



सत्यमेव जयते

GOVERNMENT OF GUJARAT

**SCHEDULE OF RATES  
FOR THE YEAR  
2021-2022**

ROAD & BUILDING DEPT.  
(ELECTRICAL WING)

SAVE ENERGY SAVE ENVIRONMENT



# SCHEDULE OF RATES

FOR THE YEAR

2021-2022

SANCTIONED BY

Sd/-  
Executive Engineer  
S.C. Elect. Dn.  
Gandhinagar.

Sd/-  
Executive Engineer  
C.P. Elect. Dn.  
Gandhinagar.

Sd/-  
Executive Engineer  
A'bad. Elect. Dn. No. 1.  
Ahmedabad

Sd/-  
Executive Engineer  
A'bad. Elect. Dn. No. 2.  
Ahmedabad.

Sd/-  
Executive Engineer  
High court. Elect. Dn.  
Ahmedabad.

Sd/-  
Executive Engineer  
Baroda, Elect. Dn.  
Baroda.

Sd/-  
Executive Engineer  
Rajkot. Elect. Dn.  
Rajkot.

Sd/-  
Executive Engineer  
Surat. Elect. Dn.  
Surat.

APPROVED BY

(Kanak oza)  
Supertending Engineer (Elect) [In-charge]  
Electric Circle . R. & B. Dept.  
Government of Gujarat  
Gandhinagar.

ISSUED TO .....



**OFFICE ORDER**  
**NO. DN/70/A OF 2021**

**Subject: - Approval of Schedule of Rates for the year of 2021-2022**

The revision of Schedule of Rates for the year 2012-2013 was taken up by S.O.R committee earlier. There was a need to review the schedule of rates considering the current market trend, hike in various indexes (Copper, Iron, P.O.L. and Labour Index) and other Government Duties / Taxes/GST in Government General Budget from last many years, it has been compelled to review the material cost and labour cost of the all items included in the S.O.R. previously.

The whole role performed was within the powers vested to the Superintending Engineer (Electrical). The rule position is shown in Gujarat Public Works Manual, Volume-I: Orders (III Edition - March 1987) at (K): Schedule of Rates; in para 379 (a) to(e).

Review Committee was formed vide Office order no. 28 letter no. PB/833 /2021 dated.22/2/2021. The concerned Executive Engineers have gone through the Schedule of rates considering fire safety, energy conservation and latest requirement in present scenario and suggestion from higher officers and feedback from field officer, consultant, stock holders, manufactures and by intense study and scrutiny by the committee members of executive engineers and compilation by the team of member secretary and circle professional branch, it is finalized and proposed new SOR with inclusion of some new items, removal of absolute items and expansion of some chapters as per present demands in public works.

Government has taken a notice of new S.O.R. approved by the committee by letter dated 16/4/2021 and then published the revised Edition of the SOR for the year 2021-2022 effective from Date: 01-04-2021. **This Order cancels all The previous Editions of SOR (including Order no. DN/37/2012, dated 17-2-2012), published by this Department, with effect from Date: 1-4-2021.**

The Schedule of Rates Year 2021-22 with all items is approved hereby for the use in the Department with effect from **April 1st, 2021** onwards.

I congratulate all the committee members and Member secretary and team of professional branch who has put his hard effort to publish new schedule of rates. I hope this S.O.R will help to guide for realistic estimation and value addition to public works.

KANAK. OZA  
Superintending Engineer (Elect.)  
Roads & Building Department  
Gandhinagar.

No. DSN/SOR/ /of 2021  
Office of the  
Superintending Engineer (Electrical),  
R & B, Department,  
3rd Floor, Nirman Bhavan,  
Sector No. 10/A  
Gandhinagar.  
Date: - / /2021

Copy submitted to the Officer on Special Duty, Roads & Building Department, for favor of information and needful.

Copy submitted to Accountant General, Rajkot / Ahmedabad for favor of information and needful.

Copy f.w.cs to Executive Engineers, Electrical Division, Roads & Building Dept., Ahmedabad Dn. No. 1 & 2, High Court Division, Baroda, Surat, Rajkot, C.P. Gandhinagar and Sachivalaya Complex, Gandhinagar for favor of information and action.

Encl:- Govt. in R & B. Department Resolution No. SOR/1080/5976/(17)/C-I Dt. 27-7-1998 for deciding selling cost of S.O.R.





## COMMITTEE OF SCHEDULE OF RATES

POST	NAME	DIVISION
CHAIRMAN	SHRI.KANAK OZA	I/C SUPERINTENDING ENGINEER
MEMBERS	1.SHRI.R.K.PARMAR	EXECUTIVE ENGINEER, AHMEDABAD ELECT.DIV.NO.2.
	2.SHRI.KANAK OZA	EXECUTIVE ENGINEER, CAPITALPROJECT.ELECT.DIVISION.
	3.SHRI.D.D SHEKHLIYA	EXECUTIVE ENGINEER, RAJKOT ELECT. DIVISION.
	4.SHRI.D.O.NAKRANI	EXECUTIVE ENGINEER, HIGH COURT ELECT.DIVISION.
	5.SHRI.B.B.THORAT	EXECUTIVE ENGINEER, SURAT ELECT.DIVISION
	6.SHRI.P.T.PATEL	EXECUTIVE ENGINEER, AHMEDABAD ELECT.DIV.NO.1
	7.SHRI.C.K.PATEL	EXECUTIVE ENGINEER, SACHIVALAYA COMPLEX ELECT.DIVISION.
	8.SHRI.D.M.FALDU	EXECUTIVE ENGINEER, BARODA ELECT.DIVISION.
MEMBER SECRETARY	SHRI.D.O.NAKRANI	EXECUTIVE ENGINEER, HIGH COURT ELECT.DIVISION.
COMPILATION /CORDINATION	SHRI.H.J.GADHAVI SMT.K.M.RANA	DY. EXECUTIVE ENGINEER ADD.ASST. ENGINEER



# GENERAL GUIDE LINES

## 1.0 Energy Saving Concept

1.1 For Indoor and Outdoor Lighting, Energy Saving Fittings are proposed in the S.O.R. and shall be used mostly except specific requirement.

1.2. Selection of Fittings & Lamps shall be made after observing required optimum illumination level of the place.

1.3. For internal wiring of the switchgear panels specialized FRLS wires included in the SOR shall be used.

1.4. For selection of pump sets, storage capacity usage of water quantity & head shall be considered for required optimum HP of Motor pump sets.

1.5. For the Corridor and Passage Lighting in general office buildings Energy Saving LED fittings shall be preferred.

1.6. For Routine Maintenance of Motor Pump Sets, Window and Split Type A.C. Machines, Fans, Water Coolers and Geysers yearly comprehensive maintenance cost is included in the SOR and shall be put in use widely for avoiding piece work maintenance.

1.7 For Point wiring above 10 mtr of length, additional length will be added at rate of mains.

2.0 For E.I. work in Highly Security restricted areas like Jails, V.V.I.P. Residences, add 10% of overall cost of estimate. This criterion can be considered for above tenders for approval.

## 3.0 APPROVAL OF MATERIALS:

3.1 When category wise materials are available the same should be used for Electrical Installation works.

3.2 Table showing categories of the materials to be used in Residential Buildings.

Type of Residential Buildings	Category of Services	Category of Materials
(1) Category 'E' type Qrts. & Category "V" type qrts.	III	III
(2) Category 'C' & 'D' type Qrts. & Category	II	II
(3) Category 'A' & 'B' type Qrts. & Category "II" type qrts.	II	II
(4) Hostels	II	II



3.3 Table showing categories of materials to be used in N.R. Bldg.

Type of N.R. Bldg.	Category of Services	Category of Materials
(1) VIP chambers, Assembly etc.	III	III
(2) M.S. Buildings, Laboratories, X-Ray Machines, Central Airconditioning Plants, Circuit Houses etc.	III	III
(3) For Non-Residential buildings other than listed above,	III	III
(4) Common passages, stairs, toilets etc.	II	II

3.4 List of approved materials under each category should be enclosed with the tender documents and the tenderer should mention the brand name of material selected for use in the said tender and the same should be finalized before acceptance of the tender. Placing of the order for such category materials should be started after acceptance of the tender. At the time of recording measurements in the measurement book, specific brand name of actual make of material used should be written in place of approved make available in the list of approved materials.

**4.0 NON S.O.R. ITEMS:**

Rates for item Viz. Transformer, Lifts, Air-conditioning plants, sound system, ELV products, are based on the capacity and design parameters adopted by the different firm depending on R & D, specific requirement of user dept. And not found in S.O.R. and these items are not very frequently used for Electrical Installation works, so the budgetary price should be considered while preparing the estimate and the D.T.P. For such Non. S.O.R. items. The ranges of capacity for different makes while framing the estimate, market price should be ascertained from reputed manufactures including the price escalation likely to occur between preparation of the estimate and the actual tender. Non S.O.R. items which are required to be used frequently should be proposed by the field officers for inclusion for ensuing S.O.R. All the

proposals or modifications in the existing S.O.R. items should be proposed along with supporting data before the end of calendar year.

#### **5.0 LIST OF APPROVED MATERIALS**

The make of following accessories, equipment's, switch gears etc. are approved for use on E.I. works (Surface / Concealed) in this Dept., subject to the condition that the said materials do confirm to requisite I.S/BIS. requirements or do have I.S/BIS. Certification/ I.S.I. Marks. The brand names & material on list are applicable only for use on works by contractors and in departmental tendering works for procurement directly on works by offices of this department. In respect of purchase, GEM procedure is to be adopted as per G.R.

Any material required for use on works etc. and not on list shown with S.O.R. shall be approved by the appropriate authority of the Department, looking to the merits of use. This shall be within preview of concerned Executive Engineer (E) & Superintending Engineer (E) as shown in tender clauses.

#### **6.0. Approval of Materials on Work:**

The Samples of Materials to be used in a work should be approved by the officer not below the rank of Executive Engineer (Electrical) and an entry should be made in register of materials for this purpose only and the samples should be retained by department. For any one work one brand to be approved for use.

The Section officer (A. E / A. A. E.) in charge of work should remain present during the execution of item of earthing and same is to be submitted in completion certificate and should be preserved in Sub-Divisional office with record of such work for maintenance.

#### **7.0 S.O.R. at A Glance . . .**

- wiring chapter is included considering fire and human safety, best earthing practice, all latest modular accessories. All practical problem faced at site is reviewed and corrected.
- Lighting chapter is included with latest LED lighting with various luminaire for indoor, outdoor and street light, road light, landscape light application.
- Switchgears chapter is included with microprocessor-based switch gear, inclusion of various DB as per present requirements.
- Cables chapter is included with rate revision as cost of metal increased. cable fault finding, multi core cables are included.
- Ceiling fan chapter is included with energy saving fans.
- Extra Low voltage devices like EPABX, telephone instruments, professional display, projectors, fire detection and alarm system, ups etc. are included as per present requirement.
- Modern concept of Air-conditioning like VRV system, Cassette type machines, Refrigerators and Solar Water Heating systems is introduced.
- Substation chapter is included with the transformers with concept of Energy saving as per ECBC code criteria. Entire range of Diesel Generator with AMF panels is introduced.
- Temporary installation chapter is updated with present requirement during VIP visit and requirement with Temp. Multi Media / LED Screen / Plasma TV / A.C. System, D.G. Set /live set up and hi-fi sound system.
- Lift chapter is updated with machine room less normally. wide range of lifts with premium features and safety and insurance consideration is introduced which comprises wide range

of passenger capacity and numbers of floors i.e., 4 to 26 passengers for G+1 to G+13 floors services.

Department has tried to tune in line with the use of modern technology in the various field, fire safety and energy conservation with best public utilization, adoption of latest standard through this new edition of SOR 2021-2022.

Disclaimer: The rates taken in S.O.R are indicative and actual rates shall be governed by the various trends in the markets, The other Government departments, PSUs, Local bodies and other private organization using this S.O.R shall be their own risk and discretion. PWD shall not be responsible for any ambiguity, discrepancy, dispute or financial loss arising directly or indirectly by using or following items of S.O.R by other Government Departments, PSU, local bodies and other private organization.

## ABBREVIATIONS

Alu.	Aluminium
Cm.	Centimes.
mm.	Millimeter
Mar.	Meter
M.S.	Mild Steel
C.I.	Cast Iron
Ea.	Each
Cat.	Category
D.P.I.C.S. & F.	Double Pole Iron Clad Switch and Fuse
T.P.I.C.S. & F.	Triple Pole Iron Clad Switch and Fuse
HFFR	Halogen Free Fire Retardant
HFHC	High Frequency Harmonic Controlled
T.P.I.	Turns per Inch.
T.R.	Tonnage Refrigeration
M.S.	Mild Steel
S.S.	Sheet Steel
M.H.	Metal Helide
S.V.L.-Sodium Vapour Lamp	
N.L.	Neutral Link



H.V.	High Voltage
Sq.	Square
P.W.	Polished Wooden
Dia.	Diameter
Kg.	Kilogram
Km.	Kilometer
Ltr.	Litre
Cys.	Cycles
C.T.S.	Current Transformers
N.O.	Nominal Outside
O.D.	Outside Diameter
T.W.	Teak Wood
N.B.	Nominal Bore
F.R.L.S.	Fire retardant low Smoke
M.F.	Mafron gas filled
G.F.	Gas filled
B.C.	Bare Copper
E.C.C.	Earth Continuity Conductor
E.C.B.C.	Energy conservation building code.
B.E.E.	Bureau of energy efficiency
MCB	Miniature circuit breaker

ELCB	Earth Leakage Circuit breaker
ELV	Extra low voltage.
LED	Light emitting Diode
HRC	High Rupturing capacity
Wp	Photovoltaic wattage
APFC	Automatic power factor control
XLPE	Cross linked polyethylene
PVC	polyvinyle chloride
ZHFR	Zero Halogen Flame Retardant
HRFR	Heat Resistant flame Retardant
L.S.I.G	long time, short time, instantaneous ground fault
P.P.I	per phase isolation
A/F	Across face (in high mast)



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# **CHAPTER - I**

## **Electric Wirings**

## CHAPTER - I Electric wirings

**NOTE:1.** For use of ZHFR/HRFR Copper wires in place of FRLS PVC wires add 5% in Item of Point wiring Item No 1-1-1 to 1-2-5 & 1-5-1 & 1-5-2.

### SECTION - 1-1 Point wiring in Copper [TISSINO]

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
1-1-1.	Point wiring for <b>Light / Fan/ Bell/ Primary Point</b> with 2-1.5 sq. mm & earth wire of 1.5 sq. mm (green) both are of ISI marked 1.1 kv grade FRLS PVC insulated multi strand copper wires upto max length of 10 mt, in below type of pipe erected with 6A Tissino Type ISI marked flush type switch / bell push and accessories erected on Metal / PVC/Wooden Box covered with 3 mm thick PC(Polycarbonate) /Acrylic/Laminated sheet with necessary Lamp holder/ceiling rose / H.D.Connector as directed.				
	(a) with medium class Rigid PVC pipe and accessories erected <b>flushed</b> on wall/ceiling complete	Pt	270.00	60.00	330.00
	(b) with 16 swg(1.6 mm thick) HGS metal conduit pipe and accessories painted black erected <b>flushed</b> on wall/ceiling complete	Pt.	370.00	70.00	440.00
	( c) with oval conduit /PVC casing capping double lock type erected <b>flushed</b> on wall/ceiling complete	Pt.	240.00	40.00	280.00
	(d) partial PVC pipe and drops in oval conduit / PVC casing capping erected <b>flushed</b> on wall/ceiling complete	Pt.	255.00	50.00	305.00
	(e) in existing pipe erected <b>flushed</b> on wall/ceiling complete	Pt	200.00	40.00	240.00
	(f) with medium class Rigid PVC pipe and accessories erected <b>concealed</b> in wall/ceiling complete	Pt	270.00	90.00	360.00
	(g) with 16 swg(1.6 mm thick) HGS metal conduit pipe and accessories painted black erected <b>concealed</b> in wall/ceiling complete	Pt.	370.00	100.00	470.00
	( h) with oval conduit /PVC casing capping double lock type erected <b>concealed</b> in wall/ceiling complete	Pt.	240.00	70.00	310.00
	(i) partial PVC pipe and drops in oval conduit / PVC casing capping erected <b>concealed</b> in wall/ceiling complete	Pt.	255.00	80.00	335.00
	(j) in existing pipe erected erected <b>concealed</b> in wall/ceiling complete	Pt.	200.00	70.00	270.00
1-1-2.	Point wiring for <b>independent PLUG</b> with following size mains earth wire of 1.5 sq.mm (green) both are of ISI marked 1.1 KV grade FRLS PVC insulated multi strand copper wires upto 10 mt length, in following below of pipe erected complete with ISI marked 3 / 5 Pin socket and tissino type switch erected with earth continuity connection erected on Metal / PVC/Wooden box covered with 3 mm thick PC(Polycarbonate) / Acrylic/Laminated sheet				

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
(A)	[A] For 6 amp plug and 6 amp switch with 2-1.5 sq. mm Cu. Mains from near by switchboard/db board upto 6 mt.				
	(a) with medium class Rigid PVC pipe and accessories erected flushed on wall/ceiling complete	Pt.	240.00	50.00	290.00
	(b) with 16 swg(1.6 mm thick) HGS metal conduit pipe and accessories painted black erected flushed on wall/ceiling complete	Pt.	340.00	60.00	400.00
	(c) with oval conduit /PVC casing capping double lock type erected flushed on wall/ceiling complete	Pt.	210.00	40.00	250.00
	(d) partial PVC pipe and drops in oval conduit / PVC casing capping erected flushed on wall/ceiling complete	Pt.	225.00	45.00	270.00
	(e) in existing pipe erected flushed on wall/ceiling complete	Pt.	170.00	40.00	210.00
	(f) with medium class Rigid PVC pipe and accessories erected concealed in wall/ceiling complete	Pt.	240.00	80.00	320.00
	(g) with 16 swg(1.6 mm thick) HGS metal conduit pipe and accessories painted black erected concealed in wall/ceiling complete	Pt.	340.00	90.00	430.00
	(h) with oval conduit /PVC casing capping double lock type erected concealed in wall/ceiling complete	Pt.	210.00	70.00	280.00
	(i) partial PVC pipe and drops in oval conduit / PVC casing capping erected concealed in wall/ceiling complete	Pt.	225.00	75.00	300.00
	(j) in existing pipe erected erected concealed in wall/ceiling complete	Pt.	170.00	70.00	240.00
(B)	[B] 6/16A Plug and 16 amp switch with 2-2.5 sq. mm Cu. Mains from mcb d b boards.				
	(a) with medium class Rigid PVC pipe and accessories erected flushed on wall/ceiling complete	Pt.	425.00	40.00	465.00
	(b) with 16 swg(1.6 mm thick) HGS metal conduit pipe and accessories painted black erected flushed on wall/ceiling complete	Pt.	505.00	50.00	555.00
	(c) with oval conduit /PVC casing capping double lock type erected flushed on wall/ceiling complete	Pt.	340.00	40.00	380.00
	(d) partial PVC pipe and drops in oval conduit / PVC casing capping erected flushed on wall/ceiling complete	Pt.	405.00	40.00	445.00
	(e) in existing pipe erected flushed on wall/ceiling complete	Pt.	260.00	40.00	300.00
	(f) with medium class Rigid PVC pipe and accessories erected concealed in wall/ceiling complete	Pt.	425.00	70.00	495.00
	(g) with 16 swg(1.6 mm thick) HGS metal conduit pipe and accessories painted black erected concealed in wall/ceiling complete	Pt.	505.00	80.00	585.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	( h ) with oval conduit /PVC casing capping double lock type erected concealed in wall/ceiling complete	Pt.	340.00	70.00	410.00
	(i) partial PVC pipe and drops in oval conduit / PVC casing capping erected concealed in wall/ceiling complete	Pt.	405.00	70.00	475.00
	(j) in existing pipe erected erected concealed in wall/ceiling complete	Pt.	260.00	70.00	330.00
(C)	[C] 6/16A Plug and 16 A switch with 2-4 sq.mm Cu. Mains with 2.5 sq.mm ( green) earthing wire				
	(a) with medium class Rigid PVC pipe and accessories erected flushed on wall/ceiling complete	Pt.	520.00	50.00	570.00
	(b) with 16 swg(1.6 mm thick) HGS metal conduit pipe and accessories painted black erected flushed on wall/ceiling complete	Pt.	610.00	60.00	670.00
	( c ) with oval conduit /PVC casing capping double lock type erected flushed on wall/ceiling complete	Pt.	460.00	50.00	510.00
	(d) partial PVC pipe and drops in oval conduit / PVC casing capping erected flushed on wall/ceiling complete	Pt.	500.00	50.00	550.00
	(e) in existing pipe erected flushed on wall/ceiling complete	Pt.	360.00	50.00	410.00
	(f) with medium class Rigid PVC pipe and accessories erected concealed in wall/ceiling complete	Pt.	520.00	80.00	600.00
	(g) with 16 swg(1.6 mm thick) HGS metal conduit pipe and accessories painted black erected concealed in wall/ceiling complete	Pt.	610.00	90.00	700.00
	( h ) with oval conduit /PVC casing capping double lock type erected concealed in wall/ceiling complete	Pt.	460.00	80.00	540.00
	(i) partial PVC pipe and drops in oval conduit / PVC casing capping erected concealed in wall/ceiling complete	Pt.	500.00	80.00	580.00
	(j) in existing pipe erected erected concealed in wall/ceiling complete	Pt.	360.00	80.00	440.00
1-1-3.	Point wiring for on board looped PLUG with tissino type single pole ISI marked Switch and Socket erected with necessary connections erected on wooden /Metal/ PVC Box covered with 3 mm thick PC(Polycarbonate) /Acrylic sheet for open / concealed wiring for following size.				
	[A] For 6 Amp.	Pt.	50.00	10.00	60.00
	[B] For 16 Amp.	Pt.	120.00	30.00	150.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
1-1-4.	Point wiring for <b>secondary light point</b> with 2-1.5 sq.mm & earth wire of 1.5 sq.mm (green) both are of ISI marked 1.1 KV grade FRLS PVC insulated multi strand copper wires, in below type of pipe to be erected complete with earth continuity and necessary connection with primary light with accessories erected on Metal / PVC / wooden box covered with 3 mm thick PC(Polycarbonate) / Acrylic sheet for open / concealed wiring. with necessary Lamp holder / ceiling rose / H.D.Connector as directed.				
	<b>Note:- Maximum up to 6 mtrs length, excess will be considered as Mains for Secondary Point.</b>				
	(a) with medium class Rigid PVC pipe and accessories erected <b>flushed</b> on wall/ceiling complete	Pt.	95.00	25.00	120.00
	(b) with 16 swg(1.6 mm thick) HGS metal conduit pipe and accessories painted black erected <b>flushed</b> on wall/ceiling complete	Pt.	150.00	30.00	180.00
	( c ) with oval conduit /PVC casing capping double lock type erected <b>flushed</b> on wall/ceiling complete	Pt.	75.00	25.00	100.00
	(d) partial PVC pipe and drops in oval conduit / PVC casing capping erected <b>flushed</b> on wall/ceiling complete	Pt.	85.00	25.00	110.00
	(e) in existing pipe erected <b>flushed</b> on wall/ceiling complete	Pt.	50.00	25.00	75.00
	(f) with medium class Rigid PVC pipe and accessories erected <b>concealed</b> in wall/ceiling complete	Pt.	95.00	55.00	150.00
	(g) with 16 swg(1.6 mm thick) HGS metal conduit pipe and accessories painted black erected <b>concealed</b> in wall/ceiling complete	Pt.	150.00	60.00	210.00
	( h ) with oval conduit /PVC casing capping double lock type erected <b>concealed</b> in wall/ceiling complete	Pt.	75.00	55.00	130.00
	(i) partial PVC pipe and drops in oval conduit / PVC casing capping erected <b>concealed</b> in wall/ceiling complete	Pt.	85.00	55.00	140.00
	(j) in existing pipe erected <b>concealed</b> in wall/ceiling complete	Pt.	50.00	55.00	105.00
1-1-5.	Point wiring for <b>Two Way Controlled Light Point</b> with 2-1.5 sq.mm & earth wire of 1.5 sq mm (green) both are of ISI marked 1.1 KV grade FRLS PVC insulated multi strand copper wires up to 10 mtr length, in following type of pipe to be erected <b>concealed</b> in / <b>flushed</b> on wall / ceiling complete with 6A Tissino Type ISI marked accessories with earth continuity erected on Metal/PVC/Wooden box covered with 3 mm thick PC(Polycarbonate) / Acrylic sheet. with necessary Lamp holder/ceiling rose / H.D.Connector as directed.				

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	(a) with medium class Rigid PVC pipe and accessories erected flushed on wall/ceiling complete	Pt.	290.00	60.00	350.00
	(b) with 16 swg(1.6 mm thick) HGS metal conduit pipe and accessories painted black erected flushed on wall/ceiling complete	Pt.	405.00	70.00	475.00
	(c) with oval conduit /PVC casing capping double lock type erected flushed on wall/ceiling complete	Pt.	270.00	40.00	310.00
	(d) partial PVC pipe and drops in oval conduit / PVC casing capping erected flushed on wall/ceiling complete	Pt.	285.00	50.00	335.00
	(e) in existing pipe erected flushed on wall/ceiling complete	Pt.	220.00	40.00	260.00
	(f) with medium class Rigid PVC pipe and accessories erected concealed in wall/ceiling complete	Pt.	290.00	90.00	380.00
	(g) with 16 swg(1.6 mm thick) HGS metal conduit pipe and accessories painted black erected concealed in wall/ceiling complete	Pt.	405.00	100.00	505.00
	(h) with oval conduit /PVC casing capping double lock type erected concealed in wall/ceiling complete	Pt.	270.00	70.00	340.00
	(i) partial PVC pipe and drops in oval conduit / PVC casing capping erected concealed in wall/ceiling complete	Pt.	285.00	80.00	365.00
	(j) in existing pipe erected erected concealed in wall/ceiling complete	Pt.	220.00	70.00	290.00

### Section - 1-2 Point wiring in Copper

1-2-1.	Point wiring for Light / Bell with 2-1.5 sq.mm & earth wire of 1.5 sq.mm (Green) both are of ISI marked 1.1 KV grade FRLS PVC insulated multi strand copper wires up to 10 mtr length , in below type of pipe erected with 6A Modular type switch / bell push & accessories and earth continuity of following type, erected on PVC / Metallic/Wooden box, single mounting base frame covered with textured/metallic/white front plate modules erected on / in wall / ceiling as per pipe erected, with necessary Lamp holder/ceiling rose / H.D.Connector as directed.				
	(a) with medium class Rigid PVC pipe and accessories erected flushed on wall/ceiling complete				
		Cat. I Pt.	290.00	60.00	350.00
		Cat. II Pt.	340.00	60.00	400.00
		Cat. III Pt.	360.00	60.00	420.00
	(b) with 16 swg HGS metal conduit pipe and accessories painted black erected flushed on wall/ceiling complete				
		Cat. I Pt.	390.00	80.00	470.00
		Cat. II Pt.	440.00	80.00	520.00
		Cat. III Pt.	460.00	80.00	540.00
	(c) with oval conduit /PVC casing capping double lock type erected flushed on wall/ceiling complete				
		Cat. I Pt.	260.00	50.00	310.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
		Cat. II Pt.	310.00	50.00	360.00
		Cat. III Pt.	330.00	50.00	380.00
	(d) partial PVC pipe and drops in oval conduit / PVC casing capping erected flushed on wall/ceiling complete				
		Cat. I Pt.	280.00	50.00	330.00
		Cat. II Pt.	290.00	50.00	340.00
		Cat. III Pt.	300.00	50.00	350.00
	(e) in existing pipe erected flushed on wall/ceiling complete				
		Cat. I Pt.	220.00	50.00	270.00
		Cat. II Pt.	270.00	50.00	320.00
		Cat. III Pt.	300.00	50.00	350.00
	(f) with medium class Rigid PVC pipe and accessories erected concealed in wall/ceiling complete				
		Cat. I Pt.	290.00	90.00	380.00
		Cat. II Pt.	340.00	90.00	430.00
		Cat. III Pt.	360.00	90.00	450.00
	(g) with 16 swg HGS metal conduit pipe and accessories painted black. erected concealed in wall/ceiling complete				
		Cat. I Pt.	390.00	110.00	500.00
		Cat. II Pt.	440.00	110.00	550.00
		Cat. III Pt.	460.00	110.00	570.00
	(h) with oval conduit /PVC casing capping double lock type erected concealed in wall/ceiling complete				
		Cat. I Pt.	260.00	80.00	340.00
		Cat. II Pt.	310.00	80.00	390.00
		Cat. III Pt.	330.00	80.00	410.00
	(i) partial PVC pipe and drops in oval conduit / PVC casing capping erected concealed in wall/ceiling complete				
		Cat. I Pt.	280.00	80.00	360.00
		Cat. II Pt.	290.00	80.00	370.00
		Cat. III Pt.	300.00	80.00	380.00
	(j) in existing pipe erected concealed in wall/ceiling complete				
		Cat. I Pt.	220.00	80.00	300.00
		Cat. II Pt.	270.00	80.00	350.00
		Cat. III Pt.	300.00	80.00	380.00
1-2-2.	Point wiring for FAN with 2-1.5 sq.mm & earth wire of 1.5 sq.mm (Green) both are of ISI marked 1.1 KV Grade FRLS PVC insulated multi strand copper wires up to 10 mtr length, in below type of pipe erected with 6A Modular type switch and hum free EME four or more step type electronic fan regulator with separately mounted and accessories with earth continuity of following type erected on PVC / Metallic/Wooden box, single mounting base frame covered with textured/metallic/white front plate modules erected on / in wall / ceiling as per pipe erected with necessary ceiling rose / H.D.Connector as directed.				
	(a) with medium class Rigid PVC pipe and accessories erected flushed on wall/ceiling complete				

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
		Cat. I Pt.	440.00	60.00	500.00
		Cat. II Pt.	520.00	60.00	580.00
		Cat. III Pt.	540.00	60.00	600.00
	<b>(b) with 16 swg HGS metal conduit pipe and accessories painted black erected flushed on wall/ceiling complete</b>				
		Cat. I Pt.	540.00	80.00	620.00
		Cat. II Pt.	620.00	80.00	700.00
		Cat. III Pt.	640.00	80.00	720.00
	<b>(c) with oval conduit /PVC casing capping double lock type erected flushed on wall/ceiling complete</b>				
		Cat. I Pt.	400.00	50.00	450.00
		Cat. II Pt.	490.00	50.00	540.00
		Cat. III Pt.	510.00	50.00	560.00
	<b>(d) partial PVC pipe and drops in oval conduit / PVC casing capping erected flushed on wall/ceiling complete</b>				
		Cat. I Pt.	420.00	50.00	470.00
		Cat. II Pt.	470.00	50.00	520.00
		Cat. III Pt.	490.00	50.00	540.00
	<b>(e) in existing pipe erected flushed on wall/ceiling complete</b>				
		Cat. I Pt.	360.00	50.00	410.00
		Cat. II Pt.	425.00	50.00	475.00
		Cat. III Pt.	440.00	50.00	490.00
	<b>(f) with medium class Rigid PVC pipe and accessories erected concealed in wall/ceiling complete</b>				
		Cat. I Pt.	440.00	90.00	530.00
		Cat. II Pt.	520.00	90.00	610.00
		Cat. III Pt.	540.00	90.00	630.00
	<b>(g) with 16 swg HGS metal conduit pipe and accessories painted black. erected concealed in wall/ceiling complete</b>				
		Cat. I Pt.	540.00	110.00	650.00
		Cat. II Pt.	620.00	110.00	730.00
		Cat. III Pt.	640.00	110.00	750.00
	<b>(h) with oval conduit /PVC casing capping double lock type erected concealed in wall/ceiling complete</b>				
		Cat. I Pt.	400.00	80.00	480.00
		Cat. II Pt.	490.00	80.00	570.00
		Cat. III Pt.	510.00	80.00	590.00
	<b>(i) partial PVC pipe and drops in oval conduit / PVC casing capping erected concealed in wall/ceiling complete</b>				
		Cat. I Pt.	420.00	80.00	500.00
		Cat. II Pt.	470.00	80.00	550.00
		Cat. III Pt.	490.00	80.00	570.00
	<b>(j) in existing pipe erected concealed in wall/ceiling complete</b>				
		Cat. I Pt.	360.00	80.00	440.00
		Cat. II Pt.	425.00	80.00	505.00
		Cat. III Pt.	440.00	80.00	520.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
1-2-3.	Point wiring for Individual Plug with & earth wire of 1.5 sq.mm (Green) both are of ISI marked 1.1 KV grade FRLS PVC insulated multi strand copper wires up to 10 mtr length, in below type of pipe erected complete with Modular type switch & 5 pin Plug erected on PVC / Metallic/Wooden box covered with appropriate front plate modules erected on / in wall / ceiling as per pipe erected with following type of accessories.				
(I)	<b>[I] For 6A Plug and 6 a switch with 2-1.5 sq.mm Cu. Wire from nearby switchboard/mcb db board</b>				
	(a) with medium class Rigid PVC pipe and accessories erected flushed on wall/ceiling complete				
		Cat. I Pt.	360.00	50.00	410.00
		Cat. II Pt.	380.00	50.00	430.00
		Cat. III Pt.	395.00	50.00	445.00
	(b) with 16 swg HGS metal conduit pipe and accessories painted black erected flushed on wall/ceiling complete				
		Cat. I Pt.	460.00	60.00	520.00
		Cat. II Pt.	480.00	60.00	540.00
		Cat. III Pt.	495.00	60.00	555.00
	(c) with oval conduit /PVC casing capping double lock type erected flushed on wall/ceiling complete				
		Cat. I Pt.	330.00	40.00	370.00
		Cat. II Pt.	350.00	40.00	390.00
		Cat. III Pt.	365.00	40.00	405.00
	(d) partial PVC pipe and drops in oval conduit / PVC casing capping erected flushed on wall/ceiling complete				
		Cat. I Pt.	345.00	45.00	390.00
		Cat. II Pt.	365.00	45.00	410.00
		Cat. III Pt.	380.00	45.00	425.00
	(e) in existing pipe erected flushed on wall/ceiling complete				
		Cat. I Pt.	290.00	40.00	330.00
		Cat. II Pt.	310.00	40.00	350.00
		Cat. III Pt.	325.00	40.00	365.00
	(f) with medium class Rigid PVC pipe and accessories erected concealed in wall/ceiling complete				
		Cat. I Pt.	360.00	80.00	440.00
		Cat. II Pt.	380.00	80.00	460.00
		Cat. III Pt.	395.00	80.00	475.00
	(g) with 16 swg HGS metal conduit pipe and accessories painted black. erected concealed in wall/ceiling complete				
		Cat. I Pt.	460.00	90.00	550.00
		Cat. II Pt.	480.00	90.00	570.00
		Cat. III Pt.	495.00	90.00	585.00
	(h) with oval conduit /PVC casing capping double lock type erected concealed in wall/ceiling complete				
		Cat. I Pt.	330.00	70.00	400.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
		Cat. II Pt.	350.00	70.00	420.00
		Cat. III Pt.	365.00	70.00	435.00
	(i) partial PVC pipe and drops in oval conduit / PVC casing capping erected concealed in wall/ceiling complete				
		Cat. I Pt.	345.00	75.00	420.00
		Cat. II Pt.	365.00	75.00	440.00
		Cat. III Pt.	380.00	75.00	455.00
	(j) in existing pipe erected concealed in wall/ceiling complete				
		Cat. I Pt.	290.00	70.00	360.00
		Cat. II Pt.	310.00	70.00	380.00
		Cat. III Pt.	325.00	70.00	395.00
(II)	[II] For 16A Plug and 16 amp switch with 2-2.5 sq.mm Cu. Wire from mcb db board.				
	(a) with medium class Rigid PVC pipe and accessories erected flushed on wall/ceiling complete				
		Cat. I Pt.	560.00	50.00	610.00
		Cat. II Pt.	595.00	50.00	645.00
		Cat. III Pt.	620.00	50.00	670.00
	(b) with 16 swg HGS metal conduit pipe and accessories painted black erected flushed on wall/ceiling complete				
		Cat. I Pt.	640.00	60.00	700.00
		Cat. II Pt.	680.00	60.00	740.00
		Cat. III Pt.	695.00	60.00	755.00
	(c) with oval conduit /PVC casing capping double lock type erected flushed on wall/ceiling complete				
		Cat. I Pt.	480.00	40.00	520.00
		Cat. II Pt.	520.00	40.00	560.00
		Cat. III Pt.	540.00	40.00	580.00
	(d) partial PVC pipe and drops in oval conduit / PVC casing capping erected flushed on wall/ceiling complete				
		Cat. I Pt.	540.00	40.00	580.00
		Cat. II Pt.	580.00	40.00	620.00
		Cat. III Pt.	595.00	40.00	635.00
	(e) in existing pipe erected flushed on wall/ceiling complete				
		Cat. I Pt.	395.00	40.00	435.00
		Cat. II Pt.	435.00	40.00	475.00
		Cat. III Pt.	460.00	40.00	500.00
	(f) with medium class Rigid PVC pipe and accessories erected concealed in wall/ceiling complete				
		Cat. I Pt.	560.00	80.00	640.00
		Cat. II Pt.	595.00	80.00	675.00
		Cat. III Pt.	620.00	80.00	700.00
	(g) with 16 swg HGS metal conduit pipe and accessories painted black. erected concealed in wall/ceiling complete				
		Cat. I Pt.	640.00	90.00	730.00
		Cat. II Pt.	680.00	90.00	770.00
		Cat. III Pt.	695.00	90.00	785.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	( h ) with oval conduit /PVC casing capping double lock type erected concealed in wall/ceiling complete				
		Cat. I Pt.	480.00	70.00	550.00
		Cat. II Pt.	520.00	70.00	590.00
		Cat. III Pt.	540.00	70.00	610.00
	(i) partial PVC pipe and drops in oval conduit / PVC casing capping erected concealed in wall/ceiling complete				
		Cat. I Pt.	540.00	70.00	610.00
		Cat. II Pt.	580.00	70.00	650.00
		Cat. III Pt.	595.00	70.00	665.00
	(j) in existing pipe erected concealed in wall/ceiling complete				
		Cat. I Pt.	395.00	70.00	465.00
		Cat. II Pt.	435.00	70.00	505.00
		Cat. III Pt.	460.00	70.00	530.00
(III)	(III) For 16A Plug and 16 amp switch with 2-4 sq.mm Cu. Wire with 2.5 sq.mm ( green) earthing wire from mcb d b board.				
	(a) with medium class Rigid PVC pipe and accessories erected flushed on wall/ceiling complete				
		Cat. I Pt.	680.00	50.00	730.00
		Cat. II Pt.	720.00	50.00	770.00
		Cat. III Pt.	740.00	50.00	790.00
	(b) with 16 swg HGS metal conduit pipe and accessories painted black erected flushed on wall/ceiling complete				
		Cat. I Pt.	770.00	60.00	830.00
		Cat. II Pt.	800.00	60.00	860.00
		Cat. III Pt.	830.00	60.00	890.00
	( c ) with oval conduit /PVC casing capping double lock type erected flushed on wall/ceiling complete				
		Cat. I Pt.	620.00	50.00	670.00
		Cat. II Pt.	660.00	50.00	710.00
		Cat. III Pt.	680.00	50.00	730.00
	(d) partial PVC pipe and drops in oval conduit / PVC casing capping erected flushed on wall/ceiling complete				
		Cat. I Pt.	660.00	50.00	710.00
		Cat. II Pt.	695.00	50.00	745.00
		Cat. III Pt.	720.00	50.00	770.00
	(e) in existing pipe erected flushed on wall/ceiling complete				
		Cat. I Pt.	520.00	50.00	570.00
		Cat. II Pt.	560.00	50.00	610.00
		Cat. III Pt.	580.00	50.00	630.00
	(f) with medium class Rigid PVC pipe and accessories erected concealed in wall/ceiling complete				
		Cat. I Pt.	680.00	80.00	760.00
		Cat. II Pt.	720.00	80.00	800.00
		Cat. III Pt.	740.00	80.00	820.00
	(g) with 16 swg HGS metal conduit pipe and accessories painted black. erected concealed in wall/ceiling complete				
		Cat. I Pt.	770.00	90.00	860.00
		Cat. II Pt.	800.00	90.00	890.00
		Cat. III Pt.	830.00	90.00	920.00
	( h ) with oval conduit /PVC casing capping double lock type erected concealed in wall/ceiling complete				
		Cat. I Pt.	620.00	80.00	700.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	(h) with oval conduit /PVC casing capping double lock type erected concealed in wall/ceiling complete				
		Cat. I Pt.	480.00	70.00	550.00
		Cat. II Pt.	520.00	70.00	590.00
		Cat. III Pt.	540.00	70.00	610.00
	(i) partial PVC pipe and drops in oval conduit / PVC casing capping erected concealed in wall/ceiling complete				
		Cat. I Pt.	540.00	70.00	610.00
		Cat. II Pt.	580.00	70.00	650.00
		Cat. III Pt.	595.00	70.00	665.00
	(j) in existing pipe erected concealed in wall/ceiling complete				
		Cat. I Pt.	395.00	70.00	465.00
		Cat. II Pt.	435.00	70.00	505.00
		Cat. III Pt.	460.00	70.00	530.00
(III)	[III] For 16A Plug and 16 amp switch with 2-4 sq.mm Cu. Wire with 2.5 sq.mm ( green) earthing wire from mcb d b board.				
	(a) with medium class Rigid PVC pipe and accessories erected flushed on wall/ceiling complete				
		Cat. I Pt.	680.00	50.00	730.00
		Cat. II Pt.	720.00	50.00	770.00
		Cat. III Pt.	740.00	50.00	790.00
	(b) with 16 swg HGS metal conduit pipe and accessories painted black erected flushed on wall/ceiling complete				
		Cat. I Pt.	770.00	60.00	830.00
		Cat. II Pt.	800.00	60.00	860.00
		Cat. III Pt.	830.00	60.00	890.00
	(c) with oval conduit /PVC casing capping double lock type erected flushed on wall/ceiling complete				
		Cat. I Pt.	620.00	50.00	670.00
		Cat. II Pt.	660.00	50.00	710.00
		Cat. III Pt.	680.00	50.00	730.00
	(d) partial PVC pipe and drops in oval conduit / PVC casing capping erected flushed on wall/ceiling complete				
		Cat. I Pt.	660.00	50.00	710.00
		Cat. II Pt.	695.00	50.00	745.00
		Cat. III Pt.	720.00	50.00	770.00
	(e) in existing pipe erected flushed on wall/ceiling complete				
		Cat. I Pt.	520.00	50.00	570.00
		Cat. II Pt.	560.00	50.00	610.00
		Cat. III Pt.	580.00	50.00	630.00
	(f) with medium class Rigid PVC pipe and accessories erected concealed in wall/ceiling complete				
		Cat. I Pt.	680.00	80.00	760.00
		Cat. II Pt.	720.00	80.00	800.00
		Cat. III Pt.	740.00	80.00	820.00
	(g) with 16 swg HGS metal conduit pipe and accessories painted black. erected concealed in wall/ceiling complete				
		Cat. I Pt.	770.00	90.00	860.00
		Cat. II Pt.	800.00	90.00	890.00
		Cat. III Pt.	830.00	90.00	920.00
	(h) with oval conduit /PVC casing capping double lock type erected concealed in wall/ceiling complete				
		Cat. I Pt.	620.00	80.00	700.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
		Cat. II Pt.	660.00	80.00	740.00
		Cat. III Pt.	680.00	80.00	760.00
	<b>(i) partial PVC pipe and drops in oval conduit / PVC casing capping erected concealed in wall/ceiling complete</b>				
		Cat. I Pt.	660.00	80.00	740.00
		Cat. II Pt.	695.00	80.00	775.00
		Cat. III Pt.	720.00	80.00	800.00
	<b>(j) in existing pipe erected concealed in wall/ceiling complete</b>				
		Cat. I Pt.	520.00	80.00	600.00
		Cat. II Pt.	560.00	80.00	640.00
		Cat. III Pt.	580.00	80.00	660.00
1-2-4.	Point wiring for <b>on board Looped Plug</b> with 6A Modular type switch & 5 pin socket erected on PVC / Metallic/Wooden box, single mounting base frame covered with textured / metallic/white front plate modules erected on / in wall / ceiling with following type accessories				
		Cat. I Pt.	160.00	30.00	190.00
		Cat. II Pt.	190.00	30.00	220.00
		Cat. III Pt.	210.00	30.00	240.00
1-2-5.	Point wiring for <b>Two Way Controlled Light Point</b> with 2-1.5 sq.mm & earth wire of 1.5 sq.mm (green) both are of ISI marked 1.1 KV grade FRLS PVC insulated multi strand copper wires erected in below type of pipe with 6A Modular type switches and following type of accessories erected on PVC / Metallic/Wooden box, single mounting base frame covered with textured / metallic/white front plate modules erected on / in wall / ceiling as per pipe erected with necessary batten/angle holder or ceiling rose or H.D.Connector as directed.				
	<b>(a) with medium class Rigid PVC pipe and accessories erected flushed on wall/ceiling complete</b>				
		Cat. I Pt.	390.00	70.00	460.00
		Cat. II Pt.	440.00	70.00	510.00
		Cat. III Pt.	460.00	70.00	530.00
	<b>(b) with 16 swg HGS metal conduit pipe and accessories painted black erected flushed on wall/ceiling complete</b>				
		Cat. I Pt.	490.00	80.00	570.00
		Cat. II Pt.	540.00	80.00	620.00
		Cat. III Pt.	560.00	80.00	640.00
	<b>(c) with oval conduit /PVC casing capping double lock type erected flushed on wall/ceiling complete</b>				
		Cat. I Pt.	360.00	50.00	410.00
		Cat. II Pt.	410.00	50.00	460.00
		Cat. III Pt.	440.00	50.00	490.00
	<b>(d) partial PVC pipe and drops in oval conduit / PVC casing capping erected flushed on wall/ceiling complete</b>				
		Cat. I Pt.	380.00	50.00	430.00
		Cat. II Pt.	390.00	50.00	440.00

total  
740.00  
750.00  
750.00  
775.00  
800.00  
800.00  
600.00  
640.00  
650.00  
190.00  
220.00  
240.00  
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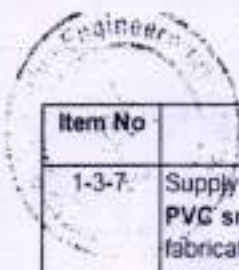
Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
		Cat. III Pt.	410.00	50.00	460.00
	(e) in existing pipe erected flushed on wall/ceiling complete				
		Cat. I Pt.	320.00	50.00	370.00
		Cat. II Pt.	370.00	50.00	420.00
		Cat. III Pt.	400.00	50.00	450.00
	(f) with medium class Rigid PVC pipe and accessories erected concealed in wall/ceiling complete				
		Cat. I Pt.	390.00	100.00	490.00
		Cat. II Pt.	440.00	100.00	540.00
		Cat. III Pt.	460.00	100.00	560.00
	(g) with 16 swg HGS metal conduit pipe and accessories painted black. erected concealed in wall/ceiling complete				
		Cat. I Pt.	490.00	110.00	600.00
		Cat. II Pt.	540.00	110.00	650.00
		Cat. III Pt.	560.00	110.00	670.00
	(h) with oval conduit /PVC casing capping double lock type erected concealed in wall/ceiling complete				
		Cat. I Pt.	360.00	80.00	440.00
		Cat. II Pt.	410.00	80.00	490.00
		Cat. III Pt.	440.00	80.00	520.00
	(i) partial PVC pipe and drops in oval conduit / PVC casing capping erected concealed in wall/ceiling complete				
		Cat. I Pt.	380.00	80.00	460.00
		Cat. II Pt.	390.00	80.00	470.00
		Cat. III Pt.	410.00	80.00	490.00
	(j) in existing pipe erected concealed in wall/ceiling complete				
		Cat. I Pt.	320.00	80.00	400.00
		Cat. II Pt.	370.00	80.00	450.00
		Cat. III Pt.	400.00	80.00	480.00
1-2-6.	Providing following type of Modular Type Accessories mounted with PVC / metallic/Wooden box, single mounting base frame covered with textured / metallic/white front plate , modules erected with necessary connections as per site situation directed by Engineer In charge.				
	(1)One No. SP 6 Amp.				
		Cat. I Ea.	80.00	10.00	90.00
		Cat. II Ea.	115.00	10.00	125.00
		Cat. III Ea.	140.00	10.00	150.00
	(2) One No 5 pin plug				
		Cat. I Ea.	80.00	10.00	90.00
		Cat. II Ea.	115.00	10.00	125.00
		Cat. III Ea.	140.00	10.00	150.00
	(3) Two Pin/RJ-11 Telephone Socket				
	[A] For One Gang				
		Cat. I Ea.	90.00	10.00	100.00
		Cat. II Ea.	120.00	10.00	130.00
		Cat. III Ea.	150.00	10.00	160.00
	[B] For Two Gang				
		Cat. I Ea.	120.00	10.00	130.00
		Cat. II Ea.	160.00	10.00	170.00
		Cat. III Ea.	200.00	10.00	210.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
(4)	TV Co-axial Socket outlet				
	Cat.I	Ea.	100.00	10.00	110.00
	Cat.II	Ea.	130.00	10.00	140.00
	Cat.III	Ea.	150.00	10.00	160.00
(5)	Electronic hum Free four or more steps EME Fan regulator				
	Cat.I	Ea.	280.00	10.00	290.00
	Cat.II	Ea.	330.00	10.00	340.00
	Cat.III	Ea.	390.00	10.00	400.00
(6)	Fuse units 10Amp. or 16 Amp.				
	Cat.I	Ea.	90.00	10.00	100.00
	Cat.II	Ea.	110.00	10.00	120.00
	Cat.III	Ea.	170.00	10.00	180.00
(7)	Blank Plate Single				
	Cat.I	Ea.	10.00	0.00	10.00
	Cat.II	Ea.	15.00	0.00	15.00
	Cat.III	Ea.	25.00	0.00	25.00
(8)	Computer RJ-45 socket				
	Cat.I	Ea.	100.00	10.00	110.00
	Cat.II	Ea.	130.00	10.00	140.00
	Cat.III	Ea.	150.00	10.00	160.00
(9)	16 Amp. SP one way switch				
	Cat.I	Ea.	90.00	10.00	100.00
	Cat.II	Ea.	120.00	10.00	130.00
	Cat.III	Ea.	170.00	10.00	180.00
(10)	6/16Amp. Universal socket				
	Cat.I	Ea.	110.00	10.00	120.00
	Cat.II	Ea.	130.00	10.00	140.00
	Cat.III	Ea.	190.00	10.00	200.00
(11)	6 Amps. Bell Push				
	Cat.I	Ea.	90.00	10.00	100.00
	Cat.II	Ea.	100.00	10.00	110.00
	Cat.III	Ea.	140.00	10.00	150.00
(12)	6Amp. / 16 Amp. Two Way switch				
	Cat.I	Ea.	110.00	10.00	120.00
	Cat.II	Ea.	120.00	10.00	130.00
	Cat.III	Ea.	160.00	10.00	170.00
(13)	6A/10A/16A/20A/25A/32A Single pole Modular MCB Switch				
	Cat.I	Ea.	220.00	10.00	230.00
	Cat.II	Ea.	260.00	10.00	270.00
	Cat.III	Ea.	300.00	10.00	310.00
(14)	6A/ 10A/ 16A/ 20A/ 25A/ 32A Double Pole Modular MCB Switch				
	Cat.I	Ea.	300.00	10.00	310.00
	Cat.II	Ea.	320.00	10.00	330.00
	Cat.III	Ea.	400.00	10.00	410.00
(15)	32 Amps. DP switch with indicator				0.00
	Cat.I	Ea.	200.00	10.00	210.00
	Cat.II	Ea.	220.00	10.00	230.00
	Cat.III	Ea.	270.00	10.00	280.00
(16)	32 Amp. DP Main Switch Operating with Energy Key Tag				
	Cat.I	Ea.	280.00	10.00	290.00
	Cat.II	Ea.	310.00	10.00	320.00
	Cat.III	Ea.	350.00	10.00	360.00
(17-a)	For 400W / 450 watt One Module Electronic Dimmer				
	Cat. II	Ea.	250.00	10.00	260.00
	Cat. III	Ea.	310.00	10.00	320.00
(17-b)	For 600 / 650 watt Two module Electronic Dimmer				
	Cat. II	Ea.	330.00	10.00	340.00
	Cat. III	Ea.	390.00	10.00	400.00



Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	(17-c) For 1000 watt two module Electronic Dimmer				
	Cat. II	Ea.	510.00	10.00	520.00
	Cat. III	Ea.	590.00	10.00	600.00
	(18) 13 Amp. International Modular Socket				
	Cat.I	Ea.	150.00	10.00	160.00
	Cat.II	Ea.	170.00	10.00	180.00
	Cat.III	Ea.	230.00	10.00	240.00
	(19) Modular Indicating Call Bell				
	Cat.III	Ea.	315.00	15.00	330.00
	(20) Modular Buzzer				
	Cat.II	Ea.	115.00	15.00	130.00
	Cat.III	Ea.	135.00	15.00	150.00
	(21) Foot Light as per colour requirement with concealed box, modular accessories, acrylic glass cover with suitable LED 2-9 watt with all accessories as per following module				
	(a) equal of four modules cat-III	Ea.	450.00	50.00	500.00
	(b) equal of eight modules-III	Ea.	650.00	50.00	700.00
	(22) 16/20/25 Amp. Modular Starter for Motor / A.C. Unit Complete				
	Cat.II	Ea.	370.00	30.00	400.00
	Cat.III	Ea.	470.00	30.00	500.00
	(23) USB Charger with output of 5 V DC.2.1 A with inbuilt surge protection .cat-III	Ea	669.00	15.00	684.00
	(24) Batten Holder/Angle Holder with modular frame with metal ring Cat-III	Ea	54.00	10.00	55.00
1-2-7.	Providing & erecting following type of Modular Type Accessories with necessary connection. As desired by Engineer In charge				
	(1) 6 Amp. SP one way switch		20.00	5.00	25.00
	(2) 16 Amp. SP one way switch		45.00	5.00	50.00
	(3) 6/16Amp. Universal socket		75.00	5.00	80.00
	(4) 6 A socket		35.00	5.00	40.00
	(5) LAN cable connector with ferule		30.00	5.00	35.00
			30.00	0.00	30.00
1-2-8.	Providing D type non rechargeable carbon zinc type Cell 1.5v of desired make suitable as demanded by engineer in charge evereday,panasonic,nippo make				
1-2-9	Providing AA type 1.5 v non rechargeable Cell of desired make as demanded by engineer in charge				
	(a)carbon-zinc evereday,panasonic,nippo make		10.00	0.00	10.00
	(b)alkaline -Dura cell make		70.00	0.00	70.00
1-2-10	Providing AAA type 1.5 v Cell of desired make as demanded by engineer in charge				
	(a)carbon-zinc evereday,panasonic,nippo make		10.00	0.00	10.00
	(b)alkaline -Dura cell make		80.00	0.00	80.00
1-2-11	Providing 9v Cell of desired make as demanded by engineer in charge				
	(a)hiwatt/evereday/panasonic		200.00	0.00	200.00
	(b) ultra alkaline -Dura cell make		270.00	0.00	270.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
<b>Section - 1-3 Conduits &amp; Pipes</b>					
1-3-1.	For Laying of Pipes on Stone Wall add to the following item rate per meter	Mtr.	0.00	10.00	10.00
1-3-2.	Providing and erecting ISI mark Medium class <b>RIGID PVC PIPES</b> of following size complete to be erected on/in wall or ceiling erected with necessary PVC fittings & Junction boxes fixed with adhesive solution & Clamps with following dia of pipes, in approved manner as directed				
	(a) 20 mm	Mtr.	18.00	5.00	23.00
	(b) 25 mm	Mtr.	27.00	5.00	32.00
	(c) 32 mm	Mtr.	46.00	7.00	53.00
	(d) 40 mm	Mtr.	59.00	8.00	67.00
1-3-3.	Providing & erecting approved make <b>OVAL CONDUIT</b> with necessary fittings fixed with adhesive solution and suitable clamps erected on wall / ceiling of following size.				
	(1) 20 mm	Mtr.	22.00	3.00	25.00
	(2) 25mm	Mtr.	30.00	5.00	35.00
1-3-4.	Providing & erecting <b>PVC Corrugated Flexible Conduit</b> with required nos. of coupling, PVC bushes, Check-nuts etc. complete of following sizes.				
	(1) 20 mm	Mtr.	13.00	2.00	15.00
	(2) 25 mm	Mtr.	18.00	2.00	20.00
	(3) 32 mm	Mtr.	23.00	2.00	25.00
	(4) 40 mm	Mtr.	33.00	2.00	35.00
	(5) 50 mm	Mtr.	43.00	2.00	45.00
1-3-5.	Supplying & erecting UPVC Mini trunking ( <b>PVC Casing-n-Capping</b> ) having double-locking arrangement with grooves, trunking of size not below 12.5 mm in height as per IS with accessories of PVC/Resin polypropylene not below 1.8 mm thick duly sealed in joint & erected on wall / ceiling of following size .				
	(1) 20 mm	Mtr.	15.00	5.00	20.00
	(2) 25 mm	Mtr.	25.00	5.00	30.00
	(3) 32 mm	Mtr.	30.00	5.00	35.00
	(4) 40 mm	Mtr.	35.00	5.00	40.00
<b>UPVC TRUNKING SYSTEM</b>					
1-3-6.	Supplying and laying <b>UPVC cable trunking system</b> comprising unplasticised polyvinyl chloride rigid material with ignition free and flame proof confirming BS with necessary end caps Internal and external bend, flat bends, coupler, tee etc. All necessary accessories and measuring of following sizes				
	(1) 75 mm x 50 mm trunking	Mtr.	260.00	20.00	280.00
	(2) 100 mm x 50 mm trunking	Mtr.	400.00	30.00	430.00
	(3) 50 mm x 50 mm trunking	Mtr.	170.00	20.00	190.00
	(4) 100 mm x 50 mm trunking with TWIN compartment With clip in divider	Mtr.	1296.00	30.00	1326.00



Total
10.00
3.00
32.00
3.00
67.00
5.00
35.00
15.00
20.00
5.00
35.00
3.00
0.00
30.00
7.00
40.00
0.00
30.00
0.00
26.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
1-3-7	Supply & installation of <b>surface mounted U PVC snap-on adaptable trunking raceways</b> , fabricated out of U-PVC to Off-White or approved shade as per IS 733 of thickness 2.0mm for the base and sides with all accessories like removable covers, joints ,height spacer,angles complete with necessary bends, suitable sized junction boxes and tees etc, Complete.				
	<b>(a)Size: 50x80mm PVC Raceways for Power &amp; Data with 2 compartments</b> above specifications.	MTr	1036.00	30.00	1066.00
	<b>(b)Size: 50x130 mm PVC Raceways for Power &amp; Data with 2 compartments</b> above specifications.	Mtr	1810.00	30.00	1840.00
1-3-8	Providing & Erecting <b>eight module pop up floor box/flushed with table surface</b> Conform to IEC 60670-1, IEC 60670-23 & IEC 60884-1 with required items as demanded by engineer in charge with complete finishing .cat-III	Ea.	1474.00	80.00	1554.00
1-3-9	Supply & installation of <b>modular type accessories for U PVC snap-on adaptable trunking/Pop up Box</b> with required items erected with necessary connection. As desired by Engineer in charge				
	i) 6 A SP 1 Way Switch cat-III	Ea.	196.00	10.00	206.00
	ii) 16A SP 1 Way Switch cat-III	Ea.	345.00	10.00	355.00
	iii) Bell Push 6 A SP 1 Way cat-III	Ea.	281.00	10.00	291.00
	iv) 6A universal socket shuttered cat-III	Ea.	340.00	10.00	350.00
	iv) 6/16 A universal socket shuttered cat-III	Ea.	453.00	10.00	463.00
	v) RJ-11 Telephone socket cat-III	Ea.	236.00	10.00	246.00
	vi) Cat-6 LAN Socket cat-III	Ea.	557.00	10.00	567.00
<b>METAL TRUNKING</b>					
1-3-7	Supplying <b>under floor pregalvanised corrosion proof rectangular sheet steel cable trunking</b> of 1.6 mm thick having with stand point load up to 1.33 Ton & free from seepage of concrete of screed water with all accessories,Junction Box, Joints as required and demanded by engineer-incharge and <b>laying/erecting as per OEM guidelines and as per instruction of engineer incharge</b> having following size of dimensions and No of compartments (W x D x T) cat-III				
	[1] 50mm x 25mm x 1.6 mm with One Compartment	Mtr	280.00	20.00	300.00
	[2] 75mm x 25mm x 1.6 mm with One Compartment	Mtr	360.00	20.00	380.00
	[3] 100mm x 25mm x 1.6 mm with one compartment	Mtr	430.00	30.00	460.00
	[4] 225mm x 25mm x 1.6 mm with Three Compartment	Mtr	940.00	40.00	980.00
	[5] 250mm x 25mm x 1.6 mm with Three Compartments	Mtr	1010.00	40.00	1050.00
	[6] 300mm x 25mm x 1.6 mm with Three Compartments	Mtr	1180.00	50.00	1230.00
	[7] 50mm x 38mm x 1.6 mm with One Compartments	Mtr	360.00	20.00	380.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	[8] 75mm x 38mm x 1.6 mm with one compartments	Mtr	440.00	20.00	460.00
	[9] 100mm x 38mm x 1.6 mm with One Compartments	Mtr	520.00	30.00	550.00
	[10] 150mm x 38mm x 1.6mm with Three Compartments	Mtr	730.00	40.00	770.00
	[11] 225mm x 38mm x 1.6mm with Three Compartments	Mtr	1060.00	40.00	1100.00
	[12] 250mm x 38mm x 1.6mm with Three Compartments	Mtr	1160.00	40.00	1200.00
	[13] 300mm x 38mm x 1.6 mm with Three Compartments	Mtr	1300.00	50.00	1350.00
1-3-12	Providing & erecting 16 gauge HGS conduit pipe (as per IS) painted black surface/concealed of following size complete to be erected on/in wall or ceiling with erected with necessary saddles, screws, bends, junction boxes etc. with following (Nominal Bore) dia of pipes, in approved manner as directed				
	(1) 19/20 mm	Mtr.	70.00	20.00	90.00
	(2) 25 mm	Mtr.	90.00	20.00	110.00
	(3) 32 mm	Mtr.	120.00	20.00	140.00
	(4) 38/40 mm	Mtr.	200.00	30.00	230.00
	(5) 50 mm	Mtr.	290.00	30.00	320.00
<b>Section 1-4 Mains &amp; Wires</b>					
1-4-1.	Providing and erecting Mains with 1.1 KV grade FRLS PVC insulated ISI marked stranded Copper conductor wire in following type of pipe to be erected concealed in /flushed on wall/ceiling, with 1.5 sq. mm copper conductor FRLS PVC insulated stranded wire of green colour for earth continuity of following size				
(A)	(A) with medium class Rigid PVC pipe and accessories				
	(a) 2 wire 1.5 sq. mm	Mtr.	55.00	5.00	60.00
	(b) 2 wire 2.5 sq. mm	Mtr.	75.00	5.00	80.00
	(c) 3 wire 1.5 sq. mm	Mtr.	75.00	5.00	80.00
	(d) 3 wire 2.5 sq. mm	Mtr.	95.00	5.00	100.00
	(e) 4 wire 1.5 sq. mm	Mtr.	84.00	6.00	90.00
	(f) 4 wire 2.5 sq. mm	Mtr.	119.00	6.00	125.00
	(g) 6 wire 2.5 sq. mm	Mtr.	164.00	6.00	170.00
(B)	(B) with 16 swg HGS metal conduit pipe and accessories painted black.				
	(a) 2 wire 1.5 sq. mm	Mtr.	105.00	25.00	130.00
	(b) 2 wire 2.5 sq. mm	Mtr.	130.00	25.00	155.00
	(c) 3 wire 1.5 sq. mm	Mtr.	125.00	25.00	150.00
	(d) 3 wire 2.5 sq. mm	Mtr.	150.00	25.00	175.00
	(e) 4 wire 1.5 sq. mm	Mtr.	130.00	30.00	160.00
	(f) 4 wire 2.5 sq. mm	Mtr.	165.00	30.00	195.00
	(g) 6 wire 2.5 sq. mm	Mtr.	220.00	30.00	250.00
(C)	(C) with oval conduit /PVC casing capping double lock type				
	(a) 2 wire 1.5 sq. mm	Mtr.	50.00	5.00	55.00
	(b) 2 wire 2.5 sq. mm	Mtr.	75.00	5.00	80.00
	(c) 3 wire 1.5 sq. mm	Mtr.	70.00	5.00	75.00

Total  
 460.00  
 550.00  
 770.00  
 1100.00  
 1200.00  
 1350.00  
 0.00  
 110.00  
 0.00  
 230.00  
 0.00  
 60.00  
 80.00  
 80.00  
 00.00  
 90.00  
 25.00  
 70.00  
 30.00  
 35.00  
 30.00  
 15.00  
 30.00  
 15.00  
 10.00  
 5.00  
 0.00  
 5.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	(d) 3 wire 2.5 sq. mm	Mtr.	90.00	5.00	95.00
	(e) 4 wire 1.5 sq. mm	Mtr.	80.00	5.00	85.00
	(f) 4 wire 2.5 sq. mm	Mtr.	114.00	6.00	120.00
	(g) 6 wire 2.5 sq. mm	Mtr.	179.00	6.00	185.00
(D)	(D) partial PVC pipe and drops in oval conduit / PVC casing capping				0.00
	(a) 2 wire 1.5 sq. mm	Mtr.	50.00	5.00	55.00
	(b) 2 wire 2.5 sq. mm	Mtr.	75.00	5.00	80.00
	(c) 3 wire 1.5 sq. mm	Mtr.	70.00	5.00	75.00
	(d) 3 wire 2.5 sq. mm	Mtr.	90.00	5.00	95.00
	(e) 4 wire 1.5 sq. mm	Mtr.	80.00	5.00	85.00
	(f) 4 wire 2.5 sq. mm	Mtr.	119.00	6.00	125.00
	(g) 6 wire 2.5 sq. mm	Mtr.	159.00	6.00	165.00
(E)	(E) in existing pipe				0.00
	(a) 2 wire 1.5 sq. mm	Mtr.	42.00	3.00	45.00
	(b) 2 wire 2.5 sq. mm	Mtr.	57.00	3.00	60.00
	(c) 3 wire 1.5 sq. mm	Mtr.	55.00	5.00	60.00
	(d) 3 wire 2.5 sq. mm	Mtr.	85.00	5.00	90.00
	(e) 4 wire 1.5 sq. mm	Mtr.	74.00	6.00	80.00
	(f) 4 wire 2.5 sq. mm	Mtr.	109.00	6.00	115.00
	(g) 6 wire 2.5 sq. mm	Mtr.	149.00	6.00	155.00
1-4-2.	providing and erecting Mains with 1.1 KV grade FRLS PVC insulated ISI marked stranded Copper conductor wire in following type of pipe to be erected in / on wall / ceiling with 2.5 sq. mm copper conductor FRLS PVC insulated stranded wire of green colour for earth continuity of following size				
(A)	(A) with medium class Rigid PVC pipe and accessories				
	(a) 2 wire 4 sq. mm	Mtr.	105.00	5.00	110.00
	(b) 2 wire 6 sq. mm	Mtr.	140.00	5.00	145.00
	(c) 2 wire 10 sq. mm	Mtr.	228.00	7.00	235.00
	(d) 3 wire 4 sq. mm	Mtr.	135.00	7.00	142.00
	(e) 3 wire 6 sq. mm	Mtr.	193.00	7.00	200.00
	(f) 3 wire 10 sq. mm (use earth wire of 4 sq. mm )	Mtr.	318.00	7.00	325.00
	(g) 4 wire 4 sq. mm	Mtr.	170.00	10.00	180.00
	(h) 4 wire 6 sq. mm	Mtr.	250.00	10.00	260.00
	(i) 4 wire 10 sq. mm (use earth wire of 4 sq. mm )	Mtr.	415.00	10.00	425.00
(B)	(B) with 16 swg HGS metal conduit pipe and accessories painted black.				
	(a) 2 wire 4 sq. mm	Mtr.	150.00	25.00	175.00
	(b) 2 wire 6 sq. mm	Mtr.	190.00	25.00	215.00
	(c) 2 wire 10 sq. mm	Mtr.	275.00	25.00	300.00
	(d) 3 wire 4 sq. mm	Mtr.	180.00	25.00	205.00
	(e) 3 wire 6 sq. mm	Mtr.	245.00	25.00	270.00
	(f) 3 wire 10 sq. mm (use earth wire of 4 sq. mm )	Mtr.	370.00	25.00	395.00
	(g) 4 wire 4 sq. mm	Mtr.	205.00	30.00	235.00
	(h) 4 wire 6 sq. mm	Mtr.	300.00	30.00	330.00
	(i) 4 wire 10 sq. mm (use earth wire of 4 sq. mm )	Mtr.	455.00	30.00	485.00
(C)	(C) with oval conduit /PVC casing capping double lock type				
	(a) 2 wire 4 sq. mm	Mtr.	90.00	5.00	95.00
	(b) 2 wire 6 sq. mm	Mtr.	130.00	5.00	135.00
	(c) 2 wire 10 sq. mm	Mtr.	218.00	7.00	225.00
	(d) 3 wire 4 sq. mm	Mtr.	125.00	7.00	132.00
	(e) 3 wire 6 sq. mm	Mtr.	188.00	7.00	195.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	(f) 3 wire 10 sq. mm (use earth wire of 4 sq. mm )	Mtr.	313.00	7.00	320.00
	(g) 4 wire 4 sq. mm	Mtr.	160.00	10.00	170.00
	(h) 4 wire 6 sq. mm	Mtr.	245.00	10.00	255.00
	(i) 4 wire 10 sq. mm (use earth wire of 4 sq. mm )	Mtr.	405.00	10.00	415.00
(D)	<b>(D) partial PVC pipe and drops in oval conduit / PVC casing capping</b>				
	(a) 2 wire 4 sq. mm	Mtr.	100.00	5.00	105.00
	(b) 2 wire 6 sq. mm	Mtr.	135.00	5.00	140.00
	(c) 2 wire 10 sq. mm	Mtr.	223.00	7.00	230.00
	(d) 3 wire 4 sq. mm	Mtr.	133.00	7.00	140.00
	(e) 3 wire 6 sq. mm	Mtr.	203.00	7.00	210.00
	(f) 3 wire 10 sq. mm (use earth wire of 4 sq. mm )	Mtr.	323.00	7.00	330.00
	(g) 4 wire 4 sq. mm	Mtr.	165.00	10.00	175.00
	(h) 4 wire 6 sq. mm	Mtr.	255.00	10.00	265.00
	(i) 4 wire 10 sq. mm (use earth wire of 4 sq. mm )	Mtr.	415.00	10.00	425.00
(E)	<b>(E) in existing pipe</b>				
	(a) 2 wire 4 sq. mm	Mtr.	80.00	5.00	85.00
	(b) 2 wire 6 sq. mm	Mtr.	115.00	5.00	120.00
	(c) 2 wire 10 sq. mm	Mtr.	203.00	7.00	210.00
	(d) 3 wire 4 sq. mm	Mtr.	113.00	7.00	120.00
	(e) 3 wire 6 sq. mm	Mtr.	173.00	7.00	180.00
	(f) 3 wire 10 sq. mm (use earth wire of 4 sq. mm )	Mtr.	298.00	7.00	305.00
	(g) 4 wire 4 sq. mm	Mtr.	145.00	10.00	155.00
	(h) 4 wire 6 sq. mm	Mtr.	230.00	10.00	240.00
	(i) 4 wire 10 sq. mm (use earth wire of 4 sq. mm )	Mtr.	390.00	10.00	400.00
1-4-3	providing and erecting Mains with ISI marked electrolyte stranded copper conductor, Non PVC Zero Halogen free fire retardant insulated copper conductor, insulated wire (HRFR) conforms to IS-694, erected in existing pipe with 1.5sq. mm copper conductor of same specifications for earth continuity of following size.				
	[a] 2 wire 0.75 sq. mm (w/o ECC)	Mtr.	17.00	3.00	20.00
	[b] 2 wire 1.0 sq. mm (w/o ECC)	Mtr.	24.00	3.00	27.00
	[c] 2 wire 1.5 sq. mm	Mtr.	45.00	5.00	50.00
	[d] 2 wire 2.5 sq. mm	Mtr.	65.00	5.00	70.00
	[e] 2 wire 4.0 sq. mm	Mtr.	95.00	5.00	100.00
	[f] 2 wire 6.0 sq. mm	Mtr.	130.00	10.00	140.00
	[g] 2 wire 10.0 sq. mm	Mtr.	210.00	10.00	220.00
	[h] 3 wire 1.0 sq. mm	Mtr.	45.00	5.00	50.00
	[i] 3 wire 1.5 sq. mm	Mtr.	60.00	5.00	65.00
	[j] 3 wire 2.5 sq. mm	Mtr.	95.00	5.00	100.00
	[k] 3 wire 4.0 sq. mm	Mtr.	130.00	10.00	140.00
	[l] 4 wire 1.0 sq. mm	Mtr.	45.00	5.00	50.00
	[m] 4 wire 1.5 sq. mm	Mtr.	75.00	5.00	80.00
	[n] 4 wire 2.5 sq. mm	Mtr.	120.00	5.00	125.00
	[o] 4 wire 4.0 sq. mm	Mtr.	170.00	10.00	180.00

Total  
 320.00  
 170.00  
 55.00  
 415.00  
 105.00  
 40.00  
 230.00  
 40.00  
 210.00  
 0.00  
 5.00  
 265.00  
 5.00  
 85.00  
 130.00  
 10.00  
 120.00  
 10.00  
 305.00  
 155.00  
 70.00  
 400.00  
 20.00  
 0.00  
 50.00  
 0.00  
 100.00  
 0.00  
 220.00  
 0.00  
 65.00  
 100.00  
 150.00  
 50.00  
 0.00  
 125.00  
 100.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
1-4-4	providing and erecting Mains with ISI marked, 1.5KV grade electrolyte multi stranded, annealed copper conductor with heat resistant PVC insulated conforms to IS 694, IEC - 227 erected in existing pipe of following size <b>(Specifically for control panel, relays, power switchgears, motor starters &amp; control wiring)</b> with required size of copper lugs, nuts and bolts if required.				
	(a) One wire 1.00 sq. mm	Mtr.	9.00	1.00	10.00
	(b) One wire 1.50 sq. mm	Mtr.	14.00	1.00	15.00
	(c) One wire 2.50 sq. mm	Mtr.	23.00	2.00	25.00
	(d) One wire 4.00 sq. mm	Mtr.	33.00	2.00	35.00
	(e) One wire 6.00 sq. mm	Mtr.	53.00	2.00	55.00
	(f) One wire 10.00 sq. mm	Mtr.	88.00	2.00	90.00
	(g) One wire 16.00 sq. mm	Mtr.	137.00	3.00	140.00
	(h) One wire 25.00 sq. mm	Mtr.	232.00	3.00	235.00
	(i) One wire 35.00 sq. mm	Mtr.	297.00	3.00	300.00
	(j) One wire 50.00 sq. mm	Mtr.	464.00	6.00	470.00
	(k) One wire 70.00 sq. mm	Mtr.	664.00	6.00	670.00
	(l) One wire 95.00 sq. mm	Mtr.	908.00	12.00	920.00
	(m) One wire 120.00 sq. mm	Mtr.	1168.00	12.00	1180.00
	(m) One wire 150.00 sq. mm	Mtr.	1450.00	15.00	1465.00
1-4-5	Supplying and erecting <b>Flexible PVC</b> insulated multi strand multi core 1.1 kv grade ISI marked <b>copper wires</b> of following size to be erected as directed.				0.00
	a) 0.75 Sq.mm twin twisted	Mtr.	11.00	1.00	12.00
	b) 1.00 Sq.mm twin twisted	Mtr.	13.00	1.00	14.00
	c) 1.00 Sq.mm 2 core round/ flat PVC sheathed	Mtr.	19.00	1.00	20.00
	d) 1.50 Sq.mm 2 core round PVC sheathed	Mtr.	29.00	1.00	30.00
	e) 1.50 Sq.mm 3 core round PVC sheathed	Mtr.	44.00	1.00	45.00
	f) 1.50 Sq.mm 4 core round PVC sheathed	Mtr.	64.00	1.00	65.00
	g) 2.50 Sq.mm 2 core round PVC sheathed	Mtr.	54.00	1.00	55.00
	h) 2.50 Sq.mm 3 core round PVC sheathed	Mtr.	74.00	1.00	75.00
	i) 2.50 Sq.mm 4 core round PVC sheathed	Mtr.	104.00	1.00	105.00
	j) 4.00 Sq.mm 3 core round PVC sheathed	Mtr.	123.00	2.00	125.00
	k) 4.00Sq.mm 4 core round PVC sheathed	Mtr.	173.00	2.00	175.00
1-4-6	Providing & Erecting approved make following size of <b>TV Co-axial flexible cable</b> comprising inner conductor of solid bare copper insulated with Foam PE & Secondary conductor made of poly - Aluminium film bonded Al. Braids @ suitable coverage overall sheathed with black PVC insulation.				
	a) RG 59	Mtr.	20.00	2.00	22.00
	b) RG-8	Mtr.	36.00	2.00	38.00
	c) RG - 6 CCS	Mtr.	17.00	2.00	19.00
	d) RG - 11 CCS	Mtr.	33.00	2.00	31.00
	e) RG-11	Mtr.	58.00	2.00	56.00
1-4-7	Supplying & erecting approved make <b>Telephone Cable</b> electrolytic copper conductor PE insulation twisted in two pairs, & wrapped with FRLS PVC tape & sheathed with FRLS PVC or HFFR outer Jacket suitable for telephone wiring & conforming to C-DOT erected in existing pipe, of following size of conductors & nos. of pairs. With necessary connections.				
	<b>[A] Conductor Size 0.5 mm</b>				

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
<b>(a) Unarmoured</b>					
1)	One Pair	Mtr.	9.00	3.00	12.00
2)	Two Pairs	Mtr.	15.00	3.00	18.00
3)	Three Pairs	Mtr.	21.00	3.00	24.00
4)	Five Pairs	Mtr.	35.00	3.00	38.00
5)	Ten Pairs	Mtr.	58.00	5.00	63.00
6)	Twenty Pairs	Mtr.	120.00	5.00	125.00
<b>(b) Armoured [Jelly Filled]</b>					
1)	Ten Pairs	Mtr.	115.00	10.00	125.00
2)	Twenty Pairs	Mtr.	185.00	15.00	200.00
3)	Fifty Pairs	Mtr.	445.00	25.00	470.00
4)	One Hundred Pairs	Mtr.	840.00	40.00	880.00
1-4-8	Supplying & erecting approved make <b>LAN cable</b> of following size in existing pipe as per direction				
	[A] CAT - 5	Mtr	30.00	5.00	35.00
	[B] CAT - 5e	Mtr	65.00	5.00	70.00
	[C] CAT - 6	Mtr	40.00	5.00	45.00
	[D] CAT - 6 e	Mtr	70.00	5.00	75.00
1-4-9	Providing & erecting main Distribution (MDF) indoor type, back mounted frame as per DoT standard approved with krone strips				
	(a) Suitable for 10 pair	Ea.	950.00	50.00	1000.00
	(b) Suitable for 20 pair	Ea.	950.00	50.00	1400.00
	(c) Suitable for 50 pair	Ea.	1450.00	50.00	1800.00
	(d) Suitable for 100 pair	Ea.	3000.00	500.00	3500.00
	(e) Suitable for 200 pair	Ea.	5800.00	700.00	6500.00
1-4-10	Providing & Erecting 6 core <b>fibre optic SM</b> 9/125um double sheath, CSTA, Unitube, Outdoor cable (per m)	Rmtr.	50.00	10.00	60.00
<b>Section 1-5 Concealed Boxes &amp; Laminated Sheets</b>					
1-5-1	Supplying & erecting M.S. Box having 16 Gauge painted with red oxide or <b>Heavy duty PVC box</b> erected flushed on wall or concealed in wall with necessary plastering & finishing as directed of following size.				
	(a) 100 mm x 100 mm x 75 mm(d)	Ea.	35.00	10.00	45.00
	(b) 175 mm x 100 mm x 75 mm(d)	Ea.	65.00	10.00	75.00
	(c) 200 mm x 250 mm x 75 mm(d)	Ea.	75.00	12.00	87.00
	(d) 250 mm x 300 mm x 75 mm(d)	Ea.	95.00	15.00	110.00
1-5-2	Providing & Erecting 3mm thick <b>Polycarbonate (PC) sheet</b> with grooving as directed	Sq. Inch	1.00	0.50	1.50
1-5-3	Providing & Erecting 3mm thick <b>acrylic Sheet</b> with grooving as directed	Sq. Inch.	1.30	0.50	1.80
<b>Section 1-6 Wiring Accessories</b>					
1-6-1	Providing & Erecting following Shockproof <b>tissino type accessories</b> erected on 3 mm thick PC (Polycarbonate) sheet in PVC/ Metal/Wooden Box, erected on wall/ ceiling				
	(1) One no Single pole 6 A Switch / Bell push	Ea.	25.00	5.00	30.00
	(2) One no 3/5 pin 6 A Socket	Ea.	25.00	5.00	30.00
	(3) One no Single pole 16 A Switch	Ea.	40.00	5.00	45.00
	(4) One no 6/16 A Universal Socket	Ea.	40.00	5.00	45.00



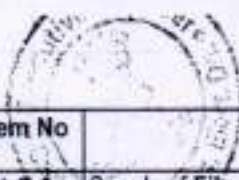
Total
12.00
18.00
24.00
38.00
63.00
125.00
25.00
200.00
70.00
880.00
35.00
70.00
45.00
75.00
1000.00
1400.00
1500.00
3500.00
8000.00
60.00
45.00
87.00
150.00
50
0
0.00
0.00
5.00
5

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
(5)	One no Single pole 16 A Switch & One no 6/16 A Universal Socket combined	Ea.	80.00	15.00	95.00
(6)	One no Single pole 16 A Switch & One no 6A/16 A Universal Socket combined with indicator & fuse	Ea.	110.00	15.00	125.00
(7)	Bakelite ceiling, rose	Ea.	10.00	5.00	15.00
(8)	Bakelite lamp holder	Ea.	15.00	5.00	20.00
(9)	Telephone Pin, Socket with suitable top	Ea.	35.00	5.00	40.00
(10)	Jack type tissino Telephone outlet	Ea.	35.00	5.00	40.00
(11)	Tissino type Neon 'Indicator Lamp'	Ea.	15.00	5.00	20.00
(12)	Tissino type TV antenna socket	Ea.	25.00	5.00	30.00
(13)	Tissino type 10A/16A Kitkat fuse	Ea.	25.00	5.00	30.00
(14)	Electronic Hum free EME Socket Type Steps Fan Regulator	Ea.	207.00	13.00	220.00
1-6-2 (A)	Providing & erecting <b>Switch board for Computer or electric apparatus</b> consisting of following items in single board erected on PVC / Metal/Wooden board concealed/open with 3 mm thick PC (Polycarbonate) / Acrylic sheet erected as directed 1 no. 6A/16A universal plug-switch combined. 3 nos. 6A Switch 3 nos. 6A 5 pin Plug				
	For Tissino Type Accessories	Ea.	300.00	35.00	335.00
1-6-2 (B)	Providing & erecting <b>Switch board for Computer or electric apparatus</b> consisting of following modular type accessories mounted with PVC / Metallic concealed/open box with single mounting base frame covered with textured/metallic /white front plate, modules erected with necessary connections as directed 1 no. 6A/16A universal plug-switch combined. 3 nos. 6A Switch 3 nos. 6A 5 pin Plug				
	For Modular Type Accessories				
	Cat. II	Ea.	980.00	60.00	1040.00
	Cat. III	Ea.	1080.00	60.00	1140.00
1-6-3.	Bakelite <b>adopter</b> for Holder to be erected.	Ea.	6.00	2.00	8.00
1-6-4.	<b>Starter for 20 watts / 40 watts</b> fluorescent tube.	Ea.	6.00	0.00	6.00
1-6-5.	Hanging <b>bed switch / Bell push</b> 5A erected on existing flexible wire.	Ea.	12.00	3.00	15.00
1-6-6.	<b>5A, 10 way bakelite connector</b> duly erected on existing board.	Ea.	22.00	3.00	25.00
1-6-7.	<b>15A, 10 way bakelite connector</b> duly erected on existing board.	Ea.	40.00	5.00	45.00
1-6-8.	Providing & erecting ISI marked <b>3 pin plug top.</b>				
	(a) for 5/6 A., 240 V	Ea.	18.00	2.00	20.00
	(b) for 15/16A, 240 V	Ea.	28.00	2.00	30.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
1-6-9.	Supplying & erecting Approved make <b>call bell indicator</b> with buzzing sound and Red light indicating lamp with Red light button to attend the call suitable for 240 v 50 c/s supply to be erected.	Ea.	130.00	20.00	150.00
1-6-10.	<b>Call bell / Buzzer</b> ,250 volts, complete erected.	Ea.	25.00	5.00	30.00
1-6-11.	<b>Call bell gong type</b> suitable for 230 volts, 50 c/s. AC supply complete Erected	Ea.	35.00	5.00	40.00
1-6-12.	<b>Decorative call bell</b> Ting-long box type 250 volts complete erected	Ea.	64.00	6.00	70.00
1-6-13.	Supplying & erecting <b>Electronic Type Cordless Call Bell</b> erected on PVC/Metal board having portable bell push working on D.C. & bell on 230V A.C. supply with cells / battery	Ea.	250.00	0.00	250.00
1-6-14	Providing Automatic <b>staircase unit and Light Control switch with Photocell</b> & solid state circuits with loading capacity up to 1000 Watt	Ea.	650.00	50.00	700.00
1-6-15	Supplying electrical <b>insulation L.T. Tape role</b> with ISI marked having nominal width 1.8 cms nominal length 9.0 mtr nominal thickness 0.125 mm and having self adhesive PVC	Ea.	15.00	0.00	15.00
1-6-16	Providing & erecting <b>insulated socket 3P+N+E with Plug 16A</b> rating which is comprised of Four pole MCB slot and insulated socket IP40 cat-III	Ea.	1568.00	157.00	1725.00
1-6-17	Providing & erecting <b>insulated socket 3P+N+E with Plug 32A</b> rating which is comprised of Four pole MCB slot and insulated socket IP40 cat-III	Ea.	2012.00	201.00	2213.00

### Section 1-7 TOOLS & TACKLES

1-7-1	Supply of <b>Fibreglas Step (A Type) Ladder - 4 FT</b> having following specifications. It should have nonconductive Structural moulded top, with Slots to keep tools close at hand, inside Spreader Braces, Aluminium Feet with thick rubber tread, nonconductive Full channel Fibreglass and two pairs of gusset support at the bottom step. All gussets are heavy duty steel. Capacity : 300 lbs. Step Size : 3"      Width : 19"      Approx. Spread : 29"      Approx. Wt. 8 Kg      Approx. Cube : 4.05'	Ea.	10800.00	0.00	10800.00
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Total
150.00
30.00
40.00
70.00
250.00
700.00
15.00
1725.00
2213.00
0.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
1-7-2	Supply of Fibreglass Step (A Type) Ladder - 6 FT having following specifications : It should have nonconductive Structural moulded top, with Slots to keep tools close at hand, inside Spreader Braces, Aluminium Feet with thick rubber tread, nonconductive Full channel Fibreglass and two pairs of gusset support at the bottom step. All gussets are heavy duty steel. Capacity : 300 lbs. Step Size : 3" Width : 23" Approx. Spread : 41" Approx. Wt. : 11 Kg Approx. Cube : 6.2'	Ea.	14100.00	0.00	14100.00
1-7-3	Supply of Fibreglass Step (A Type) Ladder-8 FT having following specifications : It should have nonconductive Structural moulded top, with Slots to keep tools close at hand, inside Spreader Braces, Aluminium Feet with thick rubber tread, nonconductive Full channel Fibreglass and two pairs of gusset support at the bottom step. All gussets are heavy duty steel. Capacity : 300 lbs. Step Size : 3" Width : 26" Approx. Spread : 54" Approx. Wt. : 15 Kg Approx. Cube : 9.5	Ea.	18400.00	0.00	18400.00
1-7-4	Supply of Fibreglass Step (A Type) Ladder - 10 FT having following specifications : It should have nonconductive Structural moulded top, with Slots to keep tools close at hand, inside Spreader Braces, Aluminium Feet with thick rubber tread, nonconductive Full channel Fibreglass, two pairs of gusset support at the bottom step and All gussets are heavy duty steel. Capacity : 300 lbs. Step Size : 3" Width : 29" Approx. Spread : 66" Approx. Wt. : 19 Kg Approx. Cube : 12.54'	Ea.	22600.00	0.00	22600.00
1-7-5	Supply of Fibreglass Step Trestle (A Type) Ladder - 6 FT having following specifications : It should have heavy gauge steel hinges suitable for industrial application, inside Spreader Braces, Aluminium Feet with thick rubber tread, nonconductive Full channel Fibreglass, two pairs of gusset support at the bottom step and All gussets are heavy duty steel. It should have steps on both the sides for climbing. Capacity : 300 lbs. Step Width : 3" Bottom Width: 23" Approx. Spread : 52" Approx. Wt. : 13 Kg Approx. Cube : 6.53'	Ea.	16500.00	0.00	16500.00



1-7-11  
1-7-12

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
1-7-6	Supply of <b>Fibreglass Step Trestle (A Type) Ladder - 8 FT</b> having following specifications : It should have heavy gauge steel hinges suitable for industrial application ,inside Spreader Braces, Aluminium Feet with thick rubber tread, nonconductive Full channel Fibreglass, two pairs of gusset support at the bottom step and All gussets are heavy duty steel. It should have steps on both the sides for climbing. Capacity:300 lbs. Step Width:3" Bottom Width : 26" Approx. Spread : 67" *Approx. Wt. : 20 Kg Approx. Cube : 9.51'	Ea.	22000.00	0.00	22000.00
1-7-7	Supply of <b>Fibreglass Step Trestle (A Type) Ladder - 10 FT</b> having following specifications : It should have heavy gauge steel hinges suitable for industrial application ,inside Spreader Braces ,Aluminium Feet with thick rubber tread, nonconductive Full channel Fibreglass ,two pairs of gusset support at the bottom step and All gussets are heavy duty steel. It should have steps on both the sides for climbing. Capacity : 300 lbs." Step Width : 4" Bottom Width : 29" Approx. Spread : 83" Approx. Wt. : 27 Kg Approx. Cube : 13.44'	Ea.	26000.00	0.00	26000.00
1-7-8	Supply of <b>Fibreglass Platform Step (A Type) Ladder - 6 FT</b> having following specifications : It should have large fully serrated platform 15" wide 20" deep which locks ladder ,Aluminium feet with thick rubber tread, top rail guard to serve as a railing, two pairs of gusset support at the bottom step and All gussets are heavy duty steel. Capacity : 300 lbs. Step Width : 3" Approx. spread : 50" Width : 26.5" Approx. Wt. : 16 Kg Approx. Cube : 8.15"	Ea.	19600.00	0.00	19600.00



