

**INDIAN INSTITUTE OF TECHNOLOGY KANPUR****Tender Notice No. 58/Elect/2019****SCHEDULE OF QUANTITY****Name of Work: Zonal contract for petty electrical works of substations, underground distribution system and feeder pillars etc. (Zone-V).**

Name of the Contractor					
S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
	<b><u>CABLE</u></b>				
1	Supplying & Laying of one no. XLPE cable aluminium conductor steel armoured cable of size 3-1/2 x 25sqmm, grade 1.1kV in following manners.				
a)	In Ground I/c excavation, sand cushioning protective covering, refilling of earth as reqd.	10.00	Mtr.		
b)	In existing Pipe	5.00	Mtr.		
c)	In existing open duct	5.00	Mtr.		
d)	Fixing on surface with MS clamp	2.00	Mtr.		
2	Supplying & Laying of one no. XLPE cable aluminium conductor steel armoured cable of size 3-1/2 x 35sqmm, grade 1.1kV in following manners.				
a)	In Ground I/c excavation, sand cushioning protective covering, refilling of earth as reqd.	10.00	Mtr.		
b)	In existing Pipe	5.00	Mtr.		
c)	In existing open duct	5.00	Mtr.		
d)	Fixing on surface with MS clamp	2.00	Mtr.		
3	Supplying & Laying of one no. XLPE cable aluminium conductor steel armoured cable of size 3-1/2 x 50sqmm, grade 1.1kV in following manners.				
a)	In Ground I/c excavation, sand cushioning protective covering, refilling of earth as reqd.	40.00	Mtr.		
b)	In existing Pipe	5.00	Mtr.		
c)	In existing open duct	5.00	Mtr.		

S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
d)	Fixing on surface with MS clamp	2.00	Mtr.		
4	Supplying & Laying of one no. XLPE cable aluminium conductor steel armoured cable of size 3-1/2 x 70sqmm, grade 1.1kV in following manners.				
a)	In Ground I/c excavation, sand cushioning protective covering, refilling of earth as reqd.	40.00	Mtr.		
b)	In existing Pipe	5.00	Mtr.		
c)	In existing open duct	5.00	Mtr.		
d)	Fixing on surface with MS clamp	2.00	Mtr.		
5	Supplying & Laying of one no. XLPE cable aluminium conductor steel armoured cable of size 3-1/2 x 95sqmm, grade 1.1kV in following manners.				
a)	In Ground I/c excavation, sand cushioning protective covering, refilling of earth as reqd.	50.00	Mtr.		
b)	In existing Pipe	5.00	Mtr.		
c)	In existing open duct	5.00	Mtr.		
d)	Fixing on surface with MS clamp	2.00	Mtr.		
6	Supplying & Laying of one no. XLPE cable aluminium conductor steel armoured cable of size 3-1/2 x 120 sq.mm. grade 1.1kV in following manners.				
a)	In Ground I/c excavation, sand cushioning protective covering, refilling of earth as reqd.	10.00	Mtr.		
b)	In existing Pipe	5.00	Mtr.		
c)	In existing open duct	5.00	Mtr.		
d)	Fixing on surface with MS clamp	2.00	Mtr.		
7	Supplying & Laying of one no. XLPE cable aluminium conductor steel armoured cable of size 3-1/2 x 185sqmm, grade 1.1kV in following manners.				
a)	In Ground I/c excavation, sand cushioning protective covering, refilling of earth as reqd.	5.00	Mtr.		
b)	In existing Pipe	5.00	Mtr.		

