continious rating at 0.8 p.f. Batteries.	1	No	697816.00
		<b>DG SET WITH AMF PANEL</b>			
	ELEC-11.1.2	Supply, Transportation, erection and commissioning (Excluding Foundation) of 3 Phase, 415, 50Hz, water cooled multi cylinder diesel generator set with alternator of - - - KVA/ - - - - KW out put contineous rating directly coupled Engine and Alternator with guard and mounted on a common base plate of Robust construction and complete with AMF panel having IP-52 protection, Acoustic Enclosure as per CPCB norms , sound absorbing material, to restrict sound level up to 75 dB up to 1 mtr distance and as per CPCB norms etc as per following specifications mentioned below.			
		<b>A. Alternator :</b> Kirloskar / Stamford / Crompton Greaves / Leroy Somer make.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		The alternator of the output rating shall be 3 Phase, 415V, 50Hz, Ac , 0.8 P.F. lagging at 1500 RPM. The alternator is self excited, self regulated, and shall confirm to IS: 13364 of 1992 with regulation of +5% from no load to full load. degree of protections shall be IP21.			
		<p><b>B.Diesel Engine</b> : Kirloskar / Cummins / Mahindra &amp; Mahindra / Greaves Cotton / Eicher / Ashok Leyland Diesel Engine start, developing suitable ----- BHP output at 1500 RPM with mechanical / electronic governing so as to enable the alternator to give - - - -KVA continuous output at 0.8 P.F. lagging at NTP conditions. The diesel engine shall be capable of providing 10% O/L for 1 Hr for every 11 Hrs of continuous running at full load. The engine with 1st filling of oil and Diesel etc.</p> <p>01. Exhaust pipe of required size and length with insulation or clading.</p> <p>02. Diesel tank suitable for 8 to 12 Hours running capacity.</p> <p>03. Residential Silencer.</p> <p>04. SMF Batteries with leads as per the Manufacturer standards</p>			
		<p><b>C. AMF Control Panel:</b>AMF control panel shall be fabricated with 16SWG CRCA sheet shall be totally enclosed with dust and Vermin proof, floor mounted / wall mounted type and shall be comprising the following.01. Voltmeter with selector switch.02. 4 Pole MCCB incomer of -----A rating of Schenieder / L&amp;T make for EB and DG . 03. Ammeter with selector switch with CTs. 04. PF Meter and frequency Meter. 05. Indicator lamps (set Run, Load ON) with fuses. 06. KWH Meter of required rating. 07. Set of control fuses and current transformer. 08. Input Terminal board and output Terminal Board. 09. Battery charger with transformer rectifier unit. 10. Alternator supply air break contactor of L&amp;T make.11. Main supply air break contactor of L&amp;T make. 12. Audio Visual annunciation .13. Main supply voltage set of control relays and timers with one mode selector switch, set of push buttons. 14.Control cable up to 15 Mtrs 2.5Sqmm 6 Core</p>			
2004	a	62.5 KVA, 3 Phase, 415, 50 Hz, 78 to 83 BHP, water cooled multy cylinder diesel generator set with alternator of 63 KVA output continious rating at 0.8 p.f. Batteries.	1	No	916839.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
2005	b	125 KVA, 3 Phase, 415, 50 Hz, 154 BHP, water cooled multy cylinder diesel generator set with alternator of 125 KVA output continious rating at 0.8 p.f. Batteries.	1	No	1235186.00
2006	c	160 KVA, 3 Phase, 415, 50 Hz, not less than 200 BHP, water cooled multy cylinder diesel generator set with alternator of 160 KVA output continious rating at 0.8 p.f. Batteries.	1	No	1617203.00
2007	d	250 KVA, 3 Phase, 415, 50 Hz, not less than 310 BHP, water cooled multy cylinder diesel generator set with alternator of 250 KVA output continious rating at 0.8 p.f. Batteries.	1	No	2495840.00
	ELEC-11.1.3	Supply, Transportation, erection and commissioning (Excluding Foundation) of 3 Phase, 415, 50Hz, water cooled multi cylinder diesel generator set with alternator of - - - KVA/ - - - - KW out put contineous rating directly coupled Engine and Alternator with guard and mounted on a common base plate of Robust construction and complete with AMF panel having IP-52 protection, Acoustic Enclosure as per CPCB norms , sound absorbing material, to restrict sound level up to 75 dB up to 1 mtr distance and as per CPCB norms etc as per following specifications mentioned below.			
		<b>A. Alternator :</b> Kirloskar / Stamford / Crompton Greaves / Leroy Somer make. The alternator of the output rating shall be 3 Phase, 415V, 50Hz, Ac , 0.8 P.F. lagging at 1500 RPM. The alternator is self excited, self regulated, and shall confirm to IS: 13364 of 1992 or latest version with regulation of +5% from no load to full load. degree of protections shall be IP23.			
		<b>B.Diesel Engine :</b> Kirloskar / Cummins / Catterpillar Diesel Engine start, developing suitable ----- BHP output at 1500 RPM with mechanical / electronic governing so as to enable the alternator to give - - - -KVA continuous output at 0.8 P.F. lagging at NTP conditions. The diesel engine shall be capable of providing 10% O/L for 1 Hr for every 11 Hrs of continuous running at full load. The engine with 1st filling of oil and Diesel etc. 01. Exhaust pipe of required size and length with insulation as per the site condition with alluminium clading. 02. Diesel tank suitable for 8 to 12 Hours			



SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		running capacity. 03. Residential Silencer. 04. SMF Batteries with leads as per the Manufacturer standards			
		<b>C. AMF Control Panel:</b> AMF control panel shall be fabricated with 16SWG CRCA sheet shall be totally enclosed with dust and Vermin proof, floor mounted / wall mounted type and shall be comprising the following.01. Voltmeter with selector switch.02. 4 Pole MCCB incomer of ----- ---A rating of Schenieder / L&T make for EB and DG . 03. Ammeter with selector switch with CTs. 04. PF Meter and frequency Meter. 05. Indicator lamps (set Run, Load ON) with fuses. 06. KWH Meter of required rating. 07. Set of control fuses and current transformer. 08. Input Terminal board and output Terminal Board. 09. Battery charger with transformer rectifier unit. 10. Alternator supply air break contactor of L&T make.11. Main supply air break contactor of L&T make. 12. Audio Visual annunciation .13. Main supply voltage set of control relays and timers with one mode selector switch, set of push buttons. 14.Control cable up to 15 Mtrs 2.5Sqmm 6 Core			
2008	a	320 KVA, 3 Phase, 415, 50 Hz, not less than 380 BHP, water cooled multy cylinder diesel generator set with alternator of 320 KVA output continious rating at 0.8 p.f. Batteries.	1	No	3234404.0 0
2009	b	500 KVA, 3 Phase, 415, 50 Hz, not less than 580 BHP, water cooled multy cylinder diesel generator set with alternator of 500 KVA output continious rating at 0.8 p.f. Batteries.	1	No	4520526.0 0
		<b>DG SET WITH STANDARD CONTROL PANEL</b>			
	ELEC-11.1.4	Supply, Transportation, erection and commissioning (Excluding Foundation) of 3 Phase, 415, 50Hz, water cooled multi cylinder diesel generator set with alternator of - - - KVA/ - - - - KW out put contineous rating directly coupled Engine and Alternator with guard and mounted on a common base plate of Robust construction and complete with AMF panel having IP-52 protection, Acoustic Enclosure as per CPCB norms , sound absorbing material, to restrict sound level up to 75 dB up to 1 mtr distance and as per CPCB norms etc as per following specifications mentioned below.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		<b>A. Alternator :</b> Kirloskar / Stamford / Crompton Greaves / Leroy Somer make. The alternator of the output rating shall be 3 Phase, 415V, 50Hz, Ac , 0.8 P.F. lagging at 1500 RPM. The alternator is self excited, self regulated, and shall confirm to IS: 13364 of 1992 with regulation of +5% from no load to full load. degree of protections shall be IP21.			
		<b>B.Diesel Engine :</b> Kirloskar / Cummins / Mahindra & Mahindra / Greaves Cotton / Eicher / Ashok Leyland Diesel Engine start, developing suitable ----- BHP output at 1500 RPM with mechanical / electronic governing so as to enable the alternator to give - - - -KVA continuous output at 0.8 P.F. lagging at NTP conditions. The diesel engine shall be capable of providing 10% O/L for 1 Hr for every 11 Hrs of continuous running at full load. The engine with 1st filling of oil and Diesel etc.with standard control panel. 01. Exhaust pipe of required size and length with insulation as per the site condition with alluminium clading. 02. Diesel tank suitable for 8 to 12 Hours running capacity. 03. Residential Silencer. 04. SMF Batteries with leads as per the Manufacturer standards			
2010	a	62.5 KVA, 3 Phase, 415, 50 Hz, 78 to 83 BHP, water cooled multy cylinder diesel generator set with alternator of 63 KVA output continious rating at 0.8 p.f. Batteries.	1	No	727650.00
2011	b	125 KVA, 3 Phase, 415, 50 Hz, 154 BHP, water cooled multy cylinder diesel generator set with alternator of 125 KVA output continious rating at 0.8 p.f. Batteries.	1	No	952875.00
	ELEC-11.1.5	Supply, Transportation, erection and commissioning (Excluding Foundation) of 3 Phase, 415, 50Hz, water cooled multi cylinder diesel generator set with alternator of - - - KVA/ - - - - KW out put contineous rating directly coupled Engine and Alternator with guard and mounted on a common base plate of Robust construction and complete with AMF panel having IP-52 protection, Acoustic Enclosure as per CPCB norms , sound absorbing material, t to restrict sound level up to 75 dB up to 1 mtr distance and as per CPCB norms etc as per following specifications mentioned below.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		<b>A. Alternator :</b> Kirloskar / Stamford / Crompton Greaves / Leroy Somer make. The alternator of the output rating shall be 3 Phase, 415V, 50Hz, Ac , 0.8 P.F. lagging at 1500 RPM. The alternator is self excited, self regulated, and shall confirm to IS: 13364 of 1992 or latest version with regulation of +5% from no load to full load. degree of protections shall be IP23.			
		<b>B.Diesel Engine :</b> Kirloskar / Cummins / Catterpillar Diesel Engine start, developing suitable ----- BHP output at 1500 RPM with mechanical / electronic governing so as to enable the alternator to give - - - -KVA continuous output at 0.8 P.F. lagging at NTP conditions. The diesel engine shall be capable of providing 10% O/L for 1 Hr for every 11 Hrs of continuous running at full load. The engine with 1st filling of oil and Diesel etc with standard control panel. 01. Exhaust pipe of required size and length with insulation as per the site condition with alluminium clading. 02. Diesel tank suitable for 8 to 12 Hours running capacity. 03. Residential Silencer. 04. SMF Batteries with leads as per the Manufacturer standards			
2012	a	160 KVA, 3 Phase, 415, 50 Hz, not less than 200 BHP, water cooled multy cylinder diesel generator set with alternator of 160 KVA output continious rating at 0.8 p.f. Batteries.	1	No	1375259.00
2013	b	250 KVA, 3 Phase, 415, 50 Hz, not less than 310 BHP, water cooled multy cylinder diesel generator set with alternator of 250 KVA output continious rating at 0.8 p.f. Batteries.	1	No	1846412.00
2014	c	320 KVA, 3 Phase, 415, 50 Hz, not less than 380 BHP, water cooled multy cylinder diesel generator set with alternator of 320 KVA output continious rating at 0.8 p.f. Batteries.	1	No	2865122.00
2015	d	500 KVA, 3 Phase, 415, 50 Hz, not less than 580 BHP, water cooled multy cylinder diesel generator set with alternator of 500 KVA output continious rating at 0.8 p.f. Batteries.	1	No	4011171.00
		<b>NOTE:</b> if only supply of DG sets is there, deduct 2% on above cost towards, installation, testing and commisining.			
		<b>SECTION - 12</b>			
	<b>12.1</b>	<b>UPS SYSTEMS</b>			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	<b>ELEC-12.1.1</b>	Supply and installation of ----- home UPS system pure sine wave out put, single phase input / Single phase output. Makes: Servomax / Top Power / Amar Raja / Samhitha / Microtech / Excide / Sucom / Fuji Electric			
2016	<b>a</b>	800VA, 12VDC	1	No	8883.00
2017	<b>b</b>	1400VA, 24VDC	1	No	12540.00
2018	<b>c</b>	2000VA, 36VDC	1	No	17765.00
	<b>ELEC-12.1.2</b>	Supply, Transportation and installation of -----true on line UPS system IGBT technology pure sine wave out put, double conversion with auto and manual static by pass switch single phase input / Single phase output. Makes: Power one / Numeric / Emerson / Fuji Electric			
2019	<b>a</b>	2.0KVA	1	No	27170.00
2020	<b>b</b>	3.0KVA, 72VDC	1	No	36575.00
2021	<b>c</b>	5.0KVA, 180/192VDC	1	No	63360.00
2022	<b>d</b>	7.5KVA, 180/192VDC	1	No	87780.00
2023	<b>e</b>	10KVA, 180/192VDC	1	No	102410.00
	<b>ELEC-12.1.3</b>	Supply, Transportation and installation of ----- on line UPS system IGBT based rectifier with input power factor correction 32 bit microprocessor based with isolation transformers double conversion, SNMP controls, LCD display, Pure sine wave out put, with auto static switch three phase input / Three phase output and modular structure for better thermal technology / cooling facility, with warranty up to three years. Makes: APC / Numeric / Emerson / Fuji Electric			
2024	<b>a</b>	10KVA / 312V DC	1	No	143000.00
2025	<b>b</b>	15KVA / 312V DC	1	No	165000.00
	<b>12.2</b>	<b>UPS BATTERY RACKS AND WIRE LEADS</b>			
	<b>ELEC-12.2.1</b>	Supply and providing of UPS cum battery rack -----			
2026	<b>a</b>	Up to 4 batteries	1	No	1485.00
2027	<b>b</b>	5 to 10 batteries	1	No	2750.00
2028	<b>c</b>	11 to 20 batteries	1	No	5060.00
	<b>ELEC-12.2.2</b>	Supply and fixing of ----- SMF battery including wire leads. Makes : Quanta / Racket / Exide.			
2029	<b>a</b>	12V 26 AH	1	No	3740.00
2030	<b>b</b>	12V 42 AH	1	No	6270.00
2031	<b>c</b>	12V 65 AH	1	No	7700.00
2032	<b>d</b>	12V 100 AH	1	No	9680.00
2033	<b>e</b>	12V 120 AH	1	No	10450.00
	<b>ELEC-12.2.3</b>	Supply and fixing of -----MF battery including wire leads. Makes : Amar Raja (Power Zone) or Equivalent model of Exide / Panasonic / Gotech.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
2034	a	12V, 120 AH	1	No	9790.00
2035	b	12V, 150 AH	1	No	12650.00
	12.3	<b>SERVO STABILIZERS</b>			
	ELEC-12.3.1	Supply and installation of Servo Controlled Air Cooled Voltage Stabilizer with input voltage range 340 - 480 V 3 phase, output voltage 380 / 400 / 415 Volts + / 1%, 3 phase, frequency 50 Hz +/- 6%, unbalancing load, Corrected speed 60 Volts / Sec, Efficiency 97 %, Ambience temperature 45 degree centigrade, AC Motor, Continuous duty cycle, Output waveform True production of Input, Indication lamps Mains ON , Output ON, Low Cut Off, High Cut oFF, dligital display to read ll electrical parameters, equipped with soft touch buttons for use of operation, with High and Low Voltage Protection, Single Phase Preventor, Short Circuit Protection, Single Phase Prevention and phase reversal protection etc., complete. Makes: Fuji Electric / Power Inn / Krykard			
2036	a	10 KVA	1	No	50000.00
2037	a	20 KVA	1	No	67000.00
2038	b	25 KVA	1	No	80000.00
2039	c	30 KVA	1	No	90000.00
2040	d	40 KVA	1	No	98000.00
2041	e	45 KVA	1	No	105000.00
2042	f	50 KVA	1	No	135000.00
2043	g	60 KVA	1	No	150000.00
2044	h	75 KVA	1	No	170000.00
2045	i	100 KVA	1	No	225000.00
2046	j	125 KVA	1	No	275000.00
2047	k	150 KVA	1	No	290000.00
2048	l	200 KVA	1	No	405000.00
	ELEC-12.3.2	Supply and installation of Servo Controlled Oil Cooled Voltage Stabilizer with input voltage range 340 - 480 V 3 phase, output voltage 380 / 400 / 415 Volts + / 1%, 3 phase, frequency 50 Hz +/- 6%, unbalancing load, Corrected speed 60 Volts / Sec, Efficiency 97 %, Ambience temperature 45 degree centigrade, AC Motor, Continuous duty cycle, Output waveform True production of Input, Indication lamps Mains ON , Output ON, Low Cut Off, High Cut oFF, dligital display to read ll electrical parameters, equipped with soft touch buttons for use of operation, with High and Low Voltage Protection, Single Phase Preventor, Short Circuit Protection, Single Phase Prevention and phase reversal protection etc., complete. Makes: Fuji Electric / Power Inn / Krykard			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
2049	a	20 KVA	1	No	98000.00
2050	b	30 KVA	1	No	145000.00
2051	c	40 KVA	1	No	158000.00
2052	d	45 KVA	1	No	165000.00
2053	e	50 KVA	1	No	175000.00
2054	f	60 KVA	1	No	220000.00
2055	g	75 KVA	1	No	250000.00
2056	h	100 KVA	1	No	330000.00
2057	i	125 KVA	1	No	360000.00
2058	j	150 KVA	1	No	395000.00
2059	k	200 KVA	1	No	495000.00
2060	l	250 KVA	1	No	530000.00
2061	m	300 KVA	1	No	725000.00
2062	n	400 KVA	1	No	775000.00
2063	o	500 KVA	1	No	925000.00
		<b>SECTION - 13</b>			
	<b>13.1</b>	<b>PUBLIC ADDRESSING SYSTEM</b>			
2064	ELEC-13.1.1	Supply, Installation, Testing and Commissioning of Amplifier 120 W for PA system suitable to operate on 230 V AC / 12 V DC supply etc., complete.(AHUZA / OMEGA or equivalent)	1	No	19800.00
2065	ELEC-13.1.2	Supply, Installation, Testing and Commissioning of 15 W Sound Column etc., complete with connection (AHUZA / OMEGA or equivalent)	1	No	3080.00
2066	ELEC-13.1.3	Supply, Installation, Testing and Commissioning of microphone etc., complete with connections. (AHUZA / OMEGA or equivalent)	1	No	5500.00
2067	ELEC-13.1.4	Supply, Installation, Testing and Commissioning of stand for microphone etc., complete with connections.	1	No	1980.00
2068	ELEC-13.1.5	Supply, Installation, Testing and Commissioning of Table stand for microphone etc., complete with connections.	1	No	1320.00
2069	ELEC-13.1.6	Supply, Installation, Testing and Commissioning of 2 core shielded microphone cable etc., complete with connections	1	Mtr	149.00
2070	ELEC-13.1.7	Supply, Installation, Testing and Commissioning of 0.5 Sq mm speaker cable etc., complete with connections	1	Mtr	39.00
2071	ELEC-13.1.8	Supply, Installation, Testing and Commissioning of 0.75 Sq mm speaker cable etc., complete with connections	1	Mtr	50.00
2072	ELEC-13.1.9	Supply, Installation, Testing and Commissioning of 1.0 Sq mm speaker cable etc., complete with connections	1	Mtr	55.00
2073	ELEC-13.1.10	Supply, Installation, Testing and Commissioning of 1.5 Sq mm speaker cable etc., complete with connections	1	Mtr	72.00

**SECTION - 14**

Sl. No	Dismantled item	Unit		Scheduled Rate
1	PVC insulated alluminium cables and wires	1	Kg	12.00
2	PVC insulated copper cables and wires	1	Kg	55.00
3	Alluminium Materials	1	Kg	68.00
4	MS / Iron poles, angle etc	1	Kg	28.00
5	Copper/Brass materials	1	Kg	154.00
6	PVC pipe/PVC materials.	1	Kg	6.00
7	IC switches/DBs/Feeder pillars.	1	No	14.00
8	All types of Ammeter/Voltmeter / any meter	1	No	28.00
9	All types of ACBs/OCBs/VCBs LT	1	No	1430.00
10	All types of ceiling fans/cabin fans/Bracket fans and pedestal fans etc.	1	No	165.00
11	All type Tube light fittings/MV/SV/MH fittings.	1	No	23.00
12	All types of Air circulators/Pedestal Type Air Circulators	1	No	550.00
13	All types chokes/condensors/Motor starters	1	Kg	19.00
14	Lift ropes/belt types	1	Kg	22.00
15	All types of electric Motors	1	HP	374.00
16	All types of water pumpsets	1	HP	374.00
17	All types of compressors	1	HP	550.00
18	All Types of AC units (window)	1	No	1980.00
19	All Types of AC units (Split ACs) ODU	1	No	2541.00
20	All Types of Indoor units of Split Acs	1	No	880.00
21	Copper piping of Acs	1	Kg	149.00
22	water cooler instant type	1	No	990.00
23	Water cooler storage type	1	Ltr	44.00
24	Refrigerator upto 165 Ltr	1	No	1597.00
25	Refrigerator above 165 Ltr	1	No	2200.00
26	Exhaust fans 9"	1	No	165.00
27	Exhaust fans 12"	1	No	220.00
28	Exhaust fan 15"	1	No	363.00
29	Exhaust fan 18"	1	No	440.00
30	Exhaust Fan 24"	1	No	550.00
31	Air cooler of any size without fan	1	No	550.00
32	Air cooler of any size with fan	1	No	880.00
33	Transformer Oil	1	Ltr	6.00
34	DG Set	1	KVA	550.00
35	Transformer	1	KVA	220.00
36	EPABX system	1	No	880.00
37	Telephone instrument	1	No	55.00
38	Water Purifier	1	No	88.00
39	Invertor/UPS	1	KVA	110.00
40	Voltage stabilizer	1	KVA	110.00
41	Amplifier small	1	No	440.00
42	Amplifier Big	1	No	495.00
43	Mikes	1	No	77.00
	<b>Note:</b> Rates of items which are not covered under above List should be calculated on the basis of materials / equipments considering its site condition and prevailing market rates and approval should be taken from the concerned Superintending Engineer(Electrical)			
	<b>Dismantling Rates</b>			

1	Dismantling the existing ceiling fan / exhaust fan / cabin fan for clearing the site.	1	No	18.00
2	Dismantling the existing steel pole / RS joist pole / Girder with bracket clamps, insulators or stay from the cement concrete foundation clearing the site, refilling the pit etc.	1	No	385.00
3	Dismantling the existing tubelight / SV lamp / MV lamp and making the site clear.	1	No	18.00
4	Dismantling the existing geyser and making the site clear.	1	No	55.00
5	Dismantling Light / Fan / Separate socket wiring with casing / conduit / batten complete with all accessories and clearing the site duly removing the gutties and refilling the holes with cement mortar and painting with match colour of wall and ceiling.	1	No	22.00
6	Dismantling Light / Fan / Separate socket wiring with casing / conduit / batten complete with all accessories and clearing the site.	1	No	11.00
7	Dismantling the existing armoured / unarmoured cable, single / multi core cable of sub main, main circuit of any system of wiring including coiling.	1	Mtr	8.00
8	Dismantling the existing armoured / unarmoured under ground cable.	1	Mtr	15.00
9	Dismantling the DBs and TPN switches	1	No	22.00



# **PART-IV**

# **PUBLIC HEALTH WORKS**

# PART-IV INDEX

## Public Health Works

S.No.	Description	Page No	
		From	To
1	Labour Rates & PH Items	374	392
2	Materials	393	467

**PUBLIC HEALTH ITEMS**

Sl. No.	Description	Unit	Scheduled Rate
1	2	3	4
1	RATES OF LABOUR		
	1. Caulkar	Per Day	As per Labour rates of SoR
	2. Plumber 1st Class	Per Day	
	3. Plumber 2nd Class	Per Day	
	4. Sewer Cleaner	Per Day	
	5. Well Sinker	Per Day	
	6. Pipe line Fitter 1st Class	Per Day	
	7. Pipe line Fitter 2nd Class	Per Day	
	8. Pump Operator	Per Day	
	9. Bore Mechanic	Per Day	
	10. Light Vehicle Driver	Per Day	
	Note: The rate at relevant item in common SoR is applicable for occasional employment.		
2	RATES FOR EARTH WORK :		
a.	Earth work excavation in all types soils for pipe lines, for drainage and water supply, where the depth is more than 1.5 times the width.		To follow the relevant items of Irrigation work items as per Standard data
b.	Earth work excavation in all types soils for pipe lines, for drainage and water supply, where the depth is less than 1.5 times the width.		
c.	Earth work excavation in all types soils for open trenches, for valve pits, inspection chambers, etc.		
3. a.	Excavation of pipe line trenches for drainage and water supply in rock requiring blasting with initial lead and lift including cost of blasting materials where the depth is more than 1.5 times the width, in places where there is no habitation.		To follow the relevant items of Irrigation work items as per Standard data
b.	Excavation of pipe line trenches for drainage and water supply in rock requiring blasting with initial lead and lift including cost of blasting materials where the depth is less than 1.5 times the width, in places where there is no habitation.		
c.	Cutting rock for pipe line trenches by hammers, knuckles and chisels including stacking where the depth is 1.5 times or more than the width.		
d.	Cutting rock for pipe line trenches by hammers, knuckles and chisels including stacking where the depth is less than 1.5 times the width.		
e.	Cutting rock for works other than pipe lines trenches by hammers, knuckles and chisels including stacking.		
f.	For controlled blasting at restricted places		
	NOTE : Rock should be measured in solids. In case it is not possible, stacks should be made in which case 40% for voids to be deducted from the stack measurements.		
4	Loading or unloading materials such as C.I. Pipes, PVC Pipes, AC Pressure Pipes, DI Pipes, SW Pipes, PVC Pipes, A.C/Specials less than 300 mm dia upto 4 m in length including stacking.		To follow as per Standard data
a.	C.I. Pipes/D.I. Pipes and fittings	Per Tonne	
b.	A.C. Pipes & Specials	Per Tonne	
c.	Stoneware pipes & Specials	Per Tonne	
d.	P.V.C. Pipes and fittings	Per Tonne	
5	Loading or unloading materials such as C.I. Pipes, DI pipes, SW pipes, AC pressure pipes & fittings/ specials from 300 mm to		

Sl. No.	Description	Unit	Scheduled Rate
	600 mm dia upto 4 m in length including stacking.		
a.	C.I. Pipes/D.I. Pipes and fittings	Per Tonne	To follow as per Standard data
b.	A.C. Pipes & Specials	Per Tonne	
c.	Stoneware pipes & Specials	Per Tonne	
6	Loading or unloading materials such as C.I. Pipes, DI pipes, PVC pipes, AC pipes less than 300 mm dia, above 4 m in length including stacking.		
a.	C.I. Pipes/D.I. Pipes and fittings	Per Tonne	To follow as per Standard data
b.	A.C. Pipes & Specials	Per Tonne	
c.	P.V.C. Pipes and fittings	Per Tonne	
7	Loading or unloading materials such as C.I. Pipes, DI pipes, AC pipes from 300 mm to 600 mm above 4 m in length including stacking.		
a.	C.I. Pipes/D.I. Pipes and fittings	Per Tonne	To follow as per Standard data
b.	A.C. Pipes & Specials	Per Tonne	
	Note:For loading and unloading the above materials at Railway Stations, the rates may be adopted based on the competitive quotations or the hammalae charges if prevailing.		
8. a.	Lowering C.I. / D.I. Pipes (all classes) and specials (fittings) with s/s ends carefully into trenches and laying them true to alignment and gradient including all sundries but excluding cost and conveyance of pipes from source of supply (Ref to specifications. BIS No.3114/1994)		
	Diameter of Pipe/Fittings in mm :		
	80mm to 1000mm dia	Per Metre	To follow as per Standard data
	1100mm dia	Per Metre	1401
	1200mm dia	Per Metre	1605
8. b.	Lowering C.I. / D.I. Pipes (all classes) and specials (fittings) with flanged ends carefully into trench and laying them true to alignment and gradient including all sundries but excluding cost and conveyance of pipes from source of supply. (Reference to specifications. BIS No.3114/1994).		
	Diameter of Pipe/Fittings in mm :		
	80mm to 750mm dia		To follow as per Standard data
	800mm dia	Per Metre	671
	900mm dia	Per Metre	871
	1000mm dia	Per Metre	1132
	1100mm dia	Per Metre	1395
	1200mm dia	Per Metre	1659
9. a.	Jointing CI /DI pipes & fittings with S/S ends including cost of pig lead, Spun yarn and sundries such as cost of fuel for melting lead, filling with water with lead up to 500m and testing to required pressure complete. (Reference to specifications. BIS No.3114/94/12288:1997).		
	Diameter of Pipe/Fittings in mm :		

Sl. No.	Description	Unit	Scheduled Rate
	80mm to 800mm		To follow as per Standard data
	900mm dia	Each Joint	15414
	1000mm dia	Each Joint	17262
	1100mm dia	Each Joint	19084
	1200mm dia	Each Joint	20879
9. b.	Jointing C.I/ D.I. pipes and fittings with rubber gasket (push-on-joint), excluding the cost of the gasket but including all sundries filling with water, with a water lead up to 500m and testing to required pressure, etc. complete (Reference to specifications IS 3114/1994/12888/1997)		
	Diameter of Pipe/Fittings in mm :		
	80mm to 1000mm dia	Each Joint	To follow as per Standard data
	1100mm dia	Each Joint	1107
	1200mm dia	Each Joint	1198
10	Jointing CI/DI pipes, fittings and valves with flanged ends including cost of jointing materials such as bolts, rubber insertion, white lead including filling with water, with lead up to 500 meters and testing to required pressure complete. (Reference to specifications. BIS No.3114/1994.)		
	Diameter of pipe/Fittings/ valve in mm :		
	80mm to 750mm dia	Each Joint	To follow as per Standard data
	800mm dia	Each Joint	6168
	900mm dia	Each Joint	7319
	1000mm dia	Each Joint	8474
	1100mm dia	Each Joint	9653
	1200mm dia	Each Joint	10867
11a	Lowering the RCC plain ended pipes carefully into the trench laying them true to alignment and gradient, jointing RCC pipes with Cement joints including curing, the cost of jointing materials i.e., Cement Mortar (1:1.5), hemp yarn etc., and testing including filling with water with a water lead upto 500 metres as per BIS No.783/85.		
	Dia in mm	Per Metre	
	80	Per Metre	78
	100	Per Metre	106
	150	Per Metre	158
	200	Per Metre	211
	250	Per Metre	264
	300	Per Metre	323
	350	Per Metre	377
	400	Per Metre	430
	450	Per Metre	485
	500	Per Metre	538
	600	Per Metre	646
	700	Per Metre	753
	800	Per Metre	861