Total
2000.00
000.00
19600.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
1-7-10	Supply of Fibreglass Platform Step (A Type) Ladder - 10 FT having following specifications : It should have large fully serrated platform 15" wide 20" deep which locks ladder , Aluminium feet with thick rubber tread, top rail guard to serve as a railing, two pairs of gusset support at the bottom step and All gussets are heavy duty steel. Capacity : 300 lbs. Step Width : 4' Approx. spread : 75" Width : 32" Approx. Wt. : 29 Kg Approx. Cube : 15.31	Ea.	28300.00	0.00	28300.00
1-7-11	Supply of Fibreglass Platform Step (A Type) Ladder - 15 FT having following specifications : It should have large fully serrated platform 15" wide 20" deep which locks ladder , Aluminium feet with thick rubber tread, top rail guard to serve as a railing, two pairs of gusset support at the bottom step and All gussets are heavy duty steel. Capacity : 300 lbs	Ea.	32000.00	0.00	32000.00
1-7-12	Supply of Fibreglass Platform Step (A Type) Ladder - 18 FT having following specifications : It should have large fully serrated platform 15" wide 20" deep which locks ladder , Aluminium feet with thick rubber tread, top rail guard to serve as a railing, two pairs of gusset support at the bottom step and All gussets are heavy duty steel. Capacity : 300 lbs.	Ea.	36000.00	0.00	36000.00

## CHAPTER - II

# Lamps & luminaires

## CHAPTER - II Lamps & luminaires

### SECTION 2-1 HELOGEN LAMPS

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
2-1-1	providing and erecting <b>Halogen Pin type lamp 12V 20 W</b>				
	Cat.II	Ea.	50.00	5.00	55.00
	Cat.III	Ea.	80.00	5.00	85.00
2-1-2	Supplying and erecting <b>electronic transformer of 220V / 12V, 50 W</b> suitable for Halogen Lamps.	Ea.	160.00	10.00	170.00
2-1-3.	providing and erecting <b>Halogen tube 500 Watt./1000 Watt.</b>				
	Cat.II	Ea.	110.00	10.00	120.00
	Cat.III	Ea.	150.00	10.00	160.00
<b>SECTION 2-2 FLUORESCENT TUBES</b>					
2-2-1.	Approved make <b>fluorescent tube 60 cms. 18/20 watt</b> erected, if required.				
	Cat.I	Ea.	50.00	0.00	50.00
	Cat.II	Ea.	55.00	0.00	55.00
	Cat.III	Ea.	60.00	0.00	60.00
2-2-2.	Approved make <b>fluorescent tube 60 cms. 18/20 watt</b> erected, if required.				
	Cat.I	Ea.	50.00	0.00	50.00
	Cat.II	Ea.	55.00	0.00	55.00
	Cat.III	Ea.	60.00	0.00	60.00
<b>SECTION 2-3 SODIUM VAPOUR LAMP</b>					
2-3-1.	Approved make <b>High pressure sodium vapour lamp, Tubular/Elliptical type 70W. 230/240/250V.</b> erected, if required.				
	Cat.I	Ea.	390.00	0.00	390.00
	Cat.II	Ea.	430.00	0.00	430.00
	Cat.III	Ea.	460.00	0.00	460.00
2-3-2.	Approved make <b>High pressure sodium vapour lamp, Tubular/Elliptical type 150W, 230/240/250V,</b> erected , if required				
	Cat.I	Ea.	525.00	0.00	525.00
	Cat.II	Ea.	560.00	0.00	560.00
	Cat.III	Ea.	600.00	0.00	600.00
2-3-3.	Approved make <b>High pressure sodium vapour lamp, Tubular/Elliptical type 250W, 230/240/250V,</b> erected , if required				
	Cat.I	Ea.	575.00	0.00	575.00
	Cat.II	Ea.	620.00	0.00	620.00
	Cat.III	Ea.	650.00	0.00	650.00
2-3-4.	Approved make <b>High pressure sodium vapour lamp, Tubular/Elliptical type 400W, 230/240/250V,</b> erected , if required				
	Cat.I	Ea.	650.00	0.00	650.00
	Cat.II	Ea.	760.00	0.00	760.00
	Cat.III	Ea.	900.00	0.00	900.00



Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	Cat.II	Ea.	190.00	0.00	190.00
	Cat.III	Ea.	250.00	0.00	250.00
	<b>[b] 35 / 36 Watt</b>				
	Cat.II	Ea.	330.00	0.00	330.00
	Cat.III	Ea.	380.00	0.00	380.00
	<b>[c] 65/50 Watt.</b>				
	Cat.II	Ea.	600.00	0.00	600.00
	Cat.III	Ea.	750.00	0.00	750.00
2-4-9.	Approved make <b>CFL. Ballast Having P.F. above 0.95 (Adopter) 9/11/13/15/18 Watt</b> erected if required				
	Cat.I	Ea.	60.00	0.00	60.00
	Cat.II	Ea.	105.00	0.00	105.00
	Cat.III	Ea.	155.00	0.00	155.00
2-4-10.	Approved make <b>CFL. Ballast Having P.F. above 0.95 for 20 watt up to 86 watt</b> erected if required				
	Cat.I	Ea.	350.00	0.00	350.00
	Cat.II	Ea.	450.00	0.00	450.00
	Cat.III	Ea.	550.00	0.00	550.00
<b>SECTION 2-5 METAL HALIDE LAMPS</b>					
2-5-1.	Approved make <b>Elliptical type Metal Halide lamps</b> erected if required				
	<b>(i)70 Watt</b>				
	Cat.I	Ea.	650.00	0.00	650.00
	Cat.II	Ea.	850.00	0.00	850.00
	Cat.III	Ea.	950.00	0.00	950.00
	<b>(ii)150 Watt</b>				
	Cat.I	Ea.	750.00	0.00	750.00
	Cat.II	Ea.	900.00	0.00	900.00
	Cat.III	Ea.	1100.00	0.00	1100.00
	<b>(iii) 250 Watt.</b>				
	Cat.I	Ea.	950.00	0.00	950.00
	Cat.II	Ea.	1100.00	0.00	1100.00
	Cat.III	Ea.	1300.00	0.00	1300.00
	<b>(iv) 400 Watt.</b>				
	Cat.I	Ea.	1050.00	0.00	1050.00
	Cat.II	Ea.	1250.00	0.00	1250.00
	Cat.III	Ea.	1500.00	0.00	1500.00
2-5-2.	Approved make <b>Double Ended type Metal Halide lamps</b> erected if required				
	<b>(i)70 Watt</b>				
	Cat.I	Ea.	400.00	0.00	400.00
	Cat.II	Ea.	650.00	0.00	650.00
	Cat.III	Ea.	750.00	0.00	750.00
	<b>(ii)150 Watt</b>				
	Cat.I	Ea.	450.00	0.00	450.00
	Cat.II	Ea.	700.00	0.00	700.00
	Cat.III	Ea.	850.00	0.00	850.00
	<b>(iii) 250 Watt.</b>				
	Cat.I	Ea.	1500.00	0.00	1500.00
	Cat.II	Ea.	1800.00	0.00	1800.00
	Cat.III	Ea.	1950.00	0.00	1950.00
2-5-3.	Approved make <b>Tubular type Metal Halide lamps</b> erected if required				
	<b>(i)70 Watt</b>				
	Cat.I	Ea.	650.00	0.00	650.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	Cat.II	Ea.	850.00	0.00	850.00
	Cat.III	Ea.	950.00	0.00	950.00
	<b>(ii) 150 Watt</b>				
	Cat.I	Ea.	750.00	0.00	750.00
	Cat.II	Ea.	900.00	0.00	900.00
	Cat.III	Ea.	1100.00	0.00	1100.00
	<b>(iii) 250 Watt.</b>				
	Cat.I	Ea.	950.00	0.00	950.00
	Cat.II	Ea.	1100.00	0.00	1100.00
	Cat.III	Ea.	1300.00	0.00	1300.00
	<b>(iv) 400 Watt</b>				
	Cat.I	Ea.	1050.00	0.00	1050.00
	Cat.II	Ea.	1250.00	0.00	1250.00
	Cat.III	Ea.	1500.00	0.00	1500.00
<b>SECTION 2-6 LAMP FITTINGS</b>					
2-6-1.	Providing and erecting <b>decorative wall bracket fittings</b> complete with <b>LED lamp</b> and rust free fittings components mounted in chrome finish housing with holder ,clear/opaque glass diffuser complete erected with lead wires with <b>minimum 15 wattage</b> capacity as per instruction engineer incharge/architect/authority .cat-III	ca.	1960.00	40.00	2000.00
<b>SECTION 2-7</b>					
2-7-7.	Supplying and erecting approved make of <b>tube fitting with One no T-5 tube 24/ 28 W</b> with Electronic ballast with each tube separately THD less than 10 & built in adaptors, GI / PVC housing & mirror optic reflector, suitable to work on 120V - 300V, A.C. supply with connector and adapter if required. (Make of fitting & tube may be differ & fitting shall be providing with tube)				
	Cat II	Ea.	430.00	30.00	460.00
	Cat III	Ea.	530.00	30.00	560.00
2-7-9.	Supply of approved make <b>lumilux triphospher T-5 tube</b> suitable to operate on 120V - 300 V of				
	<b>(A) 14 Watt</b>				
	Cat I	Ea.	110.00	0.00	110.00
	Cat II	Ea.	130.00	0.00	130.00
	Cat III	Ea.	160.00	0.00	160.00
	<b>(B) 24Watt / 28 watt</b>				
	Cat I	Ea.	120.00	0.00	120.00
	Cat II	Ea.	150.00	0.00	150.00
	Cat III	Ea.	180.00	0.00	180.00

Total
850.00
950.00
750.00
900.00
1100.00
950.00
1100.00
1300.00
1050.00
1250.00
1500.00
2000.00
10.00
560.00
110.00
120.00
100.00
120.00
170.00
180.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
2-7-10	Supplying & erecting energy saving <b>Energy Efficient E+ (1 - 4 ft) 28 watt retrofit tube fitting</b> with one no 28watt T-5 tube complete with E.G.P. wings reflector / clear acrylic guard cover & tube and electronic inbuilt circuit ballast of rating 130 to 325 V A.C. The fittings should be able to fit in any conventional existing T - 8 tube fittings complete erected in an approved manner.	Ea.	550.00	25.00	575.00
2-7-11	Repairing of any brand of <b>T-5 Indoor or Outdoor type Tube fitting of any nos of T - 5 tubes</b> by replacing the electrical components like Resistance, Diode, Capacitor, Transistor, SCR tube side holder, small transformer and other any part and put the same in working condition as original on site / work shop with re-erection if required. (Rates excluding tube cost)	Ea.	100.00	50.00	150.00
	Cat.I	Ea.	550.00	30.00	580.00
	Cat.II	Ea.	930.00	30.00	960.00
	Cat.III	Ea.	1090.00	30.00	1120.00
2-7-13.	<b>Outdoor street light fitting</b> side entry with clear acrylic / plastic / polystyrene cover complete with starter, polyester choke copper wound complete erected with 40/36 watt tube holders. with lead wire and connections.				
	<b>(a) With 1 tube 40 watt.120 cms</b>				
	Cat.I	Ea.	610.00	40.00	650.00
	Cat.II	Ea.	730.00	40.00	770.00
	Cat.III	Ea.	1060.00	40.00	1100.00
	<b>(b) with 2 tube 40 watt.120 cms.</b>				
	Cat.I	Ea.	840.00	40.00	880.00
	Cat.II	Ea.	950.00	40.00	990.00
	Cat.III	Ea.	1390.00	40.00	1430.00
2-7-14	(A) Providing 45 to 50 cms. 16 SWG <b>conduit pipe down rod</b> white painted with ball sockets and nipple for suspension of fluorescent fitting complete erected with lead wires	mtr.	150.00	30.00	180.00
	(B) Extra for every additional 100 mm. long double down rod.	mtr.	9.00	1.00	10.00
2-7-15	Providing & erecting <b>14 SWG galvanized mild steel chain</b> with end rings for hanging tube fitting as directed.	Mtr.	27.00	3.00	30.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
<b>SECTION 2-8</b>					
2-8-2.	Providing and erecting approved make <b>C.F.L out door type street light fitting</b> side entry with clear acrylic / plastic cover electronic ballast high circuit P.F. weather proof design (IP 65) THD less than 10% rust free fitting components mounted in powder coated CRCA / Al. housing with lead wire & with Non Retrofit CFL tube complete.				
	[a] With One <b>CFL tube 9 / 11/ 13 / 18 watt</b> Non Retrofit with ballast & Holder				
	Cat.I	Ea.	430.00	40.00	470.00
	Cat.II	Ea.	710.00	40.00	750.00
	Cat.III	Ea.	980.00	40.00	1020.00
	[b] With <b>Two CFL tube 9 / 11/ 13 / 18 watt</b> Non Retrofit with ballast & Holder				
	Cat.I	Ea.	520.00	40.00	560.00
	Cat.II	Ea.	850.00	40.00	890.00
	Cat.III	Ea.	1380.00	40.00	1420.00
	[c] With One <b>CFL tube 36 watt Retrofit or Non Retrofit</b> with ballast & Holder				
	Cat.I	Ea.	910.00	40.00	950.00
	Cat.II	Ea.	1160.00	40.00	1200.00
	Cat.III	Ea.	1360.00	40.00	1400.00
	[d] <b>Two CFL tube 36 watt Retrofit or Non Retrofit</b> with ballast & Holder				
	Cat.I	Ea.	1110.00	40.00	1150.00
	Cat.II	Ea.	1360.00	40.00	1400.00
	Cat.III	Ea.	1560.00	40.00	1600.00
	[e] With One <b>CFL retrofit tube 65 watt / 85 watt</b> with Holder				
	Cat.I	Ea.	990.00	40.00	1030.00
	Cat.II	Ea.	1270.00	40.00	1310.00
	Cat.III	Ea.	1480.00	40.00	1520.00
2-8-3.	Providing & erecting approved make <b>CFL out doors type Post top lantern / flying saucer type fittings</b> cast Aluminium / M.S. Powder Coated pole mounting type with BS lamp holder & Clear acrylic diffuser with CFL lamp complete.				
	[A] With One No. retrofit 11/18 watt CFL				
	Cat.I	Ea.	330.00	40.00	370.00
	Cat.II	Ea.	770.00	40.00	810.00
	Cat.III	Ea.	1450.00	40.00	1490.00
	[B] With One No. retrofit 36 watt CFL				
	Cat.I	Ea.	440.00	40.00	480.00
	Cat.II	Ea.	920.00	40.00	960.00
	Cat.III	Ea.	1560.00	40.00	1600.00
	[C] With One No. retrofit 65 / 85 watt CFL				
	Cat.I	Ea.	640.00	40.00	680.00

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Total
470.00
750.00
1020.00
560.00
890.00
1420.00
950.00
200.00
1400.00
1150.00
00.00
1600.00
1030.00
100.00
1520.00
370.00
00.00
490.00
480.00
90.00
600.00
300.00

Item No.	Description	Unit	Cost of Materials	Cost of Labour	Total
	Cat.II	Ea.	1120.00	40.00	1160.00
	Cat.III	Ea.	1710.00	40.00	1750.00
	Providing and erecting approved make decorative recess mounting Down Lighter fittings with anodized Aluminium reflector suitable for compact fluorescent lamp with copper ballast holder and necessary lead wire.				
	(a)With One Lamp retrofit 9/11/13 W C.F.L.				
	Cat.II	Ea.	390.00	40.00	430.00
	Cat.III	Ea.	560.00	40.00	600.00
	(b)With One Lamp non retrofit 15/18/26 W C.F.L.				
	Cat.II	Ea.	540.00	40.00	580.00
	Cat.III	Ea.	720.00	40.00	760.00
	(c)With Two Lamp non retrofit 15/18/26 W C.F.L.				
	Cat.II	Ea.	810.00	40.00	850.00
	Cat.III	Ea.	950.00	40.00	990.00
2-8-8	Pro. & erecting <b>Mirror light fitting with One No. of 9/11/13 CFL Non Retrofit</b> CRCA powder coated fitting with necessary ballast and accessories erected with necessary lead wire.				
	Cat.II	Ea.	250.00	40.00	290.00
	Cat.III	Ea.	350.00	40.00	390.00
2-8-11	Supply & fixing <b>decorative Hanging light with glass</b> having cylindrical or square shape having length not less than 10" & width not less 3.5" with holder, lead wire as per required length but not more than 1mm & base plate for fixing the fitting with ceiling [a] suitable for led lamp				
	cat-II	Ea.	1500.00	100.00	1600.00
	cat-III	Ea.	1980.00	120.00	2100.00
<b>SECTION 2-9 SODIUM VAPOUR LAMP FITTINGS</b>					
2-9-1.	providing and erecting Approved make <b>street light luminaire</b> with one no suitable for- HPSV / MH lamp complete with control gear and accessories , <b>Single piece Deep drawn Aluminium housing</b> with two compartments duly stove enameled painted side reflector protective acrylic cover, synthetic felt gasket, necessary hardware. The fitting should be suitable for side entry having suitable socket bore for clamping complete erected.				



Item No. 2-9-4. Su...  
 2-9-5. Su...  
 2-10-1. Pr...  
 2-10-2. Pr...

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	<b>(A) With 70 watt SVL. /Metal Halide lamp</b>				
	Cat.I	Ea.	2150.00	100.00	2250.00
	Cat.II	Ea.	2630.00	100.00	2730.00
	Cat.III	Ea.	3370.00	100.00	3470.00
	<b>(B) With 150 watt SVL. /Metal Halide lamp</b>				
	Cat.I	Ea.	3850.00	100.00	3950.00
	Cat.II	Ea.	4250.00	100.00	4350.00
	Cat.III	Ea.	5440.00	100.00	5540.00
	<b>(C) With 250 watt SVL. /Metal Halide lamp</b>				
	Cat.I	Ea.	4960.00	150.00	5110.00
	Cat.II	Ea.	5200.00	150.00	5350.00
	Cat.III	Ea.	6800.00	150.00	6950.00
	<b>(D) With 400 watt SVL. /Metal Halide lamp</b>				
	Cat.I	Ea.	4150.00	150.00	4300.00
	Cat.II	Ea.	4650.00	150.00	4800.00
	Cat.III	Ea.	5850.00	150.00	6000.00
2-9-2	providing and erecting Approved make <b>street light luminaire</b> with one no suitable for- HPSV / MH lamp complete with control gear and accessories . <b>Single piece Die cast Aluminium housing</b> with two compartments duly stove enameled painted side reflector protective <b>Glass</b> cover, synthetic felt gasket, necessary hardware. The fitting should be suitable for side entry having suitable socket bore for clamping complete erected.				
	<b>(A) With 70 watt SVL. /Metal Halide lamp</b>				
	Cat.II	Ea.	3510.00	100.00	3610.00
	Cat.III	Ea.	4450.00	100.00	4550.00
	<b>(B) With 150 watt SVL. /Metal Halide lamp</b>				
	Cat.II	Ea.	5170.00	150.00	5320.00
	Cat.III	Ea.	6950.00	150.00	7100.00
	<b>(C) With 250 watt SVL. /Metal Halide lamp</b>				
	Cat.II	Ea.	6220.00	150.00	6370.00
	Cat.III	Ea.	7850.00	150.00	8000.00
	<b>(D) With 400 watt SVL. /Metal Halide lamp</b>				
	Cat.II	Ea.	6950.00	250.00	7200.00
	Cat.III	Ea.	8750.00	250.00	9000.00
2-9-3.	Supplying and erecting approved make, watertight, integral <b>flying saucer type post top lantern</b> , suitable for <b>70 Watt. HPSV lamp</b> , with ignitor, lamp holder, canopy and other necessary accessories.				
	Cat.II	Ea.	1660.00	40.00	1700.00
	Cat.III	Ea.	2610.00	40.00	2650.00

Total
2250.00
2730.00
3470.00
3950.00
4350.00
5540.00
5110.00
350.00
6950.00
300.00
4800.00
500.00
670.00
550.00
320.00
100.00
70.00
00.00
30.00
10.00
1.00
1.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
2-9-4.	Supplying and erecting, <b>industrial low bay mirror optic luminaires</b> made from CRCA sheet steel with aluminium reflector & transparent acrylic cover for indoor installation with Copper ballast, igniter, capacitor, Holder, integral type with one no. 70 watt SON lamp/metal halide lamp.				
	Cat.I	Ea.	1680.00	100.00	1780.00
	Cat.II	Ea.	1820.00	100.00	1920.00
	Cat.III	Ea.	2410.00	100.00	2510.00
2-9-5.	Supplying and erecting <b>industrial high bay luminaire</b> , installation with ballast, ignitor, holder, integral type.				
	<b>(A) With 150 watt SON lamp/metal halide lamp</b>				
	Cat.I	Ea.	3090.00	150.00	3240.00
	Cat.II	Ea.	3510.00	150.00	3660.00
	Cat.III	Ea.	4420.00	150.00	4570.00
	<b>(B) With 250 watt SON lamp/metal halide lamp</b>				
	Cat.I	Ea.	3450.00	150.00	3600.00
	Cat.II	Ea.	4000.00	150.00	4150.00
	Cat.III	Ea.	4980.00	150.00	5130.00
<b>SECTION 2-10 HALOGEN TUBE FITTING</b>					
2-10-1.	Providing and erecting <b>indoor type halogen fitting</b> made from M.S. sheet with Aluminium reflector and holder with halogen tube of following size.				
	<b>(A) With 500 watt Halogen Tube</b>				
	Cat.I	Ea.	370.00	40.00	410.00
	Cat.II	Ea.	500.00	40.00	540.00
	Cat.III	Ea.	680.00	40.00	720.00
	<b>(B) With 1000 watt Halogen Tube</b>				
	Cat.I	Ea.	620.00	40.00	660.00
	Cat.II	Ea.	760.00	40.00	800.00
	Cat.III	Ea.	920.00	40.00	960.00
2-10-2.	Providing and erecting <b>out door type halogen fitting</b> made from cast alloys with electro- chemically polished Aluminium reflector complete with tuffend glass, silicon gasket with Halogen tube of following size				
	<b>(A) With 500 watt Halogen Tube</b>				
	Cat.I	Ea.	410.00	40.00	450.00
	Cat.II	Ea.	710.00	40.00	750.00
	Cat.III	Ea.	910.00	40.00	950.00
	<b>(B) With 1000 watt Halogen Tube</b>				
	Cat.I	Ea.	1010.00	40.00	1050.00
	Cat.II	Ea.	1440.00	40.00	1480.00
	Cat.III	Ea.	1680.00	40.00	1720.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
<b>SECTION 2-11 : FLOOD LIGHTS</b>					
2-11-1	Providing and erecting, <b>heavy duty flood light integral luminaire</b> comprises die cast aluminium body with heat resistant toughened front glass, silicon rubber gasket, anodised reflector hot deep powder coated cradle clamp with suitable size of necessary built in control gear complete with lamp.				
	<b>(a) with one no. 70 watt HPSV / Metal halide lamp</b>				
	Cat. II	Ea.	2640.00	60.00	2700.00
	Cat. III	Ea.	3440.00	60.00	3500.00
	<b>(b) With one no. 150 watt HPSV / Metal halide lamp</b>				
	Cat. II	Ea.	2940.00	60.00	3000.00
	Cat. III	Ea.	3840.00	60.00	3900.00
	<b>(c) With one no. 250 watt HPSV / Metal halide lamp</b>				
	Cat. II	Ea.	4740.00	60.00	4800.00
	Cat. III	Ea.	5440.00	60.00	5500.00
	<b>(d) With one no. 400 watt HPSV / Metal halide lamp</b>				
	Cat. II	Ea.	5490.00	60.00	5550.00
	Cat. III	Ea.	6690.00	60.00	6750.00
2-11-2	Pro. & erecting <b>heavy duty flood light nonintegral luminaires</b> comprised die cast aluminium powder coated body with heat resistant toughened front glass, silicon rubber gasket anodised reflector, hot deep powder coated cradle clamp <b>with external control Gear box</b> having lamp holder & terminal blocks complete with lamp.				
	<b>[A] With 2 Nos 250 watt tubular HID HPSV / M.H. Lamp</b>				
	Cat. II	Ea.	6750.00	250.00	7000.00
	Cat. III	Ea.	9300.00	250.00	9550.00
	<b>[A] With 2 Nos 400 watt tubular HID HPSV / M.H. Lamp</b>				
	Cat. II	Ea.	9250.00	250.00	9500.00
	Cat. III	Ea.	11050.00	250.00	11300.00
2-11-3	<b>Diacast aluminum HID control gear box for</b>				
	<b>[a] 2 x 250 watt with ballast capacitor ignitor fuse cutout pre wired with terminal block</b>				
	Cat. II	Ea.	3400.00	100.00	3500.00
	Cat. III	Ea.	4150.00	100.00	4250.00
	<b>[b] With 2 Nos 400 watt tubular HID HPSV / M.H. Lamp</b>				
	Cat. II	Ea.	4300.00	100.00	4400.00
	Cat. III	Ea.	4500.00	100.00	4600.00

Item No	Description
2-12-1	
2-12-2	
2-12-3	
2-13-1	
2-13-2	
2-13-3	
2-13-4	
2-13-5	

Total

2700.00

3500.00

3000.00

3900.00

4800.00

5500.00

5550.00

6750.00

7000.00

7550.00

8500.00

9500.00

3500.00

4200.00

490.00

600.00

Item No.	Description	Unit	Cost of Materials	Cost of Labour	Total
<b>SECTION 2-12 OTHER MISCELANIOUS FITTINGS</b>					
2-12-1.	Supplying P.L. Table lamp having sleek flexible versatile type with powder coated reflector and base cover with ABS moulded components and mirror optics reflector having integral ballast P.L. Holder fitted with P.L. tube 1 no. 9/11 W cord wire with plug.				
	Cat-II	Ea.	270.00	0.00	270.00
	Cat-III	Ea.	440.00	0.00	440.00
2-12-2.	Supplying decorative table lamp with LED lamps of suitable nos equivalent of 11 W light with flexible copper wire cord with plug top.				
	Cat.I	Ea.	500.00	0.00	500.00
	Cat.II	Ea.	600.00	0.00	600.00
	Cat.III	Ea.	800.00	0.00	800.00
2-12-3.	Supplying & Fixing Jali cover suitable for T-5 / T-8 CFL tube indoor / outdoor fitting complete with necessary material. Jali cover shall be made from G.I. wire & end side plates of G.I. sheet 20 gauge with 13 con high safe suitable as fitting.	Ea.	150.00	0.00	150.00
<b>SECTION 2-13 NEON LIGHTING</b>					
2-13-1.	Supplying and erecting Philips or Equivalent approved make lead glass tubing complete with Mono light or approved make electrodes field up with argon / neon gas as per requirement.				
	(a) Red / Blue colour light	Rn.Mt r	345.00	25.00	370.00
	(b) White / Green / F.L.U. tube / Pink colour light with tube coated with EGL powder.	Rn.Mt r	465.00	25.00	490.00
2-13-2.	Supplying and erecting step-up "AME" or approved make Transformer from 250V to 12000V / 15000 V, each of 450 watts up to the length of 12 to 15Rmt. neon tube.	Ea.	3130.00	120.00	3250.00
2-13-3.	Supplying and erecting approved make H.T wire required for wiring the neon board	Mtr.	24.00	6.00	30.00
2-13-4.	Supplying and erecting Sign board made from G.I. sheet or 24 / 26 gauge sheet 15 cms. deep and of required size	Sq.Mtr	250.00	30.00	280.00
2-13-5.	Repairing of Neon / Argon tube				
	(a) Red / Blue colour light	Rn.Mt r	200.00	40.00	240.00
	(b) White / Green / F.L.U. tube Pink colour light with tube coated with EGL powder	Rn.Mt r	290.00	40.00	330.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
<b>SECTION 2-14 ACCESSORIES</b>					
2-14-1.	<b>Conveyance Charges</b> for departmentally supplied Fluorescent Fittings, Street Light and Flood Light Fittings (from Divisional Store to work site.)...	Ea.	0.00	15.00	15.00
2-14-2	Shock proof <b>hand lamp</b> with wire guard and 3 mtr of 3 core round flexible wire of suitable size and 3 pin plug top and heavy duty pendant holder	Ea.	60.00	0.00	60.00
2-14-3.	<b>supplying and erecting CFL ballast suitable for 9/11/13 watt tube</b>				
	Cat-II	Ea.	104.00	6.00	110.00
	Cat-III	Ea.	134.00	6.00	140.00
2-14-4.	<b>supplying and erecting C F L Ballast 15/16/18/26 W</b>				
	Cat-II	Ea.	134.00	6.00	140.00
	Cat-III	Ea.	164.00	6.00	170.00
2-14-5.	Supplying and erecting approved make, <b>heavy duty polyester filled ballast suitable for 80Watt. HPMV lamp</b>				
	Cat-II	Ea.	235.00	15.00	250.00
	Cat-III	Ea.	285.00	15.00	300.00
2-14-6.	Supplying and erecting approved make, <b>heavy duty polyester filled ballast suitable for 125 Watt. HPMV lamp.</b>				
	Cat-II	Ea.	295.00	15.00	310.00
	Cat-III	Ea.	435.00	15.00	450.00
2-14-7.	Supplying and erecting approved make, <b>heavy duty polyester filled ballast suitable for 250 Watt. HPMV lamp.</b>				
	Cat-II	Ea.	410.00	30.00	440.00
	Cat-III	Ea.	710.00	30.00	740.00
2-14-8.	Supplying and erecting approved make, <b>heavy duty polyester filled ballast suitable for 400 Watt. HPMV lamp.</b>				
	Cat-II	Ea.	610.00	40.00	650.00
	Cat-III	Ea.	1100.00	40.00	1140.00
2-14-9.	Supplying and erecting approved make, <b>heavy duty polyester filled ballast suitable for HPSV/ Metal Halide lamp.</b>				
	<b>(a) 70 Watt.</b>				
	Cat-II	Ea	350.00	30.00	380.00
	Cat-III	Ea	550.00	30.00	580.00
	<b>(b)150 Watt.</b>				
	Cat-II	Ea	800.00	30.00	830.00
	Cat-III	Ea	1050.00	30.00	1080.00
	<b>(c)250 Watt</b>				
	Cat-II	Ea	1080.00	30.00	1110.00
	Cat-III	Ea	1470.00	30.00	1500.00
	<b>(d)400 Watt</b>				
	Cat-II	Ea	1800.00	50.00	1850.00

Total
15.00
60.00
110.00
140.00
140.00
170.00
250.00
300.00
310.00
450.00
40.00
740.00
50.00
1140.00
380.00
0.00
0.00
380.00
110.00
0.00
0.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	Cat-III	Ea	2100.00	50.00	2150.00
2-14-10	Supplying and erecting approved make ignitor suitable for HPSV/ Metal Halide fittings, 70W / 150W / 250W / 400W	Ea.	160.00	30.00	190.00
2-14-11	Supplying & erecting control gear box, weather proof made of Cast aluminium with heavy duty copper polyester choke, condenser, MCB, connector block & earthing terminal complete erected with necessary screws, nuts & bolts clamps suitable for				
	<b>(A) For HPSV/MH Lamp with ignitor For One No. Lamp.</b>				
	<b>(i) 70W</b>				
	Cat-II	Ea	695.00	55.00	750.00
	Cat-III	Ea	895.00	55.00	950.00
	<b>(ii) 150 W</b>				
	Cat-II	Ea	895.00	55.00	950.00
	Cat-III	Ea	1045.00	55.00	1100.00
	<b>(iii) 250 W</b>				
	Cat-II	Ea	1145.00	55.00	1200.00
	Cat-III	Ea	1395.00	55.00	1450.00
	<b>(iv) 400W</b>				
	Cat-II	Ea	1595.00	55.00	1650.00
	Cat-III	Ea	1795.00	55.00	1850.00
2-14-12.	Supplying & erecting approved make <b>HFHC Electronic ballast</b> having operation voltage range 120V to 300V at 0.95 power factor for (a) One No. 20/40 watt tube light				
	Cat.I	Ea.	195.00	15.00	210.00
	Cat.II	Ea.	275.00	15.00	290.00
	Cat.III	Ea.	345.00	15.00	360.00
<b>SECTION 2-15 SOLAR STREET LIGHTS</b>					
2-15-1	Supplying and erecting <b>MNES certified SOLAR STREET LIGHT fitting</b> made from M.S. Body powder coated / painted with corrosion resistant paint with gasket & transparent cover with following CFL non retro lamp with choke, holder & accessories. Fitting shall be mounted on 75/80 mm B class G.I. pipe pole up to 5.5 mtr load complete erected with C.C. Foundation duly painted with two coats of red oxide and corrosive resistant paint. Complete with tubular battery, inverter, charge controller with photo sensor switch & necessary wiring complete erected connected & commissioned in approved manner.				
	<b>[1] 1 x 11 w CFL PV Module : 74 W Battery Capacity : 12V, 75 AH</b>	Ea.	23750.00	250.00	24000.00
	<b>[2] 2 x 11 W CFL (Single luminaire with 2 CFL) PV Module:120 W Battery Capacity 12V, 100 AH</b>	Ea.	32750.00	250.00	33000.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	<b>[3] 2 x 11 W CFL (Double Luminaire with One CFL each), PV Module : 120W Battery Capacity : 12V, 100 AH</b>	Ea.	33750.00	250.00	34000.00
2-15-2	Supplying & erecting <b>Solar Home light system with structure</b> as per MNES specification consisting of following non retrofit CFL fitting complete with following CFL lamps & battery capacity dully connected with built in inverter & commissioned as per directed with necessary wiring & fittings.				
	<b>(a) One No CFL 11 watt non retrofit ceiling / wall mounting features with battery capacity 12 watt, 20 AH</b>	Ea.	6600.00	300.00	6900.00
	<b>(b) Two No CFL 11 watt non retrofit ceiling / wall mounting features with battery capacity 12 watt, 40 AH</b>	Ea.	12000.00	300.00	12300.00
	<b>(c) Three No CFL 11 watt non retrofit ceiling / wall mounting features with battery capacity 12 watt, 20 AH</b>	Ea.	12300.00	300.00	12600.00

### LED LUMINARIES

#### Indoor LED Fittings

2-15-3	Supplying and erecting <b>LED indoor fittings</b> with LEDs of wattage 0.2 Watt to 0.5 Watt assembled on single MCPCB, with housing used as a heat sink shall be made of thick sheet Steel conforming to IS: 513/CRCA/ aluminium die cast powder coated and high U.V. & corrosion resistance with diffuser with company mark/name 120 to 300 V, Power Factor more than 0.9, THD < 10 % CCT: 3000 K to 6500K. Luminaire efficacy > 85 lumens/watt, LED efficiency: 110 lumens/watt LED driver efficiency > 85 % CREE / OSRAM / PHILIPS Lumileds / NICHIA / SEOUL/Bridgelux make LED used for luminaires. ( fitting required LM-79 & LM-80 Certificates)(NOTE: Below description have shown ranges of Wattage capacity of LED fittings. The Engineer incharge may select any wattage capacity between the ranges shown.)				
(A)	<b>(A) Tube Light with integral driver</b>				
	<b>(a) 5-9 Watts, Surge-2 KV, IP-20, 2 feet</b>				
	Cat-II	Each	162.00	30.00	192.00
	Cat-III	Each	222.00	30.00	252.00
	<b>(b) 12-14 Watts, Surge-2 KV, IP-20, 4 feet</b>				
	Cat-II	Each	282.00	30.00	312.00
	Cat-III	Each	342.00	30.00	372.00
	<b>(c) 16-20 Watts, Surge - 2KV, IP-20, 4 feet</b>				
	Cat-II	Each	342.00	30.00	372.00
	Cat-III	Each	438.00	30.00	468.00
	<b>(d) 22-24 Watts, Surge - 2KV, IP-20, 4 feet</b>				
	Cat-II	Each	462.00	30.00	492.00

Total
34000.00
6900.00
12300.00
2600.00
92.00
252.00
12.00
372.00
72.00
468.00
92.00

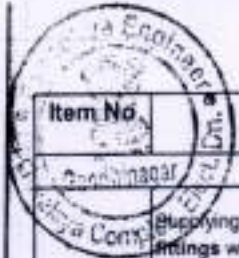
Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	Cat-III	Each	564.00	30.00	594.00
	<b>(e) 36 Watts, Surge-2 KV, IP-20, 4 feet</b>				
	Cat-II	Each	702.00	30.00	732.00
	Cat-III	Each	822.00	30.00	852.00
(B)	<b>(B) LED Lamps integral type, with PC diffuser suitable LAMP holder</b>				
	<b>(a) 2 to 3 watts</b> cat-II	Each	80.00	0.00	80.00
	cat-III	Each	110.00	0.00	110.00
	<b>(b) 5 to 8 watts</b> cat-II	Each	130.00	0.00	130.00
	cat-III	Each	180.00	0.00	180.00
	Supplying and erecting LED indoor fittings with LEDs of wattage 0.2 Watt to 0.5 Watt assembled on single MCPCB, with housing used as a heat sink shall be made of thick sheet Steel conforming to IS: 513/CRCA/aluminium pressure die cast powder coated and high U.V. & corrosion resistance with diffuser housed in aluminium casted body with company mark/name 120 to 300 V, Power Factor more than 0.9, THD < 10 %, CCT 3000 K to 6500K, Luminaire efficacy > 85 lumens/watt, LED efficiency 110 lumens/watt, LED driver efficiency > 85 % CREE / OSRAM / PHILIPS Lumileds / NICHIA / SEOUL/Bridgelux make LED used for luminaire. ( fitting required LM-79 & LM-80 Certificates)(NOTE: Below description have shown ranges of Wattage capacity of LED fittings. The Engineer incharge may select any wattage capacity between the ranges shown.)				
(C)	<b>(C) Square/ Circular shaped Surface/Recessed Mount Downlight with provision for spring loaded mounting clips complete. IP20</b>				
	<b>(a) 5-9 watts, Surge-2 KV</b>				
	Cat-II	Each	240.00	40.00	280.00
	Cat-III	Each	300.00	40.00	340.00
	<b>(b) 11-15 watts, Surge-2 KV</b>				
	Cat-II	Each	576.00	40.00	616.00
	Cat-III	Each	636.00	40.00	676.00
	<b>(C) 16-20 watts, Surge-2 KV</b>				
	Cat-II	Each	800.00	40.00	840.00
	Cat-III	Each	900.00	40.00	940.00
	<b>(C) 22-24 watts, Surge-2 KV</b>				
	Cat-II	Each	996.00	40.00	1,036.00
	Cat-III	Each	1,176.00	40.00	1,216.00
(D)	<b>(D) LED Panel Light with provision for Plane front frame with translucent cover fixed to housing complete. IP20</b>				
	<b>(a) up to 8 Watts, 4" x 4", Surge-2 KV</b>				
	Cat-II	Each	330.00	40.00	370.00
	Cat-III	Each	390.00	40.00	430.00
	<b>(b) 10 watts, 4" x 4", Surge-2 KV</b>				
	Cat-II	Each	390.00	40.00	430.00
	Cat-III	Each	510.00	40.00	550.00
	<b>© 12-15 watts, 6" x 6", Surge-2 KV</b>				

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	Cat-II	Each	576.00	40.00	616.00
	Cat-III	Each	696.00	40.00	736.00
	<b>(d) 18 to 20 watts, 8" x 8", Surge- 2 KV</b>				
	Cat-II	Each	756.00	40.00	796.00
	Cat-III	Each	936.00	40.00	976.00
	<b>(e) 24 watts, 12" x 12" , Surge-2 KV</b>				
	Cat-II	Each	996.00	40.00	1,036.00
	Cat-III	Each	1,116.00	40.00	1,156.00
	<b>(f) 36 watts, 24" x 24" mm, Surge- 2KV</b>				
	Cat-II	Each	2,196.00	40.00	2,236.00
	Cat-III	Each	2,856.00	40.00	2,896.00
	<b>(g) from 45 to 48 watts, 24" x 24", Surge- 2 KV</b>				
	Cat-II	Each	2,676.00	40.00	2,716.00
	Cat-III	Each	3,336.00	40.00	3,376.00
(E)	<b>E ) LED Strip Light</b>				
	(a) Minimum 4.8W-120 LED per meter (2 wire, IP-65) with non integral suitable Driver complete				
	Cat-II	mtr.	90.00	40.00	130.00
	Cat-III	mtr.	162.00	40.00	202.00
	(b) Minimum 7.2W -240 LED per meter,(2 wire, IP-65) with non integral suitable Driver complete				
	Cat-II	mtr.	180.00	40.00	220.00
	Cat-III	mtr.	300.00	40.00	340.00
(F)	<b>(F) Under Water Light,12V DC including Driver,IP-67 with die-cast/deep drawn housing with impact resistance clear toughened glass.</b>				
	<b>(a) 5-8 watts</b>				
	Cat-II	Each	1,020.00	40.00	1,060.00
	Cat-III	Each	1,320.00	40.00	1,360.00
	<b>(b) 12 watts</b>				
	Cat-II	Each	1,380.00	40.00	1,420.00
	Cat-III	Each	1,620.00	40.00	1,660.00
(G)	<b>(G) Spot Light 425 Lumens, Surge-2KV</b>				
	<b>(a) 3 to 7 Watts</b>				
	Cat-II	Each	996.00	40.00	1,036.00
	Cat-III	Each	1,260.00	40.00	1,300.00
	<b>(b) 8 to 11 Watts</b>				
	Cat-II	Each	1,596.00	40.00	1,636.00
	Cat-III	Each	2,160.00	40.00	2,200.00
(H)	<b>(H) Step Light having Aluminium die cast and ABS Plastic material.</b>				
	(a) 5 watts, Direct/Indirect luminaire				
	Cat-II	Each	660.00	40.00	700.00
	Cat-III	Each	876.00	40.00	916.00
(I)	<b>(I) Mirror Light 9 Watts, wall mounted minimum 1 feet long</b>	Each	462.00	30.00	492.00

2-15-4.