S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
c)	In existing open duct	5.00	Mtr.		
d)	Fixing on surface with MS clamp	2.00	Mtr.		
8	Supplying & Laying of one no. XLPE cable aluminium conductor steel armoured cable of size 3-1/2 x 240sqmm, grade 1.1kV in following manners.				
a)	In Ground I/c excavation, sand cushioning protective covering, refilling of earth as reqd.	50.00	Mtr.		
b)	In existing Pipe	5.00	Mtr.		
c)	In existing open duct	5.00	Mtr.		
d)	Fixing on surface with MS clamp	2.00	Mtr.		
9	Supplying & Laying of one no. XLPE cable aluminium conductor steel armoured cable of size 3-1/2 x 300sqmm, grade 1.1kV in following manners.				
a)	In Ground I/c excavation, sand cushioning protective covering, refilling of earth as reqd.	50.00	Mtr.		
b)	In existing Pipe	10.00	Mtr.		
c)	In existing open duct	10.00	Mtr.		
d)	Fixing on surface with MS clamp	5.00	Mtr.		
10	Supplying & Laying of one no. XLPE cable aluminium conductor steel armoured cable of size 3-1/2 x 400sqmm, grade 1.1kV in following manners.				
a)	In Ground I/c excavation, sand cushioning protective covering, refilling of earth as reqd.	40.00	Mtr.		
b)	In existing Pipe	10.00	Mtr.		
c)	In existing open duct	10.00	Mtr.		
d)	Fixing on surface with MS clamp	5.00	Mtr.		
	<b>CABLE LAYING</b>				
11	Laying of one no. PVC insulated and PVC sheathed /XLPE power cable of 1.1kV grade <b>direct in ground</b> including excavation, sand cushioning, protective covering and refilling the trench etc. as reqd.				

S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
a)	Upto 35 sqmm	10.00	Mtr.		
b)	35 sqmm to 95 sqmm	10.00	Mtr.		
c)	95 sqmm to 185 sqmm	10.00	Mtr.		
d)	185 sqmm to 400 sqmm	10.00	Mtr.		
12	Laying and fixing of one no. PVC insulated and PVC sheathed /XLPE power cable of 1.1kV grade on <b>surface</b> as reqd.				
a)	Upto 35 sqmm(Clamped with 1 mm thick saddle)	10.00	Mtr.		
b)	Above 35 Sq.mm and up to 95 sq.mm(Clamped with 25X3mm MS flat clamp)	10.00	Mtr.		
c)	Above 95 Sq.mm and up to 185 sq.mm(Clamped with 25/40X3mm MS flat clamp)	10.00	Mtr.		
d)	Above 185 Sq.mm and up to 400 sq.mm(Clamped with 40X3mm MS flat clamp)	10.00	Mtr.		
13	Laying of one no. PVC insulated and PVC sheathed /XLPE power cable of 1.1kV grade in the existing RCC/Hume/Stoneware/Metal <b>pipe</b> as reqd.				
a)	Upto 35 sqmm	10.00	Mtr.		
b)	35 sqmm to 95 sqmm	10.00	Mtr.		
c)	95 sqmm to 185 sqmm	10.00	Mtr.		
d)	185 sqmm to 400 sqmm	10.00	Mtr.		
14	Laying of one no. PVC insulated and PVC sheathed /XLPE power cable of 1.1kV grade in the existing masonry <b>open duct</b> as reqd.				
a)	Upto 35 sqmm	10.00	Mtr.		
b)	35 sqmm to 95 sqmm	10.00	Mtr.		
c)	95 sqmm to 185 sqmm	10.00	Mtr.		
d)	185 sqmm to 400 sqmm	10.00	Mtr.		
15	Digging cable trench/lifting brick/s and cable for locating fault and refilling the trench, ramming & making good the same as reqd.	10.00	Mtr.		

S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
16	Lifting removing cable from trench/clamps, making role & depositing the same in store I/c cartage.				
a)	upto 35 sqmm	50.00	Mtr.		
b)	35 to 95sq.mm	20.00	Mtr.		
c)	95 to 185sq.mm	20.00	Mtr.		
d)	185 to 400sq.mm	20.00	Mtr.		
17	Dismantling and refixing brass compression type gland up to 400 sq. mm. cable	20.00	Nos.		
18	Supplying and making straight through joint with heat shrinkable kit including ferrules and other jointing materials for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.				
a)	3-1/2x25 sqmm	4.00	Set		
b)	3-1/2x35 sqmm	4.00	Set		
c)	3-1/2x50 sqmm	4.00	Set		
d)	3-1/2x70 sqmm	4.00	Set		
e)	3-1/2x95 sqmm	4.00	Set		
f)	3-1/2x120 sqmm	4.00	Set		
g)	3-1/2x150 sqmm	4.00	Set		
h)	3-1/2x185 sqmm	4.00	Set		
i)	3-1/2x225 sqmm	4.00	Set		
j)	3-1/2x240 sqmm	2.00	Set		
k)	3-1/2x300 sqmm	2.00	Set		
l)	3-1/2x400 sqmm	2.00	Set		
m)	4x25 sqmm	4.00	Set		