Sl. No.	Description	Unit	Scheduled Rate
	900	Per Metre	967
	1000	Per Metre	1075
	1100	Per Metre	1183
	1200	Per Metre	1292
	1400	Per Metre	1507
	1600	Per Metre	1722
	1800	Per Metre	1937
11b	Lowering the RCC S/S pipes carefully into the ready made trenches laying them true to alignment and gradient, jointing with rubber rings and testing including filling with water lead upto 500 meters excluding cost of rubber rings as per BIS No. 783/1985.		
	80mm to 600mm	Per Metre	To follow as per Standard data
	700mm dia	Per Metre	436
	800mm dia	Per Metre	521
	900mm dia	Per Metre	625
	1000mm dia	Per Metre	748
12	Lowering and Jointing G.I. pipes and specials / fittings including excavation of trench of 0.5m width and 0.50 m depth in all soils except rock requiring blasting and refilling trenches after laying and jointing pipes and also including cost of jointing materials but excluding the cost of pipes. Reference to specifications. BIS No.783/85		
a	G.I. Pipes :Dia in mm		
	15mm to 150mm	Per Metre	To follow as per Standard data
12b	Lowering, Laying, jointing of PVC/HDPE/MDPE pipes as per BIS No.7634 part-III/75 for PVC and BIS No.7634 part-II/75 for HDPE pipes including earth work excavation, testing to hydraulic test pressure including cost of water with a water lead of 500m etc., complete, but excluding road cutting (BT/CC) charges., Complete.		
	Dia (OD) in mm		
	20mm dia	Per Metre	42
	25mm dia	Per Metre	43
	32mm dia	Per Metre	48
	40mm dia	Per Metre	48
	50mm dia	Per Metre	48
	(ii) If the depth of excavation is more than 0.6 m separate rates to be worked out. The above rates are excluding road cutting if any.		
13	Lowering and laying in ready made trench true to alignment and gradient, jointing, and testing of Stone ware pipes including cost of jointing material such as Cement Mortar (1:1) proportion and hemp yarn but excluding cost and conveyance of pipe. (Reference to specifications BIS No. 6530/72)		
	Dia of Pipes in mm .		
	100mm to 450mm	Per Metre	To follow as per Standard

Sl. No.	Description	Unit	Scheduled Rate
			data
14	Lowering, laying, jointing and testing to hydraulic test pressure including cost of water with minimum water lead of 500m for <u>UPVC pressure pipes</u> in ready made trenches true to alignment and gradient including all sundries but excluding cost & conveyance of pipes from source of supply and jointing materials as per BIS No. 7634 - Part III - 1975.		
	Dia of Pipes in mm .		
	63mm to 315mm	Per Metre	To follow as per Standard data
15	Laying and jointing of HDPE pipes in ready made trench by butt fusion welding as per IS:7634 - part-II/1975 as amended from time to time to the alignment and gradient and testing the pipeline to the required pressure.		
	Outer Dia of pipes in MM		
	63mm dia OD	Per Metre	44
	75mm dia OD	Per Metre	48
	90mm dia OD	Per Metre	56
	110mm dia OD	Per Metre	69
	125mm dia OD	Per Metre	82
	140mm dia OD	Per Metre	87
	160mm dia OD	Per Metre	94
	180mm dia OD	Per Metre	103
	200mm dia OD	Per Metre	112
	225mm dia OD	Per Metre	125
	250mm dia OD	Per Metre	132
	280mm dia OD	Per Metre	145
	315mm dia OD	Per Metre	225
	355mm dia OD	Per Metre	250
	400mm dia OD	Per Metre	279
	450mm dia OD	Per Metre	310
16	Lowering, keeping in position and fixing C.I / D.I sluice valves (with cap / with hand wheel & Reflex valves) excluding cost of bolts, nuts, rubber insertion, sluice valve and tail pieces		To follow as per Standard data
	Dia of Valve in mm.		
	80mm to 600mm	Each	
17	Labour charges for fixing Air valves including boring the mains and threading the bore fixing nipple etc., complete.		
	Dia of Air valve in mm.		
	25mm dia	Each	To follow as per Standard data
	40mm dia	Each	
	50mm dia	Each	229
	80mm dia	Each	246
18	Labour charges for fixing Kinetic Air Valves with isolating Sluice valves, Double Air valves/ Air Cushion valve excluding cost of jointing materials such as bolts, nuts and rubber insertions etc., complete.		
	Dia of Air valve in mm.		
	80mm dia (Double Air valves)	Each	306
	100mm dia (Double Air valves)	Each	357
	125mm dia (Double Air valves)	Each	530

Sl. No.	Description	Unit	Scheduled Rate
	150mm dia (Double Air valves)	Each	580
	200mm dia (Double Air valves)	Each	631
19	Uprooting C.I./ DI Pipes by melting the lead, loosening the joints, scraping the pipes, hoisting and keeping within a lead of 10 m but excluding earth work excavation and refilling.		
	80mm to 600mm	Per Metre	To follow as per Standard data
20	Uprooting of RCC pipes including breaking the collars, loosening the joint, separating the pipes, hoisting and keeping within a lead of 10 m but excluding earthwork excavation and refilling.		
	100mm to 300mm	Per Metre	To follow as per Standard data
21	Removing old G.I. pipes and specials / fittings and cleaning, scraping the pipes, hoisting and keeping with in 50m lead but excluding earth work excavation of trenches and refilling.		
	Dia of Pipes in mm		
	15mm to 50mm	Per Metre	To follow as per Standard data
22	Cutting C.I./ DI Pipes without water in mains.		
	Dia of Pipes in mm		
	80mm to 600mm	Each cut	To follow as per Standard data
	700mm dia	Each cut	674
	750mm dia	Each cut	727
	800mm dia	Each cut	773
	900mm dia	Each cut	867
	1000mm dia	Each cut	963
	1100mm dia	Each cut	1063
	1200mm dia	Each cut	1160
23	Cutting A.C. Pipes without water in mains.		
	Dia of Pipes in mm		
	80mm dia	Each cut	40
	100mm dia	Each cut	40
	125mm dia	Each cut	40
	150mm dia	Each cut	40
	200mm dia	Each cut	42
	250mm dia	Each cut	68
	300mm dia	Each cut	68
	350mm dia	Each cut	84
	400mm dia	Each cut	94
	450mm dia	Each cut	116
	500mm dia	Each cut	131
	600mm dia	Each cut	142
24	Drilling and tapping CI/ DI / GI Main and fixing brass screw down ferrule and plug.		



Sl. No.	Description	Unit	Scheduled Rate
	10 mm to 20mm	Each Tapping	To follow as per Standard data
	25 mm to 40mm	Each Tapping	
25	Cutting road surface including stacking of excavated materials for pipe line trench work.		
	a) Cutting B.T.Road surface	1 Cum	1127
	b) Cutting C.C.Road Surface	1 Cum	2345
	c) Cutting Water Bound Macadam/Wet Mix Macadam Road.	1 Cum	288
26	Bailing out water		
	a) Bailing out water from the pipe line trenches with oil engine driven pumpsets, including hire charges, fuel charges and wages for Driver and Helper.	HP-Hour	To follow as per I&CAD SoR
	b) Bailing out water from the pipe line trenches with Electric Driven pumpset including hire charges, current charges and wages for Driver and Helper.	HP-Hour	
27	Shoring and strutting of trenches for water and sewer main.		
	a) Single Staging from (0 to 2.5 Mts.)	1 Sqm of Shoring area	To follow as per Standard data
	b) Double staging from (2.5 m to 4.5 Mts.)	1 Sqm of Shoring area	
28	Barricading, hoarding, lighting and watching etc., for water supply and sewerage works for trenches.	1 RMT	To follow as per Standard data
29	Excavation of trenches for infiltration galleries, syphon lines and connecting mains in all soils under water including all leads, lifts, shoring, strutting, bailing out water and removal of shoring and strutting materials, after completion of pipe line work.		
	a) 0 to 1 m deep under water.	1 Cum	1434
	b) 1 to 2 m deep under water.	1 Cum	2053
	c) 2 to 5 m deep under water.	1 Cum	3082
	d) Beyond 5 m deep under water for every additional 1 m depth over item 'c'	1 Cum	589
	NOTE:The above rates do not include rock requiring blasting or chiselling.		
30	Laying and jointing perforated RCC pipes inclusive of bailing out water and jointing with Cement fillets and all other incidental charges for infiltration gallery inclusive of bailing out water by pumping to keep the trench reasonably dry to facilitate the work excluding cost of perforated pipes and collars.	Per Metre	50
	per every 25 mm dia/mtr.		
31	Centring and scaffolding charges for RCC members including all materials and labour charges for forming and dismantling.		
a)	for R C C Elevated Service Reservoir of staging up to 15 metre below L W L.		
	1) Slabs for thickness (150 mm to 300 mm)	One Sqm of Centering area	4276
	2) Slabs for thickness above 300 mm, extra for every 50 mm thickness.		512
	3) Side walls curved surfaces including both sides of wall per Sqm of member area.		3229

Sl. No.	Description	Unit	Scheduled Rate
	4) Side wall straight surfaces including both sides of wall per Sqm of member area.		2876
	5) Top dome	One Sqm of Centering area	1760
	6) Bottom Dome.		3502
	7) Roof Slab.		966
	8) Columns, braces and beams		1441
	9) Circular braces, ring beams & circular column.		1582
	10) Conical Slab 150 mm to 300 mm thickness		4478
	11) Conical Slab for above 300 mm thickness, extra for every 50mm thickness		568
	Note:For RCC ELSR of staging above 15 m, the % increase in these rates shall be as follows. above 15 m - up to 18 m --- 9% above 18 m-up to 21m --- 15% above 21m- up to 24 m --- 21% above 24 m- up to 27m --- 27% above 27m --- 30%		
b)	For Ground level works/ Below the Ground level works :-		
	1) Slabs	1 Sqm	To follow as per R&B SoR
	2) Beams & Lintels	1 Cum	
	3) Sun shades	1 Sqm	
	4) RCC vertical walls of plane surface including both sides of wall per Sqm of member area	1 Sqm of centering area	1183
	5) RCC vertical walls of circular faces including both sides of wall per Sqm of member area.		1507
	6) Dome		1657
	NOTE: The above centering charges are applicable for water retaining structures only.		
c)	Centering and scaffolding charges including labour charges for erection and dismantling of shuttering and scaffolding for CC /RCC side walls of Culverts / Storm water drains /Nalas (where sewage/Sullage flows through them and not for normal / routine nature of drain works)	1 Sqm	356.00
32	Lift or delift of materials :		
	a) Lifting of Cement concrete for RCC Elevated/Ground reservoir. For every 3m height or part thereof over the initial lift of 3 m. Rate/1 Cum.	1 Cum	180
	b) Delifting the materials such as stones, concrete etc., for concrete below ground level for construction of ground level reservoirs, inspection wells, test wells and sump wells etc., for every 1 m depth or part thereof beyond the initial depth of 4 meters from ground level. Rate / 1 cum	1 Cum	55
33	Labour charges for fixing ventilating shafts complete with all accessories.	Each	To follow as per Standard data
34	Labour charges for fixing water closets including fixing of foot rests (for all sizes).	Each	Relevant Building SoR items
35	Labour charges for fixing of flushing cistern including fixing of flush pipes, lead pipe, jointing etc., complete	Each	
36	Labour charges for fixing wash hand basin including fixing of inlet and waste pipe connections etc., complete	Each	
37	Fixing urinal with inlet and waste pipe connections etc., complete.	Each	Relevant Building

Sl. No.	Description	Unit	Scheduled Rate
38	Refilling the trench for pipe line with excavated earth including watering and tamping etc., complete	10 Cum	SoR items
39(a)	Extra allowance for isolated scattered works viz., valve pits, public fountains, meter pits and manholes, etc., complete for maintenance works including cost of material.	Each	50% extra over the basic cost of Work.
(b)	Repairs to the existing mains, interconnections, replacement of valves/specials etc., including the cutting, jointing, bailing out of water, drying, earth work excavation etc., complete, but excluding cost of pipes, valves and specials.		150% extra over the basic cost of work
40	Removal of wet silt and sludge from sullage drains, storm water drains with aid of baskets and vessels, etc with initial lift of 3 m and lead of 50 m.	1 Cum	
	Labour component		436
	Implements		47
41	Well sinking in sandy and other loose soils under water either by manual labour, divers, or dredgers, weighting the top of staining to assist sinking etc., including dewatering and other incidental charges such as hire charges for mechanical equipment etc.,		
	Upto 2 m below GL/m	Per metre	To adopt as per Standard data
	From 2 to 4 m below GL/m	Per metre	
	From 4 to 6 m below GL/m	Per metre	
	From 6 to 8 m below GL/m	Per metre	
	From 8 to 10 m below GL/m	Per metre	
	Note:-Below 10 m for every metre depth or part thereof add Rs.250/- per m. For higher dia, observed data is to be prepared and got approved.		
42	Sinking in Hard strata other than rock but in soils like limestone, gravel, clay under water including, pumping dewatering, hire charges for mechanical equipment etc., complete.		Observed Data
43	Rates for OHSRs/ELSRs including fixtures with a staging of 15 m, with seismic analysis Zone -II and excluding Seigniorage charges.		
a	500 Kilo litres	Per litre	19.55
b	1000 Kilo litres	Per litre	15.90
c	1500 Kilo litres	Per litre	14.68
d	2000 Kilo litres	Per litre	13.87
e	2500 Kilo litres	Per litre	13.14
	1) The above rates are arrived with base rate of Cement Rs.5600/- per MT & Steel for Rs.77000/- per MT (Fe-500/500D/550D from Primary Producers) for the month of May-2022		
	2) All concrete components shall be designed with minimum of M30 Design Mix.		
	3) For intermediate capacities proportional rates shall be adopted.		
	4) The foundations shall be designed for Annular Raft Footings. The above rates are applicable for Elevated Level Services Reservoirs / OHSRs for SBC of 15 T/Sqm.		
	a) For every decrease of 2.50 T/Sqm of SBC, the rate shall be increased by 2.5% on basic rate .		
	b) For every increase of 2.5 T/Sqm of SBC, the rate shall be decreased by 1.0% on basic rate up to 20 T/Sqm.		

Sl. No.	Description	Unit	Scheduled Rate
	c) For SBC below 10T/sqm , solid raft shall be provided and for solid raft the rate shall be increased by 10% on basic rates		
	5) For staging less than 15 m, the rate shall be decreased by Rs.0.05 paise on basic rate per litre per every metre decrease in staging.		
	6) For staging above 15 m, the rate shall be increased by Rs.0.10 paise on basic rate per litre per every metre additional staging.		
	7) The above rates shall be increased / decreased due to increase/decrease in the cost of Cement by Basic rate x (Rc-5600)/5600 x 0.069		
	Rc = Rate of Cement (Rs per MT) at the time of preparation of estimate.		
	8) The above rates shall be increased / decreased due to increase/decrease in the cost of Steel by Basic rate x (Rs-77000)/77000 x 0.135		
	Rs = Rate of Steel (Rs. per MT) (Fe-500/500D/550D from Primary Producers) at the time of preparation of estimate.		
	The above formula applicable only for preparation of estimate. The price adjustment shall be adopted on the actual consumption of Steel and Cement.		
	9 a) Rate inclusive of three coats of epoxy paint Food Grade of best quality to inner surface of the Reservoir including roof.		
	b) Rate inclusive of 2 coats of weather proof emulsion painting for external surfaces over one coat of primer of approved make, lettering, all required fixtures, Pipes, Pipe specials, valves of DI material, Valve chambers etc., for pipe connections including cost of pipes, specials and valves as per departmental directions and drawings.		
	10) The above rates adopted for a wind pressure upto "250 kg/sq m". For every 50 kg/sqm decrease in wind pressure, the rate shall be decreased by 2.5%		
	11.a)The Basic rate is adopted by considering the design for Seismic forces for Zone-II only of seismic zones.		
	b) The basic rates shall be increased by 15 % for Zone-III of seismic zones.		
	12. The ELSR/OHSR shall be designed with minimum of two rows of columns for capacities from 500 KL & upto 1000KL.		
	13. The ELSR/OHSR shall be designed with minimum of three rows of columns for capacities above 1000KL.		
	14) The basic rate is inclusive of following fixtures		
	i) Pipe connections & Specials with D.I materials		
	a) All pipe connections for Inlet, Out let (2 Nos), Over Flow, Scour pipes shall be provided with D/F DI material. b) The Valves for above pipe connections also shall be of DI material of PN 16 c) All specials such as Bends, Tees, Puddle pipes, Reducers, Duckfoot Bends, Bell mouths etc., shall be of DI material.		
	II) The sizes of the verticals for ELSR/OHSR shall be:		
	a) For 500 KL to 750 KL ELSRs Inlet Pipe -Not less than 300mm dia. Out let Pipe -Not less than 350mm dia and DI Valves 02 Nos Over Flow pipe -Not less than 350m dia Scour Pipe -Not less than 200mm dia		
	b) For 800 KL to 1500 KLELSRs		

Sl. No.	Description	Unit	Scheduled Rate
	Inlet Pipe -Not less than 400mm dia. Out let Pipe -Not less than 450mm dia and DI Valves 02 Nos Over Flow pipe -Not less than 450m dia Scour Pipe -Not less than 200mm dia		
	c) For above 1500 KL to 2500 KL ELSRs Inlet Pipe -Not less than 400mm dia. Out let Pipe -Not less than 500mm dia and DI Valves 02 Nos Over Flow pipe -Not less than 500m dia Scour Pipe - Not less than 200mm dia		
	iii) Manhole Frames & Covers		
	a) All man hole Frames & Covers shall be made of CI/DI materials with min. size of 0.60mX 0.60m - For Roof & Valve Chambers.		
	iv) CI/D.I Double Swan neck ventilators (min.of 150mm dia) shall be provided in top dome and slab with mosquito/fly proof nets - 8Nos minimum.		
	v) RCC Finial ventilator with fly/bird protection with Copper or Stainless Steel mesh - 1 No.		
	vi) RCC precast ladders of 0.60 m width - 2 Nos.		
	vii) RCC dog legged stair case of 1.00 m flight width and 1.20 m landing width hand railing of 1.2 m height by using Stainless Steel pipe of grade 304, with top railing of 40mm dia pipe, middle railing of 25mm dia and verticals with 40mm dia at an interval not more than 1.00m c/c. - 1 No		
	viii)The staircase shall be enclosed with brick masonry walls on three side and collapsible MS gate on front side up to 1 <sup>st</sup> brace level, to prevent unauthorized entry.		
	ix) Construction of R.C.C valve chambers as per Standard Drawings with RCC cover slab fixed with CI/DI manhole Frame & Cover with lock and Key arrangement. The Mix shall not be less than VRCC M 20 grade with 150mm thick side walls, 150mm thick top slab, 150mm thick base slab over base course of 100mm thick (1:4:8) prop.		
	x) Balcony of 1.00 m width at floor slab level / middle ring beam level by using Stainless Steel pipe of grade 304 hand railing up to 1.20 m height, with top railing of 40mm dia pipe, middle railing of 25mm dia and verticals with 40mm dia at an interval not more than 1.00m c/c.		
	xi) Water Level Indicator of reputed make - Digital type (1 No) and Conventional type (1 No)		
	xii) Lightning Arrestor with all its accessories complete including earthing, with relevant IS Codes - 1 No.		
44	Rates for OHSRs/ELSRs with a staging of 12 m for Zone-II Seismic and excluding Seigniorage charges.		
a	Upto 10,000 Litres capacity	Per litre	93.36
b	20,000 Litres capacity	Per litre	55.50
c	40,000 Litres capacity	Per litre	44.69
d	60,000 Litres capacity	Per litre	31.85
e	1,00,000 Litres capacity	Per litre	28.15
f	1,20,000 Litres capacity	Per litre	24.61
g	1,50,000 Litres capacity	Per litre	22.37
h	2,00,000 Litres capacity	Per litre	21.09
i	2,50,000 Litres capacity	Per litre	20.46
j	3,00,000 Litres capacity	Per litre	19.79
k	4,00,000 Litres capacity	Per litre	17.30

Sl. No.	Description	Unit	Scheduled Rate
1	4,50,000 Litres capacity	Per litre	15.42
	NOTE: -1) For intermediate ranges proportional rates may be adopted. All VRCC minimum of M30 grade design mix.		
	2)The above rates are applicable for Elevated Level Services Reservoirs / OHSRs with Raft Foundation and a rate of Rs.5600/- per tonne for Cement and Rs.77000/- per tonne for Steel.		
	3) For every metre of staging less than 12 m, the rate shall be reduced by Rs.0.05 paise per litre per every metre of difference in staging.		
	4) For every metre of staging above 12 m , the rate shall be increase by Rs.0.10 paise per litre per every metre of additional in staging.		
	5)The above rates shall be increased / decreased due to increase / decrease in the cost of Cement by Basic Rate x (Rc-5600)/5600 x 0.069 Rc = Rate of Cement (Rs per MT) at the time of preparation of estimate		
	6)The above rates shall be increased / decreased due to increase / decrease in the cost of Steel by Basic Rate x (Rs-77000)/77000 x 0.135 Rs = Rate of Steel (Rs per MT) (Fe-500/500D/550D from Primary Producers)at the time of preparation of estimate.		
	The above formula applicable only for preparation of estimate. The price adjustment shall be adopted on the actual consumption of Steel and Cement.		
	7) Rate inclusive of three coats of food grade epoxy paint to inner surface of the reservoir including roof dome.		
	8) The above rates be adopted for estimate purposes for construction of ELSR for a finished work including 2 coats of weather proof emulsion painting for external surfaces over one coat of primer of approved make, lettering, all required fixtures, pipes, bends, valves etc., for pipe connections but excluding cost of pipes, bends and valves as per departmental designs and drawings.		
	9) The above rates are applicable for wind pressures upto 250 kg / sq m. For decrease in wind pressure the rate has to be decreased by 2.5% per every 50 kg/sqm. If the ELSR / OHSR is to be designed for seismic forces also, cost shall be arrived by working out detailed quantities based on the designs.		
	10) For Tribal/Agency area, the above rates shall be increased by 5%.		
	11)If the ELSR is to be designed for seismic forces a) The above rates are applied upto Zone-II earth quake. b) for Zone-III earth quake the above rates are to be increased by 15%.		
	12) Fixtures include :		
	a) RCC or Aluminium ladder inside 0.60 m wide.		
	b) spiral staircase on the outside shall be provided upto 200KL ELSR. Above 200KL ELSR Capacity dog legged staircase shall be provided with staircase flight width of 1.0mts and landing width of 1.20m. S.S railing to stair case upto 1.2m height.		
	c) Lightning arrestor, including conductor and earthing etc with relevant IS codes.		
	d) RCC ventilators with copper or stainless Steel fly proof		

Sl. No.	Description	Unit	Scheduled Rate
	mesh.		
	e) D.I Manholes frame and cover 0.60x0.60 m as per IS specifications (light duty) - 2 Nos.		
	f) Water level indicator of good quality with ebonite/ copper float approved pattern - 1 No.		
	g) The ladder shall be with Aluminium and Verticals with HDPE of 10kg/Sqcm shall be provided for single column OHSRs only.		
	h) The increase in staging shall be at 1.0mt interval.		
	i)The railing provided to the gallery and stair case shall be with stainless Steel of grade 304 for a height of 1.20m.		
	j)The dog legged staircase shall be enclosed with brick/CRS wall on three sides and front side with PVC door of standard make up to 1st brace level from ground level to prevent unauthorized entry.		
	k) D.I swan neck ventilators shall be provided in top dome and slab-4Nos minimum.		
	l) The above rates are exclusive of all inlet, outlet connections, valves and bolts & nuts but including labour charges for hoisting, jointing with rubber insertion, nuts and bolts. All valves near inlet, outlet and for scour of ELSRs shall be D.I valves.		
45	Construction of Rapid Gravity Filtration Plant including all Civil, Mechanical and Electrical works using sand as filter media, duly following relevant IS codes in the design of plant components including trial running for 90 days etc., complete and excluding Seigniorage charges.		
	1) 2.0 Mld	Per litre	5.27
	2) 5.0 Mld	Per litre	4.21
	3) 10.0 Mld	Per litre	3.60
	4) 20.0 Mld	Per litre	3.09
	5) 30.00 mld and above.	Per litre	2.73
	NOTE :		
	a) For intermediate capacities proportional rates may be adopted		
	b) The above rates are applicable with Cement @ rate of Rs.5600/-MT and Steel of Rs.77000/MT (Fe-500/500D/550D from Primary Producers)		
	c)The above rates shall be increased / decreased due to increase / decrease in the cost of Cement by Basic Rate x (Rc-5600)/5600 x 0.069 Rc = Rate of Cement (Rs per MT) at the time of preparation of estimate only		
	d)The above rates shall be increased / decreased due to increase / decrease in the cost of Steel by Basic Rate x (Rs-77000)/77000 x 0.135 Rs = Rate of Steel (Rs per MT) (Fe-500/500D/550D from Primary Producers) at the time of preparation of estimate.		
	The above formula applicable only for preparation of estimate. The price adjustment shall be adopted on the actual consumption of Steel and Cement.		
	The components of the filtration plant will include the following		
	A) Civil Works (All works of VRCC minimum of M30 design mix)		
	1) Stilling Chamber including Aeration cascade		

Sl. No.	Description	Unit	Scheduled Rate
	2) Pre-Settling tank shall be provided for 30 MLD and above capacities of WTP for a minimum of 1 hour capacity.		
	3) Raw water channel with Stainless Steel Weir of SS304L Grade material and also with digital flow meters.		
	4) Flash Mixer chamber with Flash mixing arrangements including SS shaft & SS Blades with gear wheel arrangements etc, Using 304L Grade Steel.		
	5) Clariflocculator / Flocculation tanks with the components of central driven circular clarifier with scrapper & bridge arrangements made with Stainless Steel Grade 304 L tubes / angulars for durability & chemical resistant with wheel arrangements etc,.		
	6) Filter house, Chemical house, Alum store, Laboratory room , Chlorination plant room, toilet etc. (All structures shall be provided with RCC roof only). Chemical house & Chlorinator rooms are to be isolated.		
	7) Wash water tank of suitable capacity shall be constructed independently		
	8) All the Doors and Windows shall be of UPVC. The entrance door shall be minimum size of 2.40 X 2.40 mts.		
	9) All pipes and valves in Plant shall be of D.I. materials. All the Connecting pipes of the plant components such as from Flash mixer to Clariflocculator/ Clarifier/Flocculation tank, to Filter beds, sludge disposal pipes shall be of D.I. material. The size of sludge disposal pipe shall be minimum of 450 mm dia with D.I D/F pipe.		
	10) The Pipe gallery way for Clear water/ Back wash water/ pipe connections shall be sufficiently spaced for easy operation, maintenance and inspection .		
	11) The bottom level of the wash water control chamber must be above G.L so as to dispose the wash water and sludge from Clariflocculator by gravity to disposal point.		
	Additional specifications		
	12) Railing for all the components (Clariflocculator, Filter House, Staircase etc.,) shall be provided with Stainless Steel of grade 304 for a height of 1.00m, with 40mm dia pipe for top horizontals, 25mm dia for middle row and 40mm dia verticals spaced at interval of not more than 1.00m c/c.		
	13) Inspection / Path ways in filter beds : Middle pathway: Minimum of 1.50m, Side pathway: Minimum of 1.20m.		
	14) Flooring in the buildings (Filter house, Chemical House, Chlorinator Room, Laboratory) shall be provided with Non-skid tiles of approved make & quality , as per standard specifications. Dadoing shall be provided upto 1.80mts from floor level in chemical room and Chlorination room.		
	15) The basement of the Filtration plant building shall be minimum of 0.75m above the existing nearby Road top level.		
	16) Minimum head room of 2.00m shall be provided , at the alum mixing chambers in alum store for inspection & maintenance.		
	17) The minimum width of entrance hall for the Filter House shall be 4.50m , and Laboratory of min size .of 3.30 X 4.50m .		
	18) High efficient Air Blowers of standard make shall be installed to the design requirement with low noise pollution ,		



Sl. No.	Description	Unit	Scheduled Rate
	environmental pollution as per PCB guide lines & Testing of blowers as per I.S norms at site.		
	19) UPVC pipes shall be provided for water drain. Filter pipe manifolds shall be assembled with HDPE pipes		
	20) Alum storage capacity shall be designed for minimum period of 90 days. Consumables shall be provided for 2115 Running Hours of WTP.		
	21A) Chlorinator : Vacuum type chlorinator shall be provided with following specifications: a) Vacuum operated solution feed type Vacuum Regulator, Rotameter, Rate setting Valve, built-in NRV, Gas Overflow out let by manifolding to mount the system with the unit. b) The unit shall consists of Ejector with necessary accessories such as Check Valve, Drain Valve and Vacuum relief Valves - for control of chlorinator dosage. c) The Accessories and manifolds shall be chlorine resistant and made of carbon Steel seamless pipes, copper tube with brass fittings of suitable size & dimensions, with diaphragm sealed chlorine pressure gauge arrangements.		
	d) Water Booster Pump of pumping capacity ranging from 2 cum/hr to 12 cum/hr, with Head ranging from 16 to 35 MWC e) The water & solution carrying pipes shall be made of UPVC material of suitable size incl. all specials such as Tee's , Bends, couplings & NRVs and also Pressure Gauges of suitable range. f) Chlorine Gas detector with alarm indicator. The installation includes all necessary accessories, Civil and Mechanical works, manifold header installations, injector fixing, connection with UPVC pipes, solution pipings, fixing of motors as per standard specifications and commissioning of Chlorination plant to the required demand, with a defect liability period of 1 year. The chlorinator may be of any reputed make or any make of Metito/Toshocow-Jesco/Industrial devices.		
	g) Life breathing operators.		
	h) Chlorine escape BA Set.		
	i) 2 to 10 MLD Plants - 1Kg/hr Chlorinator Rate .073 paisa on basic rate of WTP-for Post Chlorination		
	ii) 10 MLD to 20 MLD Plants - 2 Kg/hr Chlorinator Rate .033 paisa on basic rate of WTP-for Post Chlorination		
	iii) 20 MLD to 50 MLD Plants - 5 Kg/hr Chlorinator Rate .015 paisa on basic rate of WTP-for Post Chlorination		
	<b>B) Mechanical Equipment</b>		
	1) Alum dosing equipment with SS 304 material made stirrers & paddles for chemical resistance. (Alum tanks must be bound with corrosion resistant material (HDPE Lining, Bitumen Coating, tiles etc)		
	2) Flash mixer equipment with SS 304 material made stirrers & paddles for chemical resistance.		
	3) Filtration plant equipment instrumentation and piping.		
	4) Clariflocculation equipment (with stainless Steel blades) with rotating bridge arrangement etc., The equipment consists of following components a) Flocculator Drive Mechanisms These will consist of suitable H.P geared electric motor mounted on M S Frame work on bridge platform.		