(A)

(B)



Total
616.00
736.00
796.00
976.00
1,036.00
1,156.00
2,236.00
2,896.00
2,716.00
3,376.00
130.00
202.00
220.00
340.00
060.00
1,360.00
1,420.00
660.00
1,036.00
300.00
536.00
2,200.00
700.00
916.00
92.00

Item No.	Description	Unit	Cost of Materials	Cost of Labour	Total
<b>LED OUTDOOR FITTINGS</b>					
2-15-4.	Supplying and erecting LED street light / Flood light fittings with High power White LEDs wattage of 1Watt and above assembled on single MCPCB, efficiency more than 130 lm/w and corrosion free High pressure die cast aluminum housing with smooth finish powder coated and heat sink extruded aluminium with diffuser and Polycarbonate optics/ lenses with company mark/name engraved or embossed 120 to 300 V,Power Factor more than 0.95, THD < 10 %, CCT 3000 K to 5700K, Uniformity ratio >0.45, Luminaire efficacy> 100 lumens/watt . LED driver efficiency > 85 %,CREE / OSRAM / PHILIPS Lumileds / NICHIA / SEOUL/ BridgeLux (U.S.A.) make LED used for luminaire. ( fittings required LM-79 & LM-80 certificates)(NOTE: Below description have shown ranges of Wattage capacity of LED fittings.The Engineer incharge may select any wattage capacity between the ranges shown.)				
(A)	<b>(A) Street Light (IP-65), Surge protection -4KV integral and 10 kv non integral ,Light must have 440VAC line supply protection. It should withstand 48 hours for 440VAC line supply.</b>				
	<b>(a) 10 to 12 Watts</b>				
	Cat-II	Each	1,380.00	100.00	1,480.00
	Cat-III	Each	1,800.00	100.00	1,900.00
	<b>(b) 15 to 24 Watts</b>				
	Cat-II	Each	2,400.00	100.00	2,500.00
	Cat-III	Each	2,820.00	100.00	2,920.00
	<b>(c) above 24 to 36 watts</b>				
	Cat-II	Each	2,880.00	150.00	3,030.00
	Cat-III	Each	3,360.00	150.00	3,510.00
	<b>(d) above 36 to 48 watts</b>				
	Cat-II	Each	4,620.00	150.00	4,770.00
	Cat-III	Each	5,220.00	150.00	5,370.00
	<b>(e) above 48 to 60 Watts</b>				
	Cat-II	Each	6,450.00	200.00	6,650.00
	Cat-III	Each	7,830.00	200.00	8,030.00
	<b>(f) Above 60 watts to 90 watts</b>				
	Cat-II	Each	7,710.00	200.00	7,910.00
	Cat-III	Each	9,420.00	200.00	9,620.00
	<b>(g) above 90 to 120 watts</b>				
	Cat-II	Each	10,080.00	200.00	10,280.00
	Cat-III	Each	10,380.00	200.00	10,580.00
	<b>(h)above 120 watts to 160 watts</b>				
	Cat-II	Each	12,080.00	200.00	12,280.00
	Cat-III	Each	12,500.00	200.00	12,700.00
	<b>(i)above 160 watts to 200 watts</b>				
	Cat-II	Each	13,500.00	200.00	13,700.00
	Cat-III	Each	14,500.00	200.00	14,700.00
(B)	<b>(B) Flood Light (IP-65), Surge -4KV,Light must have 440VAC line supply protection. It should withstand 48 hours for 440VAC line supply</b>				
	<b>(a) above 20 to 30 watts</b>				
	Cat-II	Each	6,200.00	150.00	6,350.00
	Cat-III	Each	7,600.00	150.00	7,750.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	<b>(a) above 40 to 48 watts</b>				
	Cat-II	Each	7,200.00	150.00	7,350.00
	Cat-III	Each	8,220.00	150.00	8,370.00
	<b>(b) above 48 to 60 Watts</b>				
	Cat-II	Each	8,400.00	150.00	8,550.00
	Cat-III	Each	8,880.00	150.00	9,030.00
	<b>(c) Above 60 watts to 90 watts</b>				
	Cat-II	Each	9,150.00	200.00	9,350.00
	Cat-III	Each	9,600.00	200.00	9,800.00
	<b>(d) above 90 to 120 watts</b>				
	Cat-II	Each	9,840.00	200.00	10,040.00
	Cat-III	Each	11,520.00	200.00	11,720.00
	<b>(e) above 120 to 240 watts</b>				
	Cat-III	Each	17,280.00	200.00	17,480.00
	<b>(C) Post Top Lantern LED fitting comprises of Copper dust finish cast aluminum spigot and spun aluminum canopy fixed with opal polycarbonate, pipe arrangement for vertical mounting driver and accessories wired upto terminal block.IP 65</b>				
	<b>(a)20- 30W</b>				
	Cat-II	Each	5,500.00	100.00	5,600.00
	Cat-III	Each	6,500.00	100.00	6,600.00
	<b>(b)32-40W</b>				
	Cat-II	Each	6,240.00	100.00	6,340.00
	Cat-III	Each	7,680.00	100.00	7,780.00
	<b>(D)bollards</b>				
	<b>(1) LED Bollard fittings of minimum height 400 mm &amp; dia.100mm having polycarbonate clear/milky diffuser mounted on 3mm thick aluminium finished powder coated pipe with base plate 160x160mm with erection by M8x75mm fastner with required RCC foundation.IP65 for 9watt ,surge-4kv cat-III</b>	Ea.	1,800.00	150.00	1,950.00
	<b>(2) LED Bollard fittings of minimum height 600 mm &amp; dia.100mm having polycarbonate clear/milky diffuser mounted on 3mm thick aluminium finished powder coated pipe with base plate 160x160mm with erection by M8x75mm fastner with required RCC foundation.IP65 for 15watt ,surge-4kv- cat-III</b>	Ea.	2,800.00	150.00	2,950.00
	<b>(3) LED Bollard fittings of minimum height 1000 mm &amp; dia.100mm having polycarbonate clear/milky diffuser mounted on 3mm thick aluminium finished powder coated pipe with base plate 160x160mm with erection by M8x75mm fastner with required RCC foundation.IP65 for 18watt and above ,surge-4kv cat-III</b>	ea.	4,000.00	150.00	4,150.00



2-15-6



of	Total
3	7,350.00
10	8,370.00
10	8,550.00
10	9,030.00
0	9,350.00
0	9,800.00
0	10,040.00
0	11,720.00
0	17,480.00
0	5,600.00
0	6,600.00
0	6,340.00
0	7,780.00
0	1,950.00
0	2,950.00
0	50.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
<b>LED SOLAR STREET LIGHTS</b>					
2-15-5	Supplying and erecting LED Solar street lights with High power White LEDs wattage of 1Watt and above assembled on single MCPCB, efficiency more than 130 lm/w and corrosion free High pressure die cast aluminum housing with smooth finish powder coated and heat sink extruded aluminium with diffuser and Polycarbonate optics/ lenses with company mark/name engraved or embossed with 36 hours battery backup & MPPT 24V,7.5 A charge controller with 12 hours automatic switch on/off with wind speed resistance 44 m/s as per IEC 61215				
	(a) 12W, IP-65, PV Module – 60W and 4 mtr poles complete erected	Each	23,520.00	0.00	23,520.00
	(b) 15W, IP-65, PV Module – 80W and 4 mtr poles complete erected	Each	26,400.00	0.00	26,400.00
	(c) 21W, IP-65, PV Module – 100W and 5 mtr poles complete erected	Each	31,200.00	0.00	31,200.00
	(d) 28W, IP-65, PV Module –100W and 6 mtr poles complete erected	Each	37,440.00	0.00	37,440.00
	(e) 36W,3000 lumens, IP-65, PV Module – 2x100W and 6 mtr poles complete erected	Each	52,800.00	0.00	52,800.00
2-15-6	Supplying and Installation of <b>Approved make Integrated LED Solar light fitting</b> comprising in built Poly crystalline solar panel,Lithium-ion 3.7 V battery, LED CRI Greater than 70, CCT-6500K, 80 lum/watt all housed in Extruded Aluminium body,with motion sensor & auto on -off device erected on existing pole with following specifications.				
	(A) 6 watt LED light, with 7 W Solar panel, 3.7 V 13000 to 15000 mAh battery, 450 lm luminus flux, suitable for mount on 3 mtr height pole.	Each	14,400.00	100.00	14,500.00
	(B) 12 watt LED light, with 15 W Solar panel, 3.7 V 26000 to 28000 mAh battery, 850-900 lm luminus flux, suitable for mount on 3.5 to 4 mtr height pole.	Each	25,200.00	150.00	25,350.00
	(C) 18 watt LED light, with 22 W Solar panel, 3.7 V 39500 to 40500 mAh battery, 1250-1350 lm luminus flux,suitable for mount on 3.5 to 4 mtr height pole.	Each	32,400.00	200.00	32,600.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
2-15-7	providing and erecting PVC body surface or pendent mounting <b>LED Bulk type 9 watt Lighting Fitting</b> with electronic driver. And lumen output from luminaire 720lm , input voltage range 90-300VAC , 50Hz cool white(3000 to 6500k), inbuilt driver, - 20degC to +60degC working temperature, AL frame with Beam Angle 120deg	Each	1,100.00	40.00	1,140.00
	Supplying and Erecting Of <b>L.E.D. type High bay fixture</b> having Power Consumption of following watts with, Input Voltage 110 - 290 V.AC with full efficiency, Power Factor > 0.9 with 50/60 HZ, CCVC LED Driver used for maximum power saving, Best Quality Aluminium alloy housing and aluminium Dome for better heat dissipation, CCT Cool white (6000K), CRI 80, Beam angle > 120 degrees, working temperature -20 deg c to +55 deg c, Body IP 65				
	<b>(A) 70 to 90 watts</b>	Each	7,429.00	200.00	7,629.00
	<b>(B) 90 to 150 watts</b>	Each	8,149.00	200.00	8,349.00
	<b>(C) 150 to 200 watts</b>	Each	14,747.00	200.00	14,947.00
2-15-9	supplying <b>LED Portable/Rechargeable flood light</b> having die - cast aluminium enclosure designed for maximum thermal efficiency of 130lm luminous efficiency at voltage supply between 140-270V AV/12V DC at operating temperature of -20 degree to 60degree celcius with battery back up 3-4hrs				
	<b>up 10 Watt</b>	Each	4,900.00	0.00	4,900.00
	<b>11 to 20 watt</b>	Each	7,118.00	0.00	7,118.00
	<b>21 to 30 watt</b>	Each	9,192.00	0.00	9,192.00
<b>LED DRIVER</b>					
<b>Indoor LED Fittings</b>					
2-15-10.	<b>Repairing of existing indoor LED light fixture</b> (tube light/panel light/spot light/strip light/decorative wall lights etc as per sample )by suitable driver 2 kv according to LED PCB as per requirement of following rating wattage capacity				
	<b>(a)1-3 watt capacity</b>	Each	65.00	15.00	80.00
	<b>(b)4-6 watt capacity</b>	Each	105.00	15.00	120.00
	<b>(c)8-15 watt capacity</b>	Each	130.00	20.00	150.00
	<b>(d)16-24 watt capacity</b>	Each	245.00	20.00	265.00
	<b>(e)25-36 watt capacity</b>	Each	390.00	30.00	420.00
	<b>(f)38-50 watt capacity</b>	Each	485.00	30.00	515.00



2-16-1

2-16-2

P...  
 (a)1-  
 (b)4-  
 (c)8-  
 (d)16-  
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9,192.00  
120.00  
265.00  
515.00



Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
<b>LED OUTDOOR FITTINGS</b>					
2-15-11	Repairing of existing indoor LED light fixture (flood light/street light/bollard lights/decorative wall lights/landscape light etc as per sample )by suitable driver 4 kv,IP65 according to LED PCB as per requirement of following rating wattage capacity .				
	(a)1-3 watt capacity	Each	65.00	35.00	100.00
	(b)4-6 watt capacity	Each	105.00	35.00	140.00
	(c)8-15 watt capacity	Each	285.00	75.00	360.00
	(d)16-24 watt capacity	Each	365.00	75.00	440.00
	(e)25-36 watt capacity	Each	510.00	75.00	585.00
	(f)38-48 watt capacity	Each	560.00	100.00	660.00
	(g)50-80 watt capacity	Each	935.00	100.00	1,035.00
	(h)90-100 watt capacity	Each	1,450.00	120.00	1,570.00
2-16-1	Street light Automation providing and erecting Three Phase IoT GSM/GPRS Central Control & Monitoring System (CCMS) Panel for Streetlights Smart Feeder Panel with 3 Phase GSM/GPRS CCMS Streetlight Controller with LCD Display (1 Nos.), Streetlight Controller with Individual each Phase Control (Energy Saving feature) and Spare relay facility. Streetlight Controller having 10 years of reserved battery for RTC. With 50 programmable schedule, month-wise offset settable facility, Astronomic sunrise/sunset time programming in-built for year long schedule. Operating Voltage @ 440 V AC with Over Voltage & Short Circuit protection. 2 hour Battery Back-up for Streetlight Controller. Panel to have 1 Nos. of 3 Phase - Class 1 Energy Meter for Energy & Fault monitoring on CCMS Web Dashboard. Panel consisting of 3 Nos. of 3 Pole Contactors (3 x 18 A), 7 Nos. of 1 Pole Miniature Circuit Breakers (32 Amp.) for Bypass, Input / Output supply functionalities, 1 Nos. of 4 Pole Earth leakage circuit breaker for safety protection. Standard lock & key facility for Panel security. Door Switch for unauthorized access & tamper detection. Accelerometer for panel movement detection & tamper alerts. Suitable amount of Wires, Connectors, Terminal Blocks included in Panel. 16/18 gauge M 5 with industrial exterior powder coated PP with seven tank process RAL 7035 All weather-proof Enclosure Panel having IP65 rating. Waterproof Glands & Grounding Stand included. Dedicated IoT communication GSM/GPRS SIM Card (with minimum 5 years of recharge) for Wireless Communication with CCMS Web Dashboard. 5 Years Data Hosting & Server Charges to be included with CCMS Web Dashboard. Load status, Live analytics, Energy Meter monitoring (Parameters such as kW, kWh, PF, I, V), comparative analytics, reports generation facility. Fault detection on web dashboard. GIS Mapping of CCMS Panel on Web Dashboard. Secured MQTT Communication for Cloud. Includes Android & iOS Mobile Application. Local communication facility via Mobile Application in case of GPRS-connectivity failure.	Ea.	63,000.00	7,000.00	70,000.00
2-16-2	providing and erecting Smart Feeder Panel with 1 Phase GSM/GPRS CCMS Streetlight Controller with LCD Display (1 Nos.), Streetlight Controller with 3 Nos. of Individual Control relays (For energy saving) and Spare relay facility. Streetlight Controller having 10 years of reserved battery for RTC. With 50 programmable schedule, month-wise offset settable facility, Astronomic sunrise/sunset time programming in-built for year long schedule. Operating Voltage @ 440 V AC with Over Voltage & Short Circuit protection. 2 hour Battery Back-up for Streetlight Controller. Panel to have 1 Nos. of 1 Phase - Class 1 Energy Meter for Energy & Fault monitoring on CCMS Web Dashboard. Panel consisting of 3 Nos. of Contactors, 4 Nos. of 1 Pole Miniature Circuit Breakers (32 Amp.) for Bypass.	ea.	50,000.00	5,000.00	55,000.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	<p>Input / Output supply functionalities, 1 Nos. of 2 Pole Earth leakage circuit breaker for safety protection. Standard lock &amp; key facility for Panel security. Door Switch for unauthorized access &amp; tamper detection. Accelerometer for panel movement detection &amp; tamper alerts. Suitable amount of Wires, Connectors, Terminal Blocks included in Panel. 16/18 gauge M 5 with industrial exterior powder coated PP with seven tank process RAL 7035 All weather-proof Enclosure Panel having IP65 rating. Waterproof Glands &amp; Grounding Stand included. Dedicated IoT communication GSM/GPRS SIM Card (with minimum 5 years of recharge) for Wireless Communication with CCMS Web Dashboard. 5 Years Data Hosting &amp; Server Charges to be included with CCMS Web Dashboard. Load status, Live analytics, Energy Meter monitoring (Parameters such as kW, kWh, PF, I, V), comparative analytics, reports generation facility. Fault detection on web dashboard. GIS Mapping of CCMS Panel on Web Dashboard. Secured MQTT Communication for Cloud. Includes Android &amp; IOS Mobile Application. Local communication facility via Mobile Application in case of GPRS connectivity failure.</p>				

t of 2	Total



3-1-1.

3-1-2.

3-1-3.

3-1-4.

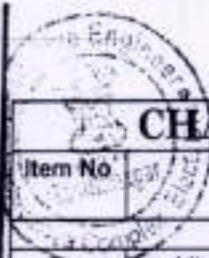
3-1-5.

3-1-6.

3-1-7.

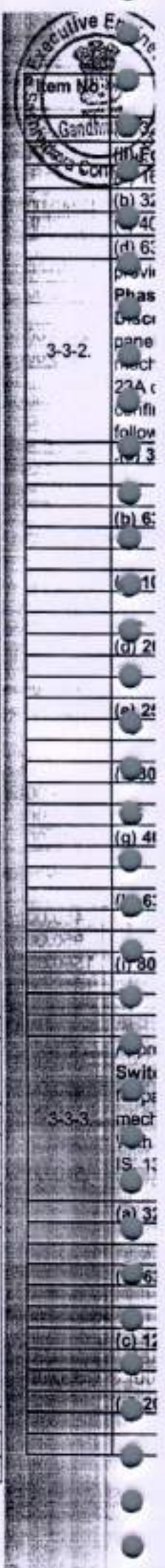
## CHAPTER - III

# Switchgears and Accessories



## CHAPTER - III Switchgears and Accessories

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
<b>SECTION 3-1 SWITCHGEARS WITH REWIRABLE FUSES</b>					
3-1-1.	providing and erecting Approved make <b>Double Pole Plastic Switch and fuse</b> 250V., 30A confirming to IS erected on Polished wooden block as directed.	Ea.	130.00	20.00	150.00
3-1-2.	Providing Approved make <b>Double Pole Cast Iron Clad Switch &amp; rewirable Fuse</b> 240 / 250 V confirming to IS.				
	<b>(a)16A.</b>				
	Cat.I	Ea.	270.00	0.00	270.00
	Cat.II	Ea.	325.00	0.00	325.00
	Cat.III	Ea.	380.00	0.00	380.00
	<b>(b)32 A</b>				
	Cat.I	Ea.	450.00	0.00	450.00
	Cat.II	Ea.	560.00	0.00	560.00
	Cat.III	Ea.	600.00	0.00	600.00
3-1-3.	Erection & connection charges for <b>16A / 32 A DP</b> as following				
	(a) on existing wooden block / A.I. frame	Ea.	10.00	30.00	40.00
	(b) on polished wooden block.	Ea.	30.00	30.00	60.00
	(c) on angle iron frame duly painted with Red Oxide	Ea.	105.00	25.00	130.00
3-1-4.	Providing Approved make <b>Triple Pole Cast Iron Clad Switch &amp; rewirable Fuse</b> with neutral link 415/500 V confirming to IS				
	<b>(a)16 A.</b>				
	Cat.I	Ea.	530.00	0.00	530.00
	Cat.II	Ea.	610.00	0.00	610.00
	Cat.III	Ea.	680.00	0.00	680.00
	<b>(b) 32 A</b>				
	Cat.I	Ea.	760.00	0.00	760.00
	Cat.II	Ea.	840.00	0.00	840.00
	Cat.III	Ea.	960.00	0.00	960.00
3-1-5.	Erection & connection Charges For <b>16A/32A TP</b> as following				
	(a) on existing wooden block / A.I.frame	Ea.	15.00	35.00	50.00
	(b) on polished wooden block.	Ea.	40.00	35.00	75.00
	(c) on angle iron frame duly painted with Red Oxide	Ea.	115.00	35.00	150.00
3-1-6.	Providing Approved make <b>Triple Pole Metal / Iron Clad Switch &amp; Fuse</b> with neutral link 415/500 V confirming to IS				
	<b>(a)63A</b>				
	Cat.I	Ea.	1480.00	0.00	1480.00
	Cat.II	Ea.	1995.00	0.00	1995.00
	Cat.III	Ea.	2310.00	0.00	2310.00
	<b>(b) 100 A</b>				
	Cat.I	Ea.	2595.00	0.00	2595.00
	Cat.II	Ea.	3630.00	0.00	3630.00
	Cat.III	Ea.	4010.00	0.00	4010.00
3-1-7.	Erection & connection Charges for <b>63A/100A TP</b> as following				
	(a) on existing wooden block / A.I.frame	Ea.	30.00	45.00	75.00
	(b) Erection on angle iron frame duly painted with Red Oxide	Ea.	110.00	45.00	155.00



SECTION 3-2 / SWITCHGEARS WITH HRC FUSES.					
Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
3-2-1.	Providing Approved make Triple Pole Metal Clad Switch Fuse Unit 415/500 V. with HRC fuse of suitable load and neutral link confirming to IS.				
	(a) 32 A				
	Cat.II	Ea.	1560.00	0.00	1560.00
	Cat.III	Ea.	2460.00	0.00	2460.00
	(b) 63 A.				
	Cat.II	Ea.	2450.00	0.00	2450.00
	Cat.III	Ea.	3810.00	0.00	3810.00
	(c) 100 A/125 A				
	Cat.II	Ea.	4810.00	0.00	4810.00
	Cat.III	Ea.	6790.00	0.00	6790.00
3-2-2.	Providing Approved make Triple Pole Metal Clad Switch Fuse Unit 415/500 V. with HRC fuse of suitable load and neutral link confirming to IS				
	(a)200 A				
	Cat.II	Ea.	7250.00	0.00	7250.00
	Cat.III	Ea.	9360.00	0.00	9360.00
	(b) 250A				
	Cat.II	Ea.	8450.00	0.00	8450.00
	Cat.III	Ea.	9880.00	0.00	9880.00
	(c) 300 A/315 A/325 A				
	Cat.II	Ea.	9750.00	0.00	9750.00
	Cat.III	Ea.	13650.00	0.00	13650.00
3-2-3.	Providing Approved make Triple Pole metal clad switch fuse unit 415 / 500V. 400 A with HRC fuse of suitable load and neutral link confirming to IS				
	Cat.II	Ea.	13000.00	0.00	13000.00
	Cat.III	Ea.	15600.00	0.00	15600.00
3-2-4.	Erection & connection charges for 32A/ 63 A / 100 A HRC TPN as following				
	(a)on existing wooden block / A.I frame	Ea	35.00	50.00	85.00
	(b)Erection on New angle iron frame duly painted with red oxide	Ea.	110.00	50.00	160.00
3-2-5.	Erection & connection Charges for 200A/ 250A/ 300 A /325 A/400 A HRC TPN as following				
	(a)on existing wooden block / A.I. frame	Ea.	35.00	50.00	85.00
	(b)Erection on New angle iron frame duly painted with red oxide .	Ea.	160.00	70.00	230.00
SECTION 3-3 / PANEL MOUNTING SWITCHGEARS					
3-3-1.	Providing and erecting Approved make panel mounting front fixing rotary switch (CAM Switch) with face plate with double pair of contacts with two fix and a moving contacts, operated by means of slide, rest on disk with grooves for sequential operation rotated by switch handle, square shaft and knob for Two way with off.				
	(i)Two pole				
	(a) 16/25A - 240 V	Ea.	405.00	50.00	455.00
	(b) 32A - 240V	Ea.	500.00	50.00	550.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
(b) 32A - 240V		Ea.	500.00	50.00	550.00
(iii) Four pole					
(a) 16/25A - 440V		Ea.	605.00	65.00	670.00
(b) 32A - 440V		Ea.	785.00	65.00	850.00
(c) 40A - 440V		Ea.	1065.00	65.00	1130.00
(d) 63A - 440V		Ea.	1745.00	65.00	1810.00
3-3-2.	providing and erecting Approved make <b>Three Phase &amp; Neutral LT Heavy Duty Switch Disconnecter Fuse Unit Cubical type</b> for panel mounting complete with operating mechanism suitable to operate on 415V A.C. , 23A duty With HRC fuses of suitable load confirming to IS. 13947 (Part I & III). of following capacities.				
(a) 32 Amp					
	Cat.II	Ea.	1210.00	50.00	1260.00
	Cat.III	Ea.	2110.00	50.00	2160.00
(b) 63 Amp					
	Cat.II	Ea.	2050.00	50.00	2100.00
	Cat.III	Ea.	3100.00	50.00	3150.00
(c) 100Amp/125 Amp					
	Cat.II	Ea.	4240.00	70.00	4310.00
	Cat.III	Ea.	5120.00	70.00	5190.00
(d) 200 Amp					
	Cat.II	Ea.	6580.00	110.00	6690.00
	Cat.III	Ea.	7940.00	110.00	8050.00
(e) 250 Amp					
	Cat.II	Ea.	7230.00	110.00	7340.00
	Cat.III	Ea.	9400.00	110.00	9510.00
(f) 300/320 Amp					
	Cat.II	Ea.	8300.00	150.00	8450.00
	Cat.III	Ea.	12800.00	150.00	12950.00
(g) 400 Amp					
	Cat.II	Ea.	10770.00	150.00	10920.00
	Cat.III	Ea.	13630.00	150.00	13780.00
(h) 630 Amp					
	Cat.II	Ea.	21220.00	230.00	21450.00
	Cat.III	Ea.	23300.00	230.00	23530.00
(i) 800 Amp					
	Cat.II	Ea.	25150.00	330.00	25480.00
	Cat.III	Ea.	28270.00	330.00	28600.00
3-3-3.	Approved make <b>Four Pole LT Heavy Duty Switch Disconnecter Fuse Unit Cubical type</b> for panel mounting complete with operating mechanism suitable to operate on 415V A.C. With HRC fuses of suitable load confirming to IS. 13947 (Part I & III). of following capacities				
(a) 32 Amp					
	Cat.II	Ea.	1900.00	50.00	1950.00
	Cat.III	Ea.	2225.00	50.00	2275.00
(b) 63 Amp					
	Cat.II	Ea.	2420.00	50.00	2470.00
	Cat.III	Ea.	2940.00	50.00	2990.00
(c) 125 Amp					
	Cat.II	Ea.	6225.00	75.00	6300.00
	Cat.III	Ea.	7075.00	75.00	7150.00
(d) 200 Amp					
	Cat.II	Ea.	7940.00	110.00	8050.00
	Cat.III	Ea.	9320.00	110.00	9430.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	(e) 250 Amp				
	Cat.II	Ea.	10420.00	110.00	10530.00
	Cat.III	Ea.	10810.00	110.00	10920.00
	(f) 315/320 Amp				
	Cat.II	Ea.	12580.00	160.00	12740.00
	Cat.III	Ea.	13490.00	160.00	13650.00
	(g) 400 Amp				
	Cat.II	Ea.	14140.00	160.00	14300.00
	Cat.III	Ea.	15180.00	160.00	15340.00
	(h) 630 Amp				
	Cat.II	Ea.	22500.00	250.00	22750.00
	Cat.III	Ea.	25100.00	250.00	25350.00
	(i) 800 Amp				
	Cat.II	Ea.	26330.00	320.00	26650.00
	Cat.III	Ea.	28930.00	320.00	29250.00
3-3-4.	Supplying & erecting following spare parts for panel mounting Switch Disconnecter Fuse Units				
3-3-4-1	Operational Handle Assembly Complete for				
	(i) 32 / 63 / 125 Amps	Ea.	460.00	30.00	490.00
	(ii) 200 / 250 / 320 / 400 / 630 / 800 Amps	Ea.	835.00	45.00	880.00
3-3-4-2	Operating Shaft (Extensible) for				
	(i) 32 / 63 / 125 Amps	Ea.	105.00	25.00	130.00
	(ii) 200 / 250 / 320 / 400 / 630 / 800 Amps	Ea.	155.00	25.00	180.00
3-3-4-3	Cable Terminal ( 'Z" Type) Set of Two for				
	(i) 200 / 250 Amps	Ea.	565.00	25.00	590.00
	(ii) 320 / 400 Amps	Ea.	750.00	30.00	780.00
	(iii) 630 / 800 Amps	Ea.	1035.00	45.00	1080.00
3-3-4-4	Cable Terminal ( 'Plain" Type)Set of Four for				
	(i) 32 / 63 Amps	Ea.	425.00	25.00	450.00
	(ii) 125 / 200 Amps	Ea.	920.00	30.00	950.00
	(iii) 250 / 320 Amps	Ea.	1515.00	45.00	1560.00
	(iv) 400 / 630 / 800 Amps	Ea.	1765.00	45.00	1810.00
3-3-4-5	HRC Fuse Contacts Set of six for				
	(i) 32 / 63 Amps	Ea.	465.00	25.00	490.00
	(ii) 125 Amps	Ea.	940.00	30.00	970.00
	(iii) 200 / 250 / 320 / 400 Amps	Ea.	1835.00	45.00	1880.00
	(iv) 630 / 800 Amps	Ea.	3065.00	45.00	3110.00
3-3-4-6	Moving Contact finger of Set of Six for 32 / 63 / 125 Amps	Ea.	465.00	45.00	510.00
3-3-4-7	Moving Contact finger of Set of Eight for 200 / 250 / 320 / 400 / 630 / 800 Amps	Ea.	2195.00	75.00	2270.00
3-3-4-8	Neutral Link for				
	(i) 32 / 63 / 125 Amps	Ea.	140.00	20.00	160.00
	(ii) 200 / 250 / 320 / 400 / 630 / 800 Amps	Ea.	295.00	25.00	320.00

Item No  
 Note-1  
 Enclosures & microprocessor

3-4-1.

3-4-2.

3-4-3.

3-4-4.

100.00	10530.00
10.00	10920.00
30.00	12740.00
30.00	13650.00
10.00	14300.00
0.00	15340.00
0.00	22750.00
0.00	25350.00
3.00	26650.00
3.00	29250.00
00	490.00
30	880.00
10	130.00
10	180.00
0	590.00
0	780.00
2	1080.00
1	450.00
1	950.00
	1560.00
	1810.00
	490.00
	970.00
	1880.00
	3110.00
	510.00
	2270.00
	160.00
	320.00



Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
<b>SECTION 3-4 / MOULDED CASE CIRCUIT BREAKERS</b>					
<b>Note:-1 Add Rs. 10% extra for housing/Encloser of MCCB for Item No 3-4-1 to 3-4-12 (The Enclosures should be used of same company of MCCBs to be used) *Add 15% additional for microprocessor type of mccb in place of conventional for item no.3-4-1 to 3-4-12</b>					
3-4-1.	providing and erecting Approved make <b>Four pole moulded case circuit breaker</b> having breaking capacity ICU of <b>25 KA. at 415 V.</b> having normal current rating up to <b>25 A to 100A.</b> with <b>Fixed thermal &amp; magnetic release</b> suitable to work on A.C. supply 50 c/s. with all internal connections & complete erected in existing 16 G.M.S. housing.				
		Cat-II	Ea.	4770.00	150.00
	ICS=100% of ICU only	Cat III	Ea.	6140.00	150.00
3-4-2.	providing and erecting Approved make <b>Four pole moulded case circuit breaker</b> having breaking capacity ICU of <b>35 KA. at 415 V.</b> having normal current rating <b>125A.</b> with <b>Fixed thermal &amp; magnetic release</b> suitable to work on A.C. supply 50 c/s. with all internal connections & complete erected in existing 16 G.M.S. housing.				
		Cat-II	Ea.	6680.00	150.00
	ICS=100% of ICU only	Cat III	Ea.	8050.00	150.00
3-4-3.	providing and erecting Approved make <b>Four pole moulded case circuit breaker</b> having breaking capacity ICU of <b>35 KA.</b> at 415 V. having Normal current rating <b>200A.</b> with <b>variable Thermal &amp; magnetic release</b> suitable to work on A.C. supply 50 c/s. with all internal connections & complete erected in existing 16 G.M.S. housing.				
		Cat-II	Ea.	13350.00	150.00
	ICS=100% of ICU only	Cat III	Ea.	16350.00	150.00
3-4-4.	providing and erecting Approved make <b>Four pole moulded case circuit breaker</b> having breaking capacity ICU of <b>35 KA.</b> and above at 415 V. having normal current rating <b>250A.</b> with <b>variable thermal &amp; magnetic release</b> suitable to work on A.C. supply 50 c/s. with all internal connections & complete erected in existing 16 G.M.S. housing.				
		Cat-II	Ea.	18280.00	150.00
	ICS=100% of ICU only	Cat III	Ea.	21150.00	150.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
3-4-5.	providing and erecting Approved make <b>Four pole moulded case circuit breaker</b> having breaking capacity <b>ICU of 50 KA</b> and above at 415 V having Normal current rating <b>400A.</b> with <b>variable Thermal &amp; magnetic release</b> suitable to work on A.C.supply 50 c/s. With all internal connections & complete erected in existing 16 G.M.S. housing.				
		Cat-II Ea.	21230.00	210.00	21440.00
	ICS=100% of ICU only	Cat III Ea.	25450.00	210.00	25660.00
3-4-6.	providing and erecting Approved make <b>Four pole moulded case circuit breaker</b> having breaking capacity <b>ICU of 50 K.A.</b> and above at 415 V having normal current rating up to 630A. with <b>variable thermal &amp; magnetic release</b> suitable to work on A.C.supply 50 c/s. with all internal connections & complete erected in existing 16 G.M.S. housing				
		Cat-II Ea.	22340.00	210.00	22550.00
	ICS=100% of ICU only	Cat III Ea.	28440.00	210.00	28650.00
3-4-7.	providing and erecting Approved make <b>Four pole moulded case circuit breaker</b> having breaking capacity <b>ICU of 50 K.A.</b> and above at 415 V having normal current rating <b>800A.</b> with variable thermal & magnetic release suitable to work on A.C.supply 50 c/s. with all internal connections & complete erected in existing 16 G.M.S.housing.				
		Cat-II Ea.	25790.00	280.00	26070.00
	ICS=100% of ICU only	Cat III Ea.	30980.00	280.00	31260.00
3-4-8.	providing and erecting Approved make <b>Three pole moulded case circuit breaker</b> having breaking capacity <b>ICU of 25 K.A.</b> at 415 V having normal current rating up to <b>25 A to 100A.</b> with <b>Fixed thermal &amp; magnetic release</b> suitable to work on A.C. supply 50 c/s. with all internal connections & complete erected in existing 16 G.M.S. housing.				
		Cat-II Ea.	3130.00	150.00	3280.00
	ICS=100% of ICU only	Cat III Ea.	5310.00	150.00	5460.00

Item No  
3-4-9.  
3-4-10.  
3-4-11.  
3-4-12.  
3-4-13.

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of	Total	Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
		3-4-9.	providing and erecting Approved make <b>Three pole moulded case circuit breaker</b> having breaking capacity/strength <b>ICU of 35 K.A.</b> at 415 V. having normal current rating <b>125A.</b> with <b>Fixed thermal &amp; magnetic release</b> suitable to work on A.C.supply 50 c/s. with all internal connections & complete erected in existing 16 G.M.S. housing.				
3.00	21440.00						
3.00	25660.00			Cat-II Ea.	4790.00	150.00	4940.00
			ICS=100% of ICU only	Cat III Ea.	6550.00	150.00	6700.00
		3-4-10.	providing and erecting Approved make <b>Three pole moulded case circuit breaker</b> having breaking capacity/strength <b>ICU of 35 K.A.</b> and above at 415 V. having Normal current rating <b>200A.</b> with variable Thermal & magnetic release suitable to work on A.C.supply 50 c/s. with all internal connections & complete erected in existing 16 G.M.S. housing.				
3.00	22550.00						
3.00	28650.00			Cat-II Ea.	13370.00	150.00	13520.00
			ICS=100% of ICU only	Cat III Ea.	15690.00	150.00	15840.00
		3-4-11.	providing and erecting Approved make <b>Three pole moulded case circuit breaker</b> having breaking capacity/strength <b>ICU of 50 K.A.</b> and above at 415V. having normal current rating <b>250A.</b> with variable thermal & magnetic release suitable to work on A.C.supply 50 c/s. with all internal connections & complete erected in existing 16 G.M.S. housing.				
	26070.00						
	31260.00			Cat-II Ea.	18010.00	150.00	18160.00
			ICS=100% of ICU only	Cat III Ea.	22510.00	150.00	22660.00
		3-4-12.	providing and erecting Approved make <b>Three pole moulded case circuit breaker</b> having breaking capacity/strength <b>ICU of 50 K.A.</b> and above at 415 V having Normal current rating <b>400A.</b> with variable Thermal & magnetic release suitable to work on A.C.supply 50 c/s. With all internal connections & complete erected in existing 16 G.M.S. housing.				
	3280.00						
	5460.00			Cat-II Ea.	18210.00	210.00	18420.00
			ICS=100% of ICU only	Cat III Ea.	25450.00	210.00	25660.00
		3-4-13.	providing and erecting Approved make <b>Earth fault Relay</b> suitable to mount with inter connection suitable to following size of moulded case circuit breaker having CT ratio & MCCB rating as following along with shunt trip 220V AC. with all internal connections & complete erected in existing M.S.housing..				
			<b>(1) 15 A -100 A , CT Ratio 1/100</b>	Ea.	4630.00	150.00	4780.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	(2) 125 A -200 A , CT Ratio 1/200	Ea.	4930.00	150.00	5080.00
	(3) 250 A -400 A , CT Ratio 1/400	Ea.	5370.00	150.00	5520.00
	(4) 600 A -800 A , CT Ratio 1/800	Ea.	6020.00	150.00	6170.00
3-4-14	providing and erecting following additional parts for panel mounting MCCBs				
	(A)Extended operating rotary handle with pad lock with three position trip,off,on suitable for 25A to 250 A panel mounting cat-III	ea.	800.00	100.00	900.00
	(B)Extended operating rotary handle with pad lock with three position trip,off,on suitable for 400A to 630 A panel mounting cat-III	Ea.	1200.00	150.00	1350.00
<b>SECTION 3-5 AIR CIRCUIT BREAKERS</b>					
3-5-1.	providing and erecting Approved make standard manually operated fixed type 3 Pole Air circuit breaker. Having 50 kA breaking capacity ,Vsr=690 v, Ui=1kv ,impulse voltage=12 kv with ICU=ICS=ICW (1 sec), with following type of relay and accessories.				
	(1) Equipped with DN-1 magneto thermal release, CTs & 6NO + 6NC auxiliary contacts & secondary isolating contacts of following current ratings				
	(a) 400Amp Cat III	Ea.	47000.00	810.00	47810.00
	(b) 630Amp Cat III	Ea.	47800.00	810.00	48610.00
	(c) 800Amp Cat III	Ea.	48300.00	970.00	49270.00
	(d) 1000Amp Cat III	Ea.	51900.00	970.00	52870.00
	(e) 1250Amp Cat III	Ea.	64900.00	1150.00	66050.00
	(f) 1600Amp Cat III	Ea.	75050.00	1500.00	76550.00
	(g) 2000 Amp Cat III	Ea.	85300.00	1500.00	86800.00
	(2) with microprocessor Release with over load, short circuit, earth fault protection (L.S.I.G.) and metering display in modular design with LED display and Test Trip button facility, CTs and auxiliary contacts, of following current ratings				
	(a) 630Amp Cat III	Ea.	63200.00	810.00	64010.00
	(b) 800Amp Cat III	Ea.	78900.00	970.00	79870.00
	(c) 1000Amp Cat III	Ea.	80800.00	970.00	81770.00
	(d) 1250Amp Cat III	Ea.	94500.00	1150.00	95650.00
	(e) 1600Amp Cat III	Ea.	97200.00	1500.00	98700.00
	(f) 2000 Amp Cat III	Ea.	118350.00	1500.00	119850.00
	(g) 2500 Amp Cat III	Ea.	140000.00	1500.00	141500.00
3-5-2.	providing and erecting Approved make standard manually operated fixed type 4 Pole Air circuit breaker. Having following kA breaking capacity with ICU=ICS=ICW (1 sec),Vsr=690 v, Ui=1kv with following type of relay and accessories.				
	(1) Equipped with DN-1 magneto thermal release, CTs & 6NO + 6NC auxiliary contacts & secondary isolating contacts of following current ratings				
	(A) 800Amp 50kA Cat III	Ea.	89750.00	970.00	90720.00

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4010.00  
79870.00  
1770.00  
96650.00  
8700.00  
119850.00  
500.00  
9120.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	(B) 1000Amp, 50 kA Cat III	Ea.	95670.00	970.00	96640.00
	(C) 1250Amp, 50 kA Cat III	Ea.	116380.00	1200.00	117580.00
	(D) 1600Amp, 50 kA Cat III	Ea.	122300.00	1200.00	123500.00
	(E) 2000 Amp, 50/55 kA Cat III	Ea.	140810.00	1500.00	142310.00
	(F) 2500 Amp, 60 kA Cat III	Ea.	167530.00	1500.00	169030.00
	(2) with microprocessor Release with over load, short circuit, earth fault protection (L.S.I.G.) and metering display in modular design with LED display and Test Trip button facility, CTs and auxiliary contacts, of following current ratings.				
	(A) 800Amp 50kA Cat III	Ea.	98350.00	970.00	99320.00
	(B) 1000Amp, 50 kA Cat III	Ea.	103000.00	970.00	103970.00
	(C) 1250Amp, 50 kA Cat III	Ea.	136900.00	1200.00	138100.00
	(D) 1600Amp, 50 kA Cat III	Ea.	141000.00	1200.00	142200.00
	(E) 2000 Amp, 50/55 kA Cat III	Ea.	154500.00	1500.00	156000.00
	(F) 2500 Amp, 60 kA Cat III	Ea.	178900.00	1500.00	180400.00
	(G) 3200 Amp, 60 kA Cat III	Ea.	227830.00	1700.00	229530.00
3-5-3.	providing and erecting <b>Approved make standard Draw out type 3 Pole Air circuit breaker.</b> Having following kA breaking capacity with ICU=ICS=ICW (1 sec)Vsr=690 v, Ui=1kv ,impulse voltage=12 kv with following type of relay and accessories.				
	(1) <b>Manual Draw out type (MDO) with following type of relay system</b>				
	(A) <b>Equipped with DN-1 magneto thermal release, CTs &amp; 6NO + 6NC auxiliary contacts &amp; secondary isolating contacts of following current ratings.</b>				
	(i) 800Amp 50 kA Cat III	Ea.	90800.00	970.00	91770.00
	(ii) 1000Amp 50 kA Cat III	Ea.	97500.00	970.00	98470.00
	(iii) 1250Amp 50 kA Cat III	Ea.	123600.00	1300.00	124900.00
	(iv) 1600Amp 50 kA Cat III	Ea.	133900.00	2700.00	136600.00
	(v) 2000 Amp 50kA Cat III	Ea.	161000.00	2350.00	163350.00
	(vi) 2500 Amp 60kA Cat III	Ea.	194300.00	2350.00	196650.00
	(vii) 3200 Amp 75kA Cat III	Ea.	254140.00	3000.00	257140.00
	(B) with microprocessor Release with over load, short circuit, earth fault protection (L.S.I.G.) and metering display in modular design with LED display and Test Trip button facility, CTs and auxiliary contacts, of following current ratings.				
	(i) 800Amp 50 kA Cat III	Ea.	125260.00	970.00	126230.00
	(ii) 1000Amp 50 kA Cat III	Ea.	129200.00	970.00	130170.00
	(iii) 1250Amp 50 kA Cat III	Ea.	151890.00	1300.00	153190.00
	(iv) 1600Amp 50 kA Cat III	Ea.	165700.00	1700.00	167400.00
	(v) 2000 Amp 50kA Cat III	Ea.	202190.00	2350.00	204540.00
	(vi) 2500 Amp 60kA Cat III	Ea.	230790.00	2350.00	233140.00
	(vii) 3200 Amp 65kA Cat III	Ea.	296800.00	3000.00	299800.00
	(viii) 4000 Amp 80kA Cat III	Ea.	356100.00	3250.00	359350.00
	(2) Add Rs. 30500.00 in above said item for Electrically Draw out type (EDO) type in place of manual draw out (MDO)				
3-5-4.	Approved make standard <b>Draw out type 4 Pole Air circuit breaker.</b> Having 50 kA breaking capacity with ICU=ICS=ICW (1 sec)Vsr=690 v, Ui=1kv ,impulse voltage=12 kv with following type of relay and accessories.				

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	<b>(1) Manual Draw out type (MDO) with following type of relay system:</b>				
	<b>(A) Equipped with DN-1 magneto thermal release, CTs &amp; 6NO + 6NC auxiliary contacts &amp; secondary isolating contacts of following current ratings.</b>				
	(i) 800Amp 50 kA Cat III	Ea.	123100.00	970.00	124070.00
	(ii) 1000Amp 50 kA Cat III	Ea.	130000.00	970.00	130970.00
	(iii) 1250Amp 50 kA Cat III	Ea.	151500.00	1300.00	152800.00
	(iv) 1600Amp 50 kA Cat III	Ea.	164600.00	1700.00	166300.00
	(v) 2000 Amp 50kA Cat III	Ea.	210100.00	2350.00	212450.00
	(vi) 2500 Amp 60kA Cat III	Ea.	248500.00	2350.00	250850.00
	(vii) 3200 Amp 75kA Cat III	Ea.	313900.00	3000.00	316900.00
	<b>(B) with microprocessor Release with over load, short circuit, earth fault protection and metering display in modular design with LED display and Test Trip button facility, CTs and auxiliary contacts, of following current ratings.</b>				
	(i) 800Amp 50 kA Cat III	Ea.	155840.00	970.00	156810.00
	(ii) 1000Amp 50 kA Cat III	Ea.	162740.00	970.00	163710.00
	(iii) 1250Amp 50 kA Cat III	Ea.	187400.00	1300.00	188700.00
	(iv) 1600Amp 50 kA Cat III	Ea.	202190.00	1700.00	203890.00
	(v) 2000 Amp 50kA Cat III	Ea.	250520.00	2350.00	252870.00
	(vi) 2500 Amp 60kA Cat III	Ea.	293900.00	2350.00	296250.00
	(vii) 3200 Amp 75kA Cat III	Ea.	363950.00	3000.00	366950.00
3-5-5.	Providing & erecting <b>Accessories For Air Circuit Breakers</b> as follows:				
	<b>(A) Six way Isolating Contact block</b>	Ea.	1610.00	80.00	1690.00
	<b>(B) Lockable Trip Push Button Type A,B,C,D</b>	Ea.	2310.00	160.00	2470.00
	<b>(C) Lockable Trip Push Button Kit L, M, LM, MN</b>	Ea.	10860.00	320.00	11180.00
	<b>(D) Locking of ACB in Isolated Position</b>	Ea.	2370.00	160.00	2530.00
	<b>(E) Locking of ACB in Any Position</b>	Ea.	2370.00	160.00	2530.00
	<b>(F) Racking Inter Lock</b>	Ea.	4360.00	320.00	4680.00
	<b>(G) Door Inter Lock</b>	Ea.	2370.00	160.00	2530.00
3-5-6.	Providing & erecting <b>additional parts</b> for Air Circuit Breakers as follows:				
	<b>(A) Auxiliary Contact Block for CN-CS 800 to 2500 &amp; 2 NO + 2 NC</b>	Ea.	1800.00	150.00	1950.00
	<b>(B) Auxiliary Contact Block for CN-CS 800 to 2500 &amp; 6 NO + 6 NC</b>	Ea.	2930.00	320.00	3250.00
	<b>(C) Arc Chutes for 800 / 1000 / 1250 / 1600 A ACBs</b>	Ea.	2890.00	160.00	3050.00
	<b>(D) Arc Chutes for 2000 / 2500 / 3200 A ACBs</b>	Ea.	3410.00	160.00	3570.00
	<b>(E) Shutter Accessories for 800 / 1000 / 1250/ 1600 A ACBs</b>	Ea.	960.00	80.00	1040.00
	<b>(F) Shutter Accessories for 2000 / 2500 / 3200 A ACBs</b>	Ea.	1090.00	80.00	1170.00
	<b>(G) Shunt Release Type EA:24/48 V, 110V, 220V DC</b>	Ea.	2240.00	160.00	2400.00
	<b>(H) Shunt Release Type EA1 : 240V AC</b>	Ea.	2240.00	160.00	2400.00
	<b>(I) Under Voltage Release Type MV(2) : 240V AC, 415 V AC</b>	Ea.	3220.00	160.00	3380.00



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2000/  
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supply  
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(A) 16  
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Erecti  
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of	Total	Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
		(J)	Earth Fault Release Type EF 1 (10%, 20%)	Ea.	2310.00	160.00	2470.00
		(K)	Earth Fault Release Type EF 2 (30%, 40%, 50%)	Ea.	2310.00	160.00	2470.00
0.00	124070.00	(L)	Thermal Magnetic Release Type DN1	Ea.	10150.00	250.00	10400.00
0.00	130970.00	(M)	CTs for 800 C / 1000 C with 400A / 640A and 800A taps for Fixed & Drawout Type ACBs	Ea.	3000.00	250.00	3250.00
0.00	152800.00	(N)	CTs for 1250 C / 1600 C for Fixed & Drawout Type ACBs	Ea.	3200.00	250.00	3450.00
0.00	166300.00	(O)	CTs for 2000 C & higher size With required taps for Fixed & Drawout Type ACBs	Ea.	3650.00	250.00	3900.00
0.00	212450.00	(P)	Fixed Type Arcing Contacts Kit for 3 Pole ACB of 800A to 1600A	Kit	2280.00	320.00	2600.00
0.00	250850.00	(Q)	Fixed Type Arcing Contacts ACB of 2000A to 2500A	Ea.	280.00	50.00	330.00
0.00	316900.00	(R)	Moving Type Arcing Contacts Kit for 3 Pole ACB of 800A to 1600A	Ea.	2280.00	320.00	2600.00
0.00	156810.00	(S)	Moving Type Arcing Contacts for 2000A to 2500A	Ea.	280.00	50.00	330.00
0.00	163710.00	<b>SECTION 3-6 CHANGEOVER SWITCHES.</b>					
0.00	188700.00	3-6-1	supply of Approved make Iron Clad or metal clad four pole change over switch 415V. confirming to IS of following capacity				
0.00	203890.00	(A) 16A					
0.00	252870.00		Cat I	Ea.	660.00	0.00	660.00
0.00	296250.00		Cat. II	Ea.	1100.00	0.00	1100.00
0.00	366950.00	(B) 32A					
0.00	1690.00		Cat I	Ea.	910.00	0.00	910.00
0.00	2470.00		Cat. II	Ea.	1490.00	0.00	1490.00
0.00	11180.00	3-6-2.	Erection & connection charges for 16 A / 32A Change Over Switch as following				
0.00	2530.00	(a)	on existing wooden block / A.I.frame	Ea.	10.00	30.00	40.00
0.00	2530.00	(b)	on polished wooden block.	Ea.	20.00	30.00	50.00
0.00	4680.00	(c)	on angle iron frame	Ea.	90.00	30.00	120.00
0.00	2530.00	3-6-3.	supply of Approved make Iron Clad or metal clad four pole change over switch 415V. confirming to IS of following capacity				
0.00	1950.00	(A) 63 A					
0.00	3250.00		Cat I	Ea.	2270.00	0.00	2270.00
0.00	3050.00		Cat II	Ea.	4160.00	0.00	4160.00
0.00	3570.00		Cat III	Ea.	4680.00	0.00	4680.00
0.00	1040.00	(B) 100 A / 125 A					
0.00	1170.00		Cat I	Ea.	8190.00	0.00	8190.00
0.00	2400.00		Cat II	Ea.	13970.00	0.00	13970.00
0.00	2400.00		Cat III	Ea.	14300.00	0.00	14300.00
0.00	3380.00	3-6-4.	Erection & connection charges for 63 A / 100A / 125 A change over switch as following				

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total	
	(a) on existing wooden block / A.I frame	Ea.	40.00	40.00	80.00	
	(b) Erection on New angle iron frame duly painted with red oxide	Ea.	120.00	40.00	160.00	
3-6-5.	supply of Approved make Iron Clad or metal clad four pole change over switch 415V. confirming to IS of following capacity					
	(A) 200 A / 250 A					
	Cat-II	Ea.	12250.00	0.00	12250.00	
	Cat-III	Ea.	20930.00	0.00	20930.00	
	(B) 400 A					
	Cat-II	Ea.	20250.00	0.00	20250.00	
	Cat-III	Ea.	30500.00	0.00	30500.00	
	(C) 630 A					
	Cat-II	Ea.	32100.00	0.00	32100.00	
	Cat-III	Ea.	47500.00	0.00	47500.00	
	(D) 800 A					
	Cat-II	Ea.	40050.00	0.00	40050.00	
	Cat-III	Ea.	64130.00	0.00	64130.00	
3-6-6.	Erection & connection charges for 200A/ 250A / 300 A /325 A HRC TPN as following					
	(a) on existing wooden block / Angle Iron frame	Ea.	30.00	50.00	80.00	
	(b) Erection on New angle iron frame duly painted with red oxide	Ea.	130.00	70.00	200.00	
3-6-7.	Erection & connection charges for 400A/ 630A / 800A Change Over Switch as following					
	(a) on existing wooden block / Angle Iron frame	Ea.	90.00	130.00	220.00	
	(b) Erection on New angle iron frame duly painted with red oxide	Ea.	230.00	250.00	480.00	
3-6-8.	Supplying & erecting approved make Four Pole 415V change over switch interior for panel mounting with operating mechanism A.C.23 duty confirming to IS for					
	(A) 32-40A					
	Cat-II	Ea.	1910.00	50.00	1960.00	
	Cat-III	Ea.	3000.00	50.00	3050.00	
	(B) 63 A					
	Cat-II	Ea.	4090.00	60.00	4150.00	
	Cat-III	Ea.	5530.00	60.00	5590.00	
	(C) 100-125A					
	Cat-II	Ea.	5720.00	130.00	5850.00	
	Cat-III	Ea.	8970.00	130.00	9100.00	
	(D) 200A					
	Cat-II	Ea.	10240.00	160.00	10400.00	
	Cat-III	Ea.	14140.00	160.00	14300.00	
	(E) 250A / 320A					
	Cat-II	Ea.	14140.00	160.00	14300.00	
	Cat-III	Ea.	15440.00	160.00	15600.00	
	(F) 400A					
	Cat-II	Ea.	16650.00	250.00	16900.00	
	Cat-III	Ea.	25750.00	250.00	26000.00	
	(G) 630 A	Cat. III	Ea.	30225.00	325.00	30550.00
	(H) 800 A	Cat. III	Ea.	41120.00	480.00	41600.00
	(I) 1000 A	Cat. III	Ea.	64520.00	480.00	65000.00
	(J) 1250 A	Cat. III	Ea.	129500.00	500.00	130000.00
	(K) 1500 A	Cat. III	Ea.	149000.00	500.00	149500.00
	(L) 2000 A	Cat. III	Ea.	207450.00	550.00	208000.00



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3-7-2.