S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
19	Supplying and making indoor end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed/XLPE aluminium conductor cable of 1.1kV grade as reqd.				
a)	3-1/2x25 sqmm	4.00	Set		
b)	3-1/2x35 sqmm	4.00	Set		
c)	3-1/2x50 sqmm(35mm)	4.00	Set		
d)	3-1/2x70 sqmm(38mm)	4.00	Set		
e)	3-1/2x95 sqmm(45mm)	4.00	Set		
f)	3-1/2x120 sqmm(45mm)	4.00	Set		
g)	3-1/2x150 sqmm(50mm)	4.00	Set		
h)	3-1/2x185 sqmm(57mm)	4.00	Set		
i)	3-1/2x225 sqmm(62mm)	4.00	Set		
j)	3-1/2x240 sqmm(62mm)	4.00	Set		
k)	3-1/2x300 sqmm(70mm)	4.00	Set		
l)	3-1/2x400 sqmm(82mm)	4.00	Set		
m)	4x16/25 sqmm(28mm)	4.00	Set		
20	S&F, Aluminium / copper lug/reducer terminals/ inline connector terminals suitable for following size of conductor.				
a)	16 sq.mm.	15.00	Nos.		
b)	25 sq.mm.	15.00	Nos.		
c)	35 sq.mm.	15.00	Nos.		
d)	50 sq.mm.	15.00	Nos.		
e)	70 sq.mm.	15.00	Nos.		
f)	95 sq.mm.	15.00	Nos.		
g)	120 sq.mm.	20.00	Nos.		
h)	185 sq.mm.	20.00	Nos.		

S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
i)	240 sq.mm.	20.00	Nos.		
j)	300 sq.mm.	20.00	Nos.		
k)	400 sq.mm.	20.00	Nos.		
	<b><u>TELEPHONE</u></b>				
21	S&L, connecting,testing and commissioning 10 pairs telephone armoured cable PVC insulated and PVC sheathed annelaed tinned copper conductor.				
a)	In Ground I/c excavation, sand cushioning protective covering, refilling of earth as reqd.	55.00	Mtr.		
b)	In existing Pipe	14.00	Mtr.		
c)	In existing open duct	13.00	Mtr.		
d)	Fixing on surface with MS clamp	5.00	Mtr.		
22	S&L, connecting,testing and commissioning 20 pairs telephone armoured cable PVC insulated and PVC sheathed annelaed tinned copper conductor.				
a)	In Ground I/c excavation, sand cushioning protective covering, refilling of earth as reqd.	50.00	Mtr.		
b)	In existing Pipe	10.00	Mtr.		
c)	In existing open duct	10.00	Mtr.		
d)	Fixing on surface with MS clamp	5.00	Mtr.		
23	S & L, connecting, commissioning & testing 50 pairs telephone armoured cable PVC insulated and PVC sheathed annealed tinned copper conductor				
a)	In Ground I/c excavation, sand cushioning protective covering, refilling of earth as reqd.	50.00	Mtr.		
b)	In existing Pipe	10.00	Mtr.		
c)	In existing open duct	10.00	Mtr.		
d)	Fixing on surface with MS clamp	5.00	Mtr.		
24	S & L, connecting, commissioning & testing 100 pairs telephone armoured cable PVC insulated and PVC sheathed annealed tinned copper conductor				
a)	In Ground I/c excavation, sand cushioning protective covering, refilling of earth as reqd.	50.00	Mtr.		