Sl. No.	Description	Unit	Scheduled Rate
	<p>b) Flocculating Mechanisms and raking in the flocculation compartment . These will consist of vertical shafts and arms, paddles, guides, bearings etc with stainless Steel bush bearing for the shafts at the bottom.</p> <p>c) Mechanism for raking in clarifier compartment.</p>		
	<p>d) Revolving Bridge This will be made of suitable sections with torsion proof fabrication of required length and width of 1.22 m. The Bridge will have an outer travelling trolley. The walk way will be 1.22 m wide and shall have chequered plates. The web of the bridge structure shall perform the function of hand railing on both the sides also. The scarping plates will be fitted with the scrapper frame work with hinges and stainless Steel pins and will be fitted 12 mm thick rubber edging . The scrapers will be so adjusted as to ensure smooth and even scarping of the floor.</p> <p>e) Bridge Drive The Bridge will be driven by an electrically operated geared motor with suitable H.P.</p>		
	<p>f) Bridge Drive Mechanisms This will consist of two nos. of Steel wheels driven by electric geared motor. The wheels will be fitted on the trolley with necessary bearings, pedestals etc . These wheels travel along the periphery of the clariflocculator tank on rails.</p> <p>g) Electrical Arrangements These will consist of electrical cables PVC insulated with copper wires run from the main switch board provided in the chemical store and run under the tank and along the central column. The cable will be connected to the central slip arrangements. The electric geared motors will be controlled from the control panel fitted on the bridge with necessary weather proof housing cabinet with necessary cables, wires, starters , switches etc .</p>		
	5) Stainless Steel wheel shall be provided for the bridge clariflocculator.		
	6) Wash water tank fittings and pumpsets with 100% stand by.		
	<p>7) Air blower with motor 100% stand by and pipe connections. Air Scouring type with twin lobe rotary having required capacity and pressure as per hydraulic design having following components: Blower, Base Frame for blower and motor, Foundation Bolts, Nuts and Washers, Slide Rail and Motor Bolts, V Belts, Pulley, Guard, Suction Silencer, Discharge Silencer, Safety Relief Valve and Non Return Valve , Companion Flange, Interconnection Pipe, Flexible Bellow, Safety Valve and T Connection, First Fill of Lubricants, Anti vibration Pads, Acoustic Enclosure and Motor : CGL/KEC/ABB make.</p>		
	<p>A) Materials of Construction :</p> <p>a) Housing : C.I IS 201 FG 260</p> <p>b) Rotor Shaft : S G IRON</p> <p>c) Shaft : EN 19 forged and heat treated</p> <p>d) Timing Gears : Cast Alloy Steel ( 20 microns) forged and heat treated.</p> <p>e) Pulley , Gear side , plates and covers : C.I IS 210 FG 260</p> <p>f) V Belts : Reinforced rubber</p> <p>g) Base plate : MS Enamel Painted</p> <p>h) Belt Guard : MS Enamel Painted</p>		

Sl. No.	Description	Unit	Scheduled Rate
	i) Fasteners : As per IS 1363/ IS 1367		
	8)Spares & Tools and the same shall be handed over after 2 years defect liability period.		
	9)Gaseous Chlorination with cylinders has to be provided with protection measures.		
	<b>C) Electrical Equipment</b>		
	1) Necessary power supply wiring to motors and switches bus bar connections as per IE Rules.		
	2) Internal wiring and illumination and fittings and fixtures for internal and external lighting exhaust fans, ceiling fans etc.		
	3) Erecting mechanical and electrical equipment, trial run for 90 days 23.50 hours per day testing the treated water for efficient standards and maintenance of records and imparting training to staff.		
	4) Supply of 6 - Sets of completion plans and maintenance manual and brochures.		
	5) All cables shall be with of copper material, Cable ducts shall be covered with MS / Aluminium chequered plate.		
	6) Yard lighting shall be provided at 6 locations with required fixtures..		
	<b>D ) Equipment for Flow measurements</b>		
	1) Equipment for Flow of Conductivity, Turbidity, Ph value, Residual Chlorine with recording & data storage facility (Computer based) & Alarm by SMS or other methods.		
	2) Off - Site Supervisory and Data Acquisition (OSSADA) system for Raw water & Clear water flows by installing Digital Flow meters to measure the flows at Raw water Channel and at each filter bed individually and combined for measuring the quantities of water treated with a facility to record and store the readings & also to send messages to the assigned designatories about the variations/ deficiencies in the flow including alerts for back wash requirements of filter beds, and recovery of data for the past 360 days. All the Digital Flow Meters & Pressure Gauges shall be provided of standard approved make.		
	<b>Hardware:</b>		
	i) Wall mounted Sensor House for measuring Raw water & Clear water flow from Filter bed out lets with accessories.		
	ii)Electrode Type: General type, Scraper type or replaceable type Electrode made with material of SS external Ultra Touch Sensors as per requirement.		
	iii)Customised Application Requirement : Sensors with Interface logic control board with serial interfaces, On - sensor Board Buffer, Timer, RS485 Communication, Analog to Digital Sensing Sensor Circuit, 32 Sensors Sensing Tags, Interval Power Supply System , LCD 16c/2L, Filter Bed Working Status Indication LED, Filter Bed Wash Indication Button and memory of Data Storage for 30Days , status of Filter Bed Level indicator, Rating, Reading on LCD Display, Menu Driven Data for sending to Onsite Big Display, operated with Battery Power of any reputed make or any equivalent make.		
	iv)Customised Application Requirement: Power Sensors Interface logic control board with support 8 Power Sensing tags, Central System Interfacing Communication, On - board analog to Digit Convert Integrate Circuit of any reputed make		

Sl. No.	Description	Unit	Scheduled Rate
	or any equivalent make.		
	v) Customised Application Requirement: Centralized System with two serial interfaces, 3 Nos of Add-On ports, One external DC Power Socket, On - Board Buffer, On - Board Timer, On - Board RS485 Communication, On - Board RS 232 Communication, On - Board GPRS/GSM Module, On - Board Voice Chip, On - Board Power Sensing Module, LCD 16c/2L, Filter Bed Wash Precaution Indication with Stop Button, Memory of Data Storage for 30 Days, Total Bed Rating, Reading display on LCD Display, Menu Driven, Menu Navigate Keypad, sending data to the Web Server, Communication with GPRS , operated with Battery Power of any reputed make or any equivalent make.		
	<b>Software:</b>		
	The software shall be designed with Web Domain with Data Base Server and Web Name as per the directions of the Departmental Authorities		
	The application of Software for Web design & Desktop shall meet the following requirements:		
	Onsite Display: Letters with size of 1.5' Seven Segment LED Display with Interface for each Filter Bed, for Onsite Display, by displaying the Bed Levels, Ratings, Readings in 3 Columns , for each bed of the plant in successive rows and cumulative results at the bottom of the screen.		
	Off Site Display: Letters with size of 1.5' seven Segment LED Display with Interface GPRS/GSM Modules Offsite Display, with Display of Bed Total Rating, Total Cumulative Reading as specified on On-site Display Features.		
	The system shall have also the features of Onsite Bed Wash Voice Precautions for Bed Levels, Readings, Ratings, Bed Capacity Readings and Ratings and Bed Low Level Triggering, before & after Bed wash.		
	The software shall also have the features of sending messages to the mobiles of the Departmental designatories indicating Bed Low Levels, Power Supply timings, Bed Wash timings and its status, Power Supply timings and its status Grid View Table, Motor Working time and its status Grid View Table, all trigger events and schedule information and including all Snap View Reports, all Daily, Monthly, Yearly Reports, all Power Working Reports, all Power Events Information etc.,.		

## 1. R.C.C. PLAIN ENDED PIPES

Sl. No.	Description				
1	<b>Manufacture, Supply and Delivery of R.C.C. Spun / Vibrated Cast (Reinforced) Plain ended pipes conforming to B.I.S 458/2003, Ex-factory, Excluding transportation &amp; taxes.</b>				
	Size	Unit	Rate in Rs.		
			NP - 2 Class	NP - 3 Class	NP - 4 Class
	80 mm dia	Metre	202		
	100 mm dia	Metre	232		
	150 mm dia	Metre	274		
	200 mm dia	Metre	321		
	225 mm dia	Metre	347		
	250 mm dia	Metre	374		
	300 mm dia	Metre	530	1156	1218
	350 mm dia	Metre	664	1483	1512
	400 mm dia	Metre	767	1637	1677
	450 mm dia	Metre	936	1867	1889
	500 mm dia	Metre	1038	2058	2366
	600 mm dia	Metre	1519	3069	3708
	700 mm dia	Metre	1959	3858	5013
	800 mm dia	Metre	2434	5104	6606
	900 mm dia	Metre	3073	6455	8216
	1000 mm dia	Metre	3713	7952	11195
	1100 mm dia	Metre	4425	9447	13031
	1200 mm dia	Metre	5266	11155	15267
	1400 mm dia	Metre	7143	14497	21305
	1600 mm dia	Metre	8371	18945	26188
	1800 mm dia	Metre	10896	25242	35304
	2000mm dia	Metre		30442	42702
	2200mm dia	Metre		36086	50715
	2400mm dia	Metre		41733	58731

**Note :** All the prices are ex-works. Taxes extra as applicable at the time of supply.

The above rates of RCC Plain ended pipes are based on the following raw materials cost.

Cement Rs.5600/- per MT (excluding all taxes but including freight).

Steel (M.S. Rods) - Rs.76000/- per MT. (excluding all taxes but including freight).

The revised cost of RCC pipes due to increase / decrease in the cost of raw materials shall be as per the following formula.

Revised Cost = Cost as per the above table + R1 + R2

R1 = Variation (increase / decrease) in cost (Rs. per metre) due to change in the cost of M.S. Rods =  $(S2 - S1) / 1000 \times Ws$ .

R2 = Variation (increase / decrease) in cost (Rs. per metre) due to change in the cost of Cement =  $(C2 - C1) / 1000 \times Wc$ .

S1 = Rs.76000/- , S2 = Cost of M S Rods (Rs. Per MT excluding all taxes but including freight) at the time of preparation of estimate.

C1 = Rs.5600/- C2 = Cost of Cement (Rs. Per MT excluding all taxes but including freight) at the time of preparation of estimate.

Ws = Weight of MS Rods required (Kg.) per metre of pipe as per IS:458/2003.

Wc = Weight of Cement required (Kg.) per metre of pipe.

## 2. R.C.C. COLLARS

Sl.No.	Description				
1	2				
1	Manufacture, Supply and Delivery of R.C.C. Collars conforming to B.I.S. 458/2003 (rate per each collar) suitable for R.C.C. Plain ended pipes including transportation but excluding taxes.				
	Size	Unit	Rate in Rs.		
			NP - 2 Class	NP - 3 Class	NP - 4 Class
	80 mm dia	Each	59		
	100 mm dia	Each	61		
	150 mm dia	Each	64		
	200 mm dia	Each	84		
	225 mm dia	Each	85		
	250 mm dia	Each	97		
	300 mm dia	Each	130	188	188
	350 mm dia	Each	156	226	226
	400 mm dia	Each	172	261	261
	450 mm dia	Each	269	340	340
	500 mm dia	Each	311	406	406
	600 mm dia	Each	417	536	536
	700 mm dia	Each	545	736	736
	800 mm dia	Each	780	919	919
	900 mm dia	Each	923	1067	1067
	1000 mm dia	Each	1076	1346	1346
	1100 mm dia	Each	1330	1705	1705
	1200 mm dia	Each	1624	2134	2134
	1400 mm dia	Each	2092	2708	2708
	1600 mm dia	Each	2670	3487	3487
	1800 mm dia	Each	2875	4518	4518

Note: Taxes extra as applicable at the time of supply.

The above rates of RCC Collars suitable to plain ended pipes are based on the following raw materials cost.

Cement. Rs.5600/- per MT (excluding all taxes but including freight).

Steel (M.S. Rods) - Rs.76000/- per MT. (excluding all taxes but including freight).

The revised cost of RCC collars due to increase / decrease in the cost of raw materials shall be as per the following formula.

Revised Cost = Cost as per the above table + R1 + R2

R1 = Variation (increase / decrease) in cost (Rs. per each ) due to change in the cost of M.S.

Rods =  $(S2 - S1) / 1000 \times Ws$ .

R2 = Variation (increase / decrease) in cost (Rs. per each) due to change in the cost of Cement =  $(C2 - C1) / 1000 \times Wc$ .

S1 = Rs.76000/- , S2 = Cost of M S Rods (Rs. Per MT excluding all taxes but including freight) at the time of preparation of estimate.

C1 = Rs. 5600/-, C2 = Cost of Cement (Rs. Per MT excluding all taxes but including freight) at the time of preparation of estimate

Ws = Weight of MS Rods required (Kg.) per each collar.

Wc = Weight of Cement required (Kg.) per each collar.

### 3. R.C.C. S/S PIPES (Non - Pressure)

Sl. No.	Description				
1	2				
1	Manufacture, Supply and Delivery of R.C.C. Spun / Vibrated Cast (Reinforced) Socket and Spigot pipes conforming to B.I.S. 458/2003 at ex-factory (rate per meter of effective length) Excluding transportation & taxes.				
	Size	Unit	Rate in Rs.		
			NP - 2 Class	NP - 3 Class	NP - 4 Class
	80 mm dia	Metre	245		
	100 mm dia	Metre	274		
	150 mm dia	Metre	320		
	200 mm dia	Metre	381		
	225 mm dia	Metre	419		
	250 mm dia	Metre	447		
	300 mm dia	Metre	626	1442	1560
	350 mm dia	Metre	801	1892	1928
	400 mm dia	Metre	891	2097	2137
	450 mm dia	Metre	1108	2316	2335
	500 mm dia	Metre	1276	2660	2907
	600 mm dia	Metre	1792	3739	3982
	700 mm dia	Metre	2337	4795	5242
	800 mm dia	Metre	3002	6357	6904
	900 mm dia	Metre	3800	8026	8650
	1000 mm dia	Metre	4590	9133	10535
	1100 mm dia	Metre	5416	10838	12229
	1200 mm dia	Metre	6179	12812	14339
	1400 mm dia	Metre	8701	16992	20414
	1600 mm dia	Metre	10761	22183	25138
	1800 mm dia	Metre	12304	29520	33890
	2000mm dia	Metre		35548	40601
	2200mm dia	Metre		42192	48183
	2400mm dia	Metre		48838	55769

**Note:** All the prices are ex-works, Taxes extra as applicable at the time of supply. The above rates of RCC S/S Non-Pressure pipes are based on the following raw materials cost Cement.

Rs.5600/- per MT (excluding all taxes but including freight).

Steel (M.S. Rods) - Rs.76000/- per MT. (excluding all taxes but including freight).

The revised cost of RCC pipes due to increase / decrease in the cost of raw materials shall be as per the following formula. Revised Cost = Cost as per the above table +R1+R2

R1= Variation (increase / decrease ) in cost (Rs. per metre )due to change in the cost of M.S. Rods =(S2-S1)/1000 X Ws.

R2= Variation (increase / decrease ) in cost (Rs. per metre )due to change in the cost of Cement =(C2-C1)/1000 X Wc.

S1 = Rs.76000/- , S2 = Cost of M S Rods (Rs. Per MT excluding all taxes but including freight) at the time of preparation of estimate.

C1 = Rs.5600/- , C2 = Cost of Cement (Rs. Per MT excluding all taxes but including freight) at the time of preparation of estimate

Ws=Weight of MS Rods required (Kg.) per metre of pipe as per IS:458/2003.

Wc= Weight of Cement required (Kg.) per metre of pipe.

**4. R.C.C. S/S PIPES (Pressure)**

Sl.No.	Description				
1	2				
1	Manufacture, Supply and Delivery of R.C.C. Socket and Spigot pipes conforming to B.I.S. 458/2003 Ex-factory (rate per meter of effective length) Excluding transportation, taxes & duties.				
	Size	Unit	Rate in Rs.		
			P1 - Class	P2 - Class	P3 - Class
	80 mm dia	Metre	306	352	400
	100 mm dia	Metre	348	418	488
	150 mm dia	Metre	478	631	786
	200 mm dia	Metre	557	804	1066
	225 mm dia	Metre	628	919	1199
	250 mm dia	Metre	688	994	1282
	300 mm dia	Metre	935	1437	1821
	350 mm dia	Metre	1164	1974	2600
	400 mm dia	Metre	1386	2597	3407
	450 mm dia	Metre	1513	3088	4243
	500 mm dia	Metre	1973	3413	4876
	600 mm dia	Metre	2705	5084	6863
	700 mm dia	Metre	3600	6816	8804
	800 mm dia	Metre	4517	8266	10755
	900 mm dia	Metre	5478	9834	
	1000 mm dia	Metre	6859	11403	
	1100 mm dia	Metre	8227		
	1200 mm dia	Metre	9682		

**Note:** All the prices are ex-works, Taxes extra as applicable at the time of supply.

The above rates of RCC S/S Pressure pipes are based on the following raw materials cost.

Cement. Rs.5600/- per MT (excluding all taxes but including freight).

Steel (M.S. Rods) - Rs.76000/- per MT. (excluding all taxes but including freight).

The revised cost of RCC pipes due to increase / decrease in the cost of raw materials shall be as per the following formula.

Revised Cost = Cost as per the above table + R1 + R2

R1 = Variation (increase / decrease) in cost (Rs. per metre) due to change in the cost of M.S.

Rods =  $(S2 - S1) / 1000 \times Ws$ .

R2 = Variation (increase / decrease) in cost (Rs. per metre) due to change in the cost of Cement =  $(C2 - C1) / 1000 \times Wc$ .

S1 = Rs.76000/- S2 = Cost of M S Rods (Rs. Per MT excluding all taxes but including freight) at the time of preparation of estimate.

C1 = Rs. 5600/-, C2 = Cost of Cement (Rs. Per MT excluding all taxes but including freight) at the time of preparation of estimate

Ws = Weight of MS Rods required (Kg) per metre of pipe as per IS: 458 / 2003.

Wc = Weight of Cement required (Kg) per metre of pipe.



**5. RUBBER RINGS TO SUIT R.C.C. S/S PIPES**

Sl. No.	Description				
<b>1</b>	<b>2</b>				
<b>1</b>	<b>Manufacture, Supply and Delivery of Rubber rings to suit R.C.C. Spun / Vibrated Cast (Reinforced) Socket and Spigot pipes conforming to B.I.S 5382/ 1985 (rate per each rubber ring) including transportation but excluding taxes. the Rubber Rings shall be tested at the factory premises conforming to B.I.S. 5382/1985.</b>				
	<b>Size</b>	<b>Unit</b>	<b>Rate in Rs.</b>		
			<b>NP - 2 Class</b>	<b>NP - 3 Class</b>	<b>NP - 4 Class</b>
	80 mm dia	Each	34		
	100 mm dia	Each	43		
	150 mm dia	Each	76		
	200 mm dia	Each	88		
	225 mm dia	Each	99		
	250 mm dia	Each	109		
	300 mm dia	Each	134	174	174
	350 mm dia	Each	155	205	205
	400 mm dia	Each	172	233	233
	450 mm dia	Each	194	265	265
	500 mm dia	Each	254	303	303
	600 mm dia	Each	333	442	442
	700 mm dia	Each	452	527	527
	800 mm dia	Each	574	639	639
	900 mm dia	Each	717	865	865
	1000 mm dia	Each	839	1043	1043
	1100 mm dia	Each	1009	1335	1335
	1200 mm dia	Each	1616	1679	1679
	1400 mm dia	Each	1777	1847	1847
	1600 mm dia	Each	2214	2255	2255
	1800 mm dia	Each	2756	2880	2880
	2000mm dia	Each		3287	3287
	2200mm dia	Each		3695	3695
	2400mm dia	Each		4102	4102
<b>2</b>	<b>Manufacture, Supply and Delivery of Rubber rings to suit R.C.C. Socket and Spigot pipes conforming to B.I.S 5382/ 1985 (rate per each rubber ring) including transportation but excluding taxes. The Rubber Rings shall be tested at the factory premises conforming to B.I.S. 5382/1985.</b>				
	<b>Size</b>		<b>P1 - Class</b>	<b>P2 - Class</b>	<b>P3 - Class</b>
	80 mm dia	Each	34	34	34
	100 mm dia	Each	43	45	45
	150 mm dia	Each	76	76	76
	200 mm dia	Each	88	88	88
	225 mm dia	Each	99	100	102
	250 mm dia	Each	109	112	116
	300 mm dia	Each	134	142	147
	350 mm dia	Each	155	178	194
	400 mm dia	Each	172	233	238
	450 mm dia	Each	194	267	274
	500 mm dia	Each	254	303	317

	600 mm dia	Each	<b>333</b>	<b>375</b>	<b>381</b>
	700 mm dia	Each	<b>452</b>	<b>496</b>	<b>527</b>
	800 mm dia	Each	<b>574</b>	<b>635</b>	<b>635</b>
	900 mm dia	Each	<b>717</b>	<b>800</b>	
	1000 mm dia	Each	<b>839</b>	<b>965</b>	
	1100 mm dia	Each	<b>1009</b>		
	1200 mm dia	Each	<b>1258</b>		

**Note:** Taxes as applicable shall be added as per rules at the time of preparation of estimate.

**6. CONVEYANCE OF R.C.C. PLAIN ENDED PIPES**

Sl.No.	Description	Rate upto 5 Kms Lead including Loading, unloading and stacking	Rate for every additional 1 KM lead or part thereof.	Rate upto 5 Kms Lead including Loading, unloading and stacking	Rate for every additional 1 KM lead or part thereof.
1	2	3	4	5	6
1	Conveyance of R.C.C Spun / Vibrated Cast (Reinforced) Plain ended pipes on all weathered roads including loading, unloading and stacking (per metre)				
		NP - 2 Class		NP - 3 Class & NP - 4 Class	
	80 mm dia	4.29	0.18		
	100 mm dia	5.64	0.18		
	150 mm dia	8.46	0.37		
	200 mm dia	11.28	0.37		
	225 mm dia	12.75	0.55		
	250 mm dia	14.22	0.55		
	300 mm dia	19.86	0.75	55.14	1.52
	350 mm dia	28.30	1.71	59.43	1.71
	400 mm dia	31.12	1.88	70.83	2.28
	450 mm dia	41.06	2.28	76.45	2.63
	500 mm dia	43.86	2.63	83.45	2.63
	600 mm dia	63.72	4.14	125.96	5.84
	700 mm dia	80.62	5.84	140.06	6.80
	800 mm dia	94.84	5.84	168.37	6.80
	900 mm dia	108.93	5.84	220.81	12.82
	1000 mm dia	161.37	12.05	266.01	12.82
	1100 mm dia	176.95	12.05	288.68	13.95
	1200 mm dia	200.96	12.82	322.63	13.95
	1400 mm dia	242.01	12.82	438.79	14.51
	1600 mm dia	280.24	12.82	526.53	14.51
	1800 mm dia	322.63	12.82	702.00	20.36
	2000 mm dia				
	2200 mm dia				
	2400 mm dia				

## 7. CONVEYANCE OF R.C.C. S/S PIPES

Sl. No.	Description	Rate upto 5 Kms Lead including Loading, unloading & stacking	Rate for every additional 1 KM lead or part thereof.	Rate upto 5 Kms Lead including Loading, unloading and stacking	Rate for every additional 1 KM lead or part thereof.
1	<b>Conveyance of R.C.C. Spun / Vibrated Cast (Reinforced) Socket and Spigot pipes on all weather roads including loading, unloading and stacking (per metre of effective length).</b>				
	<b>Size</b>	<b>NP - 2 &amp; P1 Class</b>		<b>NP - 3 &amp; NP - 4 Class</b>	
	80 mm dia	5.64	0.17		
	100 mm dia	5.64	0.33		
	150 mm dia	9.92	0.33		
	200 mm dia	12.75	0.69		
	225 mm dia	14.22	0.69		
	250 mm dia	15.55	1.55		
	300 mm dia	25.48	1.72	65.05	2.06
	350 mm dia	29.78	1.88	70.83	2.39
	400 mm dia	29.78	2.22	87.74	4.47
	450 mm dia	42.53	2.39	96.20	4.47
	500 mm dia	46.68	2.57	106.12	4.81
	600 mm dia	60.90	4.47	143.00	6.85
	700 mm dia	75.00	4.81	192.50	13.54
	800 mm dia	103.30	7.37	227.91	13.54
	900 mm dia	154.26	13.18	263.20	13.54
	1000 mm dia	175.48	13.18	277.42	13.54
	1100 mm dia	198.14	13.54	297.26	13.54
	1200 mm dia	220.81	13.54	332.56	13.87
	1400 mm dia	274.59	13.54	445.78	13.87
	1600 mm dia	325.57	13.87	526.53	14.89
	1800 mm dia	403.38	13.87	702.00	20.38
	2000 mm dia				
	2200 mm dia				
	2400 mm dia				
		<b>P2 - Class</b>		<b>P3 - Class</b>	
	80 mm dia	5.64	0.17	5.64	0.17
	100 mm dia	5.64	0.33	5.64	0.33
	150 mm dia	9.92	0.33	9.92	0.33
	200 mm dia	12.75	0.69	17.04	1.55
	225 mm dia	17.04	1.55	19.86	1.72
	250 mm dia	18.38	1.72	24.02	1.88
	300 mm dia	35.42	2.06	41.06	2.22
	350 mm dia	43.86	2.39	56.62	2.57
	400 mm dia	52.33	2.57	75.00	4.47
	450 mm dia	66.54	4.29	93.37	4.47
	500 mm dia	75.00	4.47	113.22	6.68
	600 mm dia	99.14	4.47	164.20	8.57
	700 mm dia	148.64	9.06	239.18	13.54
	800 mm dia	196.68	12.85	305.73	13.54
	900 mm dia	239.18	13.54		
	1000 mm dia	294.33	13.87		

## 8. A.C. PIPES

The PH & ME department banned the usage of RCC & AC pipes for water supply works vide Memo no 146/T2/SoR/2014-15/2014 dated 30.06.2014. However ENC (RWS) requested in the SoR meeting on 06.05.2015 to incorporate A.C pipes rates in SoR for carrying out O&M works, accordingly the following rates are adopted.