40.00	80.00
40.00	160.00
0.00	12250.00
0.00	20930.00
3.00	20250.00
1.50	30500.00
1.00	32100.00
1.00	47500.00
0.00	40050.00
0.00	64130.00
0.00	80.00
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Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
<b>SECTION 3-7 BUSBAR CHAMBERS.</b>					
3-7-1.	Providing and erecting busbar chamber confirming to IS-375 fabricated from 16 G.M.S. sheet, dust & vermin proof having hinged door with rubber gasket and necessary busbar supports with <b>Aluminium busbar</b> having current density not more than 0.8 Amp. / sq.mm (Rated current / cross section area) duly wrapped with colour insulation tape for phase sequence, three phase & neutral each Suitable for following current capacity with necessary painting mounted on wall or pedestal frame of required size with necessary connections.				
	(A) Suitable for 63/ 100 Amp. Capacity	Rn.Mtr	2600.00	160.00	2760.00
	(B) Suitable for 200 Amp. Capacity	Rn.Mtr	3050.00	200.00	3250.00
	(C) Suitable for 300 Amp. capacity	Rn.Mtr	5210.00	250.00	5460.00
	(D) Suitable for 400 Amp. capacity	Rn.Mtr	5785.00	325.00	6110.00
3-7-2.	Providing and erecting busbar chamber confirming to IS-375 fabricated from 16 G.M.S. sheet, dust & vermin proof having hinged door with rubber gasket and necessary busbar supports with <b>COPPER busbar</b> having current density not more than 1.6 Amp. / sq.mm (Rated current / cross section area) duly wrapped with colour insulation tape for phase sequence, three phase & neutral each suitable for following current capacity with necessary painting mounted on wall or pedestal frame of required size with necessary connections.				
	(A) Suitable for 63/100 Amp. capacity	Rn.Mtr	3990.00	160.00	4150.00
	(B) Suitable for 200 Amp. capacity	Rn.Mtr	5180.00	200.00	5380.00
	(C) Suitable for 300 Amp. capacity	Rn.Mtr	7760.00	250.00	8010.00
	(D) Suitable for 400 Amp. capacity	Rn.Mtr	9375.00	325.00	9700.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
<b>SECTION 3-8 / PANEL MOUNTING BUSBARS</b>					
3-8-1	Supplying and erecting triple pole & neutral 440V/ 500V <b>panel mounting Aluminium Busbars</b> with four equal Nos. of bus having current density not more than 0.8 Amp. / sq.mm (Rated current / cross section area) duly wrapped with colour insulating tape for phase sequence of following current carrying capacity, erected with necessary bus bar supports /insulators, main cable socket to each busbar,erected in existing cubical panel with				
	(A) Suitable for 100 Amp. Capacity	Rn.Mtr	620.00	80.00	700.00
	(B) Suitable for 200 Amp. Capacity	Rn.Mtr	1020.00	80.00	1100.00
	(C) Suitable for 300 Amp. Capacity	Rn.Mtr	1400.00	160.00	1560.00
	(D) Suitable for 400 Amp. Capacity	Rn.Mtr	2180.00	160.00	2340.00
	(E) Suitable for 630 Amp. capacity	Rn.Mtr	3090.00	160.00	3250.00
	(F) Suitable for 800 Amp. capacity	Rn.Mtr	6420.00	210.00	6630.00
	(G) Suitable for 1200 Amp capacity	Rn.Mtr	8200.00	250.00	8450.00
3-8-2	Supplying and erecting triple pole & neutral 440V / 500V <b>panel mounting Copper Busbars</b> with four equal Nos. of electrolyte bus having current density not more than 1.6 Amp. / sq.mm (Rated current / cross section area) duly wrapped with colour insulating tape for phase sequence of following current carrying capacity, erected with necessary bus bar supports /insulators, main cable socket to each bar, erected in existing cubical panel with necessary connections.				
	(A) Suitable for 100 Amp. Capacity	Rn.Mtr	1760.00	80.00	1840.00
	(B) Suitable for 200 Amp. capacity	Rn.Mtr	2920.00	80.00	3000.00
	(C) Suitable for 300 Amp. capacity	Rn.Mtr	4450.00	160.00	4610.00
	(D) Suitable for 400 Amp. capacity	Rn.Mtr	6700.00	160.00	6860.00
	(E) Suitable for 630 Amp. capacity	Rn.Mtr	9730.00	160.00	9890.00
	(F) Suitable for 800 Amp. capacity	Rn.Mtr	12160.00	200.00	12360.00
	(G) Suitable for 1200 Amp. Capacity	Rn.Mtr	15200.00	250.00	15450.00
<b>SECTION 3-9 FUSES.</b>					
3-9-1	Supplying <b>KITKAT pattern porcelain cut-out fuse</b> with base of following current capacity erected on existing block board.				
	(i) 16 A. 250 V	Ea.	21.00	9.00	30.00
	(ii) 16 A. 500 V	Ea.	41.00	9.00	50.00
	(iii) 32 A. 250/500 V	Ea.	76.00	9.00	85.00
	(iv) 63 A 500 V	Ea.	155.00	15.00	170.00
	(v) 100 A. 500 V.	Ea.	295.00	30.00	325.00
	(vi) 200 A. 500 V.	Ea.	440.00	50.00	490.00
3-9-2	Supplying and erecting approved make 415V <b>bakelite fuse</b> fittings for front connection / busbar type, to accommodate HRC fuse link, with spin - riveted brass contact, having thermo plastic inflammable material & single piece extruded brass box contact to lock with adequate cable hole to accommodate aluminium conductors suitable for (without HRC fuse)				
	(A) 16 Amp.	Ea.	100.00	15.00	115.00
	(B) 32 Amp	Ea.	140.00	15.00	155.00
	(C) 63 Amp	Ea.	180.00	15.00	195.00
	(D) 100 Amp.	Ea.	500.00	30.00	530.00

Item No	Description
3-9-3	Supply link ca 1.5 3
	(A) 3
	(B) 63
	(C) 2
	(D) 10
	(E) 12
	(F) 25
	(G) 30
	(H) 40
	(I) 800
3-9-4	Supply HRC fuse confirm capacity
	(A) 10
	(B) 36
	(C) 30
	(D) 12
	(E) 25
	(F) 40
	(G) 50
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Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	(A) 6 to 32 Amp.				
		Cat.I Ea.	210.00	15.00	225.00
		Cat.II Ea.	230.00	15.00	245.00
		Cat.III Ea.	270.00	15.00	285.00
	(B) 40 Amp.				
		Cat.I Ea.	220.00	15.00	235.00
		Cat.II Ea.	245.00	15.00	260.00
		Cat.III Ea.	285.00	15.00	300.00
3-10-4	Providing & erecting 415V MCB Four Pole Switch for Lighting Load (B curve) having 10KA breaking capacity & confirms to IS :8828 in existing box having following capacity				
	(a) 6 to 32 Amp.				
		Cat.I Ea.	390.00	30.00	420.00
		Cat.II Ea.	460.00	30.00	490.00
		Cat.III Ea.	560.00	30.00	590.00
	(b)40 Amp.				
		Cat.I Ea.	430.00	30.00	460.00
		Cat.II Ea.	510.00	30.00	540.00
		Cat.III Ea.	620.00	30.00	650.00
3-10-5	Providing & erecting 415 V MCB Four Pole for Motor & Inductive Load (C Curve) having 10KA breaking capacity & confirms to IS :8828 in existing box having following capacity				
	(a) 6 to 32 Amp.				
		Cat.I Ea.	430.00	30.00	460.00
		Cat.II Ea.	490.00	30.00	520.00
		Cat.III Ea.	580.00	30.00	610.00
	(b)40 Amp.				
		Cat.I Ea.	490.00	30.00	520.00
		Cat.II Ea.	550.00	30.00	580.00
		Cat.III Ea.	650.00	30.00	680.00
	(c)63 Amp.				
		Cat.I Ea.	550.00	30.00	580.00
		Cat.II Ea.	630.00	30.00	660.00
		Cat.III Ea.	720.00	30.00	750.00
3-10-6	Providing & erecting 415 V MCB three Pole for Motor & Inductive Load (C Curve) having 10KA breaking capacity & confirms to IS :8828 in existing box having following capacity				
	(a) 6 to 32 Amp.				
		Cat.I Ea.	450.00	30.00	480.00
		Cat.II Ea.	470.00	30.00	500.00
		Cat.III Ea.	570.00	30.00	600.00
	(b)40 Amp.				
		Cat.I Ea.	470.00	30.00	500.00
		Cat.II Ea.	530.00	30.00	560.00
		Cat.III Ea.	630.00	30.00	660.00
	(c)63 Amp.				
		Cat.I Ea.	520.00	30.00	550.00
		Cat.II Ea.	600.00	30.00	630.00
		Cat.III Ea.	700.00	30.00	730.00
3-10-6-A	Supplying & erecting 20 Amp 10 KA 'C Curve' single pole MCB with 20 Amp. Plug socket, company fabricated powder coated sheet steel enclosure erected as directed with connection.				
	[A] Metal Clad Socket with metal clad top				
		Cat.I Ea.	340.00	70.00	410.00
		Cat.II Ea.	420.00	70.00	490.00


Item No	Description
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Cost of Material	Total	Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
5.00	225.00			Cat.III Ea.	475.00	70.00	545.00
5.00	245.00		(B) 15 Amp. / 5 Amp. Five pin Universal Socket				
5.00	285.00			Cat.I Ea.	380.00	70.00	450.00
15.00	235.00			Cat.II Ea.	540.00	70.00	610.00
5.00	260.00			Cat.III Ea.	610.00	70.00	680.00
15.00	300.00	3-10-6-B	Supplying & erecting approved make <b>Electronics Starter and relay for air conditioners</b> in ABS plastic moulded housing. Company fabricated with bakelite terminal for connection with silver coating bimetallic contact in switching device for o/p with following features. (1) Low Voltage Protection below 130 V (2) High Voltage protection above 270 V (3) Overload protection for 2-5, 4-10, 8-14, 10-16, 14-22 Amp. (inverse time chara-) (4) Indicating LEDs for AC on LV, HV, O/L, T/D (5) With unique feature of 3 minute of time	Ea.	840.00	70.00	910.00
30.00	420.00	3-10-7.	Providing and erecting <b>double pole Miniature isolator A.C. 22 duty</b> confirms to IS 13947-3 240V 40A in existing box.				
30.00	490.00			Cat.I Ea.	195.00	15.00	210.00
30.00	590.00			Cat.II Ea.	255.00	15.00	270.00
30.00	650.00			Cat.III Ea.	305.00	15.00	320.00
30.00	460.00	3-10-8.	Providing and erecting <b>Three pole Miniature isolator A.C. 22 duty</b> confirms to IS 13947-3 in existing box.				
30.00	520.00		(a) for 40 Amp.				
30.00	610.00			Cat.I Ea.	320.00	30.00	350.00
1.00	520.00			Cat.II Ea.	370.00	30.00	400.00
1.00	580.00			Cat.III Ea.	450.00	30.00	480.00
1.00	680.00		(b) for 63 Amp.				
7.00	580.00			Cat.I Ea.	370.00	30.00	400.00
00	660.00			Cat.II Ea.	420.00	30.00	450.00
00	750.00			Cat.III Ea.	520.00	30.00	550.00
00	580.00	3-10-9.	Providing and erecting <b>four pole Miniature isolator A.C. 22 duty</b> confirms to IS 13947-3 in existing box.				
00	600.00		(a) for 40 Amp.				
00	600.00			Cat.I Ea.	400.00	30.00	430.00
00	660.00			Cat.II Ea.	450.00	30.00	480.00
00	500.00			Cat.III Ea.	470.00	30.00	500.00
00	560.00		(b) for 63 Amp.				
00	660.00			Cat.I Ea.	470.00	30.00	500.00
00	550.00			Cat.II Ea.	520.00	30.00	550.00
00	630.00			Cat.III Ea.	580.00	30.00	610.00
00	730.00		(c) for 100 Amp.				
00	550.00			Cat.I Ea.	420.00	30.00	450.00
00	630.00			Cat.II Ea.	460.00	30.00	490.00
00	730.00			Cat.III Ea.	560.00	30.00	590.00
00	480.00	3-10-10.	Providing and erecting <b>Two way Centre off Double pole MCB Change Over Switch</b> (IS 13947-3 / IEC 60947-3) in existing box.				
00	500.00		(a) for 25 Amp		0.00		
00	600.00			Cat.I Ea.	450.00	40.00	490.00
00	500.00			Cat.II Ea.	490.00	40.00	530.00
00	560.00			Cat.III Ea.	540.00	40.00	580.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	(b) for 40 Amp				
	Cat.I	Ea.	470.00	40.00	510.00
	Cat.II	Ea.	550.00	40.00	590.00
	Cat.III	Ea.	620.00	40.00	660.00
3-10-11.	Providing and erecting <b>Two way Centre off Four pole MCB Change Over Switch</b> (IS 13947-3 / IEC 60947-3) in existing box.				
	(a) for 25 Amp				
	Cat.I	Ea.	630.00	40.00	670.00
	Cat.II	Ea.	730.00	40.00	770.00
	Cat.III	Ea.	830.00	40.00	870.00
	(b) for 40 Amp				
	Cat.I	Ea.	1020.00	40.00	1060.00
	Cat.II	Ea.	1250.00	40.00	1290.00
	Cat.III	Ea.	1330.00	40.00	1370.00
<b>SECTION 3-11 / MCB DISTRIBUTION BOARDS</b>					
Note:- Enclosure Should be used of same company of MCB or MCB DP or ELCB For Item					
3-11-1.	Half / One Module <b>Blanking Plate</b> of Standard Size.	Ea.	8.00	0.00	8.00
3-11-2.	<b>Plastic enclosure fitted with DIN rail</b> suitable for incorporating <b>One / Two nos. MCB</b>	Ea.	35.00	15.00	50.00
3-11-3.	<b>Plastic enclosure fitted with DIN rail</b> suitable for incorporating <b>Three /Four nos. MCB</b>	Ea.	90.00	15.00	105.00
3-11-4.	<b>Sheets steel powder coated enclosure</b> suitable for incorporating <b>One/Two nos. MCB.</b>	Ea.	150.00	15.00	165.00
3-11-5.	Providing and erecting <b>Sheet Steel powder coated MCB distribution board - flush / surface</b> mounted fitted with busbar, neutral link, earth bar and DIN rail, Conforms to IS 8623-1 & 3, IEC 61439-1 & 3 without MCB to house appropriate nos. of MCBs. (The DBs should be used of same company of MCB to be used) suitable for				
	(A) <b>single phase incoming and horizontal single phase outgoing</b>				
	(a) <b>single door (IP-30)</b>				
	(i) 4 way	Ea.	297.00	44.00	341.00
	(ii) 6 way	Ea.	506.00	44.00	550.00
	(iii) 8 way	Ea.	605.00	66.00	671.00
	(iv) 12 way	Ea.	748.00	77.00	825.00
	(v) 16 way	Ea.	900.00	88.00	988.00
	(b) <b>sheet steel double door (IP-43)</b>				
	(i) 4 way	Ea.	550.00	44.00	594.00
	(ii) 6 way	Ea.	792.00	44.00	836.00
	(iii) 8 way	Ea.	1023.00	66.00	1089.00
	(iv) 12 way	Ea.	1331.00	77.00	1408.00
	(v) 16 way	Ea.	1500.00	88.00	1588.00

Cost of Material	Total	Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
510.00	510.00		(B) three phase incoming and single phase horizontal type outgoing Per phase isolation type (PPI)				
40.00	590.00		(a) single door				
			(i) 4 way		1507.00	77.00	1584.00
			(ii) 6 way		1716.00	88.00	1804.00
			(iii) 8 way		2189.00	121.00	2310.00
			(iv) 12 way		2800.00	150.00	2950.00
670.00	670.00		(b) sheet steel double door				
40.00	770.00		(i) 4 way		2123.00	77.00	2200.00
40.00	870.00		(ii) 6 way		2651.00	88.00	2739.00
			(iii) 8 way		3091.00	121.00	3212.00
			(iv) 12 way		3500.00	150.00	3650.00
			(v) 16 way		4200.00	200.00	4400.00
1060.00	1060.00						
1290.00	1290.00						
1370.00	1370.00						
8.00	8.00	3-11-6	Supplying & erecting Sheet Steel powder coated Cable end termination Box to be mounted on Top or Bottom of the MCB Distribution Box for housing/covering Extra wires & Cables, suitable for following size of MCB DB Box.				
50.00	50.00		(A) Single Phase 4 Way	Ea	200.00	40.00	240.00
			(B) Single Phase 6 Way	Ea	240.00	40.00	280.00
			(C) Single Phase 8 Way	Ea	270.00	40.00	310.00
			(D) Single Phase 12 Way	Ea	330.00	40.00	370.00
			(E) Three Phase 4 Way	Ea	430.00	40.00	470.00
			(F) Three Phase 6 Way	Ea	510.00	40.00	550.00
			(G) Three Phase 8 Way	Ea	610.00	40.00	650.00
			(H) Three Phase 12 Way	Ea	710.00	40.00	750.00
			(I) Three Phase 16 Way	Ea	810.00	40.00	850.00
165.00	165.00	3-11-7	Providing and erecting approved make thermo-plastic moulded distribution box for mounting MCB /ELCB having DIN rail transparent moulded flap 100Amp. copper bus strip for (Without MCB/ELCB)				
			a) For 7 way	Ea	800.00	70.00	870.00
			b) For 18 way	Ea	1310.00	70.00	1380.00
341.00	341.00	3-11-8	Providing & erecting approved make thermo plastic MCB/ELCB distribution board having modular Double door with DIN rails, epoxy powder coated finish metal frame & door assembly with Acrylic/ Plastic door, spring & hinged pins complete with required PVC sleeved 32 / 63A copper Bus strips without MCB / ELCBs				
550.00	550.00		(a) One Row 8 Module	Ea	690.00	70.00	760.00
671.00	671.00		(b) One Row 10 Module	Ea	820.00	70.00	890.00
825.00	825.00		(c) One Row 14 Module	Ea	930.00	70.00	1000.00
988.00	988.00		(d) Two Row 20 Module	Ea	1710.00	110.00	1820.00
594.00	594.00		(e) Two Row 28 Module	Ea	2080.00	140.00	2220.00
836.00	836.00		(f) Two Row 36 Module	Ea	2490.00	140.00	2630.00
1089.00	1089.00	3-11-9	The Above all items of MCB, DB the cost of erection on New angle iron frame add following.				
1408.00	1408.00		[A] up to 8 way single phase	Ea	150.00	0.00	150.00
1588.00	1588.00		[B] above single phase 8 way and all three phase DBs.	Ea	230.00	0.00	230.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
3-11-10	Providing and erecting Sheet Steel powder coated <b>Vertical</b> MCB distribution board ( <b>VTPN</b> ) - flush / surface mounted <b>double door (IP54)</b> fitted with copper insulated busbar, isolated neutral bar, earth bar and DIN rail, Conforms to IS 8623-1 & 3, IEC 61439-1 & 3, suitable for <b>250 AMP TPN MCCB + RCCB</b> as incomer and three phase outgoing as per following .(The DBs should be used of same company of MCB to be used)				
	(A)4 way outgoing	Ea	8581.00	70.00	8651.00
	(B)6 way outgoing		9200.00	90.00	9290.00
	(C)8 way outgoing	Ea	10965.00	110.00	11075.00
	(D)12 way outgoing	Ea	13360.00	110.00	13470.00
3-11-11	Providing and erecting Sheet Steel powder coated <b>Vertical</b> MCB distribution board ( <b>VTPN</b> ) - flush / surface mounted double door (IP54) fitted with insulated copper busbar, isolated neutral link, earth bar and DIN rail, conforming to IS 13032 and BS 5486-1986, IP-54 suitable for <b>250 AMP TPN MCCB + RCCB</b> as incomer and three phase outgoing as per following .(The DBs should be used of same company of MCB to be used)				
	(A)4 way outgoing	Ea	12513.00	70.00	12583.00
	(B)6 way outgoing	Ea	14500.00	110.00	14610.00
	(C)8 way outgoing	Ea	16000.00	150.00	16150.00
	(D)12 way outgoing	Ea	20500.00	180.00	20680.00
<b>SECTION 3-12 EARTH LEAKAGE CIRCUIT BREAKERS</b>					
3-12-1.	providing and erecting Approved make <b>ELCBs / RCCBs</b> conforming to IS: 12640 and having sensitivity of <b>30 mA</b> and Short Circuit withstand capacity of 10 KA and suitable for operation on single phase 240 V,50Hz. having characteristic of quick action & tripping with all advance feature & do not incorporate any electronic component for following Max. rating erected as directed				
	(i) <b>25 Amps. DP</b>				
	Cat. I	Ea	1730.00	50.00	1780.00
	Cat. II	Ea	1850.00	50.00	1900.00
	Cat. III	Ea	2250.00	50.00	2300.00
	(ii) <b>40Amps. DP</b>				
	Cat. I	Ea	1870.00	50.00	1920.00
	Cat. II	Ea	1960.00	50.00	2010.00
	Cat. III	Ea	2560.00	50.00	2610.00
	(iii) <b>63 Amps. DP</b>				
	Cat. I	Ea	2120.00	50.00	2170.00
	Cat. II	Ea	2480.00	50.00	2530.00
	Cat. III	Ea	2550.00	50.00	2600.00

  
 3-12-2. 3 phase  
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 (iii) 63A  
 (iv) 100A  
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 (b) 32A  
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 (c) 63A  
 Cat. II  
 (d) 63A  
 Cat. II  
 (e) 32A  
 Cat. II  
 (f) 63A  
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Cost of Labour	Total	Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
		3-12-2	providing and erecting Approved make <b>ELCBs / RCCBs</b> conforming to IS: 12640 and having sensitivity of <b>30 mA</b> and Short Circuit withstand capacity of <b>10 KA</b> and suitable for operation on 3 phase and neutral 415V,50Hz. having characteristic of quick action & tripping with all advance feature & do not incorporate any electronic component for following Max. rating erected as directed.				
			<b>(i) 25 Amps.FP</b>				
			Cat. I	Ea	2040.00	70.00	2110.00
			Cat. II	Ea	2260.00	70.00	2330.00
70.00	8651.00		Cat. III	Ea	2930.00	70.00	3000.00
0.00	9290.00		<b>(ii) 40Amps. FP</b>				
110.00	11075.00		Cat. I	Ea	2180.00	70.00	2250.00
0.00	13470.00		Cat. II	Ea	2350.00	70.00	2420.00
			Cat. III	Ea	3010.00	70.00	3080.00
			<b>(iii) 63 Amps. FP</b>				
			Cat. I	Ea	2390.00	70.00	2460.00
			Cat. II	Ea	2790.00	70.00	2860.00
			Cat. III	Ea	3480.00	70.00	3550.00
			<b>(iv) 100 Amps. FP (100 mA Sensitivity)</b>				
			Cat. II	Ea	2860.00	70.00	2930.00
			Cat. III	Ea	4970.00	70.00	5040.00
20.00	12583.00	3-12-3	Supplying & erecting approved make <b>RCCB + MCB</b> (Electro magnetic type only) working on residual current device having <b>10 KA short circuit breaking capacity</b> and <b>30 mAmp. Sensitivity &amp; 30 milli sec. tripping time</b> conforming to IS 12640 test knob facility trip free mechanism operating for rated leakage at nominal ten volt, complete erected including all materials lugs screws etc. completed.				
0.00	14610.00		<b>(a) 6A / 10A / 16A / 20A / 25A 2 pole single phase</b> Cat. II	Ea	2050.00	70.00	2120.00
0.00	16150.00		<b>(b) 32A / 40A, 2 pole Single Phase</b> Cat. II	Ea	2200.00	70.00	2270.00
0.00	20680.00		<b>(c) 63 A, 2 pole Single Phase</b> Cat. II	Ea	2660.00	70.00	2730.00
			<b>(d) 6A to 25 A, 4 Pole Three Phase</b> Cat. II	Ea	2330.00	70.00	2400.00
			<b>(e) 32A to 40 A, 4 Pole Three Phase</b> Cat. II	Ea	2460.00	70.00	2530.00
			<b>(f) 63A, 4 pole Three Phase</b> Cat. II	Ea	3240.00	70.00	3310.00
0.00	1780.00	3.12.4	Supplying & fixing box for housing <b>ELCB + MCB</b> combination made of 18 SWG sheet steel duly powder coated with gasket, dust & vermin proof bakelite shield two earthing terminals for following type of RCCB, ELCB, ELCB + MCB				
0.00	1900.00		<b>(a) For 2 pole</b>	Ea	270.00	50.00	320.00
0.00	2300.00		<b>(b) For 4 Pole</b>	Ea	470.00	50.00	520.00
0.00	1920.00						
0.00	2010.00						
0.00	2610.00						
0.00	2170.00						
0.00	2530.00						
0.00	2600.00						
<b>SECTION 3-13 / DANGER NOTICE BOARDS.</b>							
		3-13-1	Providing and erecting <b>metallic vitrified danger notice board</b> as per language suggested by engineer incharge for <b>MEDIUM VOLTAGE</b> installation to be erected as per IS-2551	Ea	65.00	15.00	80.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
3-13-2	Providing and erecting metallic vitrified danger notice board as per language suggested by engineer incharge for HIGH VOLTAGE installation to be erected as per IS-2551.	Ea.	80.00	15.00	95.00
3-13-3	Providing & erecting Medium Voltage Danger Notice Board sticker as per language suggested by engineer incharge of standard size as per IS-2551	Ea	20.00	10.00	30.00
3-13-4	Providing & erecting High Voltage Danger Notice Board sticker as per language suggested by engineer incharge of standard size-as per IS 2551	Ea	30.00	10.00	40.00
<b>SECTION 3-14 EARTHING</b>					
Follow IS code :3043 is the guideline for the earthing					
3-14-1	Providing and erecting required size Aluminium strip for earthing of H.T. , OCB / ACB / Transformer, LT panel board, Motors etc. using copper clamp.	Kg.	200.00	20.00	220.00
3-14-2	Providing and erecting required size HOT deep Galvanised iron strip for earthing of H.T. , OCB/ ACB/ Transformer LT panel board, Motors etc. using proper clamp.	Kg.	70.00	20.00	90.00
3-14-3	Providing and erecting required size Copper strip for earthing of H.T. OCB / ACB/ Transformer, LT panel board, Motors etc. using copper clamp.	Kg.	670.00	40.00	710.00
3-14-4	Providing and erecting Annealed bare Copper wire 8 to 16 SWG.	Kg.	670.00	40.00	710.00
3-14-5	Providing and erecting HOT deep Galvanised iron strip wire 8 to 16 SWG	Kg.	70.00	20.00	90.00
3-14-6-A	Providing and erecting Pipe type earthing having 150 cms.long and 2.5 cms. dia. galvanised iron pipe with coupling and buch buried in specially prepared earth pit complete with necessary 8 SWG earth wire	Ea.	350.00	80.00	430.00
3-14-6-B	Providing and erecting Pipe type earthing with 40 mm dia 2.5 mtr long 'B' grade G.I. pipe with necessary coupling buch buried in specially prepared earth pit & G.I. earth wire of 8 SWG erected & connected as directed (For panel)	Ea.	810.00	150.00	960.00
3-14-6-c	For using salt and charcoal / coke as required for pipe type earthing.	Ea.	180.00	20.00	200.00
3-14-7	Add Extra for excavation in Semi hard rock (Murrum) by dry and wet blasting and chiselling for pipe type earthing	Ea.	0.00	130.00	130.00

Item No 3-14-8 Add extra for wet earthing.

3-14-9 Supplying bore dia. Earthing Technok corrosion Outer pipe galvanised 200 mm dia terminal compound with high following heavy duty substrate compound Compound as per IE at no. Back fill (should be time rec

(a) For El normal Length of Back fill

(b) For El normal Length of Back fill

(c) For El Transfor Earthing System (line and Length of Back fill

3-14-10 Supplying bore dia. Earthing Technok corrosion Outer pipe galvanised 200 mm dia terminal compound for follow and heavy has to be earth resi

[A] For el Length of Back fill Kgs.

Cost of	Total	Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
00	95.00	3-14-8	Add Extra for excavation in Hard rock by dry and wet blasting and chiselling for pipe type earthing.	Ea.	0.00	325.00	325.00
00	30.00						
10.00	40.00	3-14-9	Supplying & erecting earth pit of minimum bore dia. 150mm size approved make Earthing Electrode consisting Pipe-in-Pipe Technology as per IS 3043-1987 made of corrosion free hot dipped G.I.Pipes having Outer pipe dia of 50mm having 80-200 Micron galvanising, Inner pipe dia of 25 mm having 200-250 Micron galvanising, connection terminal dia of 12mm with constant ohmic value surrounded by highly conductive compound with high charge dissipation suitable for following type of applications with chamber and heavy duty cover (approved make OEM has to submit test certificate) & having back filling compound of (B) Inner chemical (CCM Compound)- Resistivity:- 0.2 / meter testing as per IEC 62561-2017, Voltage drop:- < 1 volt at no load & dry form, Sulphur content:- <2%(C) Back fill Compound - Earthing compound should be capable to retain moisture for long time. Necessary test report must be submitted.				
00	220.00						
00	90.00		(a) For Electrical installation up to 440V in normal soil Length of pipe - 1 Mtr Back filling compound - 1 Nos Bag of 15 Kg	Ea.	4973.00	390.00	5363.00
00	710.00		(b) For Electrical installation up to 11 KV in normal soil. Length of Pipe : 2.00 mtrs Back filling Compound : 1 no. Bag of 25 Kg.	Ea.	6278.00	450.00	6728.00
10	710.00		(c) For Electrical Installation covering Transformer Neutrals, Lightning arrester Earthing, A.C.Plant & Sensitive Computer System(like Automation, SCADA) i.e independent Earthing in normal soil. Length of Pipe : 3.00 mtrs Back filling Compound : 2 nos Bags of 25 Kg.	Ea.	9413.00	675.00	10088.00
00	90.00						
00	430.00						
00	960.00	3-14-10	Supplying & erecting in earthpit of minimum bore dia. 225mm size approved make Safe Earthing Electrode consisting Pipe-in-Pipe Technology as per IS 3043-1987 made of corrosion free hot dipped G.I.Pipes having Outer pipe dia of 80 mm having 80-200 Micron galvanising, Inner pipe dia of 40 mm having 200-250 Micron galvanising, connection terminal dia of 14 mm with constant ohmic value surrounded by highly conductive compound with high charge dissipation suitable for following type of applications with chamber and heavy duty cover (approved make OEM has to submit test certificate including value of earth resistance of installation.				
00	200.00						
00	130.00		[A] For electrical installation up to 440 V Length of Pipe - 1 Mtr Back filling compound - 1 Nos. of Bag of 15 Kgs.	Ea.	6435.00	390.00	6825.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	[B] For Electrical installation up to 11 KV located in other than normal soil i.e. Soft Rock, Marshy Soil etc. -Length of Pipe : 2 mtr -Back filling Compound -1 nos. Bag of 25 Kg	Ea.	7838.00	450.00	8288.00
	[C] For Electrical Installation covering Transformer Neutrals, Lightning arrester Earthing, A.C.Plant & Sensitive Computer System(like Automation, SCADA)i.e. independent Earthing located in other than normal soil i.e. Soft Rock, Marshy Soil etc.. -Length of Pipe : 3 Mtrs. -Back filling Compound -2 nos. Bags of 25 Kg	Ea.	11700.00	675.00	12375.00
3-14-11	Providing one bag of 25 Kg. Additional Back Filling Compound (BFC) suitable for safe earthing device.	Ea.	825.00	0.00	825.00
3-14-12	Supplying & erecting funnel type earthing having earth plate of following size buried in specifically prepared earth pit 3 mtr. below ground with 40 kg. charcoal and salt with alternate layers of charcoal & salt, 20mm dia. G.I. pipe with Funnel with a wire mesh for watering & bricks masonry block, C.I. Cover complete as per para 7.3 of IS 3043 with necessary length of double Galvanised Iron / copper earth wire No 6 SWG bolted with lug to the plate and covered in 12 mm dia. G.I. pipe 2.5 mtr long complete connected to the nearest switch gear with end socket as per direction & duly tested by earth tester confirming to IS (As per drawing) with following specification				
	(A) With 30 x 30 x 0.35 cms: C.I. earth plate	Ea.	1900.00	800.00	2700.00
	(B) With 45 x 45 x 0.35 cms. C.I. earth plate	Ea.	2200.00	800.00	3000.00
	(C) with 60 x 60x 0.315 cms. Copper earth Plate	Ea.	8400.00	800.00	9200.00
3-14-13	ADD Extra for excavation in Semi hard rock (Murrum) by dry and wet blasting and chiselling for funnel type earthing of above	Ea.	10.00	250.00	260.00
3-14-14	ADD Extra for excavation in Hard rock by dry and wet blasting and chiselling for funnel type earthing of above .	Ea.	0.00	380.00	380.00
3-14-15	providing and erecting Cast iron earth plate size 30 X 30 X 0.35 cms. buried in specially prepared 2.5 Mtr. deep earth pit complete with necessary G.I. strip in G.I. pipe 2 Mtr. long with coupling and G.I. plug for earthing of switch gear. conduit run or power plug etc.	Ea.	600.00	200.00	800.00
3-14-16	providing and erecting Cast iron earth plate size 45 X 45 X 0.35 cms buried in specially prepared 2.5 Mtr. Deep earth Pit complete with necessary G.I. strip in G.I. pipe 2 Mtr. long with coupling and G.I. plug for earthing of switch gear. conduit run or power plug etc.	Ea.	800.00	200.00	1000.00

Item No	Description
3-15-1	providr meter directe
3-15-2	providr plate 5A/20/ Specific accuracy of the reverse meter to 300V error with 3)
3-15-3	providr meter : rating. ASTC(A digital temper meter impulse impulse 300V p en)
3-15-4	providr meter : V. 5 to necess
3-15-5	providr meter : V. 20A with ge
3-15-6	providr meter : V. 50A / ne
3-15-7	providr meter : 100A E

Est of	Total	Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
<b>SECTION 3-15 ENERGY METERS</b>							
450.00	8288.00	3-15-1	providng and erecting Approved make <b>energy meter 230V, 50 c/s AC up to 20A</b> erected as directed with three year replacement guarantee.				
			Cat. II	Ea.	970.00	80.00	1050.00
			Cat. III	Ea.	1000.00	80.00	1080.00
175.00	12375.00	3-15-2	providng and erecting Approved make <b>single phase electronic energy meter rating 5A/20A/40A</b> based on ASIC (Application Specific integral circuit) digital technology with accuracy Class-I, temper proof, free from effect of external magnetic field with phase, earth, reverse and impulse indications, 6 digit electro-mechanical counter suitable to work on 120 V to 300V, 45 - 55 Hz., housed in robust enclosure complete to be erected as directed with 3 year replacement guarantee.				
0.00	825.00		Cat. II	Ea.	1910.00	80.00	1990.00
			Cat. III	Ea.	1950.00	80.00	2030.00
		3-15-3	providng and erecting Approved make <b>energy meter 3 phase 4 wire unbalanced load rating, 10A to 60 Amp. based on ASIC</b> (Application specific Integral Circuits) digital technology with accuracy Class - 1 , temper proof, free from effect of external magnetic field with 3 phase indication, earth & impulse indication, 6 digit electro mechanical impulse counter, suitable work on 120 V to 300V per phase 45-55 HZ, housed in robust enclosure with erection as directed.				
			Cat. II	Ea.	2930.00	160.00	3090.00
			Cat. III	Ea.	2990.00	160.00	3150.00
2700.00		3-15-4	providng and erecting Approved make <b>energy meter 3 phase 4 wire unbalanced load 500 V. 5 to 10A</b> complete erected as directed with necessary earth wire.				
3000.00			Cat. II	Ea.	2310.00	160.00	2470.00
9200.00			Cat. III	Ea.	2410.00	160.00	2570.00
260.00		3-15-5	providng and erecting Approved make <b>energy meter 3 phase 4 wire unbalanced load 500 V. 20A or 30A</b> complete erected as directed with necessary earth wire				
380.00			Cat. II	Ea.	2540.00	160.00	2700.00
			Cat. III	Ea.	2635.00	160.00	2795.00
800.00		3-15-6	providng and erecting Approved make <b>energy meter 3 phase 4 wire unbalanced load 500 V.50A / 100A</b> complete erected as directed with necessary earth wire.				
			Cat. II	Ea.	2730.00	160.00	2890.00
			Cat. III	Ea.	2890.00	160.00	3050.00
1000.00		3-15-7	providng and erecting Suitable set of <b>CTS for 100A Energy Meter</b>	Ea.	2400.00	60.00	2460.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
<b>SECTION 3-16 / CUPBOARDS.</b>					
3-16-1	Providing & erecting weather proof, dust & vermin proof, floor mounted front operated indoor type <b>cubical panel board</b> necessary IP-42 and above protection as per approval from engineer incharge made from 14 SWG thick CRC M.S. sheet for outer body & doors, 16 SWG thick CRC M.S. sheet for internal partitions with necessary accessories, supporting angles/ flats channel including cutting, bending, drilling, welding, riveting with internal partitions & cable alley as per requirements & instruction of engineer-in-charge with erection of				
	supplied switch gears, BUSBARS, suitable size of inter connecting PVC copper wire / copper-aluminium strips, rubber grommets, rib, bakelite control fuses/ MCB for measuring instruments, earth bus & earth bolts, foundation flange - bolts-base Plates, sufficient nos. of hinged doors, handles with locking arrangement and rubber gasket, heavy duty end terminal connection, danger notice board, necessary ventilation, earthing strip complete. The Panel shall be painted with epoxy powder coating.				
	(The rates excludes the cost of switchgears, bus bars, inter connecting mains & Copper Aluminium strips, meters, Fuses etc. The dimension shall be measured excluding base beams) The panel shall be supplied with following approved manufacturers with following size.				
	<b>(A) The standard companies switch gear shall be used and only manufacturers at CPRI approved factory as per IEC 61439 for beneficial use.</b>				
	(i) with 350mm depth	Sq.Mtr	16600.00	810.00	17410.00
	(ii) with 550 mm. Depth	Sq.Mtr	21840.00	810.00	22650.00
	(iii) with 750 mm. Depth	Sq.Mtr	38270.00	940.00	39210.00
	(iv) with 1000 mm. depth	Sq.Mtr	46900.00	1000.00	47900.00
	<b>(B) locally fabricated panel board</b>				
	(i) with 350 mm depth	Sq.Mtr	11650.00	580.00	12230.00
	(ii) With 550 mm. Depth	Sq.Mtr	15280.00	580.00	15860.00
	(iii) with 750 mm. Depth	Sq.Mtr	25600.00	650.00	26250.00
	(iv) with 1000 mm. depth	Sq.Mtr	31000.00	700.00	31700.00
3 16 2	providing and erecting Steel cover as per drawing using 16 SWG M.S. sheet of following depth, to house the switch gear etc. complete with locking arrangement and lock with duplicate keys per cupboard and door handles erected with necessary support and painting. [One coat red oxide and two coat enamel paint]				
	<b>(A) with angle iron frame</b>				
	(i) For 25 cms. Depth	Sq.Mtr	3770.00	390.00	4160.00
	(ii) For 40 cms. Depth	Sq.Mtr	4550.00	390.00	4940.00
	<b>(B) Without angle iron frame</b>				
	(i) For 25 cms. Depth	Sq.Mtr	2600.00	390.00	2990.00
	(ii) For 40 cms. depth	Sq.Mtr	3120.00	390.00	3510.00

State Engineering

Item No

3-16-3

Providing and erecting weather proof, dust & vermin proof, floor mounted front operated indoor type cubical panel board necessary IP-42 and above protection as per approval from engineer incharge made from 14 SWG thick CRC M.S. sheet for outer body & doors, 16 SWG thick CRC M.S. sheet for internal partitions with necessary accessories, supporting angles/ flats channel including cutting, bending, drilling, welding, riveting with internal partitions & cable alley as per requirements & instruction of engineer-in-charge with erection of

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3-16-4-A

supplied switch gears, BUSBARS, suitable size of inter connecting PVC copper wire / copper-aluminium strips, rubber grommets, rib, bakelite control fuses/ MCB for measuring instruments, earth bus & earth bolts, foundation flange - bolts-base Plates, sufficient nos. of hinged doors, handles with locking arrangement and rubber gasket, heavy duty end terminal connection, danger notice board, necessary ventilation, earthing strip complete. The Panel shall be painted with epoxy powder coating.

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3-16-4-B

(The rates excludes the cost of switchgears, bus bars, inter connecting mains & Copper Aluminium strips, meters, Fuses etc. The dimension shall be measured excluding base beams) The panel shall be supplied with following approved manufacturers with following size.