S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
b)	In existing Pipe	10.00	Mtr.		
c)	In existing open duct	10.00	Mtr.		
d)	Fixing on surface with MS clamp	5.00	Mtr.		
25	Providing and making telephone cable joints with all jointing material I/c locating fault of sizes.				
a)	For 10/20 pair cable (SLT-2)	4.00	Nos.		
b)	For 50 pair cable (SLT-3)	4.00	Nos.		
c)	For 100 pair cable (SLT-4)	4.00	Nos.		
26	Supplying and fixing following piano type switch/socket on the existing switch box/cover including connections etc as reqd.				
a)	Telephone socket outlet	10.00	Nos.		
27	Supplying and fixing following modular switch/socket on the existing modular plate & switch box including connections but excluding modular plate etc as reqd.				
a)	Telephone socket outlet	2.00	Nos.		
28	Fixing of telephone DP suitable upto 400 pair on wall / floor with suitable brick foundation on bolts and nut etc. as required.	5.00	Nos.		
	<b>Network</b>				
29	Fixing of RJ-45 modular box with cover plate or I/o box for internet on surface/ recessed cutting the wall making good the same as required. ( box and cover plate will be supplied by dept.)	10.00	Nos.		
30	Fixing internet rack on steel fastener including cartage from store to site as reqd complete.	2.00	Nos.		
31	Drawing of optical cable enhanced cat 5/cat 6/telephone/ networking /power cable in existing steel conduit pipe/GI /HDPE pipe including numbering of networking wire from room to rack as reqd.	100.00	Mtr		
32	Supply & laying of HDPE pipe ISI mark of size 32mm dia, 8Kg / cm <sup>2</sup> and minimum 2mm thick I/c cartage loading & unloading etc. as reqd.				



S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
a)	In Ground I/c excavation, sand cushioning protective covering & refilling the trench with dressing of earth etc. as reqd.of earth as reqd.	50.00	Mtr		
b)	In existing pipe	10.00	Mtr.		
c)	Fixing on surface with MS clamp	10.00	Mtr.		
d)	In existing open duct.	10.00	Mtr.		
33	Supply & laying of HDPE pipe ISI mark of size 40mm dia, 8Kg / cm <sup>2</sup> and minimum 2mm thick I/c cartage loading & unloading etc. as reqd.				
a)	In Ground I/c excavation, sand cushioning protective covering & refilling the trench with dressing of earth etc. as reqd.of earth as reqd.	50.00	Mtr		
b)	In existing pipe	10.00	Mtr.		
c)	Fixing on surface with MS clamp	10.00	Mtr.		
d)	In existing open duct.	10.00	Mtr.		
34	S & F following size of PVC casing and capping on surface as reqd.				
a)	20 x 12mm	20.00	Mtr.		
b)	25 x 16mm	20.00	Mtr.		
c)	32 X 16 mm	10.00	Mtr.		
35	Supplying and fixing of GI pipe of following mm dia (nominal), 3 mtrs. length along the pole for protection of under ground cable as required.				
a)	50mm dia	5.00	Nos.		
b)	80mm dia	5.00	Nos.		
36	Providing, laying and fixing following dia G.I. pipe (medium class) in ground complete with G.I. fittings including trenching (75 cm deep) and re-filling etc as required				
a)	50mm dia	5.00	Mtr.		
b)	80mm dia	5.00	Mtr.		
c)	100mm dia	5.00	Mtr.		
d)	150mm dia	2.00	Mtr.		