Sl.No	Description					
1	Manufacture, Supply of A.C*. Pressure pipes (mazza process) as per BIS No: 1592/2003 as amended from time to time duly marked with BIS mark, including cost of material, incidental handling, loading and packing charges but are exclusive of transportation, unloading, stacking at departmental stores, and excluding taxes. The pipes shall be tested at factory premises conforming to IS code 1592/2003.					
	Size	Unit	Rate in Rs.			
				Class - 15	Class - 20	Class - 25
	80 mm dia	Rate/Metre		218	240	299
	100 mm dia	Rate/Metre		288	365	447
	125 mm dia	Rate/Metre		374	464	585
	150 mm dia	Rate/Metre		525	656	822
	200 mm dia	Rate/Metre		868	1114	1414
	250 mm dia	Rate/Metre		1101	1430	1790
	300 mm dia	Rate/Metre		1540	2008	2566
	350 mm dia	Rate/Metre		1874	2438	3076
	400 mm dia	Rate/Metre		2435	3190	3959
	450 mm dia	Rate/Metre		2899	3849	4820
	500 mm dia	Rate/Metre		3573	4704	5907
	600 mm dia	Rate/Metre		5082	6642	8463
	700 mm dia	Rate/Metre		6682	9063	11719
	750 mm dia	Rate/Metre		7614	10463	13409
	800 mm dia	Rate/Metre		8711	11854	15213
	850 mm dia	Rate/Metre		9774	13333	17131
	900 mm dia	Rate/Metre		10895	14898	19162
	1000 mm dia	Rate/Metre		13450	18289	23563
2	Lowering, laying and jointing of AC pressure pipes with ac couplings or CID joints complete with Rubber rings in readymade trenches true to alignment and gradient including filling with water lead upto 500 mts and testing to required pressure including all sundries but excluding cost of jointing materials and conveyance from source of supply as per BIS No. 6530/1972					
	80 mm dia	Rate/Metre		42	42	42
	100 mm dia	Rate/Metre		62	62	62
	125 mm dia	Rate/Metre		67	67	67
	150 mm dia	Rate/Metre		80	80	80
	200 mm dia	Rate/Metre		105	105	105
	250 mm dia	Rate/Metre		126	126	126
	300 mm dia	Rate/Metre		156	156	156
	350 mm dia	Rate/Metre		264	264	264
	400 mm dia	Rate/Metre		397	397	397
	450 mm dia	Rate/Metre		482	482	482
	500 mm dia	Rate/Metre		613	613	613
	600 mm dia	Rate/Metre		659	659	659

	700 mm dia	Rate/Metre		736	736	736
	750 mm dia	Rate/Metre		819	819	819
	800 mm dia	Rate/Metre		862	862	862
	850 mm dia	Rate/Metre		919	919	919
	900 mm dia	Rate/Metre		1004	1004	1004
	1000 mm dia	Rate/Metre		1032	1032	1032
	<p>1. The above rates of AC Pipes are based on the Cement cost of Rs.5600/- per MT (excluding all taxes but including frieght).</p> <p>2. The above rates of AC pipes are based on the Fiber cost of Rs.78,500/- per M.T (excluding all taxes but including frieght)</p> <p>For any Increase/ Decrease in the rate of cement, the price of AC pipe per Rmt shall be increased/decreased as under.</p> <p><math>W \times 0.85 \times IC</math> Where W = Weight of pipe in Kg's/Rmt  IC = Increase/Decrease in cost of cement/Kg</p> <p>For any increase/decrease in the rate of fiber, the price of AC pipe per Rmt shall be increased/Decreased as under :</p> <p><math>W \times 0.15 \times IF</math> Where : W=: Weight of pipe in Kg's/Rmt  IF = Increase /Decrease in cost of fiber/Kg</p>					
<b>Note:</b>	<p>1) The Fiber rates are to be obtained from A.C. Pipe manufacturer of “Mazza” process.</p> <p>2) The cement rate shall be communicated by the sub-committee of Board of Chief engineers.</p> <p>3)The taxes as applicable shall be added as per rules at the time of preparation of estimate</p>					
2	<p>Transportation of AC pressure pipes at site of work anywhere in Telangana State on motor able roads for full truck loads including transit insurance, unloading, and stacking at site of work etc. Complete (AC Couplings and Rubber rings are to be supplied free of transportation charges).</p>				<p>5% on the basic cost of corresponding AC Pressure pipes.</p>	

\*Under any Circumstances the A.C. pipes shall not be procured for laying new water lines, except O&M works.

## 9. A.C. COUPLINGS

The PH & ME department banned the usage of RCC & AC pipes for water supply works vide Memo no 146/T2/SoR/2014-15/2014 dated 30.06.2014. However ENC (RWS) requested in the SoR meeting on 06.05.2015 to incorporate A.C pipes rates in SoR for carrying out O&M works, accordingly the following rates are adopted.

Sl.No	Description					
1	2					
1	Manufacture, Supply of A.C* Couplings suitable to A.C*.Pressure pipes (mazza process) as per BIS: 1592/2003 excluding cost of rubber rings to suit AC* pressure pipes including cost of material, incidental handling, packing, transportation and unloading at site transit risk, but excluding taxes and testing of joints as per IS Code.					
	Size	Unit	Rate in Rs.			
				Class - 15	Class - 20	Class - 25
	80 mm dia	Rate/Each		102	108	125
	100 mm dia	Rate/Each		130	144	170
	125 mm dia	Rate/Each		166	181	218
	150 mm dia	Rate/Each		192	240	296
	200 mm dia	Rate/Each		352	389	494
	250 mm dia	Rate/Each		413	521	661
	300 mm dia	Rate/Each		539	698	898
	350 mm dia	Rate/Each		696	899	1147
	400 mm dia	Rate/Each		1074	1400	1789
	450 mm dia	Rate/Each		1286	1693	2173
	500 mm dia	Rate/Each		1532	2046	2611
	600 mm dia	Rate/Each		1893	2379	3043
	700 mm dia	Rate/Each		2484	3347	4351
	750 mm dia	Rate/Each		2804	3832	4946
	800 mm dia	Rate/Each		3181	4313	5582
	850 mm dia	Rate/Each		3543	4824	6257
	900 mm dia	Rate/Each		3921	5363	6963
	1000 mm dia	Rate/Each		4786	6519	8497

1. The above rates of AC Coupling are based on the Cement cost of Rs.5600/- per MT (Excluding all taxes and freight).

2. The above rates of AC Coupling are based on the Fiber cost of Rs.78,500/- per M.T (Excluding all taxes & Freight)

For any Increase/ Decrease in the rate of cement, the price of AC Coupling per Each shall be increased/decreased as under.

$W \times 0.85 \times IC$  Where W = Weight of Coupling in Kgs/Each, IC = Increase/Decrease in cost of cement/kg.

For any increase/decrease in the rate of fiber, the price of AC Coupling per Each shall be increased/Decreased as under :

$W \times 0.15 \times IF$  Where: W=: Weight of Coupling in Kgs/Each, IF = Increase /Decrease in cost of fiber/kg. The Fiber rates are to be obtained from A.C. Pipe manufacturer of "Mazza" process. The cement rate shall be communicated by the sub-committee of Board of Chief engineers. Note: Taxes as applicable shall be added as per rules at the time of preparation of estimate.

### 10. RUBBER RINGS TO SUIT A.C. COUPLINGS

The PH & ME department banned the usage of RCC & AC pipes for water supply works vide Memo no 146/T2/SoR/2014-15/2014 dated 30.06.2014. However ENC (RWS) requested in the SoR meeting on 06.05.2015 to incorporate A.C pipes rates in SoR for carrying out O&M works, accordingly the following rates are adopted.

Sl. No.	Description		
1	2		
1	Schedule of rate for supply of Rubber rings manufactured as per BIS: 5382/1988 with BIS Mark embossed per each set suitable for A.C* Couplings including cost of material, incidental, handling, packing, transportation and unloading at site transit risk etc., but excluding taxes. The Rubber Rings shall be tested at the factory premises conforming to B.I.S 5382/1988		
	Size	Unit	Rate in Rs.
			Class - 15, 20 & 25
	80 mm dia	Each Set	89
	100 mm dia	Each Set	110
	125 mm dia	Each Set	142
	150 mm dia	Each Set	180
	200 mm dia	Each Set	187
	250 mm dia	Each Set	217
	300 mm dia	Each Set	217
	350 mm dia	Each Set	246
	400 mm dia	Each Set	301
	450 mm dia	Each Set	353
	500 mm dia	Each Set	408
	600 mm dia	Each Set	464
	700 mm dia	Each Set	960
	750 mm dia	Each Set	999
	800 mm dia	Each Set	1074
	850 mm dia	Each Set	1195
	900 mm dia	Each Set	1257
	1000 mm dia	Each Set	1393

**Note:** The taxes as applicable shall be added as per rules at the time of preparation of estimate.



**11. PRE-STRESSED (NON-CYLINDER) CONCRETE PIPES**

Sl.No.	Description							
1	Manufacture, Supply, Delivery of Pre-stressed (Non-cylinder) concrete pipes conforming to IS 784/2001 ex-factory excluding transportation & taxes, for the following field test pressures.(the manufacture shall design the pipes as per the IS Code 784-2001)							
	Size	Unit	Rate					
			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
			6 Kg/cm2	8 Kg/cm2	10 Kg/cm2	12 Kg/cm2	14 Kg/cm2	16 Kg/cm2
	350 mm dia	Metre	3242	3253	3272	3306	3380	3505
	400 mm dia	Metre	3479	3507	3554	3621	3699	3766
	450 mm dia	Metre	3703	3732	3789	3885	3997	4097
	500 mm dia	Metre	4011	4043	4095	4208	4313	4454
	600 mm dia	Metre	4623	4678	4753	4936	5116	5293
	700 mm dia	Metre	5431	5539	5699	5907	6109	6419
	800 mm dia	Metre	6618	6806	7005	7272	7532	7968
	900 mm dia	Metre	7613	7859	8115	8529	8852	9581
	1000 mm dia	Metre	8991	9309	9640	9993	10390	11232
	1100 mm dia	Metre	10118	10486	10892	11306	11819	12766
	1200 mm dia	Metre	11402	11880	12338	12700	12413	14720
	1300 mm dia	Metre	12965	13509	14055	14606	16052	16840
	1400 mm dia	Metre	15013	15649	16300	17384	18660	19583
	1500 mm dia	Metre	16984	17733	18453	20208	21172	23624
	1600 mm dia	Metre	19148	19969	20797	23052	23978	26385
	1700 mm dia	Metre	20556	21491	22422	24783	27343	28746
	1800 mm dia	Metre	22781	24374	26018	28454	29553	32748
	1900 mm dia	Metre	24333	25822	28500	30266	33101	35880
	2000 mm dia	Metre	26819	28646	30499	33539	37437	39036
2	Cost of laying jointing, testing to hydrostatic field test pressure including cost of rubber rings, cost of transportation of water and emptying pipe line after completion of field testing etc.							
	350 mm dia	Metre	277	277	277	277	277	277
	400 mm dia	Metre	299	299	299	299	299	299

	450 mm dia	Metre	345	345	345	345	345	345
	500 mm dia	Metre	367	367	367	367	367	367
	600 mm dia	Metre	452	452	452	452	452	452
	700 mm dia	Metre	529	529	529	529	529	529
	800 mm dia	Metre	600	600	600	600	600	600
	900 mm dia	Metre	656	656	656	656	656	656
	1000 mm dia	Metre	758	758	758	758	758	758
	1100 mm dia	Metre	851	851	851	851	851	851
	1200 mm dia	Metre	943	943	943	943	943	943
	1300 mm dia	Metre	1069	1069	1069	1069	1069	1069
	1400 mm dia	Metre	1210	1210	1210	1210	1210	1210
	1500 mm dia	Metre	1312	1312	1312	1312	1312	1312
	1600 mm dia	Metre	1471	1471	1471	1471	1471	1471
	1700 mm dia	Metre	1601	1601	1601	1601	1601	1601
	1800 mm dia	Metre	1693	1693	1693	1693	1693	1693
	1900 mm dia	Metre	1788	1788	1788	1788	1788	1788
	2000 mm dia	Metre	1883	1883	1883	1883	1883	1883
3	<b>Conveyance of pre-stressed (Non-cylinder) concrete pipes and accessories including loading at factory, un-loading at site and stacking for the following sizes.(minimum distance of 100 km to be considered if the distance is less by 100 km from factory to site)</b>							
	350 mm dia	PerKM/M	1.84	1.84	1.84	1.84	1.84	1.84
	400 mm dia	PerKM/M	1.84	1.84	1.84	1.84	1.84	1.84
	450 mm dia	PerKM/M	2.24	2.24	2.24	2.24	2.24	2.24
	500 mm dia	PerKM/M	2.35	2.35	2.35	2.35	2.35	2.35
	600 mm dia	PerKM/M	2.63	2.63	2.63	2.63	2.63	2.63
	700 mm dia	PerKM/M	4.33	4.33	4.33	4.33	4.33	4.33
	800 mm dia	PerKM/M	4.33	4.33	4.33	4.33	4.33	4.33
	900 mm dia	PerKM/M	4.33	4.33	4.33	4.33	4.33	4.33
	1000 mm dia	PerKM/M	6.96	6.96	6.96	6.96	6.96	6.96
	1100 mm dia	PerKM/M	6.96	6.96	6.96	6.96	6.96	6.96

	1200 mm dia	PerKM/M	13.24	13.24	13.24	13.24	13.24	13.24
	1300 mm dia	PerKM/M	13.39	13.39	13.39	13.39	13.39	13.39
	1400 mm dia	PerKM/M	13.39	13.39	13.39	13.39	13.39	13.39
	1500 mm dia	PerKM/M	13.39	13.39	13.39	13.39	13.39	13.39
	1600 mm dia	PerKM/M	14.96	14.96	14.96	14.96	14.96	14.96
	1700 mm dia	PerKM/M	14.96	14.96	14.96	14.96	14.96	14.96
	1800 mm dia	PerKM/M	15.35	15.35	15.35	15.35	15.35	15.35
	1900 mm dia	PerKM/M	15.99	15.99	15.99	15.99	15.99	15.99
	2000 mm dia	PerKM/M	15.99	15.99	15.99	15.99	15.99	15.99
4	<b>Cost of Machine End pair (Socket +Spigot) with 100mm length MS Barrel on each side of Socket and Spigot for providing M.S Specials on PSC pipelines excluding cost of M.S Specials &amp; Taxes but including cost of conveyance to site etc., complete.</b>							
	350 mm dia	Per Pair	12346.00	12346.00	12346.00	12346.00	12346.00	12346.00
	400 mm dia	Per Pair	14163.00	14163.00	14163.00	14163.00	14163.00	14163.00
	450 mm dia	Per Pair	15986.00	15986.00	15986.00	15986.00	15986.00	15986.00
	500 mm dia	Per Pair	17823.00	17823.00	17823.00	17823.00	17823.00	17823.00
	600 mm dia	Per Pair	21209.00	21209.00	21209.00	21209.00	21209.00	21209.00
	700 mm dia	Per Pair	24863.00	24863.00	24863.00	24863.00	24863.00	24863.00
	800 mm dia	Per Pair	28423.00	28423.00	28423.00	28423.00	28423.00	28423.00
	900 mm dia	Per Pair	32264.00	32264.00	32264.00	32264.00	32264.00	32264.00
	1000 mm dia	Per Pair	34977.00	34977.00	34977.00	34977.00	34977.00	34977.00
	1100 mm dia	Per Pair	38635.00	38635.00	38635.00	38635.00	38635.00	38635.00
	1200 mm dia	Per Pair	42129.00	42129.00	42129.00	42129.00	42129.00	42129.00
	1300 mm dia	Per Pair	45586.00	45586.00	45586.00	45586.00	45586.00	45586.00
	1400 mm dia	Per Pair	54165.00	54165.00	54165.00	54165.00	54165.00	54165.00
	1500 mm dia	Per Pair	63950.00	63950.00	63950.00	63950.00	63950.00	63950.00
	1600 mm dia	Per Pair	71475.00	71475.00	71475.00	71475.00	71475.00	71475.00
	1700 mm dia	Per Pair	80478.00	80478.00	80478.00	80478.00	80478.00	80478.00
	1800 mm dia	Per Pair	92305.00	92305.00	92305.00	92305.00	92305.00	92305.00

	1900 mm dia	Per Pair	107087.00	107087.00	107087.00	107087.00	107087.00	107087.00
	2000 mm dia	Per Pair	125416.00	125416.00	125416.00	125416.00	125416.00	125416.00
5	<b>Cost of M.S Flanges including cost of bolts, nuts, rubber packing etc., complete and flange thickness conforming to IS:7322-1985 and flange dimensions conforming to IS:1538-1993 excluding cost of MS specials including cost and conveyance to site etc., complete.</b>							
	<b>Diameter and thickness</b>	<b>Unit</b>	<b>Rate</b>		<b>Diameter and thickness</b>	<b>Unit</b>	<b>Rate</b>	
	80 mm diax 15 mm thick	Each Flange	884.00		500mm diax 20 mm thick	Each Flange	9059.00	
	100 mm diax 15 mm thick	Each Flange	1219.00		600 mm diax 20 mm thick	Each Flange	11403.00	
	125 mm diax 15 mm thick	Each Flange	1465.00		700 mm diax 25 mm thick	Each Flange	16095.00	
	150 mm diax 15 mm thick	Each Flange	1954.00		750 mm diax 25 mm thick	Each Flange	17702.00	
	200 mm diax 15 mm thick	Each Flange	2439.00		800 mm diax 25 mm thick	Each Flange	19825.00	
	250 mm diax 15 mm thick	Each Flange	3177.00		900 mm diax 25 mm thick	Each Flange	22767.00	
	300 mm diax 15 mm thick	Each Flange	3616.00		1000 mm diax 25 mm thick	Each Flange	26828.00	
	350 mm diax 18 mm thick	Each Flange	5242.00		1050 mm diax 25 mm thick	Each Flange	28497.00	
	400 mm diax 18 mm thick	Each Flange	6549.00		1100 mm diax 25 mm thick	Each Flange	30733.00	
	450 mm diax 18 mm thick	Each Flange	7615.00		1200 mm diax 32 mm thick	Each Flange	40712.00	

Note: a) The above rate of PSC pipes are based on the HT wire cost of Rs.80,500/-MT (excluding all taxes but including freight).

and cement price of Rs.5600/- per MT (excluding all taxes but including freight)

The rates may be revised depending upon the increase/decrease in the cost of HT wire and cement. as per the following method. The cost of HT wire may be obtained from reputed firms like SAIL/TATA/ SS Ltd. etc.,

Revised Cost =Cost as per the above table +R1+R2.

R1= Variation (increase / decrease ) in cost (Rs. per metre )due to change in the cost of HT Wire =(H2-H1)/1000 X Wh.

R2= Variation (increase / decrease ) in cost (Rs. per metre )due to change in the cost of Cement =(C2-C1)/1000 X Wc.

H1 = Rs.80500/- H2 = Cost of HT Wire (Rs. Per MT excluding all taxes but including freight) at the time of preparation of estimate.

C1 = Rs. 5600/- C2 = Cost of Cement (Rs. Per MT excluding all taxes but including freight) at the time of preparation of estimate

Wh=Weight of HT Wire required (Kg.) per metre of pipe. Wc= Weight of Cement required (Kg.) per metre of pipe.

The rates for MS flanges are considering MS Plates of Rs.83000/- per MT. Price variation to be released on actual weight of flange.

**Note:** The duties and taxes as applicable shall be added as per rules at the time of preparation of estimate.

**12. PRE-STRESSED (CYLINDER) CONCRETE PIPES**

SI No.	Description										
1	2										
1	Pre-stressed (Cylinder type ) concrete pipes conforming to IS 784/2001 @ ex-factory cost of pipes, excluding transportation, laying, jointing, testing, bends, tees, specials & taxes. For the following field test pressures.(the manufacture shall design the pipes as per the IS Code 784-2001).										
	Size	Unit	Rate in Rs.								
			4 Kg/cm2	6 Kg/cm2	8 Kg/cm2	10 Kg/cm2	12 Kg/cm2	14 Kg/cm2	16 Kg/cm2	18 Kg/cm2	20 Kg/cm2
	400 mm dia	Meter	6505	6505	6505	6505	6538	6612	6729	6842	6932
	450 mm dia	Meter	7089	7089	7089	7121	7208	7313	7442	7511	7587
	500 mm dia	Meter	7594	7594	7661	7743	7812	7910	8020	8114	8203
	600 mm dia	Meter	8751	8840	8941	9055	9159	9261	9432	9566	9689
	700 mm dia	Meter	9990	10116	10261	10396	10540	10671	10903	11063	11248
	800 mm dia	Meter	11448	11605	11778	11963	12136	12307	12556	12795	13011
	900 mm dia	Meter	13016	13236	13455	13684	13914	14138	14685	14986	15330
	1000 mm dia	Meter	15609	15877	16152	16438	16713	16992	17705	18099	18492
	1100 mm dia	Meter	17376	17703	18046	18378	18720	19046	19915	20352	20942
	1200 mm dia	Meter	19358	19755	20144	20546	20960	21354	22383	23009	23584
	1300 mm dia	Meter	21610	22079	22550	23022	23498	24306	25291	25954	26708
	1400 mm dia	Meter	24170	24743	25331	25965	27013	27827	28847	29216	30535
	1500 mm dia	Meter	28464	29165	29782	30410	31646	32349	33310	34747	35528
	1600 mm dia	Meter	32052	32968	33765	35083	35885	36754	38433	39320	40202
	1700 mm dia	Meter	34477	35487	36300	37803	38706	40560	41682	42687	43689
	1800 mm dia	Meter	37713	38831	41019	42378	43705	46192	48309	49453	50615
	1900 mm dia	Meter	43966	44973	46769	47814	50000	51244	52632	53904	55160
	2000 mm dia	Meter	46317	48158	49387	50632	53075	54447	55993	57406	58803

2	<b>Cost of laying jointing, testing to hydrostatic field test pressure including cost of site welding and fixing of polypropylene diapher cloth, cost of transportation of water and emptying pipe line after completion of field testing etc.</b>										
	400 mm dia	Meter	563	563	563	563	563	563	563	563	563
	450 mm dia	Meter	660	660	660	660	660	660	660	660	660
	500 mm dia	Meter	720	720	720	720	720	720	720	720	720
	600 mm dia	Meter	842	842	842	842	842	842	842	842	842
	700 mm dia	Meter	960	960	960	960	960	960	960	960	960
	800 mm dia	Meter	1103	1103	1103	1103	1103	1103	1103	1103	1103
	900 mm dia	Meter	1242	1242	1242	1242	1242	1242	1242	1242	1242
	1000 mm dia	Meter	1361	1361	1361	1361	1361	1361	1361	1361	1361
	1100 mm dia	Meter	1544	1544	1544	1544	1544	1544	1544	1544	1544
	1200 mm dia	Meter	1683	1683	1683	1683	1683	1683	1683	1683	1683
	1300 mm dia	Meter	1802	1802	1802	1802	1802	1802	1802	1802	1802
	1400 mm dia	Meter	1982	1982	1982	1982	1982	1982	1982	1982	1982
	1500 mm dia	Meter	2201	2201	2201	2201	2201	2201	2201	2201	2201
	1600 mm dia	Meter	2382	2382	2382	2382	2382	2382	2382	2382	2382
	1700 mm dia	Meter	2683	2683	2683	2683	2683	2683	2683	2683	2683
	1800 mm dia	Meter	2844	2844	2844	2844	2844	2844	2844	2844	2844
	1900 mm dia	Meter	3103	3103	3103	3103	3103	3103	3103	3103	3103
	2000 mm dia	Meter	3303	3303	3303	3303	3303	3303	3303	3303	3303
3	<b>Conveyance of Pre-stressed (Cylinder type) concrete pipes and accessories including loading at factory, un-loading at site and stacking for the following sizes. (minimum distance of 100 km to be considered if the distance is less by 100 km from factory to site)</b>										
	400 mm dia	Per KM/M	1.57	1.57	1.57	1.57	1.57	1.57	1.57	1.57	1.57
	450 mm dia	Per KM/M	1.57	1.57	1.57	1.57	1.57	1.57	1.57	1.57	1.57
	500 mm dia	Per KM/M	2.24	2.24	2.24	2.24	2.24	2.24	2.24	2.24	2.24
	600 mm dia	Per KM/M	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
	700 mm dia	Per KM/M	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94
	800 mm dia	Per KM/M	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94

900 mm dia	Per KM/M	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94
1000 mm dia	Per KM/M	6.29	6.29	6.29	6.29	6.29	6.29	6.29	6.29	6.29
1100 mm dia	Per KM/M	6.29	6.29	6.29	6.29	6.29	6.29	6.29	6.29	6.29
1200 mm dia	Per KM/M	12.46	12.46	12.46	12.46	12.46	12.46	12.46	12.46	12.46
1300 mm dia	Per KM/M	12.46	12.46	12.46	12.46	12.46	12.46	12.46	12.46	12.46
1400 mm dia	Per KM/M	12.46	12.46	12.46	12.46	12.46	12.46	12.46	12.46	12.46
1500 mm dia	Per KM/M	12.46	12.46	12.46	12.46	12.46	12.46	12.46	12.46	12.46
1600 mm dia	Per KM/M	12.46	12.46	12.46	12.46	12.46	12.46	12.46	12.46	12.46
1700 mm dia	Per KM/M	14.96	14.96	14.96	14.96	14.96	14.96	14.96	14.96	14.96
1800 mm dia	Per KM/M	14.96	14.96	14.96	14.96	14.96	14.96	14.96	14.96	14.96
1900 mm dia	Per KM/M	14.96	14.96	14.96	14.96	14.96	14.96	14.96	14.96	14.96
2000 mm dia	Per KM/M	15.88	15.88	15.88	15.88	15.88	15.88	15.88	15.88	15.88

Note: The rates of PCCP pipes which were incorporated in the SoR are based on the following raw materials cost.

HT Wire:Rs.80500/- (excluding all taxes but including freight)

HR Coil (Hot Rolled):Rs.79000/- (excluding all taxes but including freight)

Cement Cost Rs. 5600/- .per MT (excluding all taxes but including freight)

The rates may be revised depending upon the increase/ decrease in the cost of raw materials (landed price) as per the following method.

Revised Cost =Cost as per the above table +R1+R2+R3.

R1= Variation (increase / decrease) in cost (Rs. per metre )due to change in the cost of HT Wire =(H2-H1)/1000 X Wh.

R2= Variation (increase / decrease) in cost (Rs. per metre) due to change in the cost of HR Coil =(R2-R1)/1000 X Wr.

R3= Variation (increase / decrease) in cost (Rs. per metre) due to change in the cost of Cement =(C2-C1)/1000 X Wc .

H1 = Rs.80500/- H2 = Cost of HT Wire (Rs. Per MT excluding all taxes but including freight) at the time of preparation of estimate.

R1 = Rs.79000/- R2 = Cost of HR Coil (Rs. Per MT excluding all taxes but including freight) at the time of preparation of estimate.

C1 = Rs. 5600/- C2 = Cost of Cement (Rs. Per MT excluding all taxes but including freight) at the time of preparation of estimate

Wh=Weight of HT Wire required (Kg.) per metre of pipe. Wc= Weight of Cement required (Kg.) per meter of pipe.

Wr = Weight of HR Coil required (kg) per metre of pipe.

**Note:** The duties and taxes as applicable shall be added as per rules at the time of preparation of estimate

**13. BAR WRAPPED STEEL CYLINDER (BWSC) PIPES**

Sl.No	Description											
1	Bar Wrapped Steel Cylinder (BWSC) pipes conforming to IS 15155 - 2002, ex-factory excluding transportation, taxes and duties etc., for bar wrapped steel cylinder pipes for the following field test pressures.											
	Size	Unit	Rate in Rs.									
			4 - 12 Kg/cm <sup>2</sup>	14 Kg/cm <sup>2</sup>	16 Kg/cm <sup>2</sup>	18 Kg/cm <sup>2</sup>	20 Kg/cm <sup>2</sup>	22 Kg/cm <sup>2</sup>	24 Kg/cm <sup>2</sup>	26 Kg/cm <sup>2</sup>	28 Kg/cm <sup>2</sup>	30 Kg/cm <sup>2</sup>
	250 mm dia	Meter	3129	3129	3129	3129	3129	3129	3420	3553	3629	3781
	300 mm dia	Meter	3527	3527	3527	3527	3527	3714	4176	4358	4487	4676
	350 mm dia	Meter	4235	4235	4235	4317	4562	4824	5070	5315	5577	5757
	400 mm dia	Meter	4685	4685	4799	5135	5439	5765	6069	6398	6591	6932
	450 mm dia	Meter	5266	5316	5738	6130	6551	6892	7324	7615	7978	8473
	500 mm dia	Meter	5724	6183	6673	7193	7605	8180	8657	9090	9685	10154
	600 mm dia	Meter	7229	7803	8522	9205	9938	10632	11508	12288	13077	13567
	700 mm dia	Meter	8745	9874	10809	11765	12897	13819	14720	16249	17074	17664
	800 mm dia	Meter	10442	12118	13343	14608	16133	17297	18935	20362	21347	22307
	900 mm dia	Meter	12875	14684	16202	17841	19441	21425	22804	24817	26496	27886
	1000 mm dia	Meter	15176	17458	19782	21834	23625	25038	27473	29505	32509	33869
	1100 mm dia	Meter	20670	21157	23407	25887	28292	30352	33821	35455	38593	40473
	1200 mm dia	Meter	22621	24336	27062	29881	32741	35122	38790	42501	45910	47830
2	Cost of laying jointing, testing to hydrostatic field test pressure including cost of site welding and fixing of polypropylene diaher cloth, cost of transportation of water and emptying pipe line after completion of field testing.											
	250 mm dia	Meter	383	383	383	383	383	383	383	383	383	383



	300 mm dia	Meter	452	452	452	452	452	452	452	452	452	452
	350 mm dia	Meter	532	532	532	532	532	532	532	532	532	532
	400 mm dia	Meter	596	596	596	596	596	596	596	596	596	596
	450 mm dia	Meter	596	596	596	596	596	596	596	596	596	596
	500 mm dia	Meter	747	747	747	747	747	747	747	747	747	747
	600 mm dia	Meter	918	918	918	918	918	918	918	918	918	918
	700 mm dia	Meter	1070	1070	1070	1070	1070	1070	1070	1070	1070	1070
	800 mm dia	Meter	1217	1217	1217	1217	1217	1217	1217	1217	1217	1217
	900 mm dia	Meter	1430	1430	1430	1430	1430	1430	1430	1430	1430	1430
	1000 mm dia	Meter	1580	1580	1580	1580	1580	1580	1580	1580	1580	1580
	1100 mm dia	Meter	1857	1857	1857	1857	1857	1857	1857	1857	1857	1857
	1200 mm dia	Meter	2079	2079	2079	2079	2079	2079	2079	2079	2079	2079
3	<b>Conveyance of Bar Wrapped Steel Cylinder (BWSC) pipes and accessories including loading at factory, un-loading at site and stacking for the following sizes. (minimum distance of 100 km to be considered if the distance is less by 100 km from factory to site)</b>											
	250 mm dia	Per KM/M	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
	300 mm dia	Per KM/M	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
	350 mm dia	Per KM/M	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
	400 mm dia	Per KM/M	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38
	450 mm dia	Per KM/M	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
	500 mm dia	Per KM/M	2.21	2.21	2.21	2.21	2.21	2.21	2.21	2.21	2.21	2.21
	600 mm dia	Per KM/M	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34
	700 mm dia	Per KM/M	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63

	800 mm dia	Per KM/M	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45
	900 mm dia	Per KM/M	3.72	3.72	3.72	3.72	3.72	3.72	3.72	3.72	3.72	3.72
	1000 mm dia	Per KM/M	4.28	4.28	4.28	4.28	4.28	4.28	4.28	4.28	4.28	4.28
	1100 mm dia	Per KM/M	9.54	9.54	9.54	9.54	9.54	9.54	9.54	9.54	9.54	9.54
	1200 mm dia	Per KM/M	13.33	13.33	13.33	13.33	13.33	13.33	13.33	13.33	13.33	13.33

Note: The above rates of BWSC pipes are based on the following raw materials' cost.