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3-16-5

**(A) The standard companies switch gear shall be used and only manufacturers at CPRI approved factory as per IEC 61439 for beneficial use.**

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3-16-6

(i) with 350mm depth

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3-16-7

(ii) with 550 mm. Depth

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3-16-8

(iii) with 750 mm. Depth

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3-16-8

(iv) with 1000 mm. depth

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3-17-1

providing and erecting Steel cover as per drawing using 16 SWG M.S. sheet of following depth, to house the switch gear etc. complete with locking arrangement and lock with duplicate keys per cupboard and door handles erected with necessary support and painting. [One coat red oxide and two coat enamel paint]

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3-17-1

**(A) with angle iron frame**

(i) For 25 cms. Depth

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3-17-1

**(B) Without angle iron frame**

(i) For 25 cms. Depth

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3-17-1

(ii) For 40 cms. depth



Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
3-17-5	providing and erecting multifunctional meter suitable for application of Power monitoring and showing measurement of following	Ea	16000.00	500.00	16500.00
	Voltage				
	Frequency				
	Apparent energy				
	Apparent power				
	Active and reactive energy				
	Active and reactive power				
	Metering type Average voltage Vavg				
	Peak demand power PM, QM, SM				
	Demand power P, Q, S				
	Apparent power S, S1, S2, S3				
	Unbalance current				
	Power factor and displacement PF (signed, four quadrant)				
	Calculated neutral current				
	Active, reactive, apparent energy (signed, four quadrant)				
	Active power P, P1, P2, P3				
	Voltage U21, U32, U13, V1, V2, V3				
	Phase currents				
	Average current Iavg				
	Peak demand currents				
	Reactive power Q, Q1, Q2, Q3				
	Demand current I1, I2, I3				
	[Us] rated supply voltage 40...300 V AC 45...65 Hz				
	40...300 V DC				
	Network frequency 50 Hz				
	60 Hz				
	[In] rated current 5 A				
	Type of network 3P				
	1P + N				
	2P + N				
	3P + N				
	2P				
	Maximum power consumption in VA 6 VA at 277 V between phase and neutral				
	Maximum power consumption in W 2 W at 277 V				
	Display type 7 segments LED				
	Display colour Red				
	Messages display capacity 3 fields of 4 characters				
	Display digits 12 digit(s) - 14.2 mm in height				
	Communication of data Energy metering				
	Net energy				
	Reading of time-stamped measurements and events				
	Total energy				
	Tamperproof of settings Protected by access code				
	Sampling rate 64 samples/cycle				
	Measurement current 5...8000 mA				
	Signal Current 0...12 A (impedance 0.3 MOhm) 4 x				
	Voltage (impedance 5 MOhm) 4 x				
	Measurement voltage 35...480 V AC 45...65 Hz between phases				
	35...277 V AC 45...65 Hz between phase and neutral				
	35...600 V AC 45...65 Hz between phases				
	35...347 V AC 45...65 Hz between phase and neutral				
	600...999000 V AC 45...65 Hz with external VT				
	Frequency measurement range 45...65 Hz				
	Measurement accuracy Current +/- 0.5 %				
	Voltage +/- 0.5 %				
	Power +/- 0.5 %				

Item No	Description
	Frequency
	Power factor
	Active and reactive energy
	IEC 62053-21
	Class 2
	Class 5I conform
	Class 5I conform
	Number
	Output
	Impulse
	Definite
	Local signal
	Relay
	(kWh, kWh)
	Communication
	Communication
	Data recording
	Material
	Flange
	Modular
	Mounting
	Installation
	Type of
	Measurement
	Category
	Electrical
	Connect
	terminal
	Voltage
	0.82...3
	Control
	0.82...3
	Construction
	mm <sup>2</sup> cab
	Typical
	No 2 scr
	Standard
	UL 1001
	Product-
	CUL 1001 c
	CUL 1001 c
	C-1
	Width 96
	Depth 75
	13 mm o
	Height 95
	Net weight
	Environment
	Electromagnetic
	discarding
	Radiation
	immunity
	Electrical
	conformity
	Surge
	Conductivity
	610...64
	Magnetic
	610...64
	Voltage
	conformity

Cost of Labour	Total	Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
500.00	18500		Frequency +/- 0.05 %				
			Power factor +/- 0.01				
			Accuracy class Class 1 active energy conforming to IEC 62053-21				
			Class 2 reactive energy conforming to IEC 62053-23				
			Class 5P total current harmonic distortion THD (I) conforming to IEC 61557-12				
			Class 5P total voltage harmonic distortion THD (U) conforming to IEC 61557-12				
			Number of outputs 1 pulse				
			Output voltage 5...40 V DC@20 mA				
			Impulse duration 20 ms				
			Demand intervals Configurable from 1 to 60 min				
			Local signaling Green LED: activity				
			Red LED: output signal 1...9999000 pulse/k_h (kWh, kVAh, kVARh)				
			Communication port protocol -				
			Communication port support -				
			Data recording Energy consumption logs				
			Material Polycarbonate				
			Flame retardance V-0 conforming to UL 94				
			Mounting mode Flush-mounted				
			Mounting support Framework				
			Installation category III				
			Type of installation Indoor installation				
			Measurement category Category III 480 V				
			Category II 480...600 V				
			Electrical insulation class Class II				
			Connections - terminals Current circuit: screw clamp terminals (bottom) 2.08...3.31 mm <sup>2</sup> cable(s)				
			Voltage circuit: screw clamp terminals (top) 0.82...3.31 mm <sup>2</sup> cable(s)				
			Control circuit: screw clamp terminals (top) 0.82...3.31 mm <sup>2</sup> cable(s)				
			Communication: screw clamp terminals 0.33...3.31 mm <sup>2</sup> cable(s)				
			Tightening torque Current circuit: 0.9...1 N.m Philips No 2 screwdriver				
				2			
			Standards IEC 61010-1:ed. 3				
			UL 61010-1 ed. 3				
			Product certifications CE conforming to IEC 61010-1				
			CULus conforming to UL 61010-1				
			CULus conforming to CSA C22.2 No 61010-1				
			C-Tick				
			Width 96 mm				
			Depth 73 mm panel				
			13 mm outside				
			Height 96 mm				
			Net weight 600 g				
			Environment				
			Electromagnetic compatibility Electrostatic discharge conforming to IEC 61000-4-2				
			Radiated radio-frequency electromagnetic field immunity test conforming to IEC 61000-4-3				
			Electrical fast transient/burst immunity test conforming to IEC 61000-4-4				
			Surge immunity test conforming to IEC 61000-4-5				
			Conducted RF disturbances conforming to IEC 61000-4-6				
			Magnetic field at power frequency conforming to IEC 61000-4-8				
			Voltage dips and interruptions immunity test conforming to IEC 61000-4-11				

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	Emission tests conforming to FCC part 15 class A				
	Overvoltage category III				
	IP degree of protection IP51 front: conforming to IEC 60529				
	IP30 body: conforming to IEC 60529				
	Relative humidity 5...95 % at 50 °C				

Cost of Labour	Total

# CHAPTER - IV

## Cables and Wires

Item No.	Supplying
4-1-1.	ISI uniform KV.grade following (a) 2 core (b) 2 core (c) 2 core (d) 2 core
4-1-2.	Supplying ISI uniform KV.grade following (a) 3 core (b) 3 core (c) 3 core (d) 3 core
4-1-3.	Supplying ISI uniform KV.grade following (a) 4 core (b) 4 core (c) 4 core (d) 4 core
SECTION	
4-2-1.	Supplying unarmoured be erected (A) 2 core (B) 2 core (C) 2 core (D) 2 core (E) 3 core (F) 3 core (G) 3 core (H) 3 core (I) 3 core (J) 4 core (K) 4 core (L) 4 core (M) 4 core (N) 4 core
4-2-2.	Supplying unarmoured be erected (a) 7 core (b) 7 core (c) 7 core (O) 8 core (P) 12 core

## CHAPTER - IV Cables and Wires

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
<b>SECTION 4-1</b>					
4-1-1.	Supplying & erecting XLPE(IS:7098) (I)-88 ISI unarmoured Aluminium cable 1.1 KV grade to be erected as directed of following size.				
	(a) 2 core 2.5 Sq. mm	Mtr.	26.00	8.00	34.00
	(b) 2 core 4 Sq. mm	Mtr.	46.00	8.00	54.00
	(c) 2 core 6 Sq. mm	Mtr.	61.00	9.00	70.00
	(d) 2 core 10 Sq. mm	Mtr.	75.00	9.00	84.00
4-1-2.	Supplying & erecting XLPE(IS:7098) (I)-88 ISI unarmoured Aluminium cable 1.1 KV grade to be erected as directed of following size.				
	(a) 3 core 2.5 Sq. mm	Mtr.	33.00	8.00	41.00
	(b) 3 core 4 Sq. mm	Mtr.	59.00	8.00	67.00
	(c) 3 core 6 Sq. mm	Mtr.	70.00	9.00	79.00
	(d) 3 core 10 Sq. mm	Mtr.	89.00	9.00	98.00
4-1-3.	Supplying & erecting XLPE(IS:7098) (I)-88 ISI unarmoured Aluminium cable 1.1 KV grade to be erected as directed of following size.				
	(a) 4 core 2.5 Sq. mm	Mtr.	41.00	9.00	50.00
	(b) 4 core 4 Sq. mm	Mtr.	66.00	9.00	75.00
	(c) 4 core 6 Sq. mm	Mtr.	80.00	10.00	90.00
	(d) 4 core 10 Sq. mm	Mtr.	99.00	10.00	109.00
<b>SECTION 4-2 / UNARMOURED COPPER CABLES.</b>					
4-2-1.	Supplying & erecting XLPE(IS:7098)(I)-88 ISI unarmoured copper cable 1.1 KV grade to be erected as directed of following size.				
	(A) 2 core 2.5 Sq. mm	Mtr.	99.00	6.00	105.00
	(B) 2 core 4 sq.mm	Mtr.	132.00	6.00	138.00
	(C) 2 core 6 Sq. mm	Mtr.	204.00	11.00	215.00
	(D) 2 core 10 Sq. mm	Mtr.	308.00	11.00	319.00
	(E) 3 core 2.5 Sq. mm	Mtr.	138.00	6.00	144.00
	(F) 3 core 4 Sq. mm	Mtr.	187.00	11.00	198.00
	(G) 3 core 6 Sq. mm	Mtr.	297.00	11.00	308.00
	(H) 3 core 10 Sq. mm	Mtr.	451.00	17.00	468.00
	(I) 3 core 16 Sq. mm	Mtr.	572.00	22.00	594.00
	(J) 4 core 2.5 Sq. mm	Mtr.	165.00	11.00	176.00
	(K) 4 core 4 Sq. mm	Mtr.	242.00	11.00	253.00
	(L) 4 core 6 Sq. mm	Mtr.	374.00	11.00	385.00
	(M) 4 core 10 Sq. mm	Mtr.	589.00	17.00	606.00
	(N) 4 core 16 Sq. mm	Mtr.	748.00	22.00	770.00
4-2-2.	Supplying & erecting XLPE(IS:7098)(I)-88 ISI unarmoured copper cable 1.1 KV grade to be erected as directed of following size.				
	(a) 7 core 1.5 Sq. mm	Mtr.	108.00	13.00	121.00
	(b) 7 core 2.5 Sq. mm	Mtr.	141.00	13.00	154.00
	(c) 7 core 4 sq.mm	Mtr.	495.00	17.00	512.00
	(O) 8 core 2.5 sq.mm	Mtr.	288.00	17.00	305.00
	(P) 12 core 2.5 sq.mm	Mtr.	400.00	20.00	420.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
<b>SECTION 4-3 / ARMoured ALUMINIUM CABLES</b>					
4-3-1.	Providing and erecting XLPE(IS:7098)(I)-88 ISI armoured cable Aluminium conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe of following size of cables.				
	(A) 2 core 4 Sq. mm	Mtr.	66.00	13.00	79.00
	(B) 2 core 6 Sq. mm	Mtr.	80.00	13.00	93.00
	(C) 2 core 10 Sq. mm	Mtr.	113.00	13.00	126.00
4-3-2.	Providing and erecting XLPE(IS:7098)(I)-88 ISI armoured cable multistrand Aluminium conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe of following size of cables.				
	(A) 3 core 2.5 Sq. mm	Mtr.	56.00	13.00	69.00
	(B) 3 core 4 Sq. mm	Mtr.	75.00	13.00	88.00
	(C) 3 core 6 Sq. mm	Mtr.	94.00	13.00	107.00
	(D) 3 core 10 Sq. mm	Mtr.	118.00	13.00	131.00
	(E) 3 core 16 Sq. mm	Mtr.	131.00	13.00	144.00
	(F) 3 core 25 Sq. mm	Mtr.	150.00	13.00	163.00
	(G) 3 core 35 Sq. mm	Mtr.	179.00	13.00	192.00
	(H) 3 core 50 Sq. mm	Mtr.	225.00	13.00	238.00
	(I) 3 core 70 Sq. mm	Mtr.	305.00	19.00	324.00
	(j) 3 core 95 Sq. mm	Mtr.	385.00	25.00	410.00
	(k) 3 core 120 Sq. mm	Mtr.	460.00	25.00	485.00
4-3-3.	Providing and erecting XLPE(IS:7098)(I)-88 ISI armoured cable multistrand Aluminium conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe of following size of cables				
	(A) 3 1/2 core 25 Sq. mm ( 16 Sq. mm 1/2 core)	Mtr.	165.00	19.00	184.00
	(A-1) 3 1/2 core 35 Sq. mm ( 16 Sq. mm 1/2 core)	Mtr.	203.00	19.00	222.00
	(B) 3 1/2 core 50 Sq. mm ( 25 Sq. mm 1/2 core)	Mtr.	268.00	19.00	287.00
	(C) 3 1/2 core 70 Sq. mm ( 35 Sq. mm 1/2 core)	Mtr.	356.00	25.00	381.00
	(D) 3 1/2 core 95 Sq. mm ( 50 Sq. mm 1/2 core)	Mtr.	450.00	25.00	475.00
	(E) 3 1/2 core 120 Sq. mm ( 70 Sq. mm 1/2 core)	Mtr.	498.00	25.00	523.00
	(F) 3 1/2 core 150 Sq. mm ( 70 Sq. mm 1/2 core)	Mtr.	680.00	31.00	711.00
	(G) 3 1/2 core 185 Sq. mm ( 95 Sq. mm 1/2 core)	Mtr.	849.00	31.00	880.00
	(H) 3 1/2 core 240 Sq. mm ( 120 Sq. mm 1/2 core)	Mtr.	1098.00	38.00	1136.00
	(I) 3 1/2 core 300 Sq. mm ( 150 Sq. mm 1/2 core)	Mtr.	1331.00	38.00	1369.00
	(J) 3 1/2 core 400 Sq. mm ( 185 Sq. mm 1/2 core)	Mtr.	1650.00	50.00	1700.00
	(K) 3 1/2 core 500 Sq. mm ( 240 Sq. mm 1/2 core)	Mtr.	2119.00	50.00	2169.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
4-3-4.	Providing ISI armoured Aluminium conductor laid on wall with necessary clamps or in existing trench / pipe of following size of cables.				
	(L) 3 core 2 Sq. mm	Mtr.	30.00	13.00	43.00
4-3-4(a)	Providing ISI armoured Aluminium conductor laid on wall with necessary clamps or in existing trench / pipe of following size of cables.				
	(a) 4 core 2 Sq. mm	Mtr.	40.00	13.00	53.00
	(b) 4 core 4 Sq. mm	Mtr.	50.00	13.00	63.00
	(c) 4 core 6 Sq. mm	Mtr.	60.00	13.00	73.00
	(d) 4 core 10 Sq. mm	Mtr.	80.00	13.00	93.00
	(e) 4 core 16 Sq. mm	Mtr.	100.00	13.00	113.00
	(f) 4 core 25 Sq. mm	Mtr.	120.00	13.00	133.00
4-4-1.	Providing ISI armoured Aluminium conductor with necessary clamps or in existing trench / pipe of following size of cables.				
	(a) 2 core 25 Sq. mm	Mtr.	100.00	19.00	119.00
	(a-1) 2 core 35 Sq. mm	Mtr.	120.00	19.00	139.00
	(b) 2 core 50 Sq. mm	Mtr.	140.00	19.00	159.00
	(c) 2 core 70 Sq. mm	Mtr.	160.00	25.00	185.00
4-4-2.	Providing ISI armoured Aluminium conductor with necessary clamps or in existing trench / pipe of following size of cables.				
	(a) 3 core 25 Sq. mm	Mtr.	120.00	19.00	139.00
	(a-1) 3 core 35 Sq. mm	Mtr.	140.00	19.00	159.00
	(b) 3 core 50 Sq. mm	Mtr.	160.00	19.00	179.00
	(c) 3 core 70 Sq. mm	Mtr.	180.00	25.00	205.00
	(d) 3 core 95 Sq. mm	Mtr.	200.00	25.00	225.00
	(E) 3 core 120 Sq. mm	Mtr.	220.00	25.00	245.00
4-4-3.	Providing ISI armoured Aluminium conductor with necessary clamps or in existing trench / pipe of following size of cables.				
	(A) 3 1/2 core 25 Sq. mm	Mtr.	120.00	19.00	139.00
	(B) 3 1/2 core 35 Sq. mm	Mtr.	140.00	19.00	159.00
	(C) 3 1/2 core 50 Sq. mm	Mtr.	160.00	19.00	179.00
	(D) 3 1/2 core 70 Sq. mm	Mtr.	180.00	25.00	205.00
	(E) 3 1/2 core 95 Sq. mm	Mtr.	200.00	25.00	225.00

Total
79.00
93.00
126.00
69.00
88.00
107.00
131.00
144.00
163.00
192.00
238.00
324.00
410.00
485.00
184.00
222.00
287.00
381.00
475.00
523.00
711.00
880.00
136.00
1369.00
1700.00
2169.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
(L) 3 1/2 core 630 sq. mm (300 sq. mm 1/2 core)		Mtr.	2579.00	63.00	2642.00
4-3-4.	Providing and erecting XLPE (IS:7098)(I)-88 ISI armoured cable multistrand / Solid Aluminium conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe of following size of cables				
(a) 4 core 4 Sq. mm		Mtr.	104.00	13.00	117.00
(b) 4 core 6 Sq. mm		Mtr.	113.00	13.00	126.00
(c) 4 core 10 Sq. mm		Mtr.	128.00	13.00	141.00
4-3-4(a)	Providing and erecting XLPE (IS:7098)(I)-88 ISI armoured cable multistrand Aluminium conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe of following size of cables				
(d) 4 core 16 Sq. mm		Mtr.	141.00	13.00	154.00
(e) 4 core 25 Sq. mm		Mtr.	179.00	13.00	192.00
(e) 4 core 35 Sq. mm		Mtr.	244.00	13.00	257.00
<b>SECTION 4-4 ARMoured COPPER CABLES</b>					
4-4-1.	Providing and erecting XLPE (IS:7098)(I)-88 ISI armoured cable multistrand Copper conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe of following size of cables				
(a) 2 core 2.5 Sq. mm		Mtr.	176.00	11.00	187.00
(a-1) 2 core 4 Sq. mm		Mtr.	209.00	11.00	220.00
(b) 2 core 6 Sq. mm		Mtr.	297.00	11.00	308.00
(c) 2 core 10 Sq. mm		Mtr.	457.00	11.00	468.00
4-4-2.	Providing and erecting XLPE (IS:7098)(I)-88 ISI armoured cable multistrand Copper conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe at road crossing or floor of following size of cable.				
(a) 3 core 2.5 Sq. mm		Mtr.	215.00	11.00	226.00
(a-1) 3 core 4 Sq. mm		Mtr.	292.00	11.00	303.00
(b) 3 core 6 Sq. mm		Mtr.	407.00	11.00	418.00
(c) 3 core 10 Sq. mm		Mtr.	517.00	11.00	528.00
(d) 3 core 16 Sq. mm		Mtr.	759.00	11.00	770.00
(E) 3 core 25 Sq. mm		Mtr.	1309.00	11.00	1320.00
4-4-3.	Providing and erecting XLPE (IS:7098)(I)-88 ISI armoured cable multistrand Copper conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe at road crossing or floor of following size of cables.				
(A) 3 1/2 core 25 Sq. mm ( 10 Sq. mm 1/2 core)		Mtr.	1408.00	22.00	1430.00
(B) 3 1/2 core 35 Sq. mm ( 16 Sq. mm 1/2 core)		Mtr.	1958.00	22.00	1980.00
(C) 3 1/2 core 50 Sq. mm ( 25 Sq. mm 1/2 core)		Mtr.	2558.00	28.00	2586.00
(D) 3 1/2 core 70 Sq. mm ( 35 Sq. mm 1/2 core)		Mtr.	3762.00	33.00	3795.00
(E) 3 1/2 core 95 Sq. mm ( 50 Sq. mm 1/2 core)		Mtr.	4807.00	33.00	4840.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	(F) 3 1/2 core 120 Sq. mm ( 70 Sq. mm 1/2 core)	Mtr.	6776.00	44.00	6820.00
4-4-4.	Providing and erecting XLPE(IS:7098)(I)-88 ISI armoured cable multistrand / Solid Copper conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe at road crossing or floor of following size of cables.				
	(A) 4 core 2.5 Sq. mm	Mtr.	275.00	11.00	286.00
	(A-1) 4 core 4 Sq. mm	Mtr.	374.00	11.00	385.00
	(B) 4 core 6 Sq. mm	Mtr.	528.00	11.00	539.00
4-4-4(a).	Providing and erecting XLPE(IS:7098)(I)-88 ISI armoured cable multistrand Copper conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe at road crossing or floor of following size of cables.				
	(C) 4 core 10 Sq. mm	Mtr.	699.00	17.00	716.00
	(D) 4 core 16 Sq. mm	Mtr.	1029.00	17.00	1046.00
	(E) 4 core 25 Sq. mm	Mtr.	1573.00	22.00	1595.00
	(F) 8 core 2.5 sq.mm	Mtr.	318.00	17.00	335.00
	(G) 12 core 2.5 sq.mm	Mtr.	420.00	22.00	442.00
<b>SECTION 4-5 / MISCELLANEOUS.</b>					
4-5-1.	Making trench in soft soil of suitable width of 90 cm deep for laying cable or locating the fault all over the run and back filling the same and making the surface as normal ground.	Mtr.	0.00	54.00	54.00
4-5-2.	Making trench in Hard Murrum / Tar Road of suitable width of 90 cm or required depth for laying any size of cable or locating the fault all over the run and back filling the same and making the surface as normal ground.	Mtr.	0.00	72.00	72.00
	(B) If additional machinery like hammer driller or JCB use [Add]	Mtr.	0.00	348.00	348.00
4-5-3.	Covering of cable with second class bricks or cement tiles laid cover the cable crosswise & also on both sides with covering of 7.5 Cm. layer of sand above & below cable (16 bricks per meter)	Mtr.	120.00	36.00	156.00
4-5-4.	Drilling the road without breaking the road surface (Asphalt) for laying of cable for feeding power supply by making up to following size of holes at both ends complete.				
	(A) Up to 100 mm bore dia	Mtr.	0.00	480.00	480.00
	(B) Up to 150 mm bore dia	Mtr.	0.00	600.00	600.00
4-5-5.	Providing and erecting iron clad cable route marker duly marked with ELE. CABLE of size 23 cm X 12 cm. Flushed with ground in cement foundation as directed by Engineer in charge.	Ea.	250.00	30.00	280.00
4-5-6.	Supplying following size of Light duty "A" Class G.I . Pipe & erecting as directed by Engineer-in-charge.				
	(A) 25 mm dia	Mtr.	175.00	25.00	200.00
	(B) 50 mm dia	Mtr.	325.00	25.00	350.00

Item No	Description
4-5-7.	Cable across road and n
4-5-8.	Providing wall pipe neces for lay s
4-5-9.	Providing marke (C) or floor pipe t mtr
4-5-10.	Local in Underg pointing cable fr Vari Ve access cable fr suitable cable (i showing

Cost of	Total	Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
44.00	6820.00		(C) 80 mm dia.	Mtr.	525.00	25.00	550.00
			(D) 100 mm dia.	Mtr.	788.00	25.00	813.00
		4-5-7.	Providing & laying R.C.C. Hume pipe for cable to be laid 90 cm. below ground across the road crossing or on floor with necessary material in an approved manner and making the ground as per original.				
11.00	286.00		(A) 450 mm dia	Mtr.	488.00	44.00	532.00
11.00	385.00		(B) 400 mm dia	Mtr.	419.00	44.00	463.00
11.00	539.00		(C) 300 mm dia	Mtr.	356.00	44.00	400.00
			(D) 250 mm dia	Mtr.	300.00	44.00	344.00
			(E) 150 mm dia	Mtr.	263.00	44.00	307.00
			(F) 100 mm dia.	Mtr.	219.00	44.00	263.00
		4-5-8.	Providing & laying approved make Double walled corrugated pipes (DWC) of polyethylene (conforming to IS 14930 II) with necessary connecting accessories of same material at required depth in existing trench for laying of cable below ground / road surface for enclosing cable				
7.00	716.00		(A) 50 mm outer dia	Mtr.	83.00	10.00	93.00
7.00	1046.00		(B) 63 mm outer dia	Mtr.	100.00	10.00	110.00
7.00	1595.00		(C) 90 mm outer dia	Mtr.	135.00	10.00	145.00
7.00	335.00		(D) 120 mm outer dia.	Mtr.	199.00	10.00	209.00
7.00	442.00		Providing & laying approved make ISI marked HDPE 6Kg / cm <sup>2</sup> (Class-3) as per IS:4984:1995 PE-80 to be erected at road crossing on or floor as directed for laying of cable. The pipes as following size of dia & weight per 6 mtr.				
	54.00		(A) 40 mm inner Dia.		115.00	10.00	125.00
			(B) 50 mm inner Dia.		180.00	10.00	190.00
			(C) 63 mm inner Dia.		280.00	10.00	290.00
			(D) 75 mm inner Dia.		400.00	10.00	410.00
			(E) 90 mm inner Dia		563.00	10.00	573.00
			(F) 110 mm inner Dia.		844.00	10.00	854.00
		4-5-9.	Providing & laying approved make ISI marked Rigid PVC pipe having 6Kg / cm <sup>2</sup> (Class-3) to be erected at road crossing on or floor as directed for laying of cable. The pipes as following size of dia & weight per 6 mtr.				
			(A) 40 mm inner Dia. (1.68 Kg / 6 RMT)	Mtr.	45.00	15.00	60.00
			(B) 50 mm inner Dia. (2.5Kg/6RMT)	Mtr.	65.00	15.00	80.00
			(C) 63 mm inner Dia. (4 Kg / 6RMT)	Mtr.	110.00	15.00	125.00
			(D) 75 mm inner Dia. (5.5 Kg/6RMT)	Mtr.	130.00	15.00	145.00
			(E) 90 mm inner Dia (8.0 Kg / 6RMT)	Mtr.	185.00	15.00	200.00
			(F) 110 mm inner Dia. (11.63 Kg/6 RMT)	Mtr.	260.00	15.00	275.00
		4-5-10	Locating Underground Cable Fault of Underground Cable including digging, pin pointing with cable route tracker by using cable fault location equipment like cable fault Van/Vehicle with supportive meters and accessories & doing high pressure testing of cable for checking healthiness of cable with suitable equipment after jointing of the faulty cable (excluding jointing kit) with report of showing distance from main source approx.				

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
(a)	LT Cable 35 sq.mm and above	JOB	8000.00	0.00	8000.00
(b)	HT Cable	JOB	9000.00	0.00	9000.00

### SECTION 4-6 / CABLE GLANDS.

4-6-1.	Providing and, fixing <b>heavy duty flange type brass cable gland</b> with rubber ring for PVC insulated armoured cable complete with out going tails, insulating tape etc for following size of cables.				
	(a) 2 to 4 core 2.5 / 4 Sq. mm	Ea.	23.00	12.00	35.00
	(b) 2 to 4 core 6 Sq. mm	Ea.	28.00	12.00	40.00
	(c) 2 to 4 core 10 Sq. mm	Ea.	28.00	12.00	40.00
	(d) 2 to 4 core 16 Sq. mm	Ea.	38.00	12.00	50.00
	(e) 2 to 4 core 25 Sq. mm	Ea.	43.00	12.00	55.00
4-6-2.	Providing and, fixing <b>heavy duty flange type brass double compression type cable gland</b> with rubber ring for PVC insulated armoured cable complete with out going tails, insulating tape etc for following size of cables.				
	(a) 3 core 35/50 Sq. mm	Ea.	58.00	12.00	70.00
	(b) 3 core 70 Sq. mm	Ea.	83.00	12.00	95.00
	(c) 3 core 95 Sq. mm	Ea.	122.00	23.00	145.00
	(d) 3 core 120 Sq. mm	Ea.	142.00	23.00	165.00
	(e) 3 core 150 Sq. mm	Ea.	162.00	23.00	185.00
	(f) 3 core 185 Sq. mm	Ea.	195.00	40.00	235.00
4-6-3.	Providing and, fixing <b>heavy duty flange type brass double compression type cable gland</b> with rubber ring for PVC insulated armoured cable complete with out going tails, insulating tape etc for following size of cables.				
	(A) 3 & 1/2 / 4 core 25 Sq. mm	Ea.	58.00	12.00	70.00
	(B) 3 & 1/2 core 35/50 Sq. mm	Ea.	68.00	12.00	80.00
	(C) 3 & 1/2 core 70 Sq. mm	Ea.	93.00	17.00	110.00
	(D) 3 & 1/2 core 95 Sq. mm	Ea.	117.00	23.00	140.00
	(E) 3 & 1/2 core 120 Sq. mm	Ea.	127.00	23.00	150.00
	(F) 3 & 1/2 core 150 Sq. mm	Ea.	170.00	35.00	205.00
	(G) 3 & 1/2 core 185 Sq. mm	Ea.	220.00	35.00	255.00
	(H) 3 & 1/2 core 240 Sq. mm	Ea.	230.00	35.00	265.00
	(I) 3 & 1/2 core 300 Sq. mm	Ea.	255.00	45.00	300.00
	(J) 3 & 1/2 core 400 Sq. mm	Ea.	350.00	45.00	395.00
	(K) 3 & 1/2 core 500 Sq. mm	Ea.	440.00	60.00	500.00

### SECTION 4-7 CABLE LUGS.

4-7-1.	Solder less crimping type <b>Aluminium lugs conforming to IS</b> suitable for cable of following size evenly crimped with high pressure tool & connected to switchgear terminals with brass/cadmium plated nut bolts in an approved manner.				
	(A) 1.5/ 2.5/4/6 Sq. mm	Ea.	4.00	1.00	5.00
	(B) 10 Sq. mm	Ea.	10.00	2.00	12.00
	(C) 16/25 Sq. mm.	Ea.	12.00	3.00	15.00
	(D) 35/50 Sq. mm.	Ea.	17.00	3.00	20.00
	(E) 70 Sq. mm.	Ea.	19.00	6.00	25.00
	(F) 95 Sq. mm.	Ea.	28.00	12.00	40.00

Item No	Description
(G)	10 S
(H)	150 S
(I)	15 S
(J)	225 S
(K)	300 S
(L)	400 S
(M)	500 S
4-7-2.	Solder less crimping type conforming to IS suitable for cable of following size evenly crimped with high pressure tool & connected to switchgear terminals with brass/cadmium plated nut bolts in an approved manner.
(A)	1/2
(B)	10 S
(C)	S
(D)	25 S
(E)	50
(F)	70 S
(G)	S
(H)	120 S
(I)	1 S
(J)	185 S
(K)	S
4-8-1.	Providing and, fixing <b>heavy duty flange type brass double compression type cable gland</b> with rubber ring for PVC insulated armoured cable complete with out going tails, insulating tape etc for following size of cables.
(A)	Suita
(B)	Suita
(C)	Suita
(D)	Suita
(E)	Suita
(F)	Suita
4-8-2.	Providing and, fixing <b>heavy duty flange type brass double compression type cable gland</b> with rubber ring for PVC insulated armoured cable complete with out going tails, insulating tape etc for following size of cables.
(A)	3 c
(B)	3 cc
(C)	3 c
(D)	3 cc
4-8-3.	Providing and, fixing <b>heavy duty flange type brass double compression type cable gland</b> with rubber ring for PVC insulated armoured cable complete with out going tails, insulating tape etc for following size of cables.
(A)	tc

0.00	8000.00
0.00	9000.00
2.00	35.00
2.00	40.00
2.00	40.00
2.00	50.00
1.00	55.00
30.00	70.00
10.00	95.00
10.00	145.00
10.00	165.00
0.00	185.00
0.00	235.00
70.00	
80.00	
110.00	
140.00	
150.00	
205.00	
255.00	
265.00	
300.00	
395.00	
500.00	
5.00	
12.00	
15.00	
20.00	
25.00	
40.00	

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	(G) 120 Sq.mm.	Ea.	33.00	12.00	45.00
	(H) 150 Sq.mm.	Ea.	48.00	12.00	60.00
	(I) 185 Sq.mm.	Ea.	63.00	17.00	80.00
	(J) 225 Sq.mm.	Ea.	68.00	17.00	85.00
	(K) 300 Sq.mm.	Ea.	77.00	23.00	100.00
	(L) 400 Sq.mm.	Ea.	87.00	23.00	110.00
	(M) 500 Sq.mm.	Ea.	122.00	23.00	145.00
4-7-2.	Solder less crimping type Copper lugs conforming to IS suitable for cable of following size evenly crimped with high pressure tool & connected to switchgear terminals with brass/cadmium plated nut bolts in an approved manner.				
	(A) 1.5/2.5 to 6 Sq.mm	Ea.	7.00	1.00	8.00
	(B) 10 Sq.mm	Ea.	8.00	2.00	10.00
	(C) 16 Sq.mm.	Ea.	9.00	3.00	12.00
	(D) 25 Sq.mm.	Ea.	12.00	3.00	15.00
	(E) 35/50 Sq.mm.	Ea.	16.00	6.00	22.00
	(F) 70 Sq.mm.	Ea.	22.00	6.00	28.00
	(G) 95 Sq.mm.	Ea.	38.00	12.00	50.00
	(H) 120 Sq.mm.	Ea.	48.00	12.00	60.00
	(I) 150 Sq.mm.	Ea.	88.00	12.00	100.00
	(J) 185 Sq.mm.	Ea.	113.00	17.00	130.00
	(K) 225 Sq.mm.	Ea.	128.00	17.00	145.00
<b>SECTION 4-8</b>					
4-8-1.	Providing and erecting 18 G. M.S. Cable end termination box, indoor type suitable for switch complete erected with clamp, bolt, nut etc.. of following size of TPN.				
	(A) Suitable for 63/100 Amp. TPN	Ea.	450.00	80.00	530.00
	(B) Suitable for 200 Amp. TPN	Ea.	655.00	125.00	780.00
	(C) Suitable for 250/300 Amp. TPN	Ea.	750.00	130.00	880.00
	(D) Suitable for 400 Amp. TPN	Ea.	1130.00	150.00	1280.00
	(E) Suitable for 600 Amp. TPN	Ea.	1700.00	150.00	1850.00
	(F) Suitable for 800 Amp. TPN	Ea.	1740.00	150.00	1890.00
4-8-2.	Providing and erecting 18 G. M.S. termination box outdoor type suitable for- 1.1 KV PVC insulated armoured cable complete erected with clamp, bolts, nuts etc. suitable of following size of cables.				
	(A) 3 core 70 / 95 Sq. mm	Ea.	630.00	160.00	790.00
	(B) 3 core 120 / 150 / 185 Sq. mm	Ea.	900.00	160.00	1060.00
	(C) 3 core 240 / 300 Sq. mm	Ea.	1500.00	170.00	1670.00
	(D) 3 core 400 / 500 Sq. mm	Ea.	1910.00	170.00	2080.00
4-8-3.	Providing and erecting Epoxy Outdoor / Indoor end termination Kit suitable for LT PVC insulated armoured cable 1.1 KV grade complete with ferrule bushing and accessories and suitable clamps duly erected and connected to the supply for all cores cables of following size.				
	(A) 2.5 to 16 Sq. mm	Ea.	330.00	115.00	445.00



Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	(B) 25 to 50 Sq. mm	Ea.	370.00	115.00	485.00
	(C) 70 to 120 Sq. mm	Ea.	452.00	173.00	625.00
	(D) 150 / 185 Sq. mm	Ea.	675.00	230.00	905.00
	(E) 240 / 300 Sq. mm	Ea.	827.00	288.00	1115.00
	(F) 400 / 500 Sq. mm	Ea.	1032.00	288.00	1320.00

### SECTION 4-9 CABLE JOINTS

4-9-1.	Disconnecting the cable connection and Providing <b>straight joint</b> with PVC mould using heat shrink /cast resin type epoxy compound Insulating material and making the joint complete using necessary in line connectors, hardener, earth continuity connection, spacers etc. and reconnecting the same & ensure the joint resistance within the limits as per IS.				
	(A) up to 25 Sq mm Cable	Ea.	920.00	345.00	1265.00
	(B) 35 to 95 Sq. mm cable.	Ea.	1350.00	460.00	1810.00
	(C) 120 to 300 Sq. mm cable.	Ea.	2410.00	690.00	3100.00
4-9-2.	Disconnecting the cable connection and Providing <b>T joint</b> with PVC mould using heat shrink /cast resin type epoxy compound Insulating material and making the joint complete using necessary in line connectors, hardener, earth continuity connection, spacers etc. and reconnecting the same & ensure the joint resistance within the limits as per IS.				
	(A) up to 25 Sq mm Cable	Ea.	1240.00	400.00	1640.00
	(B) 35 to 95 Sq. mm cable.	Ea.	1700.00	520.00	2220.00
	(C) 120 to 300 Sq. mm cable.	Ea.	2620.00	920.00	3540.00

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Cost	Total
15.00	485.00
7.00	625.00
30.00	905.00
9.00	1115.00
38.00	1320.00

1.00	1265.00
1.00	1810.00
1.00	3100.00
10.00	1640.00
10.00	2220.00
10.00	3540.00



Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
<b>4-10 / GRP CABLE TRAYS</b>					
4-10-1	<p>Supplying and erecting approved make GRP Ladder type Cable Tray</p> <p>Material – Corrosion Resistant Polyester Flame Retardant U.V. Stabilized Resin System - Manufactured from Pultruded Sections - Polyester Resin System, Glass Content : 55 – 60 % - Thickness- Rung Sq. Hollow Tube 25mm x 25mm - Fixing of Rung to Side Rail with Thermoplastic Pin &amp; Epoxy Adhesive, Assembly Single Stroke 3 Mtr. Length- Rung Spacing – 300mm - Length of Tray: 3000mm- Support Span – 2500mm, Deflection L/200 or &lt; 10mm whichever is less - Specification Followed NEMA FG1 1993- UV Resistant - Flame Retardant – IS 6746 - Appendix K/UL 94, Very Low Flammability - Oxygen Index – Minimum 30% as per ASTM D 2863</p> <p>Flame Spread (Extent of Burning) – 20mm as per Standard ASTM D 635 - Tensile Strength – 4000 – 8000 Kg/Cm2 as per Standard ASTM D 638 - Flexural Strength – 2500 – 10000 Kg/Cm2 as per Standard ASTM D 790- Izod Impact Strength – 130 Kg/Cm2 as per Standard ASTM D 256- Compressive Strength – 2500 – 5000 Kg/Cm2 as per Standard ASTM D 695- Barcol Hardness – 50 – 65</p>	Mtr	550.00	30.00	580.00
	(A) Width 150 mm, Side Member "C" Section : 75 x 25 x 25mm with 4mm Thickness, Loading 30Kg./Mtr. With Concentrated Load 70Kg. at center of the span	Rmt.	550.00	30.00	580.00
	(B) Width 300 mm, Side Member "C" Section : 100 x 35 x 35mm with 4mm Thickness, Loading 60Kg./Mtr. With Concentrated Load 70Kg. at center of the span	Rmt.	710.00	40.00	750.00
	(C) Width 450 mm, Side Member "C" Section : 100 x 35 x 35mm with 4mm Thickness, Loading 75Kg./Mtr. With Concentrated Load 70Kg. at center of the span	Rmt.	810.00	40.00	850.00
	(D) Width 600 mm, Side Member "C" Section : 100 x 35 x 35mm with 4mm Thickness, Loading 90Kg./Mtr. With Concentrated Load 70Kg. at center of the span	Rmt.	870.00	50.00	920.00
	(E) Width 750 mm, Side Member "C" Section : 100 x 35 x 35mm with 4mm Thickness, Loading 120Kg./Mtr. With Concentrated Load 70Kg. at center of the span	Rmt.	950.00	50.00	1000.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
4-10-2	<p>Supplying and erecting approved make <b>GRP Perforated type Cable Tray</b></p> <p>Material - Corrosion Resistant Polyester Flame Retardant U.V. Stabilized Resin System - Manufactured from Pultruded Sections- Polyester Resin System. Glass Content : 55 - 60 % - Standard Length : 3000mm- Support Span - 1500mm, Deflection L/200 - Specification NEMA FG1 1993- UV Resistant - Flame Retardant - IS 6746 - Appendix K/UL 94, Very Low Flammability - Specification Followed NEMA FG1 1993</p> <p>Oxygen Index - Minimum 30% as per ASTM D 2863 - Flame Spread (Extent of Burning) - 20mm as per Standard ASTM D 635 - Tensile Strength - 4000 - 8000 Kg/Cm<sup>2</sup> as per Standard ASTM D 638 - Flexural Strength - 2500 - 10000 Kg/Cm<sup>2</sup> as per Standard ASTM D 790- Izod Impact Strength - 130 Kg/Cm<sup>2</sup> as per Standard ASTM D 256- Compressive Strength - 2500 - 5000 Kg/Cm<sup>2</sup> as per Standard ASTM D 695- Barcol Hardness - 50 - 65</p>				
	(A) <b>Width - 50mm</b> , Pultruded "C" Channel with 30mm Sides 2.5mm Thickness, Loading 5 Kg./Mtr.	Rmt.	120.00	10.00	130.00
	(B) <b>Width - 75mm</b> , Pultruded "C" Channel with 25mm Sides 3 mm Thickness, Loading 7 Kg./Mtr.	Rmt.	160.00	10.00	170.00
	(C) <b>Width - 100mm</b> , Pultruded "C" Channel with 35mm Sides 3mm Thickness, Loading 12 Kg./Mtr.	Rmt.	200.00	10.00	210.00
	(D) <b>Width - 150mm</b> , Pultruded "C" Channel with 30mm Sides 3mm Thickness, Loading 15 Kg./Mtr.	Rmt.	260.00	10.00	270.00
	(E) <b>Width - 200mm</b> , Pultruded "C" Channel with 40mm Sides 4mm Thickness, Loading 25 Kg./Mtr.	Rmt.	470.00	20.00	490.00
	(F) <b>Width - 300mm</b> , Pultruded "C" Channel with 50mm Sides 4mm Thickness, Loading 30 Kg./Mtr.	Rmt.	600.00	20.00	620.00
4-10-3-A	<p><b>GRP Cable Trays Accessories</b></p> <p>- Manufactured from Pultruded Sections</p> <p>- Joining GRP Straight <b>Coupler Plates Size: 200 x 25 x 4mm</b> Th. with 4 sets of SS304 Hardware size: M6 X 25 for Perforated Type Tray</p>	Ea.	45.00	5.00	50.00
4-10-3-B	<p>GRP Cable Trays Accessories</p> <p>- Manufactured from Pultruded Sections</p> <p>- Joining GRP Straight <b>Coupler Plates Size: 200 x 70 x 4mm</b> Th. with 8 sets of SS304 Hardware size: M6 X 25 for Ladder Type Tray</p>	Ea.	85.00	5.00	90.00



4-10-4  
Supplying and erecting approved make GRP Perforated type Cable Tray with the following specifications: Material - Corrosion Resistant Polyester Flame Retardant U.V. Stabilized Resin System - Manufactured from Pultruded Sections- Polyester Resin System. Glass Content : 55 - 60 % - Standard Length : 3000mm- Support Span - 1500mm, Deflection L/200 - Specification NEMA FG1 1993- UV Resistant - Flame Retardant - IS 6746 - Appendix K/UL 94, Very Low Flammability - Specification Followed NEMA FG1 1993

Oxygen Index - Minimum 30% as per ASTM D 2863 - Flame Spread (Extent of Burning) - 20mm as per Standard ASTM D 635 - Tensile Strength - 4000 - 8000 Kg/Cm<sup>2</sup> as per Standard ASTM D 638 - Flexural Strength - 2500 - 10000 Kg/Cm<sup>2</sup> as per Standard ASTM D 790- Izod Impact Strength - 130 Kg/Cm<sup>2</sup> as per Standard ASTM D 256- Compressive Strength - 2500 - 5000 Kg/Cm<sup>2</sup> as per Standard ASTM D 695- Barcol Hardness - 50 - 65

(A) Over 46 mm I mm + 3  
(B) Over 56 mm I 76 mm ±  
(C) Over 70 mm I 110mm  
(D) Over 105 mm I 130 mm

Cost of Labour	Total	Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
		4-10-4	Supplying and erecting of <b>Glass Fibber Filled Moulded Single Core Cable Cleats</b> with Ms Zinc Passivated hardware having following specifications :• The material used in Single clamp is Thermoplastic, U.V Stabilized system & Glass Fibbers as reinforcement. Glass Content 15 – 30%.• It should be connected with MS Zinc passivated hardware of size M10 for clamping.• It should generally be made as per BS EN 50368/2003 specification for cable cleat for Electrical Installation.• The tensile strength of the material at yield is 800 – 1200 Kg/ cm <sup>2</sup> .• The Flexural strength of the material at yield is 1000 – 1600 Kg/ cm <sup>2</sup> .• The Izod Impact strength of the material at yield is 50 – 60 J/M.				
			[A] Overall Dia of cable in mm: Min 42 to Max 46 mm Hole centre of Mounting Distance : 65 mm ± 3 mm	Ea.	175.00	5.00	180.00
			[B] Overall Dia of cable in mm: Min 52 to Max 56 mm Hole centre of Mounting Distance : 76mm ± 5 mm	Ea.	225.00	5.00	230.00
			[C] Overall Dia of cable in mm: Min 64 to Max 70 mm Hole centre of Mounting Distance : 110mm ± 5 mm	Ea.	275.00	5.00	280.00
			[D] Overall Dia of cable in mm: Min 85 to Max 105 mm Hole centre of Mounting Distance : 130mm ± 10mm	Ea.	385.00	5.00	390.00