S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
37	S & F, connecting and commissioning 4 pole on load in sheet steel enclosure changeover switch of following capacity etc. as reqd.				
a)	100A	2.00	Nos.		
b)	200A	2.00	Nos.		
c)	400A	2.00	Nos.		
d)	630A	2.00	Nos.		
38	Supplying, fixing, testing and commissioning of following KVAR Capacitors (Heavy Duty) including dismantling of existing defective and damaged contactor etc as required complete.				
a)	15 KVAR havy duty Ca. no. LV Capacitor CYL HD F5 V440 ABB make or it's equivalent approved make	1.00	Nos.		
b)	20 KVAR havy duty Ca. no. LV Capacitor CYL HD F5 V440 ABB make or it's equivalent approved make	1.00	Nos.		
c)	25 KVAR havy duty Ca. no. LV Capacitor CYL HD F5 V440 ABB make or it's equivalent approved make	2.00	Nos.		
39	S & F 40 amp to 63 amp rating 240 volts 'C' curve 10 kA MCB of following pole in the existing MCB DB complete with connection, testing & commissioning etc as reqd.				
a)	Single Pole	5.00	Nos.		
b)	Double Pole	5.00	Nos.		
c)	Triple Pole	5.00	Nos.		
d)	Four pole	5.00	Nos.		
40	Providing and fixing following rating and breaking capacity and pole MCCB with adjustable thermomagnetic release and terminal spreaders in existing cubicle panel board including drilling holes in cubicle panel, making connections, etc. as required.				
a)	100 A 30kA TPN	2.00	Nos.		

S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
b)	250 A 36kA TPN	2.00	Nos.		
c)	400 A 50kA TPN	2.00	Nos.		
41	Providing and fixing following rating and breaking capacity and pole MCCB with microprocessor base release with overload, short circuit, instantaneous short circuit protection and terminal spreaders in existing cubicle panel board including drilling holes in cubicle panel, making connections, etc. as required.				
a)	100 A 36kA (DN2-250D)	5.00	Each		
b)	160 A 50kA (DN2-250N)	4.00	Nos.		
c)	250 A 70kA (DN2-250S)	2.00	Each		
d)	400 A 70kA (DN3-400S)	2.00	Each		
42	Supplying and fixing of transmitted type rotary handle for following rating MCCB including dismantling existing defective one as required complete.				
a)	16-250 Amp.	1.00	Nos.		
b)	160-630 Amp.	1.00	Nos.		
43	S & F metal enclosure suitable for FP/DP MCB/DP ELCB on surface or recessed etc as reqd.	1.00	Nos.		
44	Supplying and fixing of following ways surface/recess mounting, vertical type, 415 V, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 A, tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs (but without MCBs and incomer) as required. (Note : Vertical type MCB TPDB is normally used where 3 phase outlets are required.)				
a)	8 Way (4+24), double door	1.00	No's		
b)	12 Way (4+36), double door	1.00	No's		
	<b><u>EARTHING</u></b>				

S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
45	Earthing with GI earth electrode 50mm dia x 3 mtr length including earth enhancing compound (Jam Fill quality product) and PIT cover for earthing pit etc as reqd. (193GI JMV) w.e.f 12.12.12	3.00	Nos.		
46	Earthing with Copper bonded earth electrode 50mm dia x 3 mtr length including earth enhancing compound (Jam Fill quality product) and PIT cover for earthing pit etc as reqd. (503 cbe JMV) w.e.f 12.12.12	3.00	Nos.		
47	Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required.	2.00	Nos.		
48	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	2.00	Nos.		
49	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	1.00	Nos.		
50	Supplying and laying 25 mm X 5 mm copper strip at 0.50 metre below ground as strip earth electrode, including connection/ terminating with nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of brass nut bolt & spring washer spaced at 50mm)	10.00	Mtr		
51	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required.	5.00	Mtr.		
52	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required	5.00	Mtr.		
53	Providing and fixing 6 SWG dia. GI wire on surface or in recess for loop earthing alongwith the existing surface / recessed conduit / submain wiring / cable as required.	20.00	Mtr.		