HR Plates - Rs.79000/- per MT (excluding all taxes but including freight), M.S. Wire rods - Rs.76000/- per MT (excluding all taxes but including freight) Cement Cost Rs. 5600/- per MT (excluding all taxes but including freight)

The rates may be revised depending upon the increase/ decrease in the cost of raw materials (landed price) as per the following method.

Revised Cost = Cost as per the above table + R1 + R2 + R3.

R1 = Variation (increase / decrease) in cost (Rs. per metre) due to change in the cost of HR Plate =  $(H2 - H1) / 1000 \times W_h$ .

R2 = Variation (increase / decrease) in cost (Rs. per metre) due to change in the cost of wire rods =  $(W2 - W1) / 1000 \times W_w$ .

R3 = Variation (increase / decrease) in cost (Rs. per metre) due to change in the cost of Cement =  $(C2 - C1) / 1000 \times W_c$ .

H1 = Rs. 79000/- H2 = Cost of HR Plate (Rs. Per MT excluding all taxes but including freight) at the time of preparation of estimate.

W1 = Rs. 76000/- W2 = Cost of Wire rods (Rs. Per MT excluding all taxes but including freight) at the time of preparation of estimate.

C1 = Rs. 5600/- C2 = Cost of Cement (Rs. Per MT excluding all taxes but including freight) at the time of preparation of estimate

W<sub>h</sub> = Weight of HR Plate required (Kg.) per metre of pipe. W<sub>c</sub> = Weight of Cement required (Kg.) per metre of pipe.

W<sub>w</sub> = Weight of wire rods required (kg) per metre of pipe.

**Note:** Taxes as applicable shall be added as per rules at the time of preparation of estimate.

**14. M.S. PIPES**

Sl.No.	Description	Unit	Thickness in mm	Rate in Rs.
1	2	3	4	5
1	Manufacture, supply and delivery of M.S Pipes conforming to IS 3589/2001 including in lining with cement mortar (1:2) 15mm thick using 4 numbers of 6mm dia M.S.Rings at each end of the pipe and out coating with cement mortar (1:3) 30mm thick by shortcreting or gunetting duly providing wire mesh of size 50x50x3mm including cost of all materials, labour charges, transportation to anywhere in T.G, but excluding all taxes.			
	500 mm dia	Metre	8.00	<b>13669</b>
	500 mm dia	Metre	10.00	<b>16358</b>
	600 mm dia	Metre	8.00	<b>16234</b>
	600 mm dia	Metre	10.00	<b>19431</b>
	700 mm dia	Metre	8.00	<b>18744</b>
	700 mm dia	Metre	10.00	<b>22512</b>
	800 mm dia	Metre	8.00	<b>21209</b>
	800 mm dia	Metre	10.00	<b>25472</b>
	800 mm dia	Metre	12.00	<b>29744</b>
	900 mm dia	Metre	8.00	<b>23790</b>
	900 mm dia	Metre	10.00	<b>28472</b>
	900 mm dia	Metre	12.00	<b>33233</b>
	1000 mm dia	Metre	8.00	<b>26368</b>
	1000 mm dia	Metre	10.00	<b>31623</b>
	1000 mm dia	Metre	12.00	<b>36879</b>
	1000 mm dia	Metre	14.00	<b>42059</b>
	1100 mm dia	Metre	10.00	<b>34525</b>
	1100 mm dia	Metre	12.00	<b>40277</b>
	1100 mm dia	Metre	14.00	<b>46030</b>
	1100 mm dia	Metre	16.00	<b>51880</b>
	1200 mm dia	Metre	10.00	<b>37674</b>
	1200 mm dia	Metre	12.00	<b>43923</b>
	1200 mm dia	Metre	14.00	<b>50086</b>
	1200 mm dia	Metre	16.00	<b>56341</b>
	1200 mm dia	Metre	18.00	<b>62590</b>
	1300 mm dia	Metre	10.00	<b>40665</b>
	1300 mm dia	Metre	12.00	<b>47320</b>

Sl.No.	Description	Unit	Thickness in mm	Rate in Rs.
1	2	3	4	5
	1300 mm dia	Metre	14.00	54063
	1300 mm dia	Metre	16.00	60906
	1300 mm dia	Metre	18.00	67651
	1300 mm dia	Metre	20.00	74406
	1400 mm dia	Metre	10.00	43637
	1400 mm dia	Metre	12.00	50876
	1400 mm dia	Metre	14.00	58116
	1400 mm dia	Metre	16.00	65442
	1400 mm dia	Metre	18.00	72692
	1400 mm dia	Metre	20.00	80032
	1400 mm dia	Metre	22.00	87272
	1500 mm dia	Metre	10.00	46716
	1500 mm dia	Metre	12.00	54452
	1500 mm dia	Metre	14.00	62098
	1500 mm dia	Metre	16.00	69835
	1500 mm dia	Metre	18.00	77671
	1500 mm dia	Metre	20.00	85407
	1500 mm dia	Metre	22.00	93338
	1500 mm dia	Metre	24.00	101075
	1600 mm dia	Metre	10.00	49786
	1600 mm dia	Metre	12.00	57919
	1600 mm dia	Metre	14.00	66237
	1600 mm dia	Metre	16.00	74470
	1600 mm dia	Metre	18.00	82711
	1600 mm dia	Metre	20.00	90945
	1600 mm dia	Metre	22.00	99277
	1600 mm dia	Metre	24.00	107695
	1600 mm dia	Metre	26.00	116036
	1700 mm dia	Metre	10.00	52682
	1700 mm dia	Metre	12.00	61495
	1700 mm dia	Metre	14.00	70224
	1700 mm dia	Metre	16.00	78865
	1700 mm dia	Metre	18.00	87778
	1700 mm dia	Metre	20.00	96507
	1700 mm dia	Metre	22.00	105236
	1700 mm dia	Metre	24.00	114159
	1700 mm dia	Metre	26.00	122987
	1700 mm dia	Metre	28.00	131813
	1800 mm dia	Metre	10.00	55829
	1800 mm dia	Metre	12.00	65062
	1800 mm dia	Metre	14.00	74273
	1800 mm dia	Metre	16.00	83499

Sl.No.	Description	Unit	Thickness in mm	Rate in Rs.
1	2	3	4	5
	1800 mm dia	Metre	18.00	92724
	1800 mm dia	Metre	20.00	102043
	1800 mm dia	Metre	22.00	111368
	1800 mm dia	Metre	24.00	120593
	1800 mm dia	Metre	26.00	130001
	1800 mm dia	Metre	28.00	139334
	1900 mm dia	Metre	10.00	58829
	1900 mm dia	Metre	12.00	68537
	1900 mm dia	Metre	14.00	78258
	1900 mm dia	Metre	16.00	87966
	1900 mm dia	Metre	18.00	97696
	1900 mm dia	Metre	20.00	107517
	1900 mm dia	Metre	22.00	117323
	1900 mm dia	Metre	24.00	127052
	1900 mm dia	Metre	26.00	136958
	1900 mm dia	Metre	28.00	146779
	2000 mm dia	Metre	10.00	61810
	2000 mm dia	Metre	12.00	72028
	2000 mm dia	Metre	14.00	82241
	2000 mm dia	Metre	16.00	92458
	2000 mm dia	Metre	18.00	102761
	2000 mm dia	Metre	20.00	112979
	2000 mm dia	Metre	22.00	123290
	2000 mm dia	Metre	24.00	133605
	2000 mm dia	Metre	26.00	143910
	2000 mm dia	Metre	28.00	154227
	2000 mm dia	Metre	30.00	164637
	2100 mm dia	Metre	12.00	75579
	2100 mm dia	Metre	14.00	86293
	2100 mm dia	Metre	16.00	96993
	2100 mm dia	Metre	18.00	107716
	2100 mm dia	Metre	20.00	118514
	2100 mm dia	Metre	22.00	129313
	2100 mm dia	Metre	24.00	140125
	2100 mm dia	Metre	26.00	150933
	2100 mm dia	Metre	28.00	161747
	2100 mm dia	Metre	30.00	172644
	2100 mm dia	Metre	32.00	183543
	2100 mm dia	Metre	34.00	194464
	2200 mm dia	Metre	12.00	79073
	2200 mm dia	Metre	14.00	90269

Sl.No.	Description	Unit	Thickness in mm	Rate in Rs.
1	2	3	4	5
	2200 mm dia	Metre	16.00	101487
	2200 mm dia	Metre	18.00	112781
	2200 mm dia	Metre	20.00	124077
	2200 mm dia	Metre	22.00	135286
	2200 mm dia	Metre	24.00	146590
	2200 mm dia	Metre	26.00	157984
	2200 mm dia	Metre	28.00	169195
	2200 mm dia	Metre	30.00	180588
	2200 mm dia	Metre	32.00	191992
	2200 mm dia	Metre	34.00	203486
	2200 mm dia	Metre	36.00	214794
	2300 mm dia	Metre	12.00	82583
	2300 mm dia	Metre	14.00	94275
	2300 mm dia	Metre	16.00	106021
	2300 mm dia	Metre	18.00	117812
	2300 mm dia	Metre	20.00	129528
	2300 mm dia	Metre	22.00	141318
	2300 mm dia	Metre	24.00	153110
	2300 mm dia	Metre	26.00	165000
	2300 mm dia	Metre	28.00	176715
	2300 mm dia	Metre	30.00	188605
	2300 mm dia	Metre	32.00	200497
	2300 mm dia	Metre	34.00	212486
	2300 mm dia	Metre	36.00	224387
	2400 mm dia	Metre	12.00	86058
	2400 mm dia	Metre	14.00	98243
	2400 mm dia	Metre	16.00	110446
	2400 mm dia	Metre	18.00	122798
	2400 mm dia	Metre	20.00	134986
	2400 mm dia	Metre	22.00	147272
	2400 mm dia	Metre	24.00	159670
	2400 mm dia	Metre	26.00	171957
	2400 mm dia	Metre	28.00	184258
	2400 mm dia	Metre	30.00	196546
	2400 mm dia	Metre	32.00	208942
	2400 mm dia	Metre	34.00	221426
	2400 mm dia	Metre	36.00	233812
	2500 mm dia	Metre	14.00	102309
	2500 mm dia	Metre	16.00	114994
	2500 mm dia	Metre	18.00	127778
	2500 mm dia	Metre	20.00	140562
	2500 mm dia	Metre	22.00	153408
	2500 mm dia	Metre	24.00	166193

Sl.No.	Description	Unit	Thickness in mm	Rate in Rs.
1	2	3	4	5
	2500 mm dia	Metre	26.00	178976
	2500 mm dia	Metre	28.00	191858
	2500 mm dia	Metre	30.00	204565
	2500 mm dia	Metre	32.00	217448
	2500 mm dia	Metre	34.00	230429
	2500 mm dia	Metre	36.00	243312
	2600 mm dia	Metre	14.00	106378
	2600 mm dia	Metre	16.00	119559
	2600 mm dia	Metre	18.00	132748
	2600 mm dia	Metre	20.00	146028
	2600 mm dia	Metre	22.00	159308
	2600 mm dia	Metre	24.00	172643
	2600 mm dia	Metre	26.00	185931
	2600 mm dia	Metre	28.00	199311
	2600 mm dia	Metre	30.00	212591
	2600 mm dia	Metre	32.00	225969
	2600 mm dia	Metre	34.00	239357
	2600 mm dia	Metre	36.00	252835
	2600 mm dia	Metre	38.00	266214
	2600 mm dia	Metre	40.00	279692
	2600 mm dia	Metre	42.00	293179
	2700 mm dia	Metre	18.00	137798
	2700 mm dia	Metre	20.00	151475
	2700 mm dia	Metre	22.00	165251
	2700 mm dia	Metre	24.00	179037
	2700 mm dia	Metre	26.00	192897
	2700 mm dia	Metre	28.00	206827
	2700 mm dia	Metre	30.00	220701
	2700 mm dia	Metre	32.00	234486
	2700 mm dia	Metre	34.00	248362
	2700 mm dia	Metre	36.00	262337
	2700 mm dia	Metre	38.00	276221
	2700 mm dia	Metre	40.00	290195
	2700 mm dia	Metre	42.00	304070
	2800 mm dia	Metre	18.00	142760
	2800 mm dia	Metre	20.00	157042
	2800 mm dia	Metre	22.00	171314
	2800 mm dia	Metre	24.00	185587
	2800 mm dia	Metre	26.00	199858
	2800 mm dia	Metre	28.00	214225
	2800 mm dia	Metre	30.00	228651
	2800 mm dia	Metre	32.00	242921

Sl.No.	Description	Unit	Thickness in mm	Rate in Rs.
1	2	3	4	5
	2800 mm dia	Metre	34.00	257293
	2800 mm dia	Metre	36.00	271674
	2800 mm dia	Metre	38.00	286144
	2800 mm dia	Metre	40.00	300515
	2800 mm dia	Metre	42.00	315072
	2900 mm dia	Metre	18.00	147900
	2900 mm dia	Metre	20.00	162569
	2900 mm dia	Metre	22.00	177337
	2900 mm dia	Metre	24.00	192114
	2900 mm dia	Metre	26.00	206881
	2900 mm dia	Metre	28.00	221735
	2900 mm dia	Metre	30.00	236602
	2900 mm dia	Metre	32.00	251380
	2900 mm dia	Metre	34.00	266302
	2900 mm dia	Metre	36.00	281256
	2900 mm dia	Metre	38.00	296223
	2900 mm dia	Metre	40.00	311099
	2900 mm dia	Metre	42.00	326066
	3000 mm dia	Metre	18.00	152781
	3000 mm dia	Metre	20.00	168131
	3000 mm dia	Metre	22.00	183306
	3000 mm dia	Metre	24.00	198569
	3000 mm dia	Metre	26.00	213833
	3000 mm dia	Metre	28.00	229183
	3000 mm dia	Metre	30.00	244555
	3000 mm dia	Metre	32.00	259820
	3000 mm dia	Metre	34.00	275269
	3000 mm dia	Metre	36.00	290688
	3000 mm dia	Metre	38.00	306059
	3000 mm dia	Metre	40.00	321523
	3000 mm dia	Metre	42.00	336972
2	<b>Cost of Laying, Jointing, Hydrostatic Filed Test Pressure, Including Cost of Site Welding, Jointing Materials And Cost of Transportation of Water Including Emptying Pipe Line After Completion Of Field Testing.</b>			<b>Rate in Rs.</b>
	500 mm dia	Metre	8.00	949
	500 mm dia	Metre	10.00	972
	600 mm dia	Metre	8.00	1173
	600 mm dia	Metre	10.00	1197
	700 mm dia	Metre	8.00	1481
	700 mm dia	Metre	10.00	1510



Sl.No.	Description	Unit	Thickness in mm	Rate in Rs.
1	2	3	4	5
	800 mm dia	Metre	8.00	1705
	800 mm dia	Metre	10.00	1738
	800 mm dia	Metre	12.00	1789
	900 mm dia		8.00	2070
	900 mm dia	Metre	10.00	2107
	900 mm dia	Metre	12.00	2168
	1000 mm dia	Metre	8.00	2290
	1000 mm dia	Metre	10.00	2330
	1000 mm dia	Metre	12.00	2397
	1000 mm dia	Metre	14.00	2428
	1100 mm dia	Metre	10.00	2404
	1100 mm dia	Metre	12.00	2475
	1100 mm dia	Metre	14.00	2509
	1100 mm dia	Metre	16.00	2578
	1200 mm dia	Metre	10.00	2478
	1200 mm dia	Metre	12.00	2556
	1200 mm dia	Metre	14.00	2593
	1200 mm dia	Metre	16.00	2666
	1200 mm dia	Metre	18.00	2742
	1300 mm dia	Metre	10.00	2555
	1300 mm dia	Metre	12.00	2640
	1300 mm dia	Metre	14.00	2679
	1300 mm dia	Metre	16.00	2761
	1300 mm dia	Metre	18.00	2840
	1300 mm dia	Metre	20.00	2949
	1400 mm dia	Metre	10.00	2809
	1400 mm dia	Metre	12.00	2900
	1400 mm dia	Metre	14.00	2940
	1400 mm dia	Metre	16.00	3026
	1400 mm dia	Metre	18.00	3114
	1400 mm dia	Metre	20.00	3148
	1400 mm dia	Metre	22.00	3332
	1500 mm dia	Metre	10.00	2877
	1500 mm dia	Metre	12.00	2972
	1500 mm dia	Metre	14.00	3017
	1500 mm dia	Metre	16.00	3108
	1500 mm dia	Metre	18.00	3201

Sl.No.	Description	Unit	Thickness in mm	Rate in Rs.
1	2	3	4	5
	1500 mm dia	Metre	20.00	3325
	1500 mm dia	Metre	22.00	3359
	1500 mm dia	Metre	24.00	3487
	1600 mm dia	Metre	10.00	2943
	1600 mm dia	Metre	12.00	3046
	1600 mm dia	Metre	14.00	3095
	1600 mm dia	Metre	16.00	3193
	1600 mm dia	Metre	18.00	3293
	1600 mm dia	Metre	20.00	3420
	1600 mm dia	Metre	22.00	3515
	1600 mm dia	Metre	24.00	3672
	1600 mm dia	Metre	26.00	3845
	1700 mm dia	Metre	10.00	3016
	1700 mm dia	Metre	12.00	3124
	1700 mm dia	Metre	14.00	3175
	1700 mm dia	Metre	16.00	3278
	1700 mm dia	Metre	18.00	3385
	1700 mm dia	Metre	20.00	3521
	1700 mm dia	Metre	22.00	3662
	1700 mm dia	Metre	24.00	3815
	1700 mm dia	Metre	26.00	3983
	1700 mm dia	Metre	28.00	4162
	1800 mm dia	Metre	10.00	3339
	1800 mm dia	Metre	12.00	3451
	1800 mm dia	Metre	14.00	3507
	1800 mm dia	Metre	16.00	3612
	1800 mm dia	Metre	18.00	3728
	1800 mm dia	Metre	20.00	3871
	1800 mm dia	Metre	22.00	4019
	1800 mm dia	Metre	24.00	4182
	1800 mm dia	Metre	26.00	4360
	1800 mm dia	Metre	28.00	4546
	1900 mm dia	Metre	10.00	3821
	1900 mm dia	Metre	12.00	3945
	1900 mm dia	Metre	14.00	4000
	1900 mm dia	Metre	16.00	4115
	1900 mm dia	Metre	18.00	4235
	1900 mm dia	Metre	20.00	4385
	1900 mm dia	Metre	22.00	4541
	1900 mm dia	Metre	24.00	4711
	1900 mm dia	Metre	26.00	4897
	1900 mm dia	Metre	28.00	5100

Sl.No.	Description	Unit	Thickness in mm	Rate in Rs.
1	2	3	4	5
	2000 mm dia	Metre	10.00	4830
	2000 mm dia	Metre	12.00	4958
	2000 mm dia	Metre	14.00	5016
	2000 mm dia	Metre	16.00	5136
	2000 mm dia	Metre	18.00	5261
	2000 mm dia	Metre	20.00	5420
	2000 mm dia	Metre	22.00	5471
	2000 mm dia	Metre	24.00	5650
	2000 mm dia	Metre	26.00	5847
	2000 mm dia	Metre	28.00	6057
	2000 mm dia	Metre	30.00	6395
	2100 mm dia	Metre	12.00	5568
	2100 mm dia	Metre	14.00	5632
	2100 mm dia	Metre	16.00	5755
	2100 mm dia	Metre	18.00	5891
	2100 mm dia	Metre	20.00	6056
	2100 mm dia	Metre	22.00	6229
	2100 mm dia	Metre	24.00	6414
	2100 mm dia	Metre	26.00	6620
	2100 mm dia	Metre	28.00	6646
	2100 mm dia	Metre	30.00	6996
	2100 mm dia	Metre	32.00	7047
	2100 mm dia	Metre	34.00	7459
	2200 mm dia	Metre	12.00	6207
	2200 mm dia	Metre	14.00	6274
	2200 mm dia	Metre	16.00	6403
	2200 mm dia	Metre	18.00	6522
	2200 mm dia	Metre	20.00	6543
	2200 mm dia	Metre	22.00	6703
	2200 mm dia	Metre	24.00	6899
	2200 mm dia	Metre	26.00	7114
	2200 mm dia	Metre	28.00	7345
	2200 mm dia	Metre	30.00	7704
	2200 mm dia	Metre	32.00	7917
	2200 mm dia	Metre	34.00	8121
	2200 mm dia	Metre	36.00	8631
	2300 mm dia	Metre	12.00	7048
	2300 mm dia	Metre	14.00	7115
	2300 mm dia	Metre	16.00	7252
	2300 mm dia	Metre	18.00	7399
	2300 mm dia	Metre	20.00	7577
	2300 mm dia	Metre	22.00	7790

Sl.No.	Description	Unit	Thickness in mm	Rate in Rs.
1	2	3	4	5
	2300 mm dia	Metre	24.00	7972
	2300 mm dia	Metre	26.00	8195
	2300 mm dia	Metre	28.00	8240
	2300 mm dia	Metre	30.00	8610
	2300 mm dia	Metre	32.00	8837
	2300 mm dia	Metre	34.00	8988
	2300 mm dia	Metre	36.00	9573
	2400 mm dia	Metre	12.00	8485
	2400 mm dia	Metre	14.00	8556
	2400 mm dia	Metre	16.00	8699
	2400 mm dia	Metre	18.00	8850
	2400 mm dia	Metre	20.00	9039
	2400 mm dia	Metre	22.00	9235
	2400 mm dia	Metre	24.00	9446
	2400 mm dia	Metre	26.00	9679
	2400 mm dia	Metre	28.00	9930
	2400 mm dia	Metre	30.00	10200
	2400 mm dia	Metre	32.00	10435
	2400 mm dia	Metre	34.00	10731
	2400 mm dia	Metre	36.00	11116
	2500 mm dia	Metre	14.00	10450
	2500 mm dia	Metre	16.00	10597
	2500 mm dia	Metre	18.00	10789
	2500 mm dia	Metre	20.00	10953
	2500 mm dia	Metre	22.00	11155
	2500 mm dia	Metre	24.00	11374
	2500 mm dia	Metre	26.00	11619
	2500 mm dia	Metre	28.00	11879
	2500 mm dia	Metre	30.00	12156
	2500 mm dia	Metre	32.00	12458
	2500 mm dia	Metre	34.00	12777
	2500 mm dia	Metre	36.00	13112
	2600 mm dia	Metre	14.00	10678
	2600 mm dia	Metre	16.00	10833
	2600 mm dia	Metre	18.00	10998
	2600 mm dia	Metre	20.00	11197
	2600 mm dia	Metre	22.00	11409
	2600 mm dia	Metre	24.00	11639
	2600 mm dia	Metre	26.00	11891
	2600 mm dia	Metre	28.00	12159
	2600 mm dia	Metre	30.00	12451
	2600 mm dia	Metre	32.00	12761
	2600 mm dia	Metre	34.00	13092

Sl.No.	Description	Unit	Thickness in mm	Rate in Rs.
1	2	3	4	5
	2600 mm dia	Metre	36.00	13439
	2600 mm dia	Metre	38.00	13814
	2600 mm dia	Metre	40.00	14205
	2600 mm dia	Metre	42.00	14612
	2700 mm dia	Metre	18.00	11092
	2700 mm dia	Metre	20.00	11303
	2700 mm dia	Metre	22.00	11521
	2700 mm dia	Metre	24.00	11760
	2700 mm dia	Metre	26.00	12022
	2700 mm dia	Metre	28.00	12301
	2700 mm dia	Metre	30.00	12603
	2700 mm dia	Metre	32.00	12922
	2700 mm dia	Metre	34.00	13267
	2700 mm dia	Metre	36.00	13629
	2700 mm dia	Metre	38.00	14014
	2700 mm dia	Metre	40.00	14416
	2700 mm dia	Metre	42.00	14912
	2800 mm dia	Metre	18.00	11328
	2800 mm dia	Metre	20.00	11541
	2800 mm dia	Metre	22.00	11768
	2800 mm dia	Metre	24.00	12019
	2800 mm dia	Metre	26.00	12287
	2800 mm dia	Metre	28.00	12574
	2800 mm dia	Metre	30.00	12885
	2800 mm dia	Metre	32.00	13221
	2800 mm dia	Metre	34.00	13576
	2800 mm dia	Metre	36.00	13817
	2800 mm dia	Metre	38.00	14212
	2800 mm dia	Metre	40.00	14636
	2800 mm dia	Metre	42.00	15077
	2900 mm dia	Metre	18.00	12890
	2900 mm dia	Metre	20.00	13115
	2900 mm dia	Metre	22.00	13347
	2900 mm dia	Metre	24.00	13605
	2900 mm dia	Metre	26.00	13883
	2900 mm dia	Metre	28.00	14185
	2900 mm dia	Metre	30.00	14507
	2900 mm dia	Metre	32.00	14849
	2900 mm dia	Metre	34.00	15216
	2900 mm dia	Metre	36.00	15607
	2900 mm dia	Metre	38.00	16015
	2900 mm dia	Metre	40.00	16448
	2900 mm dia	Metre	42.00	16904

Sl.No.	Description	Unit	Thickness in mm	Rate in Rs.
1	2	3	4	5
	3000 mm dia	Metre	18.00	<b>12995</b>
	3000 mm dia	Metre	20.00	<b>13223</b>
	3000 mm dia	Metre	22.00	<b>13466</b>
	3000 mm dia	Metre	24.00	<b>13730</b>
	3000 mm dia	Metre	26.00	<b>14022</b>
	3000 mm dia	Metre	28.00	<b>14330</b>
	3000 mm dia	Metre	30.00	<b>14663</b>
	3000 mm dia	Metre	32.00	<b>15019</b>
	3000 mm dia	Metre	34.00	<b>15399</b>
	3000 mm dia	Metre	36.00	<b>15799</b>
	3000 mm dia	Metre	38.00	<b>16224</b>
	3000 mm dia	Metre	40.00	<b>16673</b>
	3000 mm dia	Metre	42.00	<b>17142</b>

The above rates of MS Spiral pipes are based on the following raw materials cost.

MS Plates = Rs 83000/- Per MT (excluding all taxes but including freight). The rates may be revised depending upon the increase/decrease in the cost of raw materials (landed price) as per the following method. Revised Cost = Cost as per the above table "R<sub>1</sub>". R<sub>1</sub>= Variation (Increase/Decrease) in cost (Rs. Per metre) due to change in cost of MS Plates =  $(M_2 - M_1) / 1000 \times W_m$ , M<sub>1</sub>= Rs.83000/- , M<sub>2</sub>= Cost of MS Plates (Rs. Per MT excluding all taxes but including freight) at the time of preparation of estimate, W<sub>m</sub>=Weight of MS Plates required (Kg) per meter of pipe.

Note: The duties and taxes as applicable shall be added as per rules at the time of preparation of estimate.

**15. HDPE PIPES (PE - 100 GRADE) FOR WATER SUPPLY**

Sl. No	Description	6.0 kg/ sqcm (SDR 21)	8.0 kg/ sqcm (SDR 17)	10.0 kg/ sqcm (SDR 13.6)	12.5 kg/ sqcm (SDR 11)	16.0 kg/ sqcm (SDR 9)
1	2	3	4	5	6	7
I	Manufacture, supply, & delivery of High Density Polyethylene pipes (PE-100 Grade) for water supply conforming to IS 4984-2016 including transportation to any where in T.G, but excluding GST and specials etc., complete. (Supply upto 90 mm dia in coil & above 90 mm dia stright length in 6 M.)					
		Rate per Meter in Rs.				
	OD 20 mm					38
	OD 25 mm					49
	OD 32 mm			49	65	79
	OD 40 mm		64	76	98	121
	OD 50 mm	79	99	118	151	188
	OD 63 mm	123	148	184	243	295
	OD 75 mm	173	215	262	343	419
	OD 90 mm	247	301	370	481	604
	OD 110 mm	409	453	546	727	889
	OD 125 mm	484	582	711	938	1139
	OD 140 mm	604	731	890	1181	1443
	OD 160 mm	794	958	1164	1539	1863
	OD 180 mm	995	1203	1471	1936	2355
	OD 200 mm	1238	1489	1809	2399	2914
	OD 225 mm	1584	1914	2343	3032	3675
	OD 250 mm	1956	2362	2886	3756	4546
	OD 280 mm	2442	2962	3653	4715	5719
	OD 315 mm	3083	3758	4579	5945	7228
	OD 355 mm	3882	4716	5743	7548	9217
	OD 400 mm	5014	6075	7394	9570	11651
	OD 450 mm	6272	7579	9254	12099	14627
	OD 500 mm	7726	9367	11419	14981	17647
	OD 560 mm	9094	11010	13392	17093	
	OD 630 mm	11449	13924	16961	20497	
	OD 710 mm	14625	17668	21512		
	OD 800 mm	18514	22439	27430		
	OD 900 mm	23455	28406			
	OD 1000 mm	28978				

Note: Taxes extra as applicable at the time of supply.

The resin cost adopted for the above rates are

For PE - 100 grade Rs. 1,37,730/- per MT. (Excluding Taxes)

The variation in cost of HDPE pipes due to increase / decrease in raw material cost shall be allowed as per the following price variation formula.

Price variation formula as follows:

$P2 = P1 + (A2 - A1) / 1000 \times M \times 0.95$  (for increase in raw material cost)

$P2 = P1 - (A1 - A2) / 1000 \times M \times 0.95$  (for decrease in raw material cost)

P2 = Revised pipe price in Rs. Per Metre Excluding Taxes

P1 = Existing pipe price in Rs. Per Metre Excluding Taxes

A2 = Revised price of raw material Rs. Per MT Excluding Taxes

A1 = Existing price of raw material Rs. Per MT Excluding Taxes

M = Weight of pipe in Kgs per Metre as per weight chart.