130.00
170.00
210.00
270.00
490.00
620.00
50.00
90.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
<b>SECTION 4-11 METAL PERFORATED CABLE TRAYS</b>					
4-11-1	Providing and fixing approved make <b>Perforated C type cable tray</b> . Made from sheet steel. The cable tray should be single or double bended as per required and as per IS 2062/1079 and shall be coated with hot dip galvanizing as per IS 2629/4759. with max 17.5% perforation with coupler plate / Fish plate and GI hardware like nut - bolt and washers etc. erection with necessary support( included) as per Specification and as per instruction of engineer in charge.				
	(1) 50 X 50 X 1.6 mm Thick	Rmt.	320.00	35.00	355.00
	(2) 100 X 50 X 1.6 mm Thick	Rmt.	385.00	35.00	420.00
	(3) 150 X 50 X 1.6 mm Thick	Rmt.	455.00	40.00	495.00
	(4) 200 X 50 X 1.6 mm Thick	Rmt.	540.00	40.00	580.00
	(5) 300 X 50 X 2.0 mm Thick	Rmt.	680.00	45.00	725.00
	(6) 450 X 50 X 2.0 mm Thick	Rmt.	890.00	45.00	935.00
	(7) 600 X 50 X 2.0 mm Thick	Rmt.	1120.00	55.00	1175.00
	(8) 750 X 50 X 2.0 mm Thick	Rmt.	1330.00	65.00	1395.00
4-11-2	Providing and fixing approved make 'T' <b>Junction</b> for Perforated C type cable tray. Made from sheet steel. The Junction should be bended as per IS 2062/1079 and shall be coated with hot dip galvanizing as per IS 2629/4759. with max 17.5% perforation with coupler plate / Fish plate and GI hardware like nut - bolt and washers etc. erected on existing support as per Specification and as per instruction of engineer in charge.. OF FOLLOWING SIZE				
	(1) 50 X 50 X 1.6 mm Thick	Ea.	155.00	15.00	170.00
	(2) 100 X 50 X 1.6 mm Thick	Ea.	170.00	15.00	185.00
	(3) 150 X 50 X 1.6 mm Thick	Ea.	195.00	20.00	215.00
	(4) 200 X 50 X 1.6 mm Thick	Ea.	230.00	20.00	250.00
	(5) 300 X 50 X 2.0 mm Thick	Ea.	315.00	25.00	340.00
	(6) 450 X 50 X 2.0 mm Thick	Ea.	615.00	25.00	640.00
	(7) 600 X 50 X 2.0 mm Thick	Ea.	930.00	30.00	960.00
	(8) 750 X 50 X 2.0 mm Thick	Ea.	1260.00	40.00	1300.00
4-11-3	Providing and fixing approved make '90° <b>Elbow</b> ' for Perforated C type cable tray. Made from sheet steel. The Junction should be bended as per IS 2062/1079 and shall be coated with hot dip galvanizing as per IS 2629/4759. with coupler plate / Fish plate and GI hardware like nut - bolt and washers etc. erected on existing support as per Specification and as per instruction of engineer in charge.				
	(1) 50 X 50 X 1.6 mm Thick 90° Elbow	Ea	100.00	15.00	115.00
	(2) 100 X 50 X 1.6 mm Thick 90° Elbow	Ea	120.00	15.00	135.00
	(3) 150 X 50 X 1.6 mm Thick 90° Elbow	Ea	170.00	20.00	190.00
	(4) 200 X 50 X 1.6 mm Thick 90° Elbow	Ea	180.00	20.00	200.00

Item No.	Description	Unit	Cost of Materials	Cost of Labour	Total
(5)	300 X 50 X 2.0 mm Thick 90° Elbow	Ea.	260.00	25.00	285.00
(6)	450 X 50 X 2.0 mm Thick 90° Elbow	Ea.	495.00	25.00	520.00
(7)	600 X 50 X 2.0 mm Thick 90° Elbow	Ea.	780.00	30.00	810.00
(8)	750 X 50 X 2.0 mm Thick 90° Elbow	Ea.	1070.00	40.00	1110.00
4-11-4	Providing and fixing approved make 'Cross over Junction' for Perforated C type cable tray. Made from sheet steel. The Junction should be bended as per IS 2062/1079 and shall be coated with hot dip galvanizing as per IS 2629/4759. with max 17.5% perforation with coupler plate / Fish plate and GI hardware like nut - bolt and washers etc. erected on existing support as per Specification and as per instruction of engineer in charge..				
1	50 X 50 X 1.6 mm Thick Cross Junction	Ea.	210	15.00	225.00
2	100 X 50 X 1.6 mm Thick Cross Junction	Ea.	235	15.00	250.00
3	150 X 50 X 1.6 mm Thick Cross Junction	Ea.	265	20.00	285.00
4	200 X 50 X 1.6 mm Thick Cross Junction	Ea.	310	20.00	330.00
5	300 X 50 X 2.0mm Thick Cross Junction	Ea.	410	25.00	435.00
6	450 X 50 X 2.0 mm Thick Cross Junction	Ea.	760	25.00	785.00
7	600 X 50 X 2.0 mm Thick Cross Junction	Ea.	1120	30.00	1150.00
8	750 X 50 X 2.0 mm Thick Cross Junction	Ea.	1270	40.00	1310.00
4-11-5	Providing and fixing approved make Perforated C type cable tray. Made from pre-galvanized sheet steel. The cable tray should be bended as per IS 2062/1079 . with max 17.5% perforation with coupler plate / Fish plate and GI hardware like nut - bolt and washers etc. erected on existing support as per Specification and as per instruction of engineer in charge..				
1	50 X 50 X 1.5 mm Thick	Rmt	240	30.00	270.00
2	100 X 50 X 1.5 mm Thick	Rmt	290	30.00	320.00
3	150 X 50 X 1.5 mm Thick	Rmt	340	35.00	375.00
4	200 X 50 X 1.5 mm Thick	Rmt	410	35.00	445.00
5	300 X 50 X 1.5 mm Thick	Rmt	510	40.00	550.00
6	450 X 50 X 1.5 mm Thick	Rmt	670	40.00	710.00
7	600 X 50 X 1.5 mm Thick	Rmt	845	50.00	895.00
8	750 X 50 X 1.5 mm Thick	Rmt	1000	60.00	1060.00
4-11-6	Providing and fixing approved make 'T' Junction for Perforated C type cable tray. Made from pre galvanized sheet steel. The Junction should be bended as per IS 2062/1079. with max 17.5% perforation with coupler plate / Fish plate and GI hardware like nut - bolt and washers etc. erected on existing support as per Specification and as per instruction of engineer in charge..				
A	T' Junction				
1a	50 X 50 X 1.6 mm Thick 'T' Junction	Ea.	120	15.00	135.00
2a	100 X 50 X 1.6 mm Thick 'T' Junction	Ea.	145	15.00	160.00
3a	150 X 50 X 1.6 mm Thick 'T' Junction	Ea.	175	20.00	195.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
4a	200 X 50 X 1.6 mm Thick 'T' Junction	Ea.	195	20.00	215.00
5a	300 X 50 X 2.0 mm Thick 'T' Junction	Ea.	265	25.00	290.00
6a	450 X 50 X 2.0 mm Thick 'T' Junction	Ea.	510	25.00	535.00
7a	600 X 50 X 2.0 mm Thick 'T' Junction	Ea.	770	30.00	800.00
8a	750 X 50 X 2.0 mm Thick 'T' Junction	Ea.	1040	40.00	1080.00
4-11-7	Providing and fixing approved make '90° Elbow' for Perforated C type cable tray. Made from <b>pre galvanized</b> sheet steel. The Junction should be bended as per IS 2062/1079. with coupler plate / Fish plate and GI hardware like nut - bolt and washers etc. erected on existing support as per Specification and as per instruction of engineer in charge.				
B	<b>90° Elbow</b>				
1	50 X 50 X 1.6 mm Thick 90° Elbow	Ea.	95	15.00	110.00
2	100 X 50 X 1.6 mm Thick 90° Elbow	Ea.	110	15.00	125.00
3	150 X 50 X 1.6 mm Thick 90° Elbow	Ea.	150	20.00	170.00
4	200 X 50 X 1.6 mm Thick 90° Elbow	Ea.	160	20.00	180.00
5	300 X 50 X 2.0 mm Thick 90° Elbow	Ea.	230	25.00	255.00
6	450 X 50 X 2.0 mm Thick 90° Elbow	Ea.	445	25.00	470.00
7	600 X 50 X 2.0 mm Thick 90° Elbow	Ea.	690	30.00	720.00
8	750 X 50 X 2.0 mm Thick 90° Elbow	Ea.	950	40.00	990.00
4-11-8	Providing and fixing approved make 'Cross over Junction' for Perforated C type cable tray. Made from <b>pre galvanized</b> sheet steel. The Junction should be bended as per IS 2062/1079 with max 17.5% perforation and shall be coated with hot dip galvanizing as per IS 2629/4759. with coupler plate / Fish plate and GI hardware like nut - bolt and washers etc. erected on existing support as per Specification and as per instruction of engineer in charge.				
C	<b>Cross Junction</b>				
1	50 X 50 X 1.6 mm Thick Cross Junction	Ea.	175	15.00	190.00
2	100 X 50 X 1.6 mm Thick Cross Junction	Ea.	195	15.00	210.00
3	150 X 50 X 1.6 mm Thick Cross Junction	Ea.	225	20.00	245.00
4	200 X 50 X 1.6 mm Thick Cross Junction	Ea.	250	20.00	270.00
5	300 X 50 X 2.0 mm Thick Cross Junction	Ea.	335	25.00	360.00
6	450 X 50 X 2.0 mm Thick Cross Junction	Ea.	625	25.00	650.00
7	600 X 50 X 2.0 mm Thick Cross Junction	Ea.	920	30.00	950.00
8	750 X 50 X 2.0 mm Thick Cross Junction	Ea.	1050	40.00	1090.00
4-11-9	Providing and fixing approved make <b>Ladder type cable tray</b> . Made from M.S sheet. The cable tray should be bended as per IS 2062/1079 shall be fabricated of double bended channel section longitudinal members with single bended Channel section. Rungs of members welded to the base of the longitudinal members at 250 mm c/c spacing, as per IS and shall be coated with hot dip galvanizing as per IS 2629/4759. with coupler plate / Fish plate and GI hardware like nut - bolt and washers etc. erected on existing support as per Specification and as per instruction of engineer in charge.				

of	Total
0.00	215.00
5	290.00
5.00	535.00
0	800.00
0.00	1080.00
00	110.00
00	125.00
30	170.00
70	180.00
30	255.00
30	470.00
30	720.00
30	990.00
190.00	
210.00	
245.00	
270.00	
360.00	
650.00	
950.00	
1090.00	

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
1	150 X 50 X 1.6 mm Thick	Mtr	290	35.00	325.00
2	200 X 50 X 1.6 mm Thick	Mtr.	300	35.00	335.00
3	300 X 50 X 2.0 mm Thick	Mtr.	320	40.00	360.00
4	400 X 50 X 2.0 mm Thick	Mtr.	355	40.00	395.00
5	500 X 50 X 2.0 mm Thick	Mtr.	475	45.00	520.00
6	600 X 50 X 2.0 mm Thick	Mtr.	500	50.00	550.00
7	700 X 50 X 2.0 mm Thick	Mtr.	550	55.00	605.00
8	150 X 100 X 1.6 mm Thick	Mtr.	575	35.00	610.00
9	200 X 100 X 1.6 mm Thick	Mtr.	590	35.00	625.00
10	300 X 100 X 2.0 mm Thick	Mtr.	610	40.00	650.00
11	400 X 100 X 2.0 mm Thick	Mtr.	690	40.00	730.00
12	500 X 100 X 2.0 mm Thick	Mtr.	730	45.00	775.00
13	600 X 100 X 2.0 mm Thick	Mtr.	760	50.00	810.00
14	700 X 100 X 2.0 mm Thick	Mtr.	815	55.00	870.00
15	800 X 100 X 2.0 mm Thick	Mtr.	870	65.00	935.00
16	900 X 100 X 2.0 mm Thick	Mtr.	950	70.00	1020.00
4-11-10	Providing and fixing approved make 'T' Junction for ladder type cable tray. Made from M.S sheet steel. The Junction should be bended as per IS 2062/1079. with coupler plate / Fish plate and GI hardware like nut - bolt and washers etc. erected on existing support as per Specification and as per instruction of engineer in charge..				
A	<b>T' Junction</b>				
1	150 X 50 X 1.6 mm Thick 'T' Junction	Ea	225	15.00	240.00
2	200 X 50 X 1.6 mm Thick 'T' Junction	Ea	245	20.00	265.00
3	300 X 50 X 2.0 mm Thick 'T' Junction	Ea.	290	20.00	310.00
4	400 X 50 X 2.0 mm Thick 'T' Junction	Ea.	335	25.00	360.00
5	500 X 50 X 2.0 mm Thick 'T' Junction	Ea.	430	25.00	455.00
6	600 X 50 X 2.0 mm Thick 'T' Junction	Ea.	520	30.00	550.00
7	700 X 50 X 2.0 mm Thick 'T' Junction	Ea.	595	40.00	635.00
8	150 X 100 X 1.5 mm Thick 'T' Junction	Ea	710	20.00	730.00
9	200 X 100 X 1.5 mm Thick 'T' Junction	Ea.	750	20.00	770.00
10	300 X 100 X 2.0 mm Thick 'T' Junction	Ea.	800	25.00	825.00
11	400 X 100 X 2.0 mm Thick 'T' Junction	Ea.	980	25.00	1005.00
12	500 X 100 X 2.0 mm Thick 'T' Junction	Ea	1110	30.00	1140.00
13	600 X 100 X 2.0 mm Thick 'T' Junction	Ea.	1230	40.00	1270.00
14	700 X 100 X 2.0 mm Thick 'T' Junction	Ea.	1350	45.00	1395.00
15	800 X 100 X 2.0 mm Thick 'T' Junction	Ea.	1510	50.00	1560.00
16	900 X 100 X 2.0 mm Thick 'T' Junction	Ea	1650	50.00	1700.00
4-11-11.	Providing and fixing approved make '90° Elbow' for ladder type cable tray. Made from M.S sheet steel. The Junction should be bended as per IS 2062/1079. with coupler plate / Fish plate and GI hardware like nut - bolt and washers etc. erected on existing support as per Specification and as per instruction of engineer in charge..				
1	150 X 50 X 1.6 mm Thick	Ea	180	15.00	195.00
2	200 X 50 X 1.6 mm Thick	Ea	200	20.00	220.00
3	300 X 50 X 2.0 mm Thick	Ea.	245	20.00	265.00
4	400 X 50 X 2.0 mm Thick	Ea.	290	25.00	315.00
5	500 X 50 X 2.0 mm Thick	Ea.	450	25.00	475.00
6	600 X 50 X 2.0 mm Thick	Ea.	510	30.00	540.00
7	700 X 50 X 2.0 mm Thick	Ea	670	40.00	710.00
8	150 X 100 X 1.6 mm Thick	Ea	495	20.00	515.00
9	200 X 100 X 1.6 mm Thick	Ea	530	20.00	550.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
10	300 X 100 X 2.0 mm Thick	Ea.	600	25.00	625.00
11	400 X 100 X 2.0 mm Thick	Ea.	720	25.00	745.00
12	500 X 100 X 2.0 mm Thick	Ea.	820	30.00	850.00
13	600 X 100 X 2.0 mm Thick	Ea.	910	40.00	950.00
14	700 X 100 X 2.0 mm Thick	Ea.	990	45.00	1035.00
15	800 X 100 X 2.0 mm Thick	Ea.	1100	50.00	1150.00
16	900 X 100 X 2.0 mm Thick]	Ea.	1190	50.00	1240.00
4-11-12	Providing and fixing approved make 'Cross over Junction' for ladder type cable tray. Made from sheet steel. The Junction should be bended as per IS 2062/1079 and shall be coated with hot dip galvanizing as per IS 2629/4759. with coupler plate / Fish plate and GI hardware like nut - bolt and washers etc. erected on existing support as per Specification and as per instruction of engineer in charge.				
1	150 X 50 X 1.6mm Thick	Ea.	335	15.00	350.00
2	200 X 50 X 1.6 mm Thick	Ea.	350	20.00	370.00
3	300 X 50 X 2.0 mm Thick	Ea.	400	20.00	420.00
4	400 X 50 X 2.0 mm Thick	Ea.	445	25.00	470.00
5	500 X 50 X 2.0 mm Thick	Ea.	665	25.00	690.00
6	600 X 50 X 2.0 mm Thick	Ea.	470	30.00	500.00
7	700 X 50 X 2.0 mm Thick	Ea.	815	40.00	855.00
8	150 X 100 X 1.6 mm Thick	Ea.	840	20.00	860.00
9	200 X 100 X 1.6 mm Thick	Ea.	875	20.00	895.00
10	300 X 100 X 2.0 mm Thick	Ea.	945	25.00	970.00
11	400 X 100 X 2.0 mm Thick	Ea.	1110	25.00	1135.00
12	500 X 100 X 2.0 mm Thick	Ea.	1230	30.00	1260.00
13	600 X 100 X 2.0 mm Thick	Ea.	1345	40.00	1385.00
14	700 X 100 X 2.0 mm Thick	Ea.	1470	45.00	1515.00
15	800 X 100 X 2.0 mm Thick	Ea.	1620	50.00	1670.00
16	900 X 100 X 2.0 mm Thick	Ea.	1760	50.00	1810.00

	Total
5.00	625.00
1.00	745.00
0.00	850.00
0.00	950.00
0.00	1035.00
0.00	1150.00
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5-1-1.	Provide Ceiling mark w c/s. 120 ereced earthing Engineer
5-1-2.	Provide Ceiling mark w 1400 m ereced earthing Engineer
5-1-3.	Provide Ceiling mark w 1200 m blades having canopy be pr
5-1-4.	Provide Ceiling mark w Hz. 120 blades having canopy be pr
5-1-5.	Provide Ceiling with Ce mm sw blades, shall be
5-1-6.	Provide Power double Ceiling mm sw aluminum down rc be pr

## CHAPTER - V

# Fans and Accessories

CHAPTER - V Fans and Accessories					
Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
<b>SECTION 5-1 / CEILING FANS AND ACCESSORIES</b>					
5-1-1.	Providing and erecting Approved make <b>Ceiling fan with double ball bearing ISI mark with condenser A.C. 230V.50 c/s.1200 mm. sweep</b> complete, canopy erected on existing hook or clamp with earthing. [Make shall be approved by Engineer in charge]	Ea.	1640.00	60.00	1700.00
5-1-2.	Providing & erecting Approved make <b>Ceiling Fan with double ball bearing ISI mark with condenser A.C.230V 50c/s. 1400 mm. sweep</b> complete, canopy erected on existing hook or clamp with earthing [ Make shall be approved by Engineer in Charge]	Ea.	1790.00	60.00	1850.00
5-1-3.	Providing & erecting Approved make <b>Ceiling Fan with double ball bearing ISI mark with Condenser 230 volt A.C.50 Hz 1200 mm sweep</b> complete having <b>3 blades</b> aluminium body and blade sets having <b>ornamental design shanks</b> , canopy erected with earthing. [ Make shall be approved by Engineer in Charge]	Ea.	2400.00	60.00	2460.00
5-1-4.	Providing & erecting Approved make <b>Ceiling Fan with double ball bearing ISI mark with Condenser 230 volt A.C.50 Hz. 1200 mm sweep</b> complete having <b>4 blades</b> Aluminium body and blade sets having <b>ornamental design shanks</b> , canopy erected with earthing [ Make shall be approved by Engineer in Charge]	Ea.	2450.00	60.00	2510.00
5-1-5.	Providing & erecting Approved make <b>Ceiling Fan with double ball bearing with Condenser 230 volt A.C.50 Hz. 900 mm sweep</b> complete having 3 Aluminium blades, canopy erected complete. [ Make shall be approved by Engineer in Charge]	Ea.	2048.00	60.00	2108.00
5-1-6.	Providing & erecting Approved make <b>Power Saving 50 Watt Ceiling Fan with double ball bearing ISI mark with Condenser 230 volt A.C. 50 Hz 1200 mm sweep</b> complete having 3blades with aluminium blades with , canopy & 30 cm. down rod erected with earthing (Make shall be approved by Engineer in charge))	Ea.	2010.00	60.00	2070.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
5-1-6-1	Providing and erecting <b>BEE certified 3 star and Approved make 40 Watt Ceiling fan with Double ball bearing ISI mark with condenser A.C. 230V.50 Hz 1200 mm.</b> sweep complete having 3 blades with Aluminium blades with canopy erected on existing hook or clamp with earthing. [Make shall be approved by Engineer in charge]	Ea.	1600.00	60.00	1660.00
5-1-6-2	Supply, Installation, Testing and Commissioning of suitable sweep, <b>BEE 5 Star rated, Ceiling fan with Brush Less Direct Current (BLDC) permanent ferrite magnet Motor, class of insulation: B, Rust free 3 nos Aluminium blades, 2 nos. canopies, shackle kit with earthing provision, 22 gauge copper winding, Power factor not &lt; 0.9, Service Value (CMM/W) minimum 6.85, Air delivery minimum 215 CMM, 350 RPM,230v (tolerance as per IS : 374-2019), THD &lt; 10%, remote or electronic regulator unit for Speed Control and all remaining accessories including safety pin, nut bolts, washers, temperature rise = 75 degree C (Max.), suitable for 140 to 285 Voltage and rectifier circuit with surge, over current and overload protection , 50 Hz, Single phase AC Supply, earthing etc. Complete as required.[ Make shall be approved by Engineer in Charge] A)900 mm sweep</b>	Ea.			
	(A)900mmsweep (36")	Ea.	2900.00	60.00	2960.00
	(A) 1200 mm Sweep (48")	Ea.	2995.00	60.00	3055.00
	(B) 1400 mm Sweep (56")	Ea.	3495.00	60.00	3555.00

Item No	Description
5-2-1.	Supply in nominal down rc complete leakage
5-2-2.	Supply in M.S. To Making 1
5-2-3.	Supply in mm M.S bars up pier and Heavy C complete finishing
5-2-4.	Providing required erected M.S. for
5-2-5.	Providing sheet to
5-3-1.	Supply in 230V, 50 complete flexible v shackle
5-3-2.	Providing dia with with rev
5-3-3.	Cat. Supply in noise d square fi & square
	200mm v
	250mm v
	Cat.

Cost of Labour	Total	Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
<b>SECTION 5-2 FAN ACCESSORIES</b>							
0.00	1660.00	5-2-1.	Supplying and erecting 19 / 20 mm. nominal bore <b>Medium Class M.S. Pipe down rod</b> erected duly painted for fan complete with <b>proper insulation without leakage</b> and earthing.	Mtr.	110.00	15.00	125.00
		5-2-2.	Supplying & erecting <b>Fan Hook of 10 mm M.S. Round bar</b> grouted in RCC slab with Making the site as original.	Ea.	30.00	20.00	50.00
		5-2-3.	Supplying & erecting <b>fan hook box of 10 mm M.S. round bar</b> bounded to the RCC bars up to 50mm length each side and pierced through a 16 Gauge M.S. box / Heavy Duty PVC box complete erected concealed in Ceiling with necessary finishing.	Ea.	110.00	15.00	125.00
		5-2-4.	Providing <b>Fan clamp of 30 x 5 mm flat</b> of required length & 10 mm M.S. Bolt & Nuts erected with necessary hook of 10 mm M.S. Round Bar.	Ea.	100.00	15.00	115.00
		5-2-5.	Providing <b>2.5mm.thick laminated acrylic sheet</b> to cover the fan hook or Fan box.	Ea.	18.00	2.00	20.00
<b>SECTION 5-3</b>							
		5-3-1.	Supplying Table fan approved make A.C. 230V, 50 c/s. <b>40 cm. sweep</b> oscillating complete with 3 mtrs. of 3core round flexible wire and 3 pin plug top. [ Make shall be approved by Engineer in Charge]	Ea.	2150.00	0.00	2150.00
70	2960.00						
10	3055.00						
10	3555.00						
		5-3-2.	Providing & erecting <b>fresh air fan 250 mm dia</b> with square frame make of ABS body with louvers				
			Cat.II	Ea.	1750.00	70.00	1820.00
		5-3-3.	Supplying & erecting approved make <b>low noise decorative exhaust fan</b> having square frame ABS body with inbuilt lowers & square frame.	Ea.	1930.00	60.00	1990.00
			200mm with 1350RPM	Ea.	1930.00	60.00	1990.00
			250mm with 1350 RPM	Ea.	1536.00	60.00	1596.00
			Cat.II				

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
5-3-4	Supplying & erecting <b>single phase approved make industrial exhaust fan</b> suitable for medium duty ring mounted low noise operation suitable for medium duty having following dia size and maximum speed in RPM				
	<b>[A] 305 mm dia 900 RPM</b>				
	Cat.I	Ea	1560.00	40.00	1600.00
	Cat.II	Ea	2360.00	40.00	2400.00
	<b>[B] 380 mm dia 900 RPM</b>				
	Cat.I	Ea	2195.00	55.00	2250.00
	Cat.II	Ea	3145.00	55.00	3200.00
	<b>[C] 380 mm dia 1400 RPM</b>				
	Cat.I	Ea	2345.00	55.00	2400.00
	Cat.II	Ea	3545.00	55.00	3600.00
	<b>[D] 450 mm dia 900 RPM</b>				
	Cat.I	Ea	2645.00	55.00	2700.00
	Cat.II	Ea	3845.00	55.00	3900.00
	<b>[E] 450 mm dia 1400 RPM</b>				
	Cat.I	Ea	2845.00	55.00	2900.00
	Cat.II	Ea	4545.00	55.00	4600.00
5-3-5	Providing suitable <b>M.S. louver shutter</b> of the Exhaust fan.	Ea.	350.00	80.00	430.00
5-3-6	Supplying & erecting <b>electro galvanised G.I. wire micro mesh jali cover of grade 304</b> required size with suitable wooden frame duly fitted in wall outside of exhaust fan for insect protection.	Sq. Mtr	680.00	60.00	740.00
5-3-7	Providing <b>recess in wall or window frame</b> suitable for erection of Exhaust fan complete with plastering and colour washing to match the colour of the wall or window complete with expanded metal in order to render the fitting in accessible and the room water-proof.	Ea.	110.00	110.00	220.00
5-3-8	Providing window <b>frame suitable for erection of Exhaust fan complete</b> covering the remaining portion of window with 15 mm. thick plywood and colour washing to match the colour of the wall.	Ea.	150.00	50.00	200.00
5-3-9	Supplying approved make <b>heat convector</b> two speed motor, thermal cut-out complete with necessary lead Core and plug top.	Ea.	2400.00	0.00	2400.00

Item No  
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Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
<b>SECTION 5-4 BRACKET FANS</b>					
5-4-1	Supplying and erecting approved make Bracket fan of 230 volt, A.C. 50 Cy/s., 400/450 mm sweep complete erected on wall or with lead Cores and connections complete.				
	Cat. I	Ea.	1650.00	60.00	1710.00
	Cat. II	Ea.	2400.00	60.00	2460.00
5-4-2	Supplying and erecting approved make oscillating type bracket fan A.C. 230V. 50cy/s 400/450 mm sweep wall mounted with height adjustment and rotary tilting device complete with guard, flexible Core plug top complete erected with lead wires as directed.				
	Cat. I	Ea.	2400.00	60.00	2460.00
	Cat. II	Ea.	2900.00	60.00	2960.00
5-4-2-1	Supplying and erecting approved make oscillating type medium duty bracket fan with Aluminium Blades A.C. 230V. 50cy/s wall mounted with height adjustment and rotary tilting device complete with guard, mounting accessories kit, pull cord for speed and oscillation flexible Core plug top complete erected with lead wires as directed.				
	(a) 400mm	Ea.			
5-4-2-2	Supplying and erecting approved make oscillating type medium duty bracket fan with Aluminium Blades A.C. 230V. 50cy/s, with wall mounting and rotary tilt guard, pull cord for speed and oscillation flexible Core plug top complete erected with lead wires as directed.				
	(a) 450mm			70.00	400.00
5-4-2-3	Supplying and erecting approved make double ball bearing Heavy duty bracket fan with Aluminium Blades A.C. 230V. 50cy/s wall mounted with height adjustment and rotary tilting device complete with guard, mounting accessories kit, pull cord for speed and oscillation flexible Core plug top complete erected with lead wires as directed.				

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	(a) 450mm	Ea.	5722.00	60.00	5782.00
	(b) 600mm	Ea.	7462.00	60.00	7522.00
	(c) 750mm	Ea.	9664.00	60.00	9724.00
5-4-3.	Supplying and erecting approved make <b>Cabin fan of 230V. A.C. 50 Cy/s. 400 mm. sweep</b> oscillating type complete erected with lead wires as directed.				
	Cat.I	Ea.	1250.00	50.00	1300.00
	Cat.II	Ea.	1750.00	50.00	1800.00
<b>SECTION 5-5 / PEDESTAL AND CIRCULATORY FANS</b>					
5-5-1.	Supplying and erecting approved make <b>pedestal fan A.C. 230V. 50 Cy/s. 400 mm sweep oscillating, type</b> and adjustable, height complete with guard regulator, & standard lead flexible wires and plug top.				
	Cat.I	Ea.	2040.00	10.00	2050.00
	Cat.II	Ea.	2490.00	10.00	2500.00
5-5-2.	Supplying and erecting approved make <b>Pedestal Circulatory fan A.C. 230 V. 50 Cy/s. 600 mm sweep</b> and adjustable height complete with guard, & standard lead flexible wires and plug top.				
	Cat.I	Ea.	3890.00	10.00	3900.00
	Cat.II	Ea.	4690.00	10.00	4700.00
<b>SECTION 5-6 / REPAIRING OF FANS MISCELLANEOUS</b>					
5-6-1.	<b>Conveyance charges</b> for Ceiling fan, Table fan, Exhaust fan, Pedestal fan, Bracket fan and cabin fan etc.(from store to worksite OR site to workshop or back for repairing)	Ea.	0.00	30.00	30.00
5-6-2.	<b>Removing the installed Ceiling fan / Exhaust Fan for servicing / repairing</b> from ceiling and reinstalling the same after making in working condition.	Ea.	0.00	50.00	50.00
5-6-3.	Servicing the uninstalled <b>ceiling fan with washing &amp;</b> throughing blades, canopies, making dry, checking all nut-bolts, replacing quarter pin & oiling /greasing and testing complete.	Ea.	0.00	40.00	40.00
5-6-4.	<b>Spray painting the Ceiling fan</b> by using ultra white enamel paint after scraping the surface and applying the primer coating.	Ea.	80.00	25.00	105.00
5-6-5.	<b>Painting the Table fan / Exhaust fan Pedestal Fan</b> by using good quality of paint after scraping the surface and applying the primer coat.	Ea.	50.00	30.00	80.00

Item No	Description
5-6-6.	Flow edam I speed in
5-6-7.	Repla Cair order A
	(a) Be (b) B
5-6-8.	Repla Exha Cabin Ag
5-6-9.	Repla fan Pe the of D M (a) Be (b) B
5-6-10.	Repla resist. D.M
5-6-11.	Repla Motor enamel put with gi tran (Credi

60.00	5782.00
60.00	7522.00
60.00	9724.00

0.00	1300.00
0.00	1800.00

<b>FANS</b>	
0.00	2050.00
0.00	2500.00

10.00	3900.00
0.00	4700.00

<b>FANS</b>	
30.00	
50.00	
40.00	
105.00	
80.00	

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
5-6-6.	Rewinding of Any fan by using supper enamelled copper wire and over hauling and putting in working order with original speed with guarantee for one year including credit of D.M. retained by Agency.	Ea.	310.00	80.00	390.00
5-6-7.	Replacing the bearing/ bushing of Ceiling fan and putting the fan in working order including credit of D.M. retained by Agency.				
	(a) Bearing	Ea.	100.00	20.00	120.00
	(b) Bushing	Ea.	30.00	20.00	50.00
5-6-8.	Replacing condenser for ceiling fan/ Exhaust Fan / Pedestal Fan / Table Fan / Cabin Fan (Credit of D.M. retained by Agency.)	Ea.	60.00	15.00	75.00
5-6-9.	Replacing the bearing/ bushing of Table fan Pedestal Fan / Exhaust Fan and putting the fan in working order including (Credit of D.M. retained by Agency.)				
	(a) Bearing	Ea.	80.00	20.00	100.00
	(b) Bushing rubber, ring, washers	Ea.	40.00	20.00	60.00
5-6-10.	Replacing approved make fan regulator resistance type for Ceiling fan (credit of D.M. retained by Agency.)	Ea.	90.00	15.00	105.00
5-6-11.	Rewinding of 2900 RPM, 250V. Fan Motor of air circulators by using supper enamelled copper wire and over hauling & put in working order with original speed with guarantee for one year including transportation from site & back including (Credit of D.M. retained by Agency.)	Ea.	500.00	70.00	570.00

# CHAPTER - VI

## Street lighting

Item No.	Description
6-1-1.	Sup pip or dur s thic t
6-1-2.	Sup pos duly pair 200 as i ei
6-1-3.	Sup w 198 bl soe i f coal ur on / pole (A) pole (B) 300 of ere (ii) 200 mou fun welc (iii) PU I (B) I le

CHEPTER - VI Street lighting					
Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
<b>6-1 STREET LIGHT POLES</b>					
6-1-1.	Supplying & erecting <b>Galvanized M.S pipe post "B" class 88.9 mm O.D 4 mtr. Long</b> duly painted with two coats of aluminium paint complete with metallic base plate of 300 mm x 300 mm x 4mm thick for using as a compound light pole with approx. <b>weight 32 Kg.</b>	Ea.	3120.00	180.00	3300.00
6-1-2.	Supplying & erecting <b>Galvanized M.S pipe post "B" class 88.9 mm O.D 6 mtr. Long</b> duly painted with two coats of aluminium paint complete with metallic base- plate of 300 mm x 300 mm x 4mm thick for using as a compound light pole with approx. <b>weight 47 Kg.</b>	Ea.	4344.00	192.00	4536.00
6-1-3.	Supplying & erecting <b>Steel tubular pole (Swaged)</b> conforming to IS - 2713 (Part-II) 1980. Manufacturing process of steel tubular pole should be as per IS specification. Basic steel tube should be ISI Marked. Pole should be painted by one coat of Zinc comet Primer and two coat of Aluminium /approved paint to be erected on / in existing Foundation. The length of poles are as below.				
	<b>(A) 7.5 mtr. Long Swaged Steel tubular pole</b>				
	(i) <b>pole</b> as per IS code <b>410-SP-4</b> with 300 X 300 X 4 mm base plate. (Approximate Pole weight 67 Kg) For burial erection	Ea.	7100.00	300.00	7400.00
	(ii) Add Extra for <b>M.S. Base plate</b> 300 X 300 X 16 mm for pole, Suitable for mounting on surface of foundation with foundation bolts, with required stiffeners welded with pole.	Ea.	910.00	100.00	1010.00
	(iii) Add Extra for <b>PU base primer and PU Paint</b> on pole.	Ea.	330.00	70.00	400.00
	<b>(B) 8.5 mtr. Long Swaged Steel tubular pole</b>				

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	(iii) Add Extra for PU base primer and PU Paint on pole.	Ea	380.00	80.00	460.00
	<b>( C ) 9.0 mtr. Long Swaged Steel tubular pole</b>				
	(i) Pole as per IS code 410-SP-25 with 300 X 300 X 4 mm base plate. (Approximate weight 78 Kg) For burial erection	Ea.	8250.00	400.00	8650.00
	(ii) Add Extra for M.S. Base plate 300 X 300 X 16 mm for pole, mounting on surface of foundation on foundation bolt with required stiffeners.	Ea.	910.00	100.00	1010.00
	(iii) Add Extra for PU base primer and PU Paint on pole.	Ea	410.00	90.00	500.00
	<b>(D) 10.00 mtr. Long Swaged Steel tubular pole</b>				
	(i) Pole as per IS code 410-SP-40 with 300 X 300 X 6 mm base plate. (Approximate weight 128 Kg) For burial erection	Ea.	13400.00	500.00	13900.00
	(ii) ADD Extra for M.S. Base plate 300 X 300 X 16 mm for pole, mounting on surface of foundation on foundation bolt with required stiffeners.	Ea.	910.00	100.00	1010.00
	(iii) Add Extra for PU base primer and PU Paint on pole.	Ea	460.00	100.00	560.00
	<b>(E) 11.00 mtr. Long Swaged Steel tubular pole</b>				
	(i) pole as per IS code 410-SP-49 with 350 X 350 X 6 mm base plate. (Approximate weight 140 Kg) For burial erection	Ea.	14625.00	600.00	15225.00
	(ii) Add Extra for M.S. Base plate 400 X 400 X 16 mm for pole, mounting on surface of foundation on foundation bolt with required stiffeners.	Ea.	1600.00	150.00	1750.00
	(iii) Add Extra for PU base primer and PU Paint on pole.	Ea	510.00	110.00	620.00
	<b>(F) 12.00 mtr. Long Swaged Steel tubular pole</b> as per IS code 410-SP-58 with 450 X 450 X 6 mm base plate (Approximate weight 186 Kg) For burial erection	Ea.	19350.00	600.00	19950.00
	(ii) ADD Extra for M.S. Base plate 400 X 400 X 16 mm for pole, mounting on surface of foundation on foundation bolt with required stiffeners.	Ea.	1600.00	150.00	1750.00
	(iii) Add Extra for PU base primer and PU Paint on pole.	Ea	560.00	110.00	670.00
	<b>(G) 13.00 mtr. Long Swaged Steel tubular Pole</b>				

Executive Engineer  
 Item No. 10  
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 M16 Bc  
 (B) 4 M  
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 M16 Bc  
 (C) 5 M  
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 200 mm  
 M16 Bc  
 (D) 6 M  
 bottom  
 200mm  
 M20 Bc

	Total
460.00	
8650.00	
1010.00	
500.00	
13900.00	
1010.00	
560.00	
5225.00	
1750.00	
620.00	
1950.00	
1750.00	
70.00	

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	(i) pole as per IS code 410-SP-67 with 450 X 450 X 6 mm base plate. (Approximate weight 261 Kg) For burial erection	Ea.	27000.00	600.00	27600.00
	(ii) ADD Extra for M.S. Base plate 450 X 450 X 20 mm for pole, mounting on surface of foundation on foundation bolt with required stiffeners.	Ea.	2550.00	175.00	2725.00
	(iii) Add Extra for PU base primer and PU Paint on pole.	Ea.	600.00	110.00	710.00
	(H) 16.00 mtr. Long Swaged Steel tubular pole				
	(i) Pole as per IS code 410-SP-77 with 450 X 450 X 10 mm base plate. (Approximate weight 341 Kg) For burial erection	Ea.	35300.00	750.00	36050.00
	(ii) Add Extra for M.S. Base plate 500 X 500 X 20 mm for pole, mounting on surface of foundation on foundation bolt with required stiffeners.	Ea.	3200.00	200.00	3400.00
	(iii) Add Extra for PU base primer and PU Paint on pole.	Ea.	650.00	120.00	770.00
<b>Octagonal poles</b>					
6-1-4.	Supplying and erecting approved make Octagonal pole made from HR sheet steel. The pole should be made as per IS and shall be coated with hot dip galvanizing as per IS 2629/2633/4759, suitable suspend local wind speed with integral Junction box consist of terminal plate of min 6mm Hylam sheet, standard profile 35mmX7.5mm Din-Rail for MCB Mounting, stud type terminal and arrangement for cable termination to be erected on foundation as per details given by manufacturer considering site requirement.				
	(A) 3 Mtr. Long 70 mm Top X 130 mm bottom dia. 3 mm thickness with 200mmX200mmX12mm base plate, 4-M16 Bolts and 450mm long J-Bolt.	Ea.	4620.00	330.00	4950.00
	(B) 4 Mtr. Long 70 mm Top X 130 mm bottom dia. 3 mm thickness with 200mmX200mmX12mm base plate, 4-M16 Bolts and 450mm long J-Bolt.	Ea.	6160.00	330.00	6490.00
	(C) 5 Mtr. Long 70 mm Top X 130 mm bottom dia. 3 mm thickness with 200mmX200mmX12mm base plate, 4-M16 Bolts and 600mm long J-Bolt.	Ea.	7700.00	330.00	8030.00
	(D) 6 Mtr. Long 70 mm Top X 135 mm bottom dia. 3 mm thickness with 200mmX200mmX12mm base plate, 4-M20 Bolts and 600mm long J-Bolt.	Ea.	9240.00	330.00	9570.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	(E) 7 Mtr. Long 70 mm Top X 135 mm bottom dia, 3 mm thickness <i>with 225mmX225mmX16mm base plate, 4-M20 Bolts and 600mm long J-Bolt.</i>	Ea.	12936.00	396.00	13332.00
	(G) 8 Mtr. Long 70 mm Top X 155 mm bottom dia, 3 mm thickness <i>with 260mmX260mmX16mm base plate, 4-M20 Bolts and 600mm long J-Bolt.</i>	Ea.	15840.00	528.00	16368.00
	(H) 9 Mtr. Long 70 mm Top X 155 mm bottom dia, 3 mm thickness <i>with 260mmX260mmX16mm base plate, 4-M24 Bolts and 750mm long J-Bolt.</i>	Ea.	17820.00	528.00	18348.00
	(K) 10 Mtr. Long 70 mm Top X 175 mm bottom dia, 4 mm thickness <i>with 275mmX275mmX16mm base plate, 4-M24 Bolts and 750mm long J-Bolt.</i>	Ea.	22440.00	660.00	23100.00
	(L) 11 Mtr. Long 90 mm Top X 210 mm bottom dia, 4 mm thickness <i>with 300mmX300mmX20mm base plate, 4-M24 Bolts and 750mm long J-Bolt.</i>	Ea.	29040.00	792.00	29832.00
	(M) 12 Mtr. Long 90 mm Top X 240 mm bottom dia, 4 mm thickness <i>with 320mmX320mmX20mm base plate, 4-M24 Bolts and 850mm long J-Bolt.</i>	Ea.	33264.00	792.00	34056.00

Item No  
6-1-5

Total
13332.00
16368.00
18348.00
23100.00
29832.00
34056.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
<b>Conical Poles (Standard)</b>					
6-1-5.	Supplying and erecting approved make <b>Conical Pole (Standard)</b> Made from <b>HR sheet steel</b> . The pole should be made as per IS. and shall be coated with hot dip galvanizing as per IS 2629/2633/4759 with required base plate <i>and integral Junction box consist of terminal plate of min 6mm Hylam sheet, standard profile 35mmX7.5mm Din-Rail for MCB Mounting, stud type terminal and arrangement for cable terminations erected on suitable foundation (included) with necessary nut-bolts/J-Bolts.</i> as per details given by manufacturer considering site requirement. The length of poles are as below.				
	(A) 3 Mtr. Long 65mm Top X110 mm bottom dia, 3mm thickness.	Ea.	4290.00	330.00	4620.00
	(B) 4 Mtr. Long 65mm Top X125 mm bottom dia, 3mm thickness.	Ea.	5720.00	330.00	6050.00
	(C) 5 Mtr. Long 65mm Top X140 mm bottom dia, 3mm thickness.	Ea.	7150.00	330.00	7480.00
	(D) 6 Mtr. Long 65mm Top X155 mm bottom dia, 3mm thickness.	Ea.	9900.00	330.00	10230.00
	(E) 7 Mtr. Long 65mm Top X170 mm bottom dia, 3mm thickness.	Ea.	12320.00	330.00	12650.00
	(F) 8 Mtr. Long 65mm Top X185 mm bottom dia, 3mm thickness.	Ea.	14080.00	440.00	14520.00
	(G) 9 Mtr. Long 65mm Top X200 mm bottom dia, 3mm thickness.	Ea.	16830.00	440.00	17270.00
	(H) 10 Mtr. Long 70mm Top X220 mm bottom dia, 3mm thickness.	Ea.	19800.00	550.00	20350.00
	(I) 11 Mtr. Long 70mm Top X235 mm bottom dia, 3mm thickness.	Ea.	22990.00	660.00	23650.00
	(J) 12 Mtr. Long 70mm Top X250 mm bottom dia, 3mm thickness.	Ea.	26400.00	660.00	27060.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
<b>Conical Poles (Medium Duty )</b>					
6-1-6.	Supplying and erecting approved make <b>Conical Pole (Medium Duty )</b> Made from <b>HR sheet steel</b> . The pole should be made as per IS. and shall be coated with hot dip galvanizing as per IS 2629/2633/4759, with required base plate <i>and integral Junction box consist of terminal plate of min 6mm Hylam sheet, standard profile 35mmX7.5mm Din-Rail for MCB Mounting, stud type terminal and arrangement for cable terminations as erected on suitable foundation (included) with necessary nut-bolts/J-Bolts.</i> as per details given by manufacturer considering site requirement. The length of poles are as below.				
	(A) 3 Mtr. Long 70 mm Top X 115 mm bottom dia, 3 mm thickness.	Ea.	5720.00	275.00	5995.00
	(B) 4 Mtr. Long 70 mm Top X 130 mm bottom dia, 3 mm thickness.	Ea.	7315.00	275.00	7590.00
	(C) 5 Mtr. Long 70 mm Top X 145 mm bottom dia, 3 mm thickness.	Ea.	9240.00	275.00	9515.00
	(D) 6 Mtr. Long 70 mm Top X 160 mm bottom dia, 3 mm thickness.	Ea.	11550.00	330.00	11880.00
	(E) 7 Mtr. Long 70 mm Top X 175 mm bottom dia, 3 mm thickness.	Ea.	13970.00	330.00	14300.00
	(F) 8 Mtr. Long 70 mm Top X 190 mm bottom dia, 3 mm thickness.	Ea.	16720.00	440.00	17160.00
	(G) 9 Mtr. Long 70 mm Top X 205 mm bottom dia, 3 mm thickness.	Ea.	19030.00	440.00	19470.00
	(H) 10 Mtr. Long 80 mm Top X 220 mm bottom dia, 3 mm thickness.	Ea.	22330.00	550.00	22880.00
	(I) 11 Mtr. Long 80 mm Top X 245 mm bottom dia, 3 mm thickness.	Ea.	26730.00	660.00	27390.00
	(J) 12 Mtr. Long 80 mm Top X 260 mm bottom dia, 3 mm thickness.	Ea.	31350.00	660.00	32010.00