S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
54	Providing and fixing 25 mm X 5 mm copper strip in 40 mm dia G.I. pipe from earth electrode including connection with brass nut, bolt, spring, washer excavation and re-filling etc. as required.	5.00	Mtr.		
55	Providing and fixing 25 mm X 5 mm G.I. strip in 40 mm dia G.I. pipe from earth electrode including connection with G.I. nut, bolt, spring, washer excavation and re-filling etc. as required.	10.00	Mtr.		
56	Supplying, fixing, testing and commissioning of following contactor including dismantling of existing defective and damaged contactor etc as required complete Make L& T or its equivalent approved make.				
a)	MNX 225	1.00	Nos.		
b)	MNX 185	1.00	Nos.		
c)	MNX 95	1.00	Nos.		
d)	MNX 70	2.00	Nos.		
57	Supplying, fixing, testing and commissioning of following rating , HRC fuses 415/500V in existing main switch/ panel including dismantling existing defective one complete as reqd				
a)	Cylindrical type HF 2 to 32 Amp.	5.00	Nos.		
b)	DIN type 63 to 125 Amp.	5.00	Nos.		
c)	DIN type 200 Amp.	5.00	Nos.		
d)	DIN type 315 Amp.	5.00	Nos.		
e)	DIN type 400 Amp.	5.00	Nos.		
f)	Bolted fuse HG / HQ 2-32 Amp.	5.00	Nos.		
g)	Bolted fuse HG / HQ 100 Amp.	5.00	Nos.		
h)	Bolted fuse HG / HQ 125/160 Amp.	5.00	Nos.		
i)	Bolted fuse HG / HQ 315 Amp.	5.00	Nos.		
j)	Bolted fuse HG / HQ 400 Amp.	5.00	Nos.		

S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
58	Fixing MS 250 x 300 x 100 mm /DB / pole fuse box and painting with enamel paint if required as required complete .	1.00	Nos.		
59	Supplying, fixing, testing and commissioning of digital CT operated three phase Ampere Metrer including dismantling of existing defective and damaged meter etc as required complete.	6.00	Nos.		
60	Supplying, fixing, testing and commissioning of 11/33 kV,110 V PT operated digital Volt Meter including dismantling of existing defective and damaged meter etc as required complete.	1.00	Nos.		
61	Supplyng and fixing of 16 A volt.meter selector switch including dismantling of existing defective one as required complete.	2.00	Nos.		
62	Supplyng and fixing of 16 Amp.meter selector switch including dismantling of existing defective one as required complete.	3.00	Nos.		
63	Supplying and fixing Connecting and commissioning of fully automatic starter of following capacity electric motors, 415 V, 50 Hz, 3 phase, in sheet steel enclosure C&S make for Submersible pump as required complete. Make C & S or its equivalent approved make				
a)	up to 12HP DOL	2.00	Nos		
b)	15HP Star delta	1.00	Nos		
	<b>Fan repairing</b>				
64	Rewinding of following fans of following sizes i/c dismantling of rotor cutting the damaged winding and providing rewinding along with insulation paper, varnish, connecting copper leads of suitable quality including dismantling and refixing from normal/abnormal height and refixing as required. (Old burnt wire shall be reatin by the contractor.)				
a)	New model 48"	5.00	Nos.		
b)	Old model 48"/new mode 56"	5.00	Nos.		

S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
65	Rewinding of exhaust fans of following sizes i/c dismantling cutting the damaged winding and providing rewinding along with insulation paper, varnish, connecting copper leads of suitable quality including dismantling and refixing from normal/abnorml height and refixing as required.( old burnt wire shall be retain by the contactor.)				
a)	exhaust fan 12"	1.00	Nos.		
b)	exhaust fan 15"	2.00	Nos.		
c)	exhaust fan 18"	5.00	Nos.		
66	Overhauling of ceiling fan of any size including bearings, checking, cleaning the all parts and supplying & replacement of rubber real, rubber rings, nut bolts, hanger clamps, bearing plates, cotter/ split pin, varnishing if reqd etc, reassembling testing and commissioning of fan as required complete.	50.00	Nos.		
67	Overhauling of exhaust fan of any size including dismantling of all parts and cleaning the fan with kerosene oil / petrol removing ball bearing/ bush and refixing after greasing/ oiling including testing and commissioning as required complete. (spares will be supplied by the Dept.)	20.00	Nos.		
68	Supplying and fixing 2.5 mfd capacitor suitable for ceiling fan.	50.00	Nos.		
69	Supplying and fixing 4 mfd capacitor suitable for exhaust fan.	15.00	Nos.		
70	Painting of ceiling fan any size with one or more coats with supper enamel paint of approved brand i/c cleaning and making smooth surface with emery paper and detergent etc. as required.	10.00	Nos.		
71	Repairing of housing of bearing side /bush side /in fan body in ceiling fan /exhaust fan/ rally fan etc.	10.00	Nos.		
72	Dismantling & refixing of any size following fan from normal height.				
a)	ceiling fan	5.00	Nos.		

S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
b)	Exhaust fan	20.00	Nos.		
73	Cartage of Ceiling fans and regulator / exhaust fan From store to site as reqd.	20.00	Nos.		
74	Cleaning of ceiling fan with detergent at site and replacement of damaged items i.e. rubber real, cotter pin, capacitor clamp, nut and bolts of hanger clamps etc as required.	5.00	Nos.		
75	Supply of following size ball bearings.				
a)	Ball bearing 6201 (NBC - make)	10.00	Nos.		
b)	Ball bearing 6202 (NBC - make)	10.00	Nos.		
c)	Ball bearing 6203 (NBC - make)	10.00	Nos.		
d)	Ball bearing 6204 (NBC - make)	5.00	Nos.		
e)	Ball bearing 6205 (NBC - make)	5.00	Nos.		
	<b>GENERAL :-</b>				
76	Supplying and drawing following sizes of FR-LSH PVC insulated copper conductor, single core cable in the existing surface/ recessed steel/ PVC conduit as required.				
a)	2 x 1.5 Sqmm.	30.00	Mtr.		
b)	2 x 4 Sqmm.	20.00	Mtr.		
c)	2 x 6 Sqmm.	10.00	Mtr.		
d)	3 x 10 sq. mm	15.00	Mtr.		
e)	3 x 16 sq. mm	3.00	Mtr.		
f)	2 x 25 sq. mm	5.00	Mtr.		
g)	1 x 70 sq. mm	5.00	Mtr.		
h)	1 x 150 sq. mm	2.00	Mtr.		



S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
77	Fixing 20/25/32 mm conduit pipe on surface with clamp/ in recessed as required complete ( only conduit pipe supplied by department. free of cost).	10.00	Mtr.		
78	Dismantaling of steel conduit pipe of all sizes from surface/recess I/c cutting the wall and making good the same in case of recessed conduit.	20.00	Mtr.		
79	Locating fault in the cable lines with fault Locating matchine etc and rectifying removing & restoring the same and making good the damages etc as required.	2.00	Nos.		
80	Locating fault in the cable lines with meggar etc and rectifying removing & restoring the same and making good the damages etc as required.	3.00	Nos.		
81	Excavation for foundation in soft soil including dressing of sides and ramming of bottoms, lift upto 1.5 m including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 meter.	20.00	Cum		
82	Excavation for cable trenches of depth upto 1.2 m in soft soil including getting out the excavated soil and disposal of surplus excavated soil as directed within a lead of 50 meter	35.00	Cum		
83	Excavation of the cable trenches in hard rock not exceeding 1.5 meter in width, and lift upto 1.5 meter, including getting out the excavated soil and disposal of excavated soil as directed within a lead of 50 meter	0.50	Cum		
84	Fabricating, supplying & fixing of box of required size made out of 2mm thick CRCA sheet duly powder coated & openable from top - bottom or front as required & fixing the same complete as required.	5.00	Kg.		
85	Providing brick work (in width 225 mm or more) with F.P.S. bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand) at all levels	2.00	Cum		
86	Providing 15 mm thick cement plaster of mix 1:4 (1 cement : 4 fine sand) at all levels.	5.00	Sq.mtr.		

S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
87	Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets, sunken floor etc., up to floor five level, excluding the cost of centering, shuttering and finishing :				
a)	1:1½:3 (1 cement : 1½ coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size).	1.00	Cum		
88	Supplying, Connecting and commissioning of following size aluminum busbar including