**16. H.D.P.E FITTINGS**

<b>Sl. No</b>	<b>Manufacture, Supply, &amp; Delivery of HDPE fittings conforming to IS 4984 - 1995 including transportation to anywhere in T.G. Excluding taxes.</b>	<b>Rate per Each in Rs.</b>
<b>I</b>		
<b>(a)</b>	<b>PIPE ENDS LONG NECK</b>	
	OD 50 mm	<b>68</b>
	OD 63 mm	<b>87</b>
	OD 75 mm	<b>105</b>
	OD 90 mm	<b>135</b>
	OD 110 mm	<b>187</b>
	OD 125 mm	<b>337</b>
	OD 140 mm	<b>340</b>
	OD 160 mm	<b>474</b>
	OD 180 mm	<b>672</b>
	OD 200 mm	<b>865</b>
	OD 225 mm	<b>990</b>
	OD 250 mm	<b>1161</b>
	OD 280 mm	<b>1297</b>
	OD 315 mm	<b>1497</b>
	OD 355 mm	<b>3127</b>
	OD 400 mm	<b>4168</b>
	OD 450 mm	<b>6936</b>
	OD 500 mm	<b>7720</b>
<b>(b)</b>	<b>MS FLANGES</b>	
	OD 50 mm	<b>117</b>
	OD 63 mm	<b>150</b>
	OD 75 mm	<b>189</b>
	OD 90 mm	<b>205</b>
	OD 110 mm	<b>214</b>
	OD 125 mm	<b>293</b>
	OD 140 mm	<b>317</b>
	OD 160 mm	<b>417</b>
	OD 180 mm	<b>589</b>
	OD 200 mm	<b>762</b>
	OD 225 mm	<b>952</b>
	OD 250 mm	<b>1126</b>
	OD 280 mm	<b>1275</b>
	OD 315 mm	<b>1500</b>
	OD 355 mm	<b>2542</b>
	OD 400 mm	<b>3152</b>
	OD 450 mm	<b>4117</b>
	OD 500 mm	<b>4713</b>
<b>(c)</b>	<b>END CAPS</b>	
	OD 50 mm	<b>46</b>
	OD 63 mm	<b>57</b>
	OD 75 mm	<b>70</b>



Sl. No	Manufacture, Supply, & Delivery of HDPE fittings conforming to IS 4984 - 1995 including transportation to anywhere in T.G. Excluding taxes.	Rate per Each in Rs.
	OD 90 mm	94
	OD 110 mm	108
	OD 125 mm	146
	OD 140 mm	172
	OD 160 mm	262
	OD 180 mm	427
	OD 200 mm	465
	OD 225 mm	485
	OD 250 mm	691
	OD 280 mm	707
	OD 315 mm	966
	OD 355 mm	1489
	OD 400 mm	2605
	OD 450 mm	4189
	OD 500 mm	7720
<b>(d)</b>	<b>REDUCERS</b>	<b>Rate per Each</b>
	OD 50 mm x 63 mm	66
	OD 63 mm x 75 mm	94
	OD 75 mm x 90 mm	153
	OD 90 mm x 110 mm	211
	OD 110 mm x 125 mm	322
	OD 125 mm x 140 mm	446
	OD 140 mm x 160 mm	619
	OD 160 mm x 180 mm	859
	OD 180 mm x 200 mm	1109
	OD 200 mm x 225 mm	1363
	OD 225 mm x 250 mm	1858
	OD 250 mm x 280 mm	2641
	OD 280 mm x 315 mm	3731
	OD 315 mm x 355 mm	4280
	OD 355 mm x 400 mm	6041
	OD 400 mm x 450 mm	6267
	OD 450 mm x 500 mm	8034
<b>(e)</b>	<b>TEES</b>	
	OD 50 mm	89
	OD 63 mm	143
	OD 75 mm	172
	OD 90 mm	301
	OD 110 mm	358
	OD 125 mm	537
	OD 140 mm	740
	OD 160 mm	1277
	OD 180 mm	1731

Sl. No	Manufacture, Supply, & Delivery of HDPE fittings conforming to IS 4984 - 1995 including transportation to anywhere in T.G. Excluding taxes.	Rate per Each in Rs.
	OD 200 mm	2385
	OD 225 mm	3386
	OD 250 mm	4633
	OD 280 mm	6489
	OD 315 mm	9247
	OD 355 mm	13186
	OD 400 mm	19315
	OD 450 mm	27434
	OD 500 mm	37678
<b>(f)</b>	<b>BENDS</b>	
	OD 50 mm	57
	OD 63 mm	125
	OD 75 mm	163
	OD 90 mm	278
	OD 110 mm	365
	OD 125 mm	541
	OD 140 mm	712
	OD 160 mm	1060
	OD 180 mm	1525
	OD 200 mm	2065
	OD 225 mm	2928
	OD 250 mm	4014
	OD 280 mm	5789
	OD 315 mm	8005
	OD 355 mm	11097
	OD 400 mm	16738
	OD 450 mm	24607
	OD 500 mm	33360
<b>II</b>	<b>Supply and Fixing Electro Fusion Tapping saddle complying with BS EN 12201-3-2011, PN 12.5 rating &amp; WRAS approved raw material as per BS 6920, manufactured from virgin resin of PE-80/PE-100 having blue/black colour using food grade compounded raw material for usage in drinking water system and having working pressure of 10 bar. The cost shall include testing of all materials, labour, inspection charges, transportation upto site, transit insurance, loading, unloading, stacking, providing and fixing etc. Complete as specified and directed by the Departmental Engineers, but excluding of all taxes.</b>	<b>Rate per Each in Rs.</b>
	<b>SIZE</b>	<b>Rs.</b>
	<b>(Main pipe outer diameter in mm &amp; Tapping size in Inches)</b>	
	63x1 1/2"	253
	63 x3/4"	294
	63 x1"	338
	75 x1 1/2"	266
	75 x3/4"	306

Sl. No	Manufacture, Supply, & Delivery of HDPE fittings conforming to IS 4984 - 1995 including transportation to anywhere in T.G. Excluding taxes.	Rate per Each in Rs.
	75 x1	336
	90 x1/2"	280
	90 x3/4"	318
	90 x1"	348
	90 x 1 1/4"	348
	90 x 1 1/2"	348
	90 x2"	348
	110x1/2"	280
	110 x3/4"	318
	110 x1"	348
	110 x 1 1/4"	348
	110x1 1/2"	348
	110x2"	348
	125x1/2"	280
	125x3/4"	340
	125x1"	370
	125x1 1/4"	370
	125x1 1/2"	370
	125x2"	370
	140x1/2"	280
	140x3/4"	324
	140x1"	360
	140x1 1/4"	360
	140x1 1/2"	360
	140x2"	360
	160 x1/2"	294
	160 x3/4"	342
	160 x1"	372
	160 x 1 1/4"	372
	160 x 1 1/2"	372
	160 x 2"	372
	200 x 1/2"	294
	200 x 3/4"	355
	200 x 1"	385
	200 x 1 1/4"	385
	200 x 1 1/2"	385
	200x 2"	385
	250 x 1/2"	372
	250 x3/4"	408
	250 x1"	444
	250 x 1 1/4"	444
	250 x1 1/2"	444
	250 x 2"	444
	315 x 1/2"	396

Sl. No	Manufacture, Supply, & Delivery of HDPE fittings conforming to IS 4984 - 1995 including transportation to anywhere in T.G. Excluding taxes.	Rate per Each in Rs.
	315 x3/4"	432
	315x1"	492
	315x1 1/4"	492
	315x1 1/2"	492
	315x2"	492
<b>III</b>	<b>HOUSE SERVICE CONNECTIONS (COMPRESSION FITTINGS)</b>	
<b>A</b>	Supply and Fixing of Compression Fittings shall comply with ISO 17885 - 2015, PN-16 rating and manufactured from virgin resin of PE-80 having blue colour. Raw material must be WRAS Approved as per BS 6920 for effect on water quality intended for human consumption. Compression fittings should have moulded-in SS 304 threaded insert outlet with thread dimension conforming to IS 554/ISO 7. The cost shall include testing of all materials, labour, inspection charges, transportation up to site, transit insurance, loading, unloading, stacking, providing and fixing etc. Complete as specified and directed by the Departmental Engineers, but excluding all taxes.	
1	Compression Male/ Female threaded adapter with SS Insert D20mmx1/2"	108
2	Compression Male/Female threaded adapter with SS Insert D25mmx3/4"	144
3	Compression Male/Female threaded adapterwith SS Insert D32mmx1"	201
4	Compression Male/Female threaded elbow with SS Insert D20mmx1/2"	111
5	Compression Male/Female threaded elbow with SS Insert D25mmx3/4"	150
6	Compression Male/Female threaded elbow with SS Insert D32mmx1"	208
7	Double compression elbow 20mm	50
8	Double compression elbow 25mm	69
9	Double compression elbow 32mm	99
<b>B</b>	<b>HOUSE SERVICE CONNECTIONS (Composite Strap Saddle for DI/CI Pipes)</b>	
	Supply and Fixing of Composite Strap Saddle shall be of wrap around design, PN-16 rating. Body shall be manufactured using virgin compounded PE80/PE100 polymer with Stainless steel 304 grade stirrup plate mounted with PE straps(Engineering plastic) with Nut bolt joint. Sealing between the saddle and mains shall be obtained by using an elastomer seal(Underneath projection for self interlocking).The cost shall include testing of all materials, labour, inspection charges, transportation up to site, transit insurance, loading, unloading, stacking, providing and fixing etc. Complete as specified and directed by the Departmental Engineers, but excluding all taxes.	
	(Main pipe outer diameter in mm & Tapping size in Inches)	
1	100X1/2"	473
2	100X3/4"	527
3	100X1"	562
4	150X1/2"	494
5	150X3/4"	548
6	150X1"	583
7	200X1/2"	515
8	200X3/4"	569

Sl. No	Manufacture, Supply, & Delivery of HDPE fittings conforming to IS 4984 - 1995 including transportation to anywhere in T.G. Excluding taxes.	Rate per Each in Rs.
9	200x1"	604
<b>C</b>	<b>HOUSE SERVICE CONNECTIONS (Regulating Brass ferrule)</b>	
	The cost shall include testing of all materials, labour, Inspection charges, Transportation upto site, transit insurance, loading, unloading, stacking, providing and fixing etc. complete as specified and directed by departmental engineers, but excluding of all taxes.	
1	1/2"	143
2	3/4"	234
3	1"	408
<b>D</b>	<b>Electrofusion Couplers</b>	
1	EF Coupler D20mm PE 100BK 4PIN	34
2	EF Coupler D25mm PE 100BK 4PIN	36
3	EF Coupler D32mm PE 100BK 4PIN	38
4	EF Coupler D40mm PE 100BK 4PIN	65
5	EF Coupler D50mm PE 100BK 4PIN	80
6	EF Coupler D63mm PE 100BK 4PIN	95
7	EF Coupler D75mm PE 100BK 4PIN	214
8	EF Coupler D90mm PE 100BK 4PIN	221
9	EF Coupler D110mm PE 100BK 4PIN	288
10	EF Coupler D125mm PE 100BK 4PIN	384
11	EF Coupler D140mm PE 100BK 4PIN	1111
12	EF Coupler D160mm PE 100BK 4PIN	985
13	EF Coupler D180mm PE 100BK 4PIN	1070
14	EF Coupler D200mm PE 100BK 4PIN	1287
15	EF Coupler D225mm PE 100BK 4PIN	1220
16	EF Coupler D250mm PE 100BK 4PIN	1636
17	EF Coupler D280mm PE 100BK 4PIN	2064
18	EF Coupler D315mm PE 100BK 4PIN	3005
<b>E</b>	<b>EF ELBOW 90 Degree</b>	
1	EF Elbow D20mm PE 100BK 4PIN	80
2	EF Elbow D25mm PE 100BK 4PIN	90
3	EF Elbow D32mm PE 100BK 4PIN	100
4	EF Elbow D40mm PE 100BK 4PIN	108
5	EF Elbow D63mm PE 100BK 4PIN	206
6	EF Elbow D75mm PE 100BK 4PIN	274
7	EF Elbow D90mm PE 100BK 4PIN	540
8	EF Elbow D110mm PE 100BK 4PIN	762
9	EF Elbow D125mm PE 100BK 4PIN	863
<b>F</b>	<b>EF ELBOW 45 Degree</b>	
1	EF Elbow D75mm PE 100BK 4PIN	309
2	EF Elbow D90mm PE 100BK 4PIN	615
<b>G</b>	<b>EF EQUAL TEE</b>	
1	EF Equal Tee D20mm PE 100BK 4PIN	75

Sl. No	Manufacture, Supply, & Delivery of HDPE fittings conforming to IS 4984 - 1995 including transportation to anywhere in T.G. Excluding taxes.	Rate per Each in Rs.
2	EF Equal Tee D25mm PE 100BK 4PIN	82
3	EF Equal Tee D32mm PE 100BK 4PIN	96
4	EF Equal Tee D40mm PE 100BK 4PIN	127
5	EF Equal Tee D63mm PE 100BK 4PIN	307
6	EF Equal Tee D75mm PE 100BK 4PIN	402
7	EF Equal Tee D90mm PE 100BK 4PIN	573
8	EF Equal Tee D110mm PE 100BK 4PIN	645
9	EF Equal Tee D125mm PE 100BK 4PIN	1107
<b>H</b>	<b>EF REDUCER</b>	
1	EF Reducer D25X20mm PE 100BK 4PIN	40
2	EF Reducer D32X20mm PE 100BK 4PIN	44
3	EF Reducer D32X25mm PE 100BK 4PIN	49
4	EF Reducer D40X32mm PE 100BK 4PIN	62
5	EF Reducer D63X32mm PE 100BK 4PIN	103
6	EF Reducer D63X40mm PE 100BK 4PIN	109
7	EF Reducer D63X50mm PE 100BK 4PIN	114
8	EF Reducer D75X63mm PE 100BK 4PIN	242
9	EF Reducer D90X50mm PE 100BK 4PIN	334
10	EF Reducer D90X63mm PE 100BK 4PIN	474
11	EF Reducer D90X75mm PE 100BK 4PIN	495
12	EF Reducer D110X63mm PE 100BK 4PIN	570
13	EF Reducer D110X75mm PE 100BK 4PIN	593
14	EF Reducer D110X90mm PE 100BK 4PIN	616
15	EF Reducer D125X63mm PE 100BK 4PIN	737
16	EF Reducer D125X90mm PE 100BK 4PIN	793
<b>I</b>	<b>EF END CAP</b>	
1	EF End Cap D20mm PE 100BK 4PIN	72
2	EF End Cap D25mm PE 100BK 4PIN	74
3	EF End Cap D32mm PE 100BK 4PIN	76
4	EF End Cap D40mm PE 100BK 4PIN	200
5	EF End Cap D50mm PE 100BK 4PIN	259
6	EF End Cap D63mm PE 100BK 4PIN	176
7	EF End Cap D75mm PE 100BK 4PIN	412
8	EF End Cap D90mm PE 100BK 4PIN	529
9	EF End Cap D110mm PE 100BK 4PIN	626
10	EF End Cap D125mm PE 100BK 4PIN	686
11	EF End Cap D140mm PE 100BK 4PIN	1463
<b>J</b>	PP Clamp Saddle shall comply with AS/NZS 4793 or relevant international standards-Mechanical tapping saddles for water works purposes and designed for use with PVC/PE pipe as per IS 4985/ IS 4984 respectively. These saddles should be contoured to fit around the pipe. PP Saddles shall be blue with moulded SS female threaded outlets. Seal shall be thermoplastic elastomer rubber suitable for drinking water and SS nut-bolt-washer. Maximum working pressure rating of 10 bar.	Rate per each in Rs.

Sl. No	Manufacture, Supply, & Delivery of HDPE fittings conforming to IS 4984 - 1995 including transportation to anywhere in T.G. Excluding taxes.	Rate per Each in Rs.
1	63X1/2"	133
2	63X3/4"	133
3	63X1"	133
4	75X1/2"	155
5	75X3/4"	155
6	75X1"	155
7	90X1/2"	177
8	90X3/4"	177
9	90X1"	177
10	110X1/2"	213
11	110X3/4"	213
12	110X1"	213
13	125X1/2"	254
14	125X3/4"	254
15	125X1"	254
16	140X1/2"	302
17	140X3/4"	302
18	140X1"	302
19	160X1/2"	361
20	160X3/4"	371
21	160X1"	371
22	180X1/2"	377
23	180X3/4"	471
24	180X1"	524
25	200X1/2"	398
26	200X3/4"	492
27	200X1"	545

Note: The above rates (Items from D to J) are exclusive of GST.

## 17. PVC PIPES

Sl. No.	Description	4.0 Kgs/cm <sup>2</sup>	6.0 Kgs/cm <sup>2</sup>	10.0 Kgs/cm <sup>2</sup>
1	2	3	4	5
	Manufacture, Supply and Delivery of Unplasticised PVCs Pipes for potable water supplies conforming to IS : 4985/2000 (3 <sup>rd</sup> revision) with bell ends (Socket) as per specification in light Grey/Natural Ivory Grey/ Any other Color (except White) inclusive of transportation to the sub-divisional stores anywhere in TG excluding Taxes.			
	DIA IN MM      Rate/Metre	Rs.	Rs.	Rs.
	20			23
	25			33
	32			49
	40		47	77
	50		71	118
	63	78	113	169
	75	113	156	246
	90	157	225	348
	110	227	323	520
	125	295	417	675
	140	368	530	839
	160	483	688	1100
	180	617	884	1403
	200	748	1080	1716
	225	1016	1467	2331
	250	1174	1776	2805
	280	1525	2241	3543
	315	1932	2828	4477
	355	2499	3630	
	400	3152	4616	

**Note:** Taxes as applicable shall be added as per rules at the time of preparation of estimate.  
The resin cost adopted for the above rates is Rs.1,23,280/- per MT (Basic rate excluding Taxes)  
The variation in cost of PVC pipes due to increase / decrease in raw material cost shall be allowed subject to the following price variation formula.  
The price variation formula to be adopted is as follows:  
 $P2 = P1 + (A2 - A1) / 1000 \times M \times 0.95$  (for increase in raw material cost)  
 $P2 = P1 - (A1 - A2) / 1000 \times M \times 0.95$  (for decrease in raw material cost)  
P2 = Revised pipe price in Rs. Per Metre, P1 = Existing pipe price in Rs. Per Metre  
A2 = Revised price of raw material Rs. Per MT, A1 = Existing price of raw material Rs. Per MT  
M = Weight of pipe in Kgs per Metre as per weight chart.



**18. NON- PRESSURE P.V.C.U PIPES**

Code No	Description	Rate per Meter in Rs.
1	2	3
	Manufacture, Supply, & Delivery of unplasticized Non-pressure polyvinyl chloride(PVC-U) pipes of dark (any shade of brown) for use in underground drainage & sewerage system conforming to IS 15328/2003) with solvent cement jointing as per specification inclusive of transportation to the sub-divisional stores anywhere in T.G, excluding Taxes.	
	<b>Pipe Series (S25)</b>	
	OD 160 mm	423
	OD 200 mm	646
	OD 250mm	1001
	OD 315 mm	1578
	<b>Pipe Series (S20)</b>	
	OD 125 mm	330
	OD 160 mm	525
	OD 200 mm	797
	OD 250mm	1242
	OD 315 mm	1951
	<b>Pipe Series (S16.5)</b>	
	OD 110 mm	289
	OD 125 mm	389
	OD 160 mm	610
	OD 200 mm	948
	OD 250mm	1467
	OD 315 mm	2320

**Note:** Taxes as applicable shall be added as per rules at the time of preparation of estimate.

The resin cost adopted for the above rates is Rs.1,23,280/- per MT (Basic rate, excluding Taxes)

The variation in cost of PVC pipes due to increase / decrease in raw material cost shall be allowed subject to the following price variation formula.

The price variation formula to be adopted is as follows:

$P2 = P1 + (A2 - A1) / 1000 \times M \times 0.95$  (for increase in raw material cost)

$P2 = P1 - (A1 - A2) / 1000 \times M \times 0.95$  (for decrease in raw material cost)

P2 = Revised pipe price in Rs. Per Metre

P1 = Existing pipe price in Rs. Per Metre

A2 = Revised price of raw material Rs. Per MT

A1 = Existing price of raw material Rs. Per MT

M = Weight of pipe in Kgs per Meter as per weight chart.

**19. NON- PRESSURE P.V.C.U PIPES**

Code No	Description	Rate per Meter in Rs.
1	2	3
	Manufacture, supply, & delivery of un-plasticized Non-Pressure Polyvinyl Chloride(PVC-U) pipes of dark (any shade of Brown) for use in underground drainage & sewerage system conforming to IS 15328/2003) with <u>Elastomeric Seal Ring Joints</u> (Ringtite PVC Pipes) as per specification inclusive of transportation to the Sub-Divisional stores any where in T.G, excluding Taxes.	
	<b>Pipe Series (S25)</b>	
	OD 160 mm	451
	OD 200 mm	684
	OD 250mm	1062
	OD 315 mm	1672
	<b>Pipe Series (S20)</b>	
	OD 125 mm	351
	OD 160 mm	555
	OD 200 mm	844
	OD 250mm	1315
	OD 315 mm	2064
	<b>Pipe Series (S16.5)</b>	
	OD 110 mm	306
	OD 125 mm	413
	OD 160 mm	648
	OD 200 mm	1000
	OD 250mm	1554
	OD 315 mm	2450

**Note:** Taxes as applicable shall be added as per rules at the time of preparation of estimate.

The resin cost adopted for the above rates is Rs.1,23,280/- per MT (Basic rate excluding Taxes)

The variation in cost of PVC pipes due to increase / decrease in raw material cost shall be allowed subject to the following price variation formula.

The price variation formula to be adopted is as follows:

$P2 = P1 + (A2 - A1) / 1000 \times M \times 0.95$  (for increase in raw material cost)

$P2 = P1 - (A1 - A2) / 1000 \times M \times 0.95$  (for decrease in raw material cost)

P2 = Revised pipe price in Rs. Per Metre

P1 = Existing pipe price in Rs. Per Metre

A2 = Revised price of raw material Rs. Per MT

A1 = Existing price of raw material Rs. Per MT

M = Weight of pipe in Kgs per Metre as per weight chart.

## 20. CENTRIFUGALLY CAST (SPUN) IRON PRESSURE PIPES

Sl. No.	Description	Unit	Rate in Rs.		
1	2	3	4	5	6
I	Socket and Spigot Centrifugally Cast (Spun) Iron pressure pipes for water, Gas and Sewage conforming to specification No: IS 1536/2001 (third revision) with amdt. No: 1 & 2 in standard lengths of 3.66 m, 4 m, 4.5m, 5 m, 5.5 m & 6 m and details given below, suitable either for lead jointing or rubber gasket (push on) jointing at purchasers option at ex-factory excluding transportation & taxes.		LA Class (Rs)	A Class (Rs)	B Class (Rs)
	Nominal dia (in MM)				
	80	Rmt	1445	1569	1685
	100	Rmt	1773	1950	2082
	125	Rmt	2271	2481	2672
	150	Rmt	2792	3058	3295
	200	Rmt	4079	4427	4789
	250	Rmt	5497	5985	6475
	300	Rmt	7087	7751	8396
	350	Rmt	8998	9760	10587
	400	Rmt	10953	11969	12919
	450	Rmt	13230	14536	15678
	500	Rmt	15569	16959	18349
	600	Rmt	20665	22560	24437
	700	Rmt	26939	29432	31797
	750	Rmt	30172	32988	35786
	800	Rmt	33773	36799	39807
	900	Rmt	41149	46179	48646
	1000	Rmt	49436	54002	58364
II	Conveyance of Centrifugally Cast (Spun) Iron Pressure Pipes and accessories including loading at Factory, un-loading at site and stacking for the following sizes. (The Minimum distance/lead in Km for destination below 100 Km to be taken as 100 Km)		Class		
	SIZE IN MM	UNIT	LA	A	B
	80	Per KM/RMT	0.31	0.31	0.31
	100	Per KM/RMT	0.31	0.31	0.31
	125	Per KM/RMT	0.47	0.47	0.47
	150	Per KM/RMT	0.47	0.47	0.47
	200	Per KM/RMT	0.79	0.79	0.79
	250	Per KM/RMT	0.96	0.96	0.96
	300	Per KM/RMT	1.28	1.28	1.28
	350	Per KM/RMT	1.75	1.75	1.75

400	Per KM/RMT		2.06	2.06	2.06
450	Per KM/RMT		2.39	2.39	2.39
500	Per KM/RMT		2.85	2.85	2.85
600	Per KM/RMT		2.85	2.85	2.85
700	Per KM/RMT		2.85	2.85	2.85
750	Per KM/RMT		4.76	4.76	4.76
800	Per KM/RMT		8.09	8.09	8.09
900	Per KM/RMT		8.09	8.09	8.09
1000	Per KM/RMT		8.09	8.09	8.09

**Note:** Taxes as applicable shall be added as per rules at the time of preparation of estimate.

Price Variation Formula due to Increase / Decrease in the cost of pig iron.

$$P2 = P1 + (R2 - R1) / 1000 * M * 1.0$$

Where M= Weight of pipe in kg per metre.

P2 = Revised rate of pipe in Rs. per Rmt.

P1 = Rate of pipe in Rs. per Rmt. as per above table.

R2 = Price of Pig Iron (Rs per MT excluding Taxes) at the time of preparation of estimate.

R1 = Price of Pig Iron (Rs per MT excluding Taxes) at the time of preparation of SoR = Rs.63,000/-

## 21.DUCTILE IRON PRESSURE PIPES

Sl. No.	Description	Unit	Rate in Rs.	
1	2	3	4	5
1	Centrifugally cast (Spun) Ductile Iron pressure pipes for water, gas and sewage with <u>Socket Spigot ends</u> conforming to IS.: 8329/2000 in standard working lengths of 4, 5 5.5 & 6 meter for classification K9 & K7 suitable for push-on-joint (rubber gasket d jointing) with cement mortar lining inside the pipes with outside zinc coating. Rates are ex-factory, excluding transportation & taxes.			
	Nominal Dia in mm	Rmt	K7	K9
	100	Rmt	1257	1498
	150	Rmt	1784	2236
	200	Rmt	2437	2997
	250	Rmt	3245	3940
	300	Rmt	4143	4991
	350	Rmt	5197	6220
	400	Rmt	6277	7479
	450	Rmt	7494	8936
	500	Rmt	8892	10398
	600	Rmt	11803	13724
	700	Rmt	15191	17631
	750	Rmt	16981	19792
	800	Rmt	18839	21861
	900	Rmt	22952	26616
	1000	Rmt	27281	31631
	1100	Rmt	-	34903
	1200	Rmt	-	40683
2	Centrifugally cast (Spun) Ductile Iron pressure pipes for water, gas and sewage <u>with plain ends</u> conforming to IS:8329/2000in standard working lengths of 4, 5, 5.5 & 6 meter for classification K9 & K7 with cement mortar lining inside the pipes with outside zinc coating. Rates are ex-factory, excluding transportation & taxes.			
	Nominal Dia in mm		K7	K9
	100	Rmt	1110	1390
	150	Rmt	1611	2064
	200	Rmt	2216	2792
	250	Rmt	2893	3691
	300	Rmt	3747	4667
	350	Rmt	4689	5801
	400	Rmt	5646	6969
	450	Rmt	6709	8254
	500	Rmt	7953	9753
	600	Rmt	10504	12681

	700		Rmt	13699	16078
	750		Rmt	15277	18016
	800		Rmt	16946	19892
	900		Rmt	20489	24054
	1000		Rmt	24358	28594
	1100		Rmt		31600
	1200		Rmt		36702
3	Centrifugally cast (Spun) Ductile Iron pressure pipes with <u>flanged (welded) ends</u> for water, gas, sewage conforming to IS: 8329/2000 in standard working lengths of 1,2,3, 4, 5 mts for classification K9 with cement mortar lining inside the pipes with outside zinc coating. Rates are ex-factory, excluding transportation & taxes.				
	Nominal Dia in mm			1.0 Mt. Length	2.0 Mt. Length
	100		Each	4064	5593
	150		Each	5836	8115
	200		Each	7877	11030
	250		Each	10336	14537
	300		Each	13082	18413
	350		Each	20107	26702
	400		Each	24030	31984
	450		Each	28966	38359
	500		Each	35263	46268
	600		Each	49830	64302
	700		Each	59200	77566
	800		Each	73106	95827
	900		Each	87266	114740
	1000		Each	107667	139185
	1100		Each	125891	160626
			3.0 Mt. Length	4.0 Mt. Length	5.0 Mt. Length
	100	Each	7121	9668	9668
	150	Each	10396	12071	14339
	200	Each	14186	16640	19793
	250	Each	18739	22040	26239
	300	Each	23737	28023	33359
	350	Each	33298	38089	44684
	400	Each	39938	45329	53276
	450	Each	47748	54037	63424
	500	Each	57273	64559	75552
	600	Each	78773	87957	102407
	700	Each	95933	107906	126249
	800	Each	118546	133430	156121
	900	Each	142217	160405	191696
	1000	Each	177063	197725	230348
	1100	Each	195774	236103	261951

4	Conveyance of Ductile Iron Pressure Pipes and accessories including loading at Factory, un-loading at site and stacking for the following sizes		Class		Welded Double Flanged Pipes
	SIZE IN MM	UNIT	K7	K9	K9
	100	Per KM/RMT	0.28	0.28	0.41
	150	Per KM/RMT	0.41	0.41	0.53
	200	Per KM/RMT	0.41	0.53	0.80
	250	Per KM/RMT	0.53	0.68	1.09
	300	Per KM/RMT	0.80	0.80	1.35
	350	Per KM/RMT	0.94	1.09	1.62
	400	Per KM/RMT	1.09	1.21	1.89
	450	Per KM/RMT	1.35	1.49	2.30
	500	Per KM/RMT	1.62	1.75	2.70
	600	Per KM/RMT	2.30	2.30	3.51
	700	Per KM/RMT	3.37	3.37	5.14
	750	Per KM/RMT	4.05	4.05	6.19
	800	Per KM/RMT	6.88	6.88	10.24
	900	Per KM/RMT	6.88	6.88	10.24
	1000	Per KM/RMT	6.88	6.88	10.24
	1100	Per KM/RMT	6.88	6.88	
	1200	Per KM/RMT	7.35	7.35	
5	Supply and Delivery of Polyethylene (PE) Sleeves for Ductile Iron Pipes used to guard the pipe against corrosion.				
	DIA IN MM				
	100 mm dia			RMT	41.00
	150 mm dia			RMT	50.00
	200 mm dia			RMT	64.00
	250 mm dia			RMT	74.00
	300 mm dia			RMT	81.00
	350 mm dia			RMT	91.00
	400 mm dia			RMT	127.00
	450 mm dia			RMT	127.00
	500 mm dia			RMT	154.00
	600 mm dia			RMT	154.00
	700 mm dia			RMT	200.00
	750 mm dia			RMT	200.00
	800 mm dia			RMT	200.00
	900 mm dia			RMT	227.00
	1000 mm dia			RMT	227.00
	1100 mm dia			RMT	227.00
6	Additional price for HAC(high alumina cement motar lining)				
	DIA IN MM				
	100 mm dia			RMT	57

150 mm dia		RMT	85
200 mm dia		RMT	113
250 mm dia		RMT	149
300 mm dia		RMT	188
350 mm dia		RMT	233
400 mm dia		RMT	278
450 mm dia		RMT	330
500 mm dia		RMT	386
600 mm dia		RMT	509
700 mm dia		RMT	649
750 mm dia		RMT	725
800 mm dia		RMT	806
900 mm dia		RMT	978
1000 mm dia		RMT	1167
1100 mm dia		RMT	1389
1200 mm dia		RMT	1539

**Note:** Taxes as applicable shall be added as per rules at the time of preparation of estimate.

Price Variation Formula due to Increase / Decrease in the cost of pig iron.

$P2 = P1 + (R2 - R1) / 1000 * M * 0.96$ , Where

M = Weight of pipe in kg per metre as per I.S.8329-1994.

P2 = Revised rate of pipe in Rs. per Rmt.

P1 = Rate of pipe in Rs. per Rmt. as per above table.

R2 = Price of Pig Iron(Rs per MT excluding Taxes) at the time of preparation of estimate.

R1 = Price of Pig Iron(Rs per MT excluding Taxes) at the time of preparation  
of SoR =Rs.63,000/-



**22.DUCTILE IRON FITTINGS**

Sl. No.	Description	Unit	Rate in Rs.
1	2	3	4
	<b>Centrifugally cast (spun) Ductile Iron Fittings conforming to IS:9523/2000 having dimensions as per table. The rates mentioned here under are for fittings, zinc coated externally with inside mortar lining (with finishing as per class 13/IS 9523/2000) ( ex-works) Excluding Transportation and Taxes.</b>		
	For Double Socket branch flange Tee, All Socket Tees, Reducers, Flanged Sockets, Flanged Spigot, Double Socket Duck Foot Bend, Double Flange Duck/Foot bend, all socket Cross, all Flange Tee, all Flange Cross, Double Flange Reducer, Blank Flange, Mechanical Joints, Double Socket Bends, Double Flanged Bends etc.		
	Upto 500 mm dia	Kg	<b>135.00</b>
	Above 500 mm dia	Kg	<b>147.00</b>

**Note:** Taxes as applicable shall be added as per rules at the time of preparation of estimate.

**23. RUBBER GASKETS SUITABLE FOR C.I./ D.I. S/S PIPES**

Sl. No.	Description	Unit	Rate in Rs.
1	2	3	4
1	<b>Manufacture as per BIS:12820/2004 with S.B.R. Quality Rubber conforming to BIS: 5382/85, supply and delivery of Rubber Gaskets suitable for C.I/ D.I S/S pipes anywhere in T.G. F.O.R. Destination departmental stores including cost of material, loading, incidental handling with companies standard packing, transportation, unloading &amp; stacking but excluding taxes.</b>		
	80mm dia	Each	72
	100mm dia	Each	111
	125mm dia	Each	132
	150mm dia	Each	163
	200mm dia	Each	198
	250mm dia	Each	220
	300mm dia	Each	336
	350mm dia	Each	425
	400mm dia	Each	462
	450mm dia	Each	497
	500mm dia	Each	690
	600mm dia	Each	818
	700mm dia	Each	1087
	750mm dia	Each	1208
	800mm dia	Each	1447
	900mm dia	Each	1747
	1000mm dia	Each	1911

## 24. CI PIPES AND SPECIALS

Sl. No.	Description	Quality or sort	Rate/ Kg including packing, forwarding, Transit risk and delivery any where in T.G. Rs.
1	2	3	4
	Manufacture, Supply and Delivery of Cast Iron Fittings (spl.) Conforming to IS. No. 7181/1986, 5531/1988, 3950/1979 and C.I.D Joints conforming to IS No.8794/1988 at site of work anywhere in T.G. Including, loading, unloading, transportation to site of work stacking at site transit risk and package, excluding all taxes.	I.S. No. 7181/1986 5531/1988 3950/1979 & 8794/1988	94.74

**Foot Note:** The rate of CI pipes, CI Specials and CID Joints etc., which are to be incorporated in the SoR are based on the following raw materials cost.

**Pig Iron:** Rs.63,000/- per M.T.(Excluding Taxes)

**Coke :** Rs.33,000/- per M.T. .(Excluding Taxes)

The rates may be revised depending upon the increase/decrease in the cost of raw materials as per the following method. For every increase/decrease of Rs.1000/- in the cost of raw materials or part there of proportionately.

**In respect of Pig Iron:** The increase/decrease in cost of CI Specials per Kg is 3.43%.

**In respect of coke:** The increase/decrease in cost of CI Specials per Kg is 0.67%.

The above price is at site of work , Taxes extra as applicable at the time of supply.

**Note:** The taxes as applicable shall be added as per rules at the time of preparation of estimate.

**25. WATER HAMMER CONTROL DEVICES**

(Rate Each in Rs.)

Sl. No.	Description	TEST PRESSURE				Additional charges for Flanged ended valves
		10 Kgs/cm <sup>2</sup>	15 Kgs/cm <sup>2</sup>	20 Kgs/cm <sup>2</sup>	25 Kgs/cm <sup>2</sup>	
1	2	3	4	5	6	7
1	Manufacture, supply and delivery of zero velocity valve/ PSLV with CI body with flanged ends as per AWWA, ex-factory excluding transportation etc., complete.					
	DIA IN MM      Rate/Each	Rs.	Rs.	Rs.	Rs.	
	150	66761	77929	82534	90790	
	200	69746	80207	86224	94844	
	250	78693	90496	97284	107013	
	300	88559	101843	109484	120430	
2	Manufacture, Supply and delivery of zero velocity valve/ PSLV with MS Fabricated Body with Plain ends. as per AWWA, Ex-factory excluding transportation etc. Complete.					
	DIA IN MM      Rate/ Each	Rs.	Rs.	Rs.	Rs.	Rs.
	350	94324	108471	116607	128266	8173
	400	104261	119899	128891	141786	9854
	450	121263	139453	149912	164904	11776
	500	140150	161170	173259	190585	12740
	525/550	150537	171131	188479	207326	16464
	600	168552	193833	208371	229208	23486
	650	188674	207544	235905	254653	26559
	700	219922	242033	274962	296954	31726
	750	243595	267989	304524	328919	35619
	800	296742	341256	366847	403530	40138
	900	352697	405602	427824	479625	48552
	1000	427824	427824	427824	594508	61649
	1050	432102	432102	432102	625969	64116
	1100	545067	618062	673855	741242	71385
	1200	656037	721655	822120	885694	80758
	1400	984056	1082480	1233180	1328536	113566
	1500	1146593	1261241	1433209	1547739	115837
	1600	1169524	1286463	1461874	1578691	121137
3	Manufacture, Supply and delivery of Air Cushion valves / Quick Released damped Air Valves (QRDA) as per AWWA, Ex-factory excluding transportation etc., complete.					
	DIA IN MM      Rate/Each	Rs.	Rs.	Rs.	Rs.	

	100	61050	70209	77228	84948	
	150	92776	106693	117361	129097	
	200	99025	113877	125267	137793	
4	Conveyance of valves and accessories including loading at factory and unloading, stacking at site of work.	5% on basic cost of valves				

**Note:** The taxes as applicable shall be added as per rules at the time of preparation of estimate.

## 26. CAST STEEL VALVES

Sl. No.	Description				
1	2	3	4	5	6
1	Manufacture, Supply and Delivery of Cast Carbon Steel rising / Non rising spindle sluice valve design standard as per IS:14846/2000 for Water Supply Scheme with SS Spindle & SS Working parts the grade of Cast Steel for body Bonnet, Dome, Stool Cover, Wedge, Stuffing Box, Gland Thrust Plate, shall be as per IS : 1030 / 1998. (The valve shall be used for High pressure schemes & pumping stations) excluding transportation etc., complete. ISI Marked	Class-150 Body 425PSI Seat 300 PSI PN-20	Class-300 Body 1100 PSI Seat 750 PSI PN-30	for Enclosed Spur Gear Arrangement.	
	Rate/Each			Class 150	Class 300
	DIA IN MM	Rs.	Rs.	Rs.	Rs.
	40	5443	10885		
	50	8968	16326		
	65	11223	20408		
	80	13461	24490		
	100	17952	32652		
	125	23023	41862		
	150	26936	48978		
	200	43504	88435	53246	97289
	250	61231	139191	70973	148047
	300	77349	175820	87089	184675
	350	103142	234428	116424	246503
	400	209520	476181	222803	488256
	450	234846	523275	248130	535352
	500	276289	627930	289572	640006
	600	315429	715841	328713	727917
	700	610138		623421	
	750	656187		674783	
	800	759795		778391	
	900	897941		916537	
	1000	1151206		1169802	
	1100	1243302		1261898	
	1200	1404471		1423067	
2	Manufacture, Supply and delivery of Cast Carbon Steel Bolted Cover Non Return Valve as per IS : 5312 / Part1 /2004. Round body heavy duty material spec. As per IS:1030/1998 with SS Hinge & Seat Rings. excluding transportation etc., complete. Dia in mm.				
	Rate/Each Rs.	PN-20	PN-30		
	40	5410	9838		
	50	8051	14651		
	65	10061	18315		
	80	12075	21978		
	100	16567	29305		

	125	20722	37677		
	150	22784	41443		
	200	34536	75351		
	250	48351	125586		
	300	69072	156983		
	350	92097	209311		
	400	188798	429086		
	450	211822	481413		
	500	248661	565138		
	600	287801	654093		
3	<b>Manufacture, Supply and delivery of Cast Carbon Steel Multi Door Type Non return Valve as per IS; 5312/ Part II / 1984 Heavy duty material spec. as per 1030/1998 with SS hinges &amp; Seat Rings excluding transportation and GST etc., complete.</b>				
		PN-20			
		Rate/Each			
	500	418619			
	600	523275			
	700	627930			
	750	774448			
	800	1151206			
	900	1381446			
	1000	1507032			
	1100	1779136			
	1200	1800067			
4	<b>Manufacture, Supply and delivery of Cast Carbon Steel D/F Butter fly Valves conforming to IS; 13095/1991 manually heavy duty Gear operation, excluding transportation and GST etc., complete.</b>				
	DIA IN MM	Rate/Each	PN-1.0/1.6	PN-2.5	
	300		79899	99601	
	350		107481	135062	
	400		129153	167459	
	450		156514	198105	
	500		178405	227657	
	600		207957	267059	
	700		326164	404968	
	750		404968	503473	
	800		444370	552726	
	900		503473	631531	
	1000		798991	996002	
	1100		996002	1191518	
	1200		1193013	1291518	
	1300		1597980	1784047	
	1400		1685540	1882552	
	1500		1784047	1981058	
	1600		2079563	2375081	
	1800		2572092	2769103	
	2000		3557148	3852664	
5	<b>Conveyance of valves and accessories including loading at factory and unloading, stacking at site of work.</b>		5% on basic cost of valves		

**Note :** Taxes as applicable shall be added as per rules at the time of preparation of estimate.

**27. DI D/F VALVES****Rate/Each in Rs.**

Sl. No.	Description	TEST PRESSURE			
1	2	3	4	5	6
1	Manufacture, supply and delivery of Single Chamber DI <u>Air Valve</u> with Body and cover in Ductile Iron of grade GGG-40/SG-400/15 or GGG-50/SG-500/7 or equivalent grade as per I.S.3896-part2-1985 and subsequent revisions. All internal parts such as float, shell etc., all cover bolts, of stainless steel, and Gaskets and seals of EPDM food grade quality Epoxy powder coating (EP-P) inside and outside colour blue. Drilled as per requirement of the dept.				
	DIA IN MM	PN 10	PN 16	PN 25	
	25 (Screwed End)	8559	8559		
	32 (Screwed End)	17023	17023		
	40 (Screwed End)	17870	17870		
	50	30745	30745	39560	
	80	41016	41016	41016	
	100	47888	47888	55070	
	150	58298	58298	66625	
	200	63850	63850	74260	
	300	103455	103455	113905	
2	Manufacture, Supply and delivery of DI D/F <u>Gate Valves</u> (Soft Seated) Resilient seated soft sealing gate valves (Sluice valves) with body bonnet of ductile cast iron of grade GGG-40/ SG- 400/15 or GGG-50/SG-500/7 or equivalent grade as per I.S.3896-part2-1985 and subsequent revisions, wedge fully rubber lined with EPDM food grade quality and seals of NBR and the valves should be of vacuum tight and 100% leak proof with face to face dimensions as per BS5163-89/IS14846-2000/DIN 3202 F 4. All the valves should be with Electrostatic powder coating both inside and outside pocket less body passage. Drilled as per requirement of the dept.				
	DIA IN MM	PN 10	PN 16	PN 25	
	50	7360	7360	12439	
	80	9426	9426	15337	
	100	12434	12434	17389	
	150	19577	19577	29004	
	200	32532	32532	48920	
	250	45058	45058	72663	
	300	68098	68098	117862	
	350	206179	206179	344900	
	400	216249	216249	350810	
	450 With By-pass & Gear	372041	372041	699327	
	500 With By-pass & Gear	395083	395083	742639	
	600 With By-pass & Gear	508754	508754	956304	
3	Manufacture, Supply and delivery of DI D/F <u>Butterfly Valves</u> with GGG-40/SG-400/15 or GGG-50/SG-500/7 or equivalent grade as per I.S.3896-part 2-1985 and subsequent revisions, Double eccentrically Disc., with renewable soft seal on the disc and Body seat face of stainless steel / nickel weld overlay, with powder or liquid Epoxy coating with minimum thickness of 250 microns applied on both body and disc inside and outside. Face to face dimensions as per AWWA C 504 or BS 5155 or IS:13095. Drilled as per requirement of dept.				
	DIA IN MM	PN 10	PN 16	PN 25	PN 40
	150	78461	78461	80993	107529
	200	85456	88230	103668	130748
	250	99568	102462	120012	183215
	300	118806	122304	136415	192382
	350	135933	148297	172720	209389
	400	171210	193973	225841	320123

	450	187958	208609	265678	
	500	189744	223971	356159	395586
	600	248686	351120	413392	433457
	700	490950	518029	778576	
	800	532249	554677	1136362	
	900	696076	696076		
	1000	872565	872565	1647797	
	1100	1003450	1003450		
	1200	1169137	1169137	1840795	
	1400	2512703	2512703		
	1600	2996167	2996167		
	1800	3674971	3674971		
	2000	6277801	6277801		
	2200	9063238	9063238		
4	Manufacture, Supply and delivery of DI D/F Swing Check Valves Slanted/ Straight seated with metallic, corrosion proof and wear resistant seat faces resilient seat, Body and Disc of ductile cast iron GGG-40/SG 400/15 or GGG-50/SG-500/7 or equivalent grade as per IS 3896(part2)-1985 and subsequent revisions. All the inside and outside of the body is to be coated with double coating of epoxy liquid. Drilled as per requirement of dept.. Specification and Dimensions as per I.S 5312 or equivalent codes.				
	DIA IN MM	PN 10	PN 16	PN 25	PN 40
	100	31090	34544		
	150	52206	58007		
	200	79170	83880	123017	161019
	250	87128	92406	149407	188790
	300	109214	115710	181886	230443
	350	128539	136253	206897	251555
	400	156146	165484	209494	272424
	500	198533	210552	265521	349402
	600	297869	315775	391423	505935
	700	429941	468873	573115	726768
	800	537581	585885	722674	915539
5	Manufacture, supply and delivery of DI (Ductile Iron) Wafer Butterfly valves conforming to IS 13095 (and its amendments). With hand lever below 150 mm, with Worm gear for 200 mm and above.				
	DIA IN MM	PN 10	PN 16		
	40	5330	5330		
	50	5330	5330		
	65	5767	5767		
	80	6289	6892		
	100	8842	9166		
	125	11111	11111		
	150	15005	15330		
	200	20359	20359		
	250	27092	27092		
	300	38121	38121		
	350	46260	50183		
6	Manufacture and supply of “Air Release - Vacuum Break - Surge Alleviation” Valve for potable water. Construction material Cylindrical Body of Ductile Iron GGG-50/SG-500-7, Three cylindrical Floats of High Density Poly Ethylene. Baffle Plate, Orifice venture and all construction bolts of stainless steel, coating internally and externally. Electrostatically applied epoxy (1) Flange connection as per IS 1538, (2) Female (BSP/NPT Threaded for sizes 25 mm				
	DIA IN MM	PN 10	PN 16	PN 25	
	25	14073	-	-	



	50	-	45353	45353	
	80	-	71151	71151	
	100	-	78454	78454	
	150	-	160890	160890	
	200	-	241636	241636	
7	Manufacturer and supply of Metal Seated Gate Valve Non- Rising Stem with by-pass & gear operated, for water and sewage applications& dimensions conforming to IS 14846-2000. Material construction Body, Bonnet, Wedge and Distance Piece of ductile iron GGG-50/SG500/7 DIN1693 or equivalent. Body seat, Wedge seat and Stem nut of Aluminum Bronze BS EN 1982 CC331G/equivalent, Stem of Stainless steel BS EN 100881.4057 or equivalent. 'O' Seal Body/Cover is of EPDM food grade Quality. Fastners is of Steel Sheraplex coated to BS 3692 Gr 8.8 or equivalent. Body and Bonnet internally and externally blue two pack epoxy to WIS 4-52-01 Class B. Leakage tested for seat 1.1 PN and body 1.5 x PN. Flange connection as per IS 1538, ISI Marked.				
	DIA IN MM		<u>PN 10</u>	<u>PN 16</u>	
	DN700		1303581	1303581	
	DN800		1648187	1648187	
	DN 900		1863121	1863121	
	DN 1000		2087471	2087471	
	DN 1100		2844366	2844366	
	DN 1200		3233031	3233031	

NOTE:-All the prices are ex-go down /ex-factory. Taxes Extra as applicable at the time of supply. Packaging and Transportation extra at 5% on basic cost. The duties and taxes as applicable may be added as per rules at the time of preparation of estimate. The grade of DI & conformation to specifications shall be certified by a third party Quality Control Agency approved by indenting authority at the cost of supplier.

**28. SFRC MAN-HOLE FRAME WITH COVERS**

Sl.No.	Description	Unit	Rate in Rs.
1	2	3	4
I	Manufacture as per BIS:12592 (Part 1&2) Supply & Delivery of manhole covers and frames with ISI marking anywhere in T.G., F.O.R. destination including, loading, un-loading & stacking at site but excluding all taxes, as applicable. <u>I.S.I Mark</u>		Rs.
a)	M.D. -10 with 500mm diaclear opening	Each	1965
b)	H.D.-20 with 500mm diaclear opening	Each	2533
c)	H.D.-10with 560mmdia clear opening(New item)	Each	1987
d)	H.D.-20 with 560mm diaclear opening	Each	2716
e)	H.D.-35 with 560mm diaclear opening.	Each	2911
f)	24x24 MD 10	Each	2142
g)	24x18 MD 10	Each	1971
h)	24x24 HD 20	Each	2408
i)	24x18 HD 20	Each	2453
II	Manufacture as per company's standard specification supply and delivery of encapsulated plastic steps for man holes anywhere in T.G. including cost of materials packing as per company's standards, loading, transportation, unloading and stacking at site of work etc, complete but excluding taxes and others etc., as applicable.	Each	195

**Note:** Taxes as applicable shall be added as per rules at the time of preparation of estimate.

**29. CI and M.S. DISMANTLING JOINTS**

Sl.No.	Description	Unit	Rate in Rs.
1	2	3	4
1	Manufacture, Supply and Delivery of C.I Dismantling Joints with both side flange end suitable for installation in between flange end pipes. These rates are excluding all Taxes and transportation charges etc., complete.		
	Nominal Dia. In MM		
	50	Each	5078
	80	Each	5559
	100	Each	7294
	125	Each	9379
	150	Each	10289
	200	Each	14591
	250	Each	17369
	300	Each	27791
2	Manufacture, Supply and Delivery of M.S. Dismantling Joints with both side flange end suitable for installation in between flange end pipes. Thickness as per IS: 7322. These rates are excluding all Taxes and transportation charges etc., complete		
	Nominal Dia. In MM		
	350	Each	65913
	400	Each	75529
	450	Each	81943
	500	Each	98077
	600	Each	114126
	700	Each	126965
	750	Each	130178
	800	Each	155855
	900	Each	162599
	1000	Each	194768
	1100	Each	210847
	1200	Each	243013
	1300	Each	275176
	1400	Each	307966
	1600	Each	340194
	1800	Each	402859
	2000	Each	501340
3	Conveyance of joints and accessories including loading at factory and unloading, stacking at site of work.		5% on basic cost
Note:	Taxes as applicable shall be added as per rules at the time of preparation of estimate.		

**30. OTHER ITEMS**

Sl. No.	Description	Unit	Rate in Rs.
1	2	3	4
1	Supply and delivery of pig lead 99.99 % pure excluding all taxes.	Per Kg	330
2	Supply and delivery of lead wool best quality excluding all taxes.	Per Kg	182
3	Supply and delivery of spun yarn of best quality excluding all taxes.	Per Kg	130
4	Supply and delivery of rubber packing excluding all taxes.		
	a) 3 mm thick	Per Kg	111
	b) 6 mm thick	Per Kg	111
5	Supply and delivery of bolts and nuts with double washers excluding all taxes. (1/2" to 1")	Per Kg	As per I&CAD SoR

**31. TRENCH LESS TECHNOLOGY WITH PIPE JACKING METHOD**

Sl. No.	Description	Unit	Rate in Rs.
1	2	3	4
1	Railway crossing/Road crossing/Canal crossing by adopting trenchless technology tunneling work through specialized pipe jacking method by erecting the equipment to true to the alignment and gradient, by hydraulic pipe jacking technique complete including tunneling, excavation in all types of soils excluding hard rock and construction of RCC chambers suitable to casing pipe pits, and conveyance charges of machinery and other required materials but excluding cost of encasing pipe, in co-ordination with the concerned authorities as per approved drawings and directed by the Engineer-in -Charge.		
	600 mm dia	Rmt	26460
	700 mm dia	Rmt	27405
	800 mm dia	Rmt	28665
	900 mm dia	Rmt	30098
	1000 mm dia	Rmt	31532
	1100 mm dia	Rmt	32965
	1200 mm dia	Rmt	34398
	1300 mm dia	Rmt	35831
	1400mm dia	Rmt	38698
	1500 mm dia	Rmt	42998

**Note:** Taxes as applicable shall be added as per rules at the time of preparation of estimate.

### 32. Water Meters

Sl. No.	Description	Unit	Rate in Rs.
<b>A</b>	<b>Mechanical Flow meter (Domestic meters)</b>		
<b>1</b>	Supply of magnetically coupled, multijet, inferential type, dry dial Class-B water meters (Screwed end) AMR compatible manufactured in accordance with ISO 4064 standards and its latest amendments/IS 779/1994 and its latest amendments and shall have ISI/EEC/MID pattern approval (valid life cycle certificate and IP 68 protection from FCRI, GOI). (excluding all taxes-with 3 years warranty)		
	15 mm Dia	Each	1331
	20 mm Dia	Each	1997
<b>2</b>	Installation & fixing cost of water meter.	Each	220
<b>B</b>	<b>Electromagnetic Flow Meters (Bulk Flow Meter)</b>		
	Supply & delivery of Electromagnetic Flow meter, manufacturer should have ISO 9001:2008 certification and flow meter testing conforming to ISO 17025; Flow meter Tube: SS 304; Flanges: Carbon Steel as per DIN PN 10 or higher rating as per requirement; Liner: Hard Rubber or PTFE suitable for drinking water application; Grounding: Grounding Rings SS 304 /Grounding Electrodes of material SS 316; Coil Housing and Junction Box: SS 304 /Die Cast Aluminum/ Carbon Steel with anticorrosive epoxy coating of minimum thickness 150 microns/ equivalent as per EN ISO-12944 standard (as per the site condition) ; Ingress Protection: IP 68 for sensor and IP 67 for transmitter; Flow Transmitter Accuracy: +/- 0.5% of the measured value for velocities 0.5 m/sec and above; Display: Digital LCD/LED (backlit LCD / LED ) Display, Instantaneous flow, Bi- Directional flow and Totalized flow; Cable between Flow Head and Transmitter: Maximum 25 meters including PVC conduit; Surge Arrester: To be provided; Power Supply & Output: 230 V AC or 24 V DC as applicable to Site condition & 4-20 mA HART; Compatible to SCADA/WEB Based Data acquisition System; Flow meter test lab certification should be provided from NABL approved lab/FCRI ; Excluding all taxes with 5 years Warranty. (Make: M/s Krohne Marshall/Endress+Hauser/ Yokogawa /Siemens/ Emerson/ABB/ or equivalent make)		
	100 mm dia	Each	112332
	150 mm dia	Each	124542
	200 mm dia	Each	155826
	250 mm dia	Each	183810
	300 mm dia	Each	205458
	400 mm dia	Each	359172
	450 mm dia	Each	406564
	500 mm dia	Each	445539
	600 mm dia	Each	512027
	700 mm dia	Each	578544
	800 mm dia	Each	690012
	900 mm dia	Each	809438

Sl. No.	Description	Unit	Rate in Rs.
	1000 mm dia	Each	866179
	1100 mm dia	Each	1434510
	1200 mm dia	Each	1564448
<b>C</b>	<b>AMR Water Meters</b>		
i)	Multijet (Domestic) AMR Water Meter		
	Supply installation and satisfactory field testing of Multijet Inferential Dry Dial screwed end Water Meters conforming to latest editions of IS 779/ISO 4064 with ISI/MID marking (PN-10). The water meters shall be manufactured with copper can/non magnetic metallic register and IP 68 protection. The module must be connected to meter without wire. The same model of the meter must have passed life cycle/Endurance test from FCRI after 2015. The meter should have IP 68 test report certificate conducted in FCRI. The RF based AMR accuracy test conducted at FCRI should also be submitted. The modules shall be warranted for 5 years battery life. The Module or meter interface unit shall be Radio Frequency based. The remote reading shall be two way communicating. The module should be battery operated and external power supply should not be required. The readings should be obtainable by either walkby or drive by on Android device. The module shall be fitted on the meter wirelessly and shall be with IP 68 protection. The IP 68 test report for module should have been conducted at FCRI. The radio frequency shall be as per Dept of Communications, Govt of India and supplier should specify the frequency of the AMR on the module. In case the RF band is free band, necessary documents from Dept. of Telecom, Govt of India shall be submitted along with declaration on a Rs.100 Stamp paper mentioning the band. The RF based meter reading software should have sync facility to upload the data back to CLOUD server after reading the meters from site using GPRS/Wifi. The AMR meters shall carry warranty of atleast 5 years from the date of delivery/date of installation which ever is earlier. The meter, module and AMR software shall be from the same manufacturer. Lot samples of the meters supplied shall be tested as per IS779 at FCRI for accuracy of meters. The rates are excluding GST.		
	15 mm	Each	7379
	20 mm	Each	8008
	25 mm	Each	8923
	40 mm	Each	10868
ii)	<b>Woltman type (Bulk) AMR Meter</b>		
	Supply, installation and field testing of Horizontal Woltman type hermetically sealed type water meters with IP 68 protection (PN-10/ PN-16). The meters shall be manufactured as per ISO 4064 - 1:1993 with MID marking. The meter must have passed life cycle/Endurance test from FCRI. The module should be battery operated by inbuilt. The data logger shall be capable of transmitting data on daily bases to central server through GSM/GPRS. The AMR data hourly shall be		

Sl. No.	Description	Unit	Rate in Rs.
	collected by MIU and stored. The MIU shall be connected to Data logger. The data logger should have inbuilt battery. The AMR meter should be capable of providing data like reverse flow, tampering, daily flow rate distribution. The System shall send alerts for blocked meter, flow rate above limit, pressure below or above limits, back flow detection. The meters shall be installed with CI strainers. The AMR meter and battery shall carry warranty of atleast 5 years from the date of delivery/date of installation which ever is earlier. The data shall be accessible on web server as required by the Client. The rates are excluding of GST.		
	50 mm	Each	62462
	80 mm	Each	67267
	100 mm	Each	73033
	150 mm	Each	87448
	200 mm	Each	107627
	250mm	Each	142222
	300mm	Each	302702

### 33. Instrumentation

1	Ultrasonic Flow Meter:	Unit	Rate
	Providing, installing and giving satisfactory test & trial of Ultrasonic Flow meter of ISO working on 85 -260 V AC, 50 HZ electric power supply of following type working on time of flight principle suitable for satisfactory continuous operation in all seasons & with following accessories, working conditions Specifications & duly tested as specified below:		
A)	<b>Ultrasonic Clamp-on portable type Flow Meter (Single Channel)</b>		
	Providing, installing and giving satisfactory test & trial of No ultrasonic clamp on portable type flow meter working on conditions & specifications, calibration, inspection, testing, training, guarantees and manufacturers test certificate/declaration copy along with accessories as mentioned above along with accessories like. 1)Magnetic Clamos - 1 Pair & 2)Suitable carrying case-1 No.	Each	304464
B)	<b>Ultrasonic Clamp-on Fixed type Flow Meter (Single Channel)</b>		
	Providing,installing and giving satisfactory test & trial of Ultrasonic damp on Fixed type flow meter working on <b>conditions</b> & specifications, calibration, inspection, testing, training, guarantees and manufacturers test certificate/ declaration copy along with accessories as mentioned in a (1) to (14) below	Each	296943
C)	<b>Ultrasonic Insertion Fixed type Flow Meter (Single Channel)</b>		
	Providing, installing and giving satisfactory test & trial of ultrasonic Insertion Fixed type flow meter working on conditions & specifications, calibration, inspection, testing, training, guarantees and manufacturers test certificate/ declaration copy along with accessories as mentioned in a (1) to (14) below & with inbuilt assembly to fix the insertion type transducer on the pipeline	Each	283843
a)	<b>Mandatory Accessories:</b>		
	1) Integrated signal converter transmitter enclosed in die cast aluminum case / any anticorrosive material conforming to IP-65 or better -1 No. 2) Pair of transducers (Sensors) conforming to IP-68 or better with junction boxes -1 No. 3) Stainless steel straps for mounting clamp on type sensors - 2 Nos. (only required for category A,B) 4) Grease count plant, 100 ml : Bottle - 5 Nos. (only required for category A,B) 5) Signal & power cables for each transducer -50 Mtrs length/each (insertion type flow meter) & 10 mtrs length /each (portable type flow meter) 6) a) for fixed type flow meter-UPS working on 230 V AC, 50 Hz or 24V DC power supply suitable for 24 hrs continuous operation.-1 No. (only required for category B,C).b) Built in portable type battery back up for minimum 5 Hrs continuous operation with spare battery and separate battery charger working on 230 V AC, 50 Hz power supply for charging battery-1 No. (only required for category A)c) Aluminium / anticorrosive carrying case for flow meter and all accessories (only required for category A) 7) Data storage capacity with built in or separate for date, time, actual flow rate, totaliser & error messages if any with storage capacity of 120 days and at 5 minutes interval data logging along with local indication and necessary cables and software to download data to laptop -1 No 8) Dot matrix printer of EPSON, WIPRO, WEP or Hewlett Packard make with built in or separate printer interface unit for printing of stored data with online / offline printing facility -1 No. 9) Proper earthing shall be provided for protection against high voltage surge (only required for category B,C) 10) Suitable over voltage protection unit for protection of instrument from higher voltage (upto 275 V-300 V AC & above ) 11) M.S. sensor protection boxes with suitable size for above ground lines where construction of chamber is not possible.(only required for category B,C) 12) Magnetic clamp for metallic pipe lines and Nylon / SS strips, chain arrangement for clamp on sensors suitable for pipe diameters 50 mm to 3000 mm (only required for category A,B)		



	<p>13) Battery powered ultrasonic thickness gauge along with charger, test sample, coupling agent and carrying case suitable measuring thickness of 1 mm to 100 mm (only required for category A)</p> <p>14) 5 meter steel measurement tape with level bottle (only required for category)</p> <p><b><u>15) Working Condition &amp; Specifications</u></b></p> <p>A) Water Temp : 10° to 50° C</p> <p>b) Water Quality: Raw water, turbid in nature. Potable chlorinated water</p> <p>c) Operating pressures 0-15 Kg./cm<sup>2</sup></p> <p>d) Pipeline MOC : Cl, DL, MS with /without mortar lined, Non-metallic pipes.</p> <p>e) Pipe diameter : &gt; 1000 mm -4000 mm</p> <p>f) Flow -Up to 300 Mld</p> <p>g) Pipe Condition: Pipe shall be running full</p> <p>h) Ultrasonic flow meters shall be designed, manufactured to international standards with accuracy of +/- 2% of actual flow. The supplier should have full ISO -9000 series accreditation &amp; facility for fully traceable calibration flow rig as per international standard</p> <p>i) Functional details: Freely programmable</p> <p>j) Measurement - Volumetric flow rate, totalized flow</p> <p>k) Flow direction- Forward &amp; Reverse</p> <p>l) Display- LCD display with suitable lines, digits, segments, markers, for identification of current output. The digit shall be clear, bold &amp; can be read from 1 Mtrs distance</p> <p>m) Out put- for current-4 m A-20mA HART (active/passive) for measuring flow in pipeline. Frequency output shall be 1 khz, Open collector, passive</p> <p>n) Status output-open collector</p> <p>o) Meter shall be suitable for remote facility</p> <p>p) Power supply-85-260 V AC(45-65 Hz)/20-55 V AC (45-65 Hz)/16-62 V DC</p> <p>q) Galvanic isolation- input &amp; output galvanically isolated from power supply from the sensor and from each other</p> <p>r) instruments must carry "CE" mark</p> <p>s) Functionality verification check should be possible inline using recommended software tools</p> <p>t) Future upgradation to field bus foundation. Profibus should be possible with minimal changes</p>		
	<p><b><u>16) Calibration, Testing &amp; Inspection</u></b></p>		
	<p>The 10% of total supply quantity shall be inspected and tested .The flowmeter shall be calibrated at manufacturers place as per international standard given above.Manufacturer having NABL lab accreditation ,the calibration testing shall be witness by Third party approved by MJP The manufacturer not having NABL lab accreditation shall be tested at FCRI/CWPRS/IDEMI etc, for which third party inspection is not required.</p>		
	<p><b><u>17) Manufacturers Guarantee, Certificate &amp; Training</u></b></p>		
	<p>The flow meters shall be supplied with manufacturer's test certificate as per international standards -given above, calibration certificates. 12 months guarantee for the trouble free performance and given Adequate training for handling flow meter and installation in field so that trainees can carryout the job independently</p>		
	<p><b><u>18) 60 Month's O &amp; M towards flow meter &amp; accessories:</u></b></p>		

	<p>The O &amp; M shall be decided based on "planned preventive maintenance" Program (PPM) to be finalized with suppliers with following service included (but not limited) for 60 months beyond standard warranty terms as per H) However for project cases user must discuss with supplier for lumpsum O &amp; M cost for the overall project.</p> <p>Planned Preventive Maintenance (PPM):</p> <ol style="list-style-type: none"> <li>Regular visit to the flow meters (once in 2 month to check the healthiness of instruments)</li> <li>Repairs/ replacement of components/spare parts as may be necessary during the flow meter inspection.</li> <li>Free replacement of the spare parts and consumables as necessary</li> <li>Emergency visit to site within 48 hours for attending any major trouble shooting and break downs.</li> <li>Technical training/ trouble shooting training to the user by the supplier.</li> <li>Providing complete technical details on instrument with necessary manuals</li> </ol>		
	<b>19) General Terms &amp; Conditions</b>		
	<ol style="list-style-type: none"> <li>General Specifications with accessories (except required for each type of meter specified) working conditions, mandatory accessories, calibration, inspection testing manufacturers test certificates, installation and commissioning, guarantee and training shall be common for all flow meters as mentioned above. The Additional/ optional accessories mentioned above to be considered as per project and site requirements.</li> <li>The above prices are inclusive of import duty as applicable.</li> <li>The above prices inclusive of counter vailing duty (CVD) as applicable with education cess of 2% on CVD. Also includes necessary charges for customs clearances clearing and forwarding charges in India.</li> <li>The above prices are includes local inland transportation from manufacturer's godown /custom's godown upto sites anywhere in Telangana.</li> <li>The above prices includes necessary packing &amp; forwarding charges as applicable for each project</li> <li>Octroi charges are not included in above rates and shall be as per actuals which will be included wherever applicable in estimates for meter up to site storage</li> <li>The above prices are inclusive of Marine &amp; inland insurance of flow meters up to site storage</li> <li>Meter shall be procured with prior permission from concerned superintending Engineer/Chief Engineer.</li> <li>Planning for installation for meter shall be done during execution of pipe work. Straight pipe length of 5 D or more on up stream side and 2 D or more on down stream side of meter is necessary (D is diameter of flow meter) The meters shall be installed so as to have a laminar flow with pipe running full.</li> <li>The above rates are exclusive of GST.</li> </ol>		
b)	<b>Additional/Optional Accessories</b>		
	1) Pressure transducer, which should be connected to the pressure lead of dual channel data loggers, compatible with the dual channel loggers of appropriate type with a pressure range of 5m to 150 m with an accuracy of not less than +/- 1% to be supplied and installed at the upstream of the flow meters.	Each	21834
	2) Fixing flow meter transmitter to internal walls of buildings in a suitably designed panel cabinet with proper locking arrangement with glass window on front door for seeing the readings of flow transmitter and data logger without opening of the panel cabinet. It should house complete ancillaries and including the provision for connection of electrical power supply from nearby apparatus. The panel cabinet shall be prewired and with suitable gland entries.	Each	23144
	3) Laptop with core 2 duo processor, 2 GB RAM, 256 GB HDD, DVD writer, web cam, 14" LCD screen with carrying case, windows XP professional branded with necessary software & upload data should be provided	Each	26201
	4) The portable Device shall be compatible to the logger & flow meters for the purpose of retrieving data & resetting the data loggers, The portable device	Each	26201

	should be simple to operate & robust in design. The portable hand held units shall have sufficient memory to download & store data up to 6 flow meters. Hand held units shall be supplied with necessary communication leads for data logger to hand held & hand held to commercial PC, All the necessary software for download & upload to be provided.		
	5) Remote monitoring system for data acquisition/data transfer & alert SMS /warning based on GSM technology with complete hardware like wireless communication device, cables,necessary software system (BOM with each GSM system is as given below) for each flow meter excluding data SIM card & its regular billing.	Each	43668
	a) Wireless communication device to communicate between central computer & flow transmitter installed at remote site with GSM based system b) DA Scheduler software for CSV file storage and data acquisition c) Cables for pressure, flow & totalized details from transmitter to field gate system {10 Mtrs with each GSM / GPRS system) d) OPC Software to be installed in central PC for SCADA interface. e) Commissioning charges for each locations f) Customized page with Java Applets XML-Data import software for online MIMIC g) R.F. Module / Cyble for operation of AMR shall be taken as Rs.7000 per meter h) RTU ( Remote Terminal Unit) for each meter shall be taken as Rs. 12000/-		
	6) Sensor/Transmitter cable of following specification 3 x 0.38 mm <sup>2</sup> PVC cable with common branded copper shielded 7mm dia and individually shielded cores- with empty pipe detection 9 EPD: 4 x 0.38 mm <sup>2</sup> PVC cable with common branded copper shield 7 mm dia and individually shielded cores. Conductor resistance: <=50 Ohm/Km. (Rate per meter).	Each	230
	7) Conduit pipe (PVC / HDPE plumbing) 32 mm diameter with suitable digging, laying and concealing the duct. ( Rate Per Meter)	Each	18
c)	<b>Other Civil Works:</b>		
	1)Flow meter chamber work with suitable man hole for entering the chamber & removal of flow meter for maintenance in future		
	2) Construction of meter room with roof slab (100 mm) brick masonry with pile foundation of minimum 1.5 M x 1.5 M or as per instruction from Engineer-in -Charge with RCC beam/column minimum 0.15m x 0.15m size with steel door & cement jali ventilator and plinth height of minimum 0.5 M above GL and roof slab shall be 2.1 M from plinth inner and outer plaster with water proof cement painting		
<b>S.No</b>	<b>Item Description</b>	<b>Unit</b>	<b>Rate in Rs.</b>
2	Providing, installation, testing and commissioning of <b>ULTRASONIC LEVEL TRANSMITTER</b> for water application : Principle: Time of Flight / Sensor MOC PP/ Process connection 1 1/2 inch BSP or 2 inch BSP threaded type / Power Supply: 24 V DC / Out put: 4-20mA / Display: Integral Display for programming and Display reading/IP66. Ranging from 0 - 5 Mts, including LCD Display and configurable to any level and warranty for 5 years. The rates are excluding GST.	Each	62890
3	Providing, installation, testing and commissioning of <b>PRESSURE TRANSMITTER:</b> for water application: Range: 0-10 bar/power supply: 24 V DC / Output: 4-20 mA with HART / Diaphragm: SS316L / Process Connection: ½ "NPT (M) / Accuracy: 0.15% , Protection: IP67, including LCD Display and configurable to any level and warranty for 5 years. The rates are excluding GST.	Each	70751

**34. FLOW CONTROL CUM NON-RETURN VALVE**

S.No.	Description	Unit	Rate in Rs.
	Supply of tamper proof house hold non return cum flow control valve (with all three parts made by using sold steel bars of SS316) with CNC machine make and of 15mm dia designed for 5 LPM discharge @ 0.5 bar pressure loss, not exceeding the flow of 7 LPM at 1 bar pressure and working on float principle (as per CPHEEO manual) including cost of materials, manufacturing, loading, unloading, stacking, transit insurance, transportation but excluding GST.		
1	15mm dia	Each	265

**35. MDPE PIPE**

S.No.	Description	Unit	Pipe Series	Pressure Class	Rate in Rs.
	Manufacture, Supply & Delivery of MDPE pipe conforming to ISO 4427 Part-2 (or any equivalent Bureau of Indian Standards code) of PE-80 grade material along with all fittings, including cost of materials, manufacturing, loading, unloading, stacking, transit insurance, transportation to any where in Telangana but excluding GST.				
1	20mm OD	Mtr	SDR-11	PN-12.5	30.32
2	25mm OD	Mtr	SDR-11	PN-12.5	44.17
3	32mm OD	Mtr	SDR-11	PN-12.5	72.41

**36.DWC HDPE PIPES CONFORMING TO IS 16098- PART-2**

1	Manufacture, supply, & delivery of (DWC) structured wall polyethylene/polypropylene piping system class SN-8 with non smooth external annular corrugated and smooth internal surface (Double Wall) for non pressure sewage & Drainage application pipes of standard length 6 m, grade conforming to IS 16098 (part-II: 2013) including rubber gasket, transportation to anywhere in Telangana, loading, unloading charges but excluding all taxes etc complete.						
	Pipe OD	Pipe ID		Rate /mt			
	120	100		190			
	180	150		335			
	235	200		500			
	295	250		825			
2	Lowering , laying of Class SN 8 Double wall corrugated ( DWC) pipping system into ready made trenches , laying true to line and level and perfect linking at joints, encasing the pipe around with with soft gravel, testing and commissioning, and giving necessary hydraulic test to the required pressure as per ISS etc complete for finished item of work.						
	Pipe OD	Pipe ID		Rate /mt			
	120	100		150			
	180	150		210			
	235	200		230			
	295	250		285			

### 37. Double Chambered Restrained Joint DI K9 Pipes

Sl. No.	Description	Unit	Rate in Rs.
1	2	3	4
	Manufacturing, Supply, Delivery, laying and jointing of Double chambered restrained joint DI K9 Pipes confirming to IS 8329 (restrained joints are designed and tested as per ISO 10804) (to be used for minimum required length as per design along with double chambered restrained DI fittings to avoid concrete thrust block at bends) including rubber gaskets confirming to IS 5382 -1985/8329-2000 with latest amendments and locking bars & rubber spacers, conveying to work site, rolling and lowering into trenches, laying true to line, level and perfect linking at joints, testing and commissioning, including loading and unloading at both destinations, cutting of pipes wherever necessary, jointing with DI specials (excluding cost of specials) and rubber gaskets, cleaning the socket and spigot end with soap solution, applying soft soap to the socket and spigot ends before insertion of rubber gaskets, jacking and fixing in perfect conditions etc. The cost includes soap solution, soft soap, waste etc. and giving necessary hydraulic test to the required pressure as per ISS with all lead and lifts and cost of all jointing materials etc complete but excluding taxes		
	Nominal Dia in MM		
1	100 mm	Rmt	2092
2	150 mm	Rmt	2930
3	200 mm	Rmt	3710
4	250 mm	Rmt	4964
5	300 mm	Rmt	6293
6	350 mm	Rmt	7732
7	400 mm	Rmt	9419
8	450 mm	Rmt	11230
9	500 mm	Rmt	13123
10	600 mm	Rmt	17231
11	700 mm	Rmt	20449
12	750 mm	Rmt	22772
13	800 mm	Rmt	25169
14	900 mm	Rmt	30655
15	1000 mm	Rmt	36950
16	1100 mm	Rmt	42867
17	1200 mm	Rmt	49672

**Note:** Taxes as applicable shall be added as per rules at the time of preparation of estimate.

Price Variation Formula due to Increase / Decrease in the cost of pig iron.

$P2 = P1 + (R2 - R1) / 1000 * M * 0.96$ , Where

M = Weight of pipe in kg per metre as per I.S.8329-1994 & ISO 10804.

P2 = Revised rate of pipe in Rs. per Rmt.

P1 = Rate of pipe in Rs. per Rmt. as per above table.

R2 = Price of Pig Iron (Rs per MT excluding Taxes) at the time of preparation of estimate.

R1 = Price of Pig Iron (Rs per MT excluding Taxes) at time of preparation of SoR = Rs.63,000/-

**38. DOUBLE CHAMBERED RESTRAINED JOINT DI SPECIALS**

Sl. No.	Description	Unit	Rate in Rs.
1	2	3	4
	Manufacture, Supplying and fitting Ductile Iron Double Chambered Restrained Joint Specials confirming to IS 9523 : 2000 (restrained joints are designed and tested as per ISO 10804) of Class K-12 (Alternative and to avoid concrete thrust blocks along with minimum length of Restrained joint DI pipes at bends) including rubber gasket confirming to IS 5382 : 1985 and locking bars & rubber gaskets etc complete but excluding taxes		
	<b>Ductile Iron Double Chambered Restrained Joint Specials</b>		
1	Specials upto 500mm dia	Kg	<b>366.54</b>
2	Specials above 500 mm dia	Kg	<b>439.00</b>

**Note:** Taxes as applicable shall be added as per rules at the time of preparation of estimate.

**39. ULTRASONIC AMR METERS USING LORAWAN TECHNOLOGY**

Sl. No.	Description	Unit	Rate in Rs.
1	2	3	4
	Supply, installation, and field testing of Ultrasonic AMR Meter with IP 68 protection (PN-10/ PN-16). The meters shall be manufactured as per ISO 4064:2005. The meter shall be manufactured with copper or Bronze or Cast Steel or Food Grade Engineering plastic. The meter must have passed life cycle/Endurance test from FCRI. The AMR meter shall have inbuilt communication module and battery. The data logger shall transmit data on daily bases to central server through LoRaWAN, in ISM band 865-867 MHz. The AMR meter shall uplink the data once in a day. The AMR meter should be capable of providing data like forward flow, reverse flow, tampering, daily flow rate distribution, leak detect, high flow detect and zero flow. The System shall send alerts for blocked meter, flow rate above limit, back flow detection. The AMR meter and battery shall carry warranty of at least 5 years from the date of delivery/date of installation whichever is earlier. The data shall be accessible on web server as required by the Client. The meter shall be able to operate in ambient temperature range -10 deg C to 55 deg C & Relative Humidity 5% to 95%. The web server, data communication and API cost is not included in the meter cost. The rates are including O&M for a period of 5 years. Rates are excluding GST, other taxes etc.		
1	15mm	Each	<b>13800</b>
2	20mm	Each	<b>18310</b>
3	25mm	Each	<b>24454</b>
4	40mm	Each	<b>26430</b>
5	50 mm	Each	<b>61287</b>
6	63/65mm	Each	<b>68756</b>
7	75/80 mm	Each	<b>78833</b>
8	100 mm	Each	<b>109109</b>
9	150 mm	Each	<b>139523</b>
10	200 mm	Each	<b>168328</b>
11	250mm	Each	<b>172419</b>
12	300mm	Each	<b>246921</b>
13	400mm	Each	<b>342460</b>
14	450mm	Each	<b>377156</b>
15	500mm	Each	<b>414725</b>
16	600mm	Each	<b>480394</b>





# Annexure

1. Latest G.Os
2. Seigniorage Charges

GOVERNMENT OF TELANGANA  
ABSTRACT

Mines & Minerals - New Sand Mining Policy - 2014 for the State of Telangana - Usage of Manufactured Sand - Certain Instructions - Issued.

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INDUSTRIES AND COMMERCE (MINES.I) DEPARTMENT

G.O.Ms.No. 37

Dated: 29-05-2018.

Read the following:-

1. G.O.Ms.No.38, Ind. & Com (M.I) Department, dated.12.12.2014
2. G.O.Ms.No.03, Ind. & Com (M.I) Department, dated.08.01.2015

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ORDER:

The Government of Telangana is committed to encourage use of Manufactured Sand as an alternative to river sand in order to conserve the environment on the one hand and to overcome the problem of growing shortage of natural sand on the other hand. In the references read above, the Government of Telangana have issued orders, for regulation of sand mining wherein it was mentioned that usage of Manufactured Sand shall be encouraged in place of river sand to meet the requirement of bulk consumers. Manufactured sand is defined as purpose made crushed fine aggregate produced from a suitable source material.

2. The utility and demand for manufactured sand has increased considerably over a period of time due to certification by reputed Scientific Organizations such as National Council for Cement and Building Material (NCCBM), National Academy of Construction (NAC), BICARD, a Scientific Research and Certification Lab at Department of Civil Engineering, JNTU, Hyderabad. The Technical viability of Manufactured Sand has been established without doubt.

3. Government, hereby direct all the Engineering Works Departments to use Manufactured Sand (Rock Sand) and Natural River sand in the ratio of 50:50 in all the mixes of cement concrete and in the items of works where sand is used earlier, to reduce the burden on Natural Resources and to make the sustainable ecosystem.

4. The Engineer in Chiefs, Roads and Buildings, Irrigation & Command Area Development and Panchayat Raj & Rural Development shall take necessary action in the matter accordingly.

**(BY ORDER AND IN THE NAME OF THE GOVERNOR OF TELANGANA)**

SHAILENDRA KUMAR JOSHI  
CHIEF SECRETARY TO GOVERNMENT

To

The Engineer in Chief, Roads and Buildings.

The Engineer in Chief, Irrigation & Command Area Development.

The Engineer in Chief, Panchayat Raj.

The Engineer in Chief, RWS&S.

Copy to:

The I&CAD Department, Telangana Secretariat.

The TR&B Department, Telangana Secretariat.

The PR&RD Department, Telangana Secretariat, Hyderabad.

The Director of Mines & Geology, Telangana State, Hyderabad.

The Vice Chairman & Managing Director, TSMDC Ltd, Hyderabad.

The Commissioner of Panchayat Raj, Hyderabad

All the District Collectors in the State of Telangana

P.S to Principle Secretary to the Hon'ble Chief Minister.

P.S to Hon'ble Minister for Mine and Geology.

P.S to Hon'ble Minister for Panchayat Raj & Rural Development.

P.S to Hon'ble Minister for Irrigation

P.S to Hon'ble Minister for Roads & Buildings

P.S to Chief Secretary to Government.

P.S to Prl. Secretary Government & CIP (FAC), Ind & Com Dept.

Sf/Sc (C.No.2823/M.I(1)/2018)

//FORWARDED : : BY ORDER//

SECTION OFFICER

**GOVERNMENT OF TELANGANA  
ABSTRACT**

Mines and Minerals - Rules - The Telangana Minor Mineral concession Rules, 1966 - Revision of Seigniorage Fee - Amendment - Notification - Orders - Issued.

**INDUSTRIES AND COMMERCE (MINES.I) DEPARTMENT**

G.O.Ms.No.18,

Dated:31.03.2022  
Read the following

- 1) G.O.Ms.No.67, Industries & Commerce (M.I) Dept., dt:26.09.2015
- 2) G.O.Ms.No.16, Industries & Commerce (M.I) Dept., dt:16.03.2016
- 3) From the Director of Mines and Geology, Hyderabad Letter No.1247095/P/2021, dated:22.09.2021.

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**ORDER:**

The Director of Mines and Geology, Telangana, by above reference 3<sup>rd</sup> read above, has stated that as per Section 15 (3) of Mines and Mineral (Development and Regulation) Act, 1957 (MMDR, 1957), Seigniorage Fee has to be revised every three years. The Director also stated that no revision of Seigniorage Fee has been done in past six years and the last revision was done on 26.09.2015 for Schedule-I Minor Minerals and 16.03.2016 for Schedule III Minor Minerals.

2. Hence, the Director has proposed revision of Seigniorage Fee and requested the Government to issue necessary amendments to Schedule I and Schedule III under Rule 10 of Telangana State Minor Mineral Concession Rules, 1966.

3. After careful examination of the proposal of the Director of Mines and Geology, Telangana, it is hereby decided to accept the revision of Seigniorage Fee.

4. Accordingly, the following notification shall be published in the Extra-Ordinary Issue of the Telangana State Gazette.

**NOTIFICATION**

In exercise of the powers conferred by Sub-Section (1) of Section 15 of the Mines and Minerals (Development and Regulation) Act, 1957 (Central Act No.67 of 1957), the Governor of Telangana hereby makes the following amendments to the Telangana Minor Mineral Concession Rules, 1966.

**AMENDMENTS**

In the said rules, for Schedule I and Schedule III under Rule 10, the following shall be substituted.

**SCHEDULE-I  
RATES OF SEIGNIORAGE FEE**

S. No	Name of Minor Mineral	Rate of Seigniorage Fee per Metric Tonne (MT) (In Rupees)
1	Building Stone, Rough Stone/ Boulders, Road Metal, Ballast and Manufactured Sand (M-Sand)	65
2	Dimensional Stone used for Kerbs& Cubes	130
3	Lime Kankar/ Limestone	The rate of royalty as applicable to Limestone (other than LD Grade) in respect of major Minerals as per the 2 <sup>nd</sup> Schedule of the Mines & Minerals (D&R) Act, 1957.
4	Marble	130
5	Mosaic chips	58
6	Morrum/Gravel & Ordinary Earth	20
7	Ordinary Sand	27

8	Shingle	22
9	Chalcedony Pebbles	65
10	Fullers Earth/ Bentonite	195
11	Shale/Slate	195
12	Rehmatti	32
13	Limestone slabs	130
14	Brick Earth used in the manufacture of Bricks including Mangalore Tiles.	7800 per kiln per annum
15	Granite useful for cutting and polishing	
	i) Black Granite	
	a) Gangsaw (above 270 x above 150 CM)	1361/3900 MT/M3
	b)below Gangsaw	1043/2990 MT/M3
	ii) Colour Granite	
	a) Gangsaw (above 270 x above 150 CM)	1128/2990 MT/M3
	b)below Gangsaw	980/2600 MT/M3

SCHEDULE-III  
RATES OF SEIGNIORAGE FEE

S. No	Name of the Minor Mineral	Rate of Seigniorage Fee per Metric Tonne (MT) (In Rupees)
1	Agate	156
2	Ball Clay	78
3	Barytes	780
4	Calcareous Sand	97
5	Calcite	91
6	Chalk	104
7	China Clay	78
8	Clay (Others)	52
9	Corundum	78
10	Diaspore	351
11	Dolomite	130
12	Dunite or Pyroxenite	52
13	Felsite	143
14	Feldspar	97
15	Fireclay (including plastic, pipe, lithomargic and natural pozzolanic clay)	65
16	Fuchsite Quartzite	91
17	Gypsum	91
18	Jasper	156
19	Kaolin	78
20	Laterite	130

21	Limekankar	123
22	Mica	2600
23	Ochre	45
24	Pyrophyllite	234
25	Quartz	78
26	Quartzite	78
27	Sand (Others)	78
28	Shale	169
29	Silica Sand	78
30	Slate	169
31	Steatite or Talc or Soapstone	390

5. These orders will come into effect from 01<sup>st</sup> April, 2022.
6. The Director of Mines & Geology, Telangana, shall take necessary action accordingly.
7. This order is issues with the concurrence of Finance Department vide their U.O.No.2012-A/89/EBS.VII/I&C/2021, dated:22-09-2021

(BY ORDER AND IN THE NAME OF THE GOVERNOR OF TELANGANA)

SOMESH KUMAR  
CHIEF SECRETARY TO GOVERNMENT &  
PRINCIPAL SECRETARY TO GOVERNMENT (MINES & GEOLOGY)(FAC)

To  
The Commissioner of Printing, Stationary & Stores Purchase (Ptg. Wing) Hyderabad.  
(He is requested to publish the above Notification in the Extra -Ordinary issue of Telangana Gazette, and arrange to send 500 copies of the same to Government in Inds. & Comm. (M.I) Dept.,).

The Director of Translation, Telangana, Hyderabad.  
(He is requested to furnish the Telugu version of the Notification direct to the Commissioner, Printing, Stationary & Stores Purchase (Ptg. Wing), Hyderabad).

The Director of Mines and Geology, Telangana State, Hyderabad.  
The Vice Chairman & Managing Director, Telangana State Mineral Development Corporation Ltd., Hyderabad.

All the District Collectors/ Additional Collectors in the State of Telangana.  
The Municipal Administration and Urban Development Department.  
The Irrigation & CAD Department.  
The Transport, Roads & Buildings Department.  
The Panchayat Raj & Rural Development Department.  
The Revenue Department.  
The Director General of Police, Hyderabad.  
The Commissioner of Rural Development, Hyderabad.  
The Commissioner of Transport, Hyderabad.  
The Commissioner of Panchayat Raj, Hyderabad  
The Director, Ground Water Department.  
The Member-Secretary, Telangana State Pollution Control Board, Hyderabad.  
The Engineer-in-Chief, Irrigation Department.

**Copy to :**

The Secretary to Government, Ministry of Mines, Govt of India.  
The Law Department.  
The Finance Department.  
P.S. to Principal Secretary to Hon'ble Chief Minister.

P.S to Hon'ble Minister MA&UD

P.S. to Hon'ble Minister for Panchayat Raj & Rural Development.

P.S. to Hon'ble Minister for Irrigation.

P.S. to Chief Secretary and Principal Secretary to Government, Industries & Commerce (Mines) Department.

The Joint Directors/Deputy Directors/Assistant Directors of Mines and Geology through the Director of Mines & Geology, Hyderabad.

The General Administration (Cabinet) Department.

Sc/Sf

//FORWARDED:: BY ORDER//

SECTION OFFICER