Item No

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6-1  
CONTI

Total  
55.00  
70.00  
95.00  
130.00  
150.00  
176.00  
197.00  
288.00  
739.00  
2010.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
<b>FRP / GRP POLE</b>					
<b>(Fibre reinforced polymer pole)</b>					
6-1-7	Supply of approved make FRP Pole having following specifications: FRP Light Pole made by CNC filament winding machine using thermoset resin polyester/epoxy resin system) having minimum 62% glass content. The pole should be in one piece and tapered round in shape, having smooth finish and should be totally free from corrosion as well as non conductive & shock proof Pole should be provided with FRP Anchor Base and it should be heavy duty, or MS Material duly painted with Epoxy paint.				
6-1-7 CONTI	Pole should be flame retardant as per IS 6746. Resin used shall be UV resistance and pigmented. A highly weather resistant polyurethane coating shall be applied to the pole after applying suitable primer system that ensures proper adhesion of the paint. Minimum coating thickness shall be 80 to 100 micron. Deflection of the pole shall not exceed more than 10% of the length of pole for the given load" Pole should be generally made as per the dimensional data, performance criteria and some interchangeability features of poles as per standard ANSI C 136.20 latest version or ASTM D 4923/01 including cable termination box with necessary accessories. The size of pole and type of installation with foundation as per manufacturer details and site requirement are as below.				
	<b>(1) Suitable for base plate mounting single arm Bracket.</b>				
	[A] Overall length of 2.5 Mtr, Average Thickness: 7mm. Top/ Bottom OD Dia A/F 89/124 mm ± 2mm. Weight of Pole 10Kg approx. (Without Base) Anchor Base (Size 250X250 & 12mm Th.)	Ea	8550.00	190.00	8740.00
	[B] Overall length of 3 Mtr Average Thickness: 7mm. Top/ Bottom OD Dia A/F 89/130mm ± 2mm approx. Weight of Pole: 12 kg approx. (Without Base) Anchor Base (Size 250X250 & 12mm th.)	Ea	9450.00	190.00	9640.00
	[C] Overall length of 3.5 Mtr. Average Thickness: 7mm. Top/ Bottom OD Dia A/F 89/135 mm ± 2mm approx. Approx. Weight of Pole 15kg. approx. (Without Base) Anchor Base (Size 250X250 & 12mm th.)	Ea	10350.00	190.00	10540.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	[D] Overall length of 4 Mtr. Average Thickness: 7mm. Top/ Bottom OD Dia A/F 89/145 mm ± 2mm approx. Approx. Weight of Pole 19 kg approx. (Without Base) Anchor Base (Size 250X250 & 12mm th.)	Ea	11250.00	190.00	11440.00
	[E] Overall length of 4.5 Mtr. Average Thickness: 7.5mm Top/ Bottom OD Dia A/F 89/151mm ± 2mm approx. approx. Weight of Pole 21 kg approx. (Without Base) Anchor Base (Size 250X250 & 16mm th.)	Ea	12600.00	190.00	12790.00
	[F] Overall length of 5 Mtr. Average Thickness: 7.5mm OD Dia A/F 89/158 mm ± 2mm approx. approx. Weight of Pole 25 kg approx. (Without Base) Anchor Base (Size 250X250 & 16mm th.)	Ea	13500.00	190.00	13690.00
	[G] Overall length of 5.5 Mtr. Average Thickness: 7.5mm. Top/ Bottom OD Dia A/F 89/165 mm ± 2mm approx. approx. Weight of Pole 27 kg approx. (Without Base) Anchor Base (Size 250X250 & 16mm th.)	Ea	14700.00	225.00	14925.00
	[H] Overall length of 6 Mtr. Average Thickness: 7.5mm Top/ Bottom OD Dia A/F 89mm ± 2mm approx. approx. Weight of Pole 32 kg approx. (Without Base) Anchor Base (Size 300X300 & 18mm Th.)	Ea	16200.00	225.00	16425.00
	[I] Overall length of 6.5 Mtr Average Thickness: 7.5mm. Top/ Bottom OD Dia A/F 89/177 mm ± 2mm approx. approx. Weight of Pole 35 kg approx. (Without Base) Anchor Base (Size 300X300 & 18mm th.)	Ea	17175.00	225.00	17400.00
	[J] Overall length of 7 Mtr. Average Thickness: 7.5mm. Top/ Bottom OD Dia A/F 89/183 mm ± 2mm approx. approx. Weight of Pole 40 kg approx. (Without Base) Anchor Base (Size 300X300 & 18mm th.)	Ea	18635.00	225.00	18860.00
	(2) Suitable for base plate mounting Double arm Bracket.				
	[A] Overall length of 5 Mtr. Average Thickness: 8mm. Top/ Bottom OD Dia A/F 114/163mm ± 2mm approx. approx. Weight of Pole 31 kg approx. (Without Base) Anchor Base (Size 300X300 & 18mm th.)	Ea	14325.00	190.00	14515.00

Total
11440.00
12790.00
13690.00
14925.00
16425.00
17400.00
18860.00
14515.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
[b]	Overall length of 5.5 Mtr. Average Thickness: 8mm. Top/ Bottom OD Dia A/F 114/168mm ± 2mm approx. approx. Weight of Pole 34 kg approx. (Without Base) Anchor Base (Size 300X300 & 18mm th.)	Ea	15525.00	225.00	15750.00
[C]	Overall length of 6 Mtr. Average Thickness: 8mm. Top/ Bottom OD Dia A/F 114/174 mm ± 2mm approx. approx. Weight of Pole 38 kg approx. (Without Base) Anchor Base (Size 300X300 & 18mm th.)	Ea	17175.00	225.00	17400.00
[D]	Overall length of 6.5 Mtr. Average Thickness: 8mm. Top/ Bottom OD Dia A/F 114/178 mm ± 2mm approx. approx. Weight of Pole 43 kg approx. (Without Base) Anchor Base (Size 300X300 & 18mm th.)	Ea	18225.00	225.00	18450.00
[E]	Overall length of 7 Mtr. Average Thickness: 8mm. Top/ Bottom OD Dia A/F 114/183 mm ± 2mm approx. approx. Weight of Pole 47 kg approx. (Without Base) Anchor Base (Size 300X300 & 18mm th.)	Ea	19275.00	225.00	19500.00
[F]	Overall length of 7.5 Mtr. Average Thickness: 8mm. Top/ Bottom OD Dia A/F 114/189 mm ± 2mm approx. approx. Weight of Pole 51 kg approx. (Without Base) Anchor Base (Size 300X300 & 18mm th.)	Ea	20775.00	225.00	21000.00
[G]	Overall length of 8 Mtr. Average Thickness: 8mm, Top/ Bottom OD Dia A/F 114/195 mm ± 2mm approx. approx. Weight of Pole 54 kg approx. (Without Base) Anchor Base (Size 350X350 & 20mm th.)	Ea	21825.00	300.00	22125.00
[H]	Overall length of 9 Mtr. Average Thickness: 8mm. Top/ Bottom OD Dia A/F 114/202 mm ± 2mm approx. approx. Weight of Pole 64 kg approx. (Without Base) Anchor Base (Size 350X350 & 20mm th.)	Ea	23925.00	300.00	24225.00
[I]	Overall length of 10.5 Mtr. Average Thickness: 8mm. Top/ Bottom OD Dia A/F 114/213 mm ± 2mm approx. approx. weight of Pole 83 kg approx. (Without Base) Anchor Base (Size 350X350 & thickness of 20mm)	Ea	27300.00	375.00	27675.00
[J]	Overall length of 12 Mtr. Average Thickness: 8mm. Top/ Bottom OD Dia: 114/231mm ± 2mm approx. approx. Weight of Pole 130 kg approx. (Without Base) Anchor Base (Size 400X400 & 20mm Th.)	Ea	41325.00	450.00	41775.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	<b>(3) Suitable for direct grouting &amp; Single arm Bracket.</b>				
	[A] Overall length of 3.5 Mtr. Average Thickness: 7 mm. Top/ Bottom OD Dia: 90/124 mm ± 3mm approx. approx. Weight of Pole 16 kg approx.	Ea	6430.00	190.00	6620.00
	[B] Overall length of 4 Mtr. Average Thickness: 7mm. Top/ Bottom OD Dia: 90/130 mm ± 2mm approx. approx. Weight of Pole 18 kg approx.	Ea	7305.00	190.00	7495.00
	[C] Overall length of 4.5 Mtr. Average Thickness: 7 mm. Top/ Bottom OD Dia: 4.5/136 mm ± 3mm approx. approx. Weight of Pole 21 kg approx.	Ea	8475.00	190.00	8665.00
	[D] Overall length of 5 Mtr. Average Thickness: 7mm. Top/ Bottom OD Dia: 90/145 mm ± 3mm approx. approx. Weight of Pole 25 kg approx.	Ea	9450.00	190.00	9640.00
	[E] Overall length of 5.5 Mtr. Average Thickness: 7.5 mm. Top/ Bottom OD Dia: 90/151mm ± 3mm approx. approx. Weight of Pole 28 kg approx.	Ea	10350.00	225.00	10575.00
	[F] Overall length of 6 Mtr. Average Thickness: 7.5mm. Top/ Bottom OD Dia: 90/158mm + 2mm approx. approx. Weight of Pole 31 kg approx.	Ea	11700.00	225.00	11925.00
	[G] Overall length of 6.5 Mtr. Average Thickness: 7.5mm. Top/ Bottom OD Dia: 90/164 mm ± 2mm approx. approx. Weight of Pole 35 kg approx.	Ea	12675.00	225.00	12900.00
	[H] Overall length of 7.0 Mtr. Average Thickness: 7.5mm. Top/ Bottom OD Dia: 90/170 mm ± 2mm approx. approx. Weight of Pole 42 kg approx.	Ea	13875.00	225.00	14100.00
	[I] Overall length of 7.5 Mtr. Average Thickness: 7.5mm. Top/ Bottom OD Dia: 90/177mm ± 2mm approx. approx. Weight of Pole 45 kg approx.	Ea	14995.00	225.00	15220.00
	[J] Overall length of 8.0 Mtr. Average Thickness: 7.5mm. Top/ Bottom OD Dia: 90/183 mm ± 2mm approx. approx. Weight of Pole 50 kg approx.	Ea	15975.00	300.00	16275.00
	<b>(4) Suitable for direct grouting &amp; Double Side Arm Bracket.</b>				
	[A] Overall length of 6.0 Mtr. Average Thickness: 8mm. Top/ Bottom OD Dia: 114/136 mm ± 2mm approx. approx. Weight of Pole 38 kg approx.	Ea	12150.00	225.00	12375.00
	[B] Overall length of 6.5 Mtr. Average Thickness: 8mm. Top/ Bottom OD Dia: 114/168 mm ± 2mm approx. approx. Weight of Pole 42 kg approx.	Ea	12975.00	225.00	13200.00

Item No  
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kg  
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mm  
kg  
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(c)  
Pro  
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(b)  
(c)  
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6-1-10  
(a)  
(b)  
(c)

Total
6620.00
7495.00
8665.00
9640.00
10575.00
11925.00
12900.00
14100.00
15200.00
16275.00
17350.00
18000.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	[C] Overall length of 7.0 Mtr. Average Thickness: 8mm. Top/ Bottom OD Dia: 114/174 mm ± 2mm approx. approx. Weight of Pole 48 kg approx.	Ea	15225.00	225.00	15450.00
	[D] Overall length of 7.5 Mtr. Average Thickness: 8mm. Top/ Bottom OD Dia: 114/178 mm ± 2mm approx. approx. Weight of Pole 52 kg approx.	Ea	16200.00	225.00	16425.00
	[E] Overall length of 8.0 Mtr. Average Thickness: 8mm. Top/ Bottom OD Dia: 114/183 mm ± 2mm approx. approx. Weight of Pole 56 kg approx.	Ea	17250.00	300.00	17550.00
	[F] Overall length of 8.5 Mtr. Average Thickness: 8mm. Top/ Bottom OD Dia: 114/189 mm ± 2mm approx. approx. Weight of Pole 60 kg approx.	Ea	18300.00	300.00	18600.00
	[G] Overall length of 9.5 Mtr. Average Thickness: 8mm. Top/ Bottom OD Dia: 114/195 mm ± 2mm approx. approx. Weight of Pole 68 kg approx.	Ea	20025.00	375.00	20400.00
	[H] Overall length of 10.00 Mtr. Average Thickness: 8mm. Top/ Bottom OD Dia: 114/202 mm ± 2mm approx. approx. Weight of Pole 77 kg approx.	Ea	22050.00	375.00	22425.00
	[I] Overall length of 12.00 Mtr. Average Thickness: 8mm. Top/ Bottom OD Dia: 114/213 mm ± 2mm approx. approx. Weight of Pole 93 kg approx.	Ea	35175.00	450.00	35625.00
	<b>Aluminium Brackets for FRP Poles</b>				
6-1-8	Providing Aluminium arm bracket of having 2 sets of suitable SS304 hardware for fixing the brackets & spread of 1.2 Mtr (Suitable for 89 to 114 mm pole top dia)				
	(a) Single arm bracket	Ea	2590.00	20.00	2610.00
	(b) Double arm bracket	Ea	4010.00	20.00	4030.00
	(c) Triple arm bracket	Ea	5175.00	20.00	5195.00
6-1-9	Providing Aluminium arm bracket of having 2 sets of suitable SS304 hardware for fixing the brackets & spread of 2 Mtr (Suitable for 89 to 114 mm pole top dia)				
	(a) Single arm bracket	Ea	4540.00	20.00	4560.00
	(b) Double arm bracket	Ea	7010.00	20.00	7030.00
	(c) Triple arm bracket	Ea	9075.00	20.00	9095.00
6-1-10	Providing FRP arm bracket of having 2 sets of suitable SS304 hardware for fixing the brackets & spread of 1.2 Mtr (Suitable for 89 to 114 mm pole top dia)	Ea			
	(a) Single arm bracket	Ea	2960.00	20.00	2980.00
	(b) Double arm bracket	Ea	4575.00	20.00	4595.00
	(c) Triple arm bracket	Ea	6185.00	20.00	6205.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
6-1-11	Providing Single arm bracket of FRP having 2 sets of suitable SS304 hardware for fixing the brackets & spread of 2 Mtr(Suitable for 89 to 114 mm pole top dia)				
	(a) Single arm bracket	Ea	5175.00	20.00	5195.00
	(b) Double arm bracket	Ea	7985.00	20.00	8005.00
	(c) Triple arm bracket	Ea	10820.00	20.00	10840.00
6-1-12	Aluminium "J" Type arm bracket of 250 mm radius with 2 sets of SS 304 Hardware	Ea	1725.00	20.00	1745.00
<b>SECTION 6-2 / STREETLIGHT POLE BASES</b>					
6-2-1.	Supplying and erecting C.I. pole base Suitable for following size of pole with M.S. door having two hinges welded on M.S. flat 25 x 3 mm which is fitted on C.I. base by bolts welded inside the pole base erected with one coat of Red oxide and two coat of Aluminium paint and covering the gap between pole and pole base with suitable clamp as per SOR drawing or sample.				
	(a) Suitable for 90 mm.dia base of pole	Ea.	2500.00	150.00	2650.00
	(b) Suitable for 114 mm.dia base of pole	Ea.	3000.00	170.00	3170.00
	(c) Suitable for 140 mm.dia base of pole	Ea.	3250.00	200.00	3450.00
6-2-2	Supplying and erecting Pole base suitable for following size of pole fabricated from 4 mm. Thick M.S. sheet with M.S. door having two hinges welded on M.S. flat 25 x 3 mm which is fitted on M.S. base by bolts welded inside the pole base erected with one coat of Red oxide and two coats of Aluminium paint. Outside dimension as per SOR. drawing.				
	(a) Suitable for 90 mm. dia.base of pole	Ea.	2500.00	150.00	2650.00
	(b) Suitable for 114 mm. dia.base of pole	Ea.	2850.00	150.00	3000.00
	(c) Suitable for 140 mm. dia.base of pole	Ea.	3425.00	175.00	3600.00
6-2-3	Providing and fixing pole base cover fabricated from 16 SWG M.S. sheet having adequate size to cover pole base and having bend as per curvature of pole base, making the holes to fix the cover to bolt at one end and other end shall be welded by the hinges fabricated from M.S. strip as per sample both the hinges shall be welded on M.S strip which shall be drilled to fix on pole base the complete assembly shall be fixed on pole base by drilling holes on pole base and painting, by one coat of Red oxide and two coats of aluminium paint.	Ea.	165.00	35.00	200.00
<b>SECTION 6-3 POLE FOUNDATION</b>					
6-3-1.	Providing and erecting C.I./M.S. flange type base plate of 300mm x 300mm x 6mm	Ea.	245.00	35.00	280.00

Total
5195.00
8005.00
10840.00
745.00
50.00
3170.00
450.00
50.00
3000.00
90.00
200.00
280.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
6-3-2	Providing and fixing <b>Terminal board</b> of size <b>5.0 x 127 x 152.4 mm. bakelite sheet</b> with suitable brass studs with nuts, washers and clamps of size 25mm x 3mm suitable for pole painted with one coat of red lead paint.	Ea.	120.00	25.00	145.00
6-3-3.	Providing and erecting <b>cable clamp of 25 mm X 3 mm M.S. flat</b> suitable for fixing 2 Nos. of armoured cable with nuts and bolts.				
	(b) for 114 mm dia. Pole	Ea.	80.00	10.00	90.00
	(c) for 140 mm dia. Pole	Ea.	100.00	10.00	110.00
	(d) for 165 / 195 mm dia. Pole	Ea.	125.00	15.00	140.00
<b>Foundation for Burial type Poles</b>					
6-3-4.	Providing <b>1:2:4 cement concrete foundation &amp; 70 % PCC</b> from bottom including excavation for the pole of size 45 x 45 x 100 cm. Deep in below ground level with plinth of 45 cm x 45 cm (or 45 cm dia x 45 cm) high upper ground level with necessary curing and finishing in approved manner. ( for 4 & 6 mtr pole)	Ea.	620.00	200.00	820.00
6-3-5.	Providing <b>1:2:4 cement concrete foundation &amp; 70 % PCC</b> from bottom including excavation for the pole of size 60 x 60 x 120 cm. Deep in below ground level with plinth of 45 cm x 45 cm (or 45 cm dia x 45 cm) high upper ground level with necessary curing and finishing in approved manner. ( for 7.5 & 8/8.5 mtr pole)	Ea.	1050.00	250.00	1300.00
6-3-6.	Providing <b>1:2:4 cement concrete foundation &amp; 70 % PCC</b> from bottom including excavation for the pole of size 60 x 60 x 150 cm. Deep in below ground level with plinth of 45 cm x 45 cm (or 45 cm dia x 45 cm) high upper ground level with necessary curing and finishing in approved manner. ( for 9 & 10 mtr pole)	Ea.	1400.00	250.00	1650.00
6-3-7.	Providing <b>1:2:4 cement concrete foundation &amp; 70 % PCC</b> from bottom including excavation for the pole of size 90 x 90 x 180 cm. Deep in below ground level with plinth of 45 cm x 45 cm (or 45 cm dia x 45 cm) high upper level ground cement concrete with necessary curing and finishing in approved manner [above 11 mtr & above poles]	Ea.	1900.00	300.00	2200.00
6-3-8-A	Providing <b>cement concrete, foundation</b> or for concrete filling in 1:3:6 ratio with 20 to 25 mm stone metal duly plastered with necessary curing for pole muffing or any other purpose.	Cu.Mtr	4200.00	230.00	4430.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
6-3-8-B	Providing <b>cement concrete for foundation</b> or for concrete filling in 1:2:4 ratio with 20 to 25 mm stone metal duly plastered with necessary curing for pole muffing or any other purpose.	Cu.Mtr	4800.00	230.00	5030.00
6-3-9	Excavating <b>hard rock or bituminous road (B.T.)</b> by chiselling or using tool and tackles for preparing pit for poles or earth plates or for laying pipes & clearing the site by removing debris & making site good.	Cu.Mtr	0.00	700.00	700.00
6-3-10	<b>Excavating hard Murrum or Metal road by chiselling</b> for preparing pit for poles or earth plates or for laying pipes & clearing the site by removing debris & making site good.	Cu.Mtr	0.00	280.00	280.00
6-3-11	Providing <b>burnt brick masonry with 1:6 cement concrete</b> duly plastered including watering, stacking joint on exposed faces, rocking at joints on exposed faces and watering complete	Cu.Mtr	4200.00	250.00	4450.00
Note	<b>For Item No 6.3.9 &amp; 6.3.10 if additional machinery like hammer, driller or JCB used add 10% extra in rate.</b>				
<b>SECTION 6-4 POLE BOXES</b>					
6-4-1	Supplying and erecting <b>Water tight M.S.Box of size 20 x 15 x 15 cm.</b> to erect suitable kitkat fuse / MCB to be erected on polished wooden board inside the box with hinged/sliding door with rubber rings and erected on pole with suitable pole clamp, all duly painted with one coat of red oxide and two coats of paints. (Cost of Fuse / MCB shall be taken extra)	Ea.	220.00	30.00	250.00
6-4-2	Supplying and erecting <b>Fabricating terminal box</b> for street light pole made from 16 SWG M.S. sheet having following size complete with fixing arrangement for terminal board, with necessary hole for wire entry and exit from the box. The box shall be provided with cover and hinges on one side and bolting at other end The box shall be fixed by clamps fabricated from 25mm x 6mm flat. The box shall be painted with one coat of red oxide and two coats of paint having following box size. 330 mm x 260 mm x 140 mm (depth)	Ea.	560.00	40.00	600.00
6-4-3	Supplying & erecting approved make <b>SMC press moulded composite FRP</b> loop-in, loop-out approx. 2mm thick box complete with Bakelite connector strip 5way(3P+N+E), DIN rail for mounting mob & hinged doors as per requirement having locking arrangements with mounting clamp with nuts, bolts & washers suitable for erection on pole with cable clamps & earth bolt of following size of box.				

Total  
 1030.00  
 700.00  
 280.00  
 4450.00  
 add  
 250.00  
 600.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	(a) 300mm x 200mm x 100mm [deep]	Ea.	900.00	60.00	960.00
	(b) 250mm x 200mm x 100mm [deep]	Ea.	500.00	50.00	550.00
	(c) 150mm x 125mm x 100mm [deep]	Ea.	460.00	50.00	510.00
	(d) 140mm x 140mm x 100mm [deep]	Ea.	270.00	50.00	320.00
	(e) 200mm x 140mm x 125mm [deep]	Ea.	510.00	50.00	560.00
	(f) 200mm x 180mm x 100mm [deep]	Ea.	530.00	50.00	580.00
	(g) 250mm x 220mm x 135mm [deep]	Ea.	1100.00	100.00	1200.00
	(h) 300mm x 200mm x 135mm [deep]	Ea.	1200.00	100.00	1300.00
	(i) 400mm x 300mm x 190mm [deep]	Ea.	3450.00	200.00	3650.00
	(j) 505mm x 240mm x 160mm [deep]	Ea.	2920.00	180.00	3100.00
	(k) 700mm x 480mm x 210mm [deep]	Ea.	6200.00	400.00	6600.00
6-4-4.	Supplying & erecting approved make <b>street light box comprising CNC Processed</b> robust housing made from single sheet multi folded with high grade powder coating (RAL-7032 Structure finish as Standard) of IP-55 degree of Protection Gasket(PU Gasketing) of following size of Box.				
	(i) 350mm X 200 mm X 150 mm	Ea.	1540.00	60.00	1600.00
	(ii) 300mm X 200 mm X 150 mm	Ea.	1710.00	60.00	1770.00
6-4-5	Providing & erecting approved make <b>street light / wall mounting junction box</b> compression moulded from SMC (thermoset plastic) vertical sliding cover having locking with square head stud loop in / loop out in built terminal suitable for four core cable, waterproof of I.P. 54 protected with clamp or bolt nut & earth bolt of following size.				
	[A] 200mm x 127mm x 83 mm	Ea	350.00	30.00	380.00
	[B] 250mm x 194mm x 99 mm	Ea	625.00	30.00	655.00
	[C] 327mm x 254mm x 120 mm	Ea	1050.00	50.00	1100.00
<b>SECTION 6-5 STREET LIGHT BRACKETS</b>					
6-5-1.	Supplying and erecting street light pole bracket comprising main <b>B Class MS pipe</b> of 4.2 cm/require outside dia. complete with suitable <b>B Class M.S. sleeve</b> tubing of approx. 45cms.length and suitable for 76.5mm/80mm or require size pole top having sufficient fastners for fixing the brackets and having suitable rise as per site condition as directed and spread of 2 mtr.with suitable welded stiffener reducer and with lock nut complete painted with one coat of Red oxide / PU base primer and two coats of Aluminium / PU paint. Suitable for side entry fitting brackets of following nos of arms.				
	[a] Single Arm bracket 2 Mtr	Ea	790.00	60.00	850.00
	[B] Double Arm Bracket 2 Mtr	Ea	1230.00	80.00	1310.00
	[C] Triple Arm Bracket 2 Mtr	Ea	1670.00	100.00	1770.00
	[D] Four Arm bracket 2 Mtr.	Ea	2110.00	150.00	2260.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
6-5-2	Providing and erecting <b>Street Light pole bracket</b> comprising main <b>B Class MS pipe</b> of 4.2 cm/require outside dia. complete with suitable <b>B Class M.S. sleeve</b> tubing of approx. 45cms.length and suitable for 76.5 mm /80mm / required size of pole top having sufficient fasteners for fixing the brackets and having spread of 1.5.mtr. length with 110 deg.with vertical plane & suitable welded stays, reducer and with check nuts complete painted with one coat of Red oxide / PU base primer and two coats of Aluminium / PU paint. paint with following nos of arms.				
	[A] Single Arm Bracket 1.5 Mtr	Ea	680.00	50.00	730.00
	[B] Double Arm Bracket 1.5 Mtr	Ea	1010.00	60.00	1070.00
	[C] Triple Arm Bracket 1.5 Mtr	Ea	1340.00	80.00	1420.00
	[D] Four Arm Bracket 1.5 Mtr	Ea	1670.00	100.00	1770.00
6-5-3	Providing and erecting <b>street light pole bracket</b> comprising main <b>B Class MS pipe</b> of 4.2 cm/require outside dia. complete with suitable <b>B Class M.S. sleeve</b> tubing of approx. 45cms.length and suitable for 76.5 mm / 80mm. / require size pole top having sufficient fasteners for fixing the brackets and having spread of 1 mtr. length with suitable rise as per site condition & suitable welded stiffener reducer and nipple with check nut complete painted with one coat of Red oxide / PU base primer and two coats of Aluminium / PU paint. paint with following nos of arms.				
	[A] Single Arm bracket 1 Mtr	Ea	605.00	50.00	655.00
	[B] Double Arm Bracket 1 Mtr	Ea	825.00	60.00	885.00
	[C] Three Arm Bracket 1 Mtr	Ea	1045.00	70.00	1115.00
	[D] Four Arm Bracket 1 Mtr	Ea	1265.00	70.00	1335.00
6-5-4	Supplying and erecting <b>Street light pole bracket</b> comprising main <b>B Class MS pipe</b> of 4.2 cm/require outside dia. complete with suitable <b>B Class M.S. sleeve</b> tubing of approx. 45cms.length and suitable for 76.5mm/80mm/require size of pole top having nuts and bolts for fixing the brackets and having spread of 0.5 mtr. Length with 110 deg.with vertical plane and suitable welded stiffener reducer and nipple with check nut complete painted with one coat.of Red oxide / PU base primer and two coats of Aluminium / PU paint. paint with following nos of arms	Ea			
	[A] Single Arm bracket 0.5 Mtr	Ea	475.00	50.00	525.00
	[B] Double Arm Bracket 0.5 Mtr	Ea	605.00	60.00	665.00
	[C] Three Arm Bracket 0.5 Mtr	Ea	735.00	60.00	795.00
	[D] Four Arm Bracket 0.5 Mtr	Ea	880.00	70.00	950.00

Total

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
6-5-5	Supplying and erecting <b>B class Galvanized iron pipe</b> having smooth finished bore of the pipe on both ends erected nuts and bolts along the pole / wall shaping the pipe as per site requirement. Pipe dia as following.				
	(a) 25 mm dia	Mtr.	175.00	35.00	210.00
	(b) 32 mm dia	Mtr.	215.00	35.00	250.00
	(c) 40 mm dia.	Mtr.	255.00	35.00	290.00
	(d) 50 mm dia.	Mtr.	345.00	35.00	380.00
	(e) 65 mm dia.	Mtr.	425.00	35.00	460.00
	(f) 80 mm dia.	Mtr.	555.00	35.00	590.00
6-5-6	Supplying and erecting <b>B class galvanised iron pipe 32 mm</b> outside dia 45 cm long duly welded on 20 cm x 20 cm x 3 mm thick M.S. base plate, erected on wall or corner for mounting street light luminaire with necessary hardware materials duly painted.	Ea	350.00	50.00	400.00
6-5-7	Providing and erecting approved make <b>light control unit</b> suitable to operate on 230V +20% having ON/OFF delay time of 30-50 seconds and having facility for Auto/manual system having two LDR lens to intensity light having capacity of 5A complete erected on section pillar with pipe and stand.	Ea	2530.00	115.00	2645.00
<b>SECTION 6-6</b>		<b>SECTION PILLARS</b>			
6-6-1.	Supplying & erecting <b>IP 55 grade following size section pillar</b> fabricated from joint less M.S. Sheet with angle iron legs made from jointless M.S. Angle with cable clamps to be buried in ground to have appropriate erection to work uniform until erected with cement concrete foundation and 45 cm high bricks work finishing with plaster etc. hinged double door internally supported on both side,				
	with internal and outside looking arrangement with lock and keys in duplicate 35 x 35 x 5 mm M.S. Angle of Two Nos. one is welded and other with nut and bolt for erecting Bakelite sheet. Painting the Section Pillar inside and out side with three tank powder coated paint. section pillar roof should be without joint with water leakage proof & tested as per IP 55 test & followed by IS 2147 of 1962				
	(A) 150 X 90 X 75 cm section pillar fabricated from 14 Gauge MS Sheet with angle iron legs 95 cm long made from 40 X 40 X 6 mm thick MS angle.	Ea.	18500.00	1000.00	19500.00
	(B) 75 X 60 X 45 cm section pillar fabricated from 16 Gauge MS Sheet with angle iron legs 45 cm long made from 35 X 35 X 5 mm thick MS angle.	Ea.	4000.00	200.00	4200.00

730.00

1070.00

1420.00

1770.00

655.00

85.00

1115.00

135.00

5.00

665.00

5.00

950.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	<i>(C) 60 X 30 X 45 cm section pillar fabricated from 16 Gauge MS Sheet with angle iron legs 45 cm long made from 35 X 35 X 5 mm thick MS angle.</i>	Ea.	2050.00	150.00	2200.00
6-6-2.	Supplying and erecting <b>HYLAM</b> sheet on existing angle iron frame for following thickness	Sq.Mtr	2700.00	10.00	2710.00
	2mm	sq.mtr	435.00	15.00	450.00
	4mm	sq.mtr	870.00	30.00	900.00
	6mm	sq.mtr	1310.00	40.00	1350.00
	8mm	sq.mtr	1760.00	40.00	1800.00
	10mm	sq.mtr	2200.00	50.00	2250.00
	12mm	sq.mtr	2650.00	50.00	2700.00
6-6-3.	Supplying and erecting <b>nuwood 12 mm</b> thick on existing angle iron frame.	Sq.Mtr	280.00	60.00	340.00
6-6-4.	Painting of street light pole having post top lantern complete with primer with two coats of Aluminium paint.	Ea.	200.00	50.00	250.00
6-6-5.	<b>Painting of street light pole with bracket complete</b> with two coats of Aluminium paint for following size of pole.				
	[a] up to 4 mtr	Ea.	200.00	50.00	250.00
	[b] up to 6 mtr.	Ea.	250.00	60.00	310.00
	[c] up to 9 mtr	Ea.	300.00	90.00	390.00
	[d] up to 10 to 13 mtr	Ea.	520.00	130.00	650.00
<b>SECTION 6-7 TIME SWITCHES</b>					
6-7-1	Supplying & erecting approved make <b>time switch with single pole</b> air break contacts suitable for 230 V, 15/16A, complete with self starting motor driven clock 'ON' & 'OFF' automatic arrangement at any predetermined time during each 24 hours. With nickel cadmium rechargeable battery backup erected as directed.	Ea.	2690.00	60.00	2750.00
6-7-2	Supplying & erecting approved make <b>Digital time switch</b> having lithium cell 6 years operative and operate battery backup 1 channel day clock with 14 memory programme, suitable to operate on 240V + 5%, 16A with floating contacts Minimum switching setup time 1 minimum & LCD display. Also comprised permanent ON/OFF switching. Programming switches & housed in fire proof thermoplastic enclosure & transparent cover erected as required with necessary connection erected as directed.	Ea.	3650.00	50.00	3700.00

Item No.	Description	Unit	Cost of Materials	Cost of Labour	Total
6-7-3	Supplying and erecting approved make <b>Segment time switch</b> suitable for 230V+10%16A. floating contacts with 24 hour dial having 15/30 min. segments with early manual override switching for on & off without influencing the program sequence with quartz time switch With power reserve, housed in fire proof thermoplastic enclosure & transparent cover terminal covers erected as required wire necessary connection erected as directed.	Ea.	2540.00	60.00	2600.00
6-7-4	Providing and erecting approved make <b>light control unit</b> suitable to operate on 230V +20% having ON/OFF delay time of 30-50 seconds and having facility for Auto/manual system having two LDR lens to intensity light having capacity of 5A complete erected on section pillar with pipe and stand.	Ea.	2530.00	115.00	2645.00
6-7-5	Supplying & erecting <b>power contactor</b> ,AC3 duty for time switch complete erected as per direction Cat III				
	[A] 2 Pole 250V 12 Amp.	Ea	900.00	30.00	930.00
	[B] 2 pole 250V 32 Amp.	Ea	2170.00	30.00	2200.00
	[C] 4 pole 440V 16 Amp.	Ea	970.00	30.00	1000.00
	[D] 4 pole 440V 40 Amp.	Ea	3220.00	30.00	3250.00
6-7-6	Supplying & erecting approved make <b>IP 55 grade Company fabricated Timer Panel</b> of following capacity for switch On-Off street lights on time scheduling basis made from 16G CRCA sheet duly epoxy power painted inside and outside with hinged doors and locking arrangement consisting of suitable size of 4 Pole MCB and 4 pole contactor (cat-III)with analog time switch, auto manual switch of same make and suitable input and output Bakelite terminals and with door earthing approved by Engineer in charge.				
	[A] 32 Amp	Ea	14236.00	250.00	14486.00
	[B] 40 Amp	Ea	15347.00	250.00	15597.00
	[C] 63 Amp	Ea	19630.00	300.00	19930.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
<b>6-8 HIGH MAST POLE &amp; DECORATIVE POLE</b>					
6-8-1.	<p>Supplying, erecting, testing, commissioning approved make <b>M.S. Polygonal High Mast Pole</b> having following general Specification.</p> <p>(a) Polygonal Section fabricated from M.S. Plate conforms BSEN 10025 &amp; Hot deep galvanized minimum 65/86 micron (as per IS 2629 /1985) Lantern carriage with ring and rubber lines for erection of luminaries of suitable site.</p> <p>(b) Maximum telescopic section not more than four</p> <p>(c) Double drum gear pipe motorized winch with 6mm dia S.S. Rod (For 16 mtr and above size)</p> <p>(d) Approved make L.E.D. aviation light = 1 No. Lightening arrestor = 1 No. with necessary wiring of 2.5 sq.mm 5 core ISI copper cable Unarmoured.</p> <p>(e) Bottom most section suitable for mounting reversible motor and switchgears having door not more than 1400mm x 300mm with waterproof gasket &amp; hinges &amp; locking arrangement.</p> <p>(f) Pole structure comprises suitable size of reversible motor, cable and necessary</p>				
	<p>(g) bottom section shall have suitable size of thickness supports ribs foundation bolts nuts etc.</p> <p>(h) Item not comprises the cost of lanterns.</p> <p>(i) Necessary Cement Concrete foundation as per IS including testing &amp; commissioning of the entire structure for following size of High Mast poles</p>				
	[1] <b>High Mast 12 Mtr.</b> TOP A/F 105 mm, BOTTOM A/F 360mm, No. of Sec. No. - 1, Bottom Thickness - 3 mm, Size of Base Plate - Dia 520 mm x 20 mm thick, Foundation Bolt Size M24 x 850 mm, Qty - 6 Nos., <b>Suitable for mounting Fitting of Light - 6 Nos.</b>	Ea.	146700.00	18750.00	165450.00
	[2] <b>High Mast 16 Mtr.</b> TOP A/F 150 mm, BOTTOM A/F 450 mm, No. of Sec. No. - 2, Bottom Thickness - 4 mm, Top Sec. 3 mm, Size of Base Plate - dia.560 mm x 20 mm thick, Foundation Bolt Size M24 x 880 mm, Qty - 8 Nos., <b>Suitable for mounting Fitting of Light - 8 Nos.</b>	Ea.	178720.00	23500.00	202220.00
	[3] <b>High Mast 16 Mtr.</b> TOP A/F 150 Mm, BOTTOM A/F 400 Mm, No. of Sec. No. - 2, Bottom Thickness - 4 mm, Top Sec. - 3 mm, Size Base Plate - dia.630 mm x 20 mm thick, Foundation Bolt Size M24 x 870 mm, Qty - 12 Nos., <b>Suitable for mounting Fitting of Light - 10 Nos.</b>	Ea.	191980.00	23500.00	215480.00

Total

4.00

120.00

80.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
[4]	<b>High Mast 20 Mtr.</b> TOP A/F 150 Mm, BOTTOM A/F 400 Mm, No. of Sec. No. - 2, Bottom Thickness - 4 mm, Top Sec. - 3 mm, Size Base Plate -dia.580 mm x 20 mm thick, Foundation Bolt Size M27 x 850mm , Qty - 10 Nos., <b>Suitable for mounting Fitting of Light - 12 Nos.</b>	Ea.	214145.00	28125.00	242270.00
[5]	<b>High Mast 20 Mtr.</b> TOP A/F 150 Mm, BOTTOM A/F 450 Mm, No. of Sec. No. - 2, Bottom Thickness - 4 mm, Top Sec. - 3 mm, Size Base Plate - dia.580 mm x 20 mm thick, Foundation Bolt Size M13 x 1000mm, Qty - 10 Nos., <b>Suitable for mounting Fitting of Light - 12 Nos.</b>	Ea.	216135.00	28125.00	244260.00
[6]	<b>High Mast 25 Mtr.</b> TOP A/F 170 Mm, BOTTOM A/F 450 Mm, No. of Sec. No. - 3, Bottom Thickness - 4 mm, Middle Base Sec.mm - 3, Top Sec. - 3 mm, Size Base Plate -dia. 680 mm x 35 mm thick, Foundation Bolt Size M30 x 1000 mm, Qty - 12 Nos., <b>Suitable for mounting Fitting of Light - 12 Nos.</b>	Ea.	278820.00	36000.00	314820.00
[7]	<b>High Mast 25 Mtr.</b> TOP A/F 170 Mm, BOTTOM A/F 540 Mm, No. of Sec. No. - 3, Bottom Thickness - 4 mm, Middle Base Sec.mm - 4, Top Sec. - 3 mm, Size Base Plate - dia. 760 mm x 25 mm thick, Foundation Bolt Size M36 x 1000 mm, Qty - 12 Nos., <b>Suitable for mounting Fitting of Light - 16 Nos.</b>	Ea.	300080.00	36000.00	336080.00
[8]	<b>High Mast 30 Mtr.</b> TOP A/F 170 mm, BOTTOM A/F 475 mm, No. of Sec. No. - 3, Bottom Thickness - 6 mm, Middle Base Sec. mm - 5 Top Sec. - 4 mm, Size Base Plate - dia.700 mm x 32mm thick , Foundation Bolt Size M36 x 1200 mm, Qty - 12 Nos., <b>Suitable for mounting Fitting of Light - 12 Nos.</b>	Ea.	340920.00	39000.00	379920.00
[9]	<b>High Mast 30 Mtr.</b> TOP A/F 170 Mm, BOTTOM A/F 570 Mm, No. of Sec. No. - 3, Bottom Thickness - 5 mm, Middle Base Sec. mm - 4 Top Sec. - 4 mm, Size Base Plate -dia 800mm x 32mm thick, Foundation Bolt Size M36 x 1200mm, Qty - 12 Nos., <b>Suitable for mounting Fitting of Light - 16 Nos.</b>	Ea.	342990.00	39000.00	381990.00
[10]	<b>High Mast 30 Mtr.</b> TOP A/F 170 Mm, BOTTOM A/F 610 Mm, No. of Sec. No. - 3, Bottom Thickness - 5 mm, Middle Base Sec. mm - 4 Top Sec. - 4 mm, Size Base Plate - dia.840 mm x 32 mm thick, Foundation Bolt Size M36 x 1200 mm, Qty - 12 Nos., <b>Suitable for mounting Fitting of Light - 20 Nos.</b>	Ea.	352510.00	39000.00	391510.00

Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	[11] <b>High Mast 14 Mtr.</b> TOP A/F 105 Mm, BOTTOM A/F 400 Mm, No. of Sec. No. - 1, Bottom Thickness - 3 mm, Size Base Plate - dia. 520 mm x 16 mm thick, Foundation Bolt Size M24 x 850 mm, Qty - 8 Nos., <b>Suitable for mounting Fitting of Light - 6 Nos.</b>	Ea.	154300.00	21750.00	176050.00
	[12] <b>High Mast 18 Mtr.</b> TOP A/F 150 Mm, BOTTOM A/F 450 Mm, No. of Sec. No. - 2, Bottom Thickness - 4 mm, Top Sec. - 3 mm, Size Base Plate - dia. 630 mm x 16 mm thick, Foundation Bolt Size M24 x 880 mm, Qty - 10 Nos., <b>Suitable for mounting Fitting of Light - 10 Nos.</b>	Ea.	201290.00	24500.00	225790.00
	[13] <b>High Mast 18 Mtr.</b> TOP A/F 150 Mm, BOTTOM A/F 400 Mm, No. of Sec. No. - 2, Bottom Thickness - 4 mm, Top Sec. - 3 mm, Size Base Plate - dia. 580 mm x 20 mm thick, Foundation Bolt Size M24 x 870 mm, Qty - 12 Nos., <b>Suitable for mounting Fitting of Light - 12 Nos.</b>	Ea.	207355.00	24500.00	231855.00
	[14] <b>High Mast 25 Mtr.</b> TOP A/F 170 Mm, BOTTOM A/F 450 Mm, No. of Sec. No. - 2, Bottom Thickness - 4 mm, Top Sec. - 3 mm, Size Base Plate - dia. 680 mm x 35 mm thick, Foundation Bolt Size M30 x 1000 mm, Qty - 12 Nos., <b>Suitable for mounting Fitting of Light - 12 Nos.</b>	Ea.	278820.00	31000.00	309820.00
	[15] <b>High Mast 25 Mtr.</b> TOP A/F 170 Mm, BOTTOM A/F 540 Mm, No. of Sec. No. - 2, Bottom Thickness - 5 mm, Top Sec. - 3 mm, Size Base Plate - dia. 760 mm x 25 mm thick, Foundation Bolt Size M36 x 1000 mm, Qty - 12 Nos., <b>Fitting of Light - 16 Nos.</b>	Ea.	293200.00	31000.00	324200.00
	[16] <b>High Mast 27 Mtr.</b> TOP A/F 170 Mm, BOTTOM A/F 540 Mm, No. of Sec. No. - 2, Bottom Thickness - 4 mm, Top Sec. - 3 mm, Size Base Plate - dia. 800 mm x 32 mm thick, Foundation Bolt Size M36 x 1200 mm, Qty - 12 Nos., <b>Suitable for mounting Fitting of Light - 12 Nos.</b>	Ea.	331245.00	37500.00	368745.00
	[17] <b>High Mast 27 Mtr.</b> TOP A/F 170 Mm, BOTTOM A/F 570 Mm, No. of Sec. No. - 2, Bottom Thickness - 5 mm, Top Sec. - 4 mm, Size Base Plate - dia. 800 mm x 32 mm thick, Foundation Bolt Size M36 x 1200 mm, Qty - 12 Nos., <b>Suitable for mounting Fitting of Light - 16 Nos.</b>	Ea.	335475.00	37500.00	372975.00



Item No	Description	Unit	Cost of Materials	Cost of Labour	Total
	[18] High Mast 36 Mtr. TOP A/F 190 Mm, BOTTOM A/F 640 Mm, No. of Sec. No. - 3, Bottom Thickness - 5 mm, Middle Base Sec mm - 4 Top Sec. - 4 mm, Size Base Plate -dia. 940 mm x 32 mm thick Foundation Bolt Size M36 x 1200 mm, Qty - 12 Nos., Suitable for mounting Fitting of Light - 24 Nos.	Ea.	397300.00	57000.00	454300.00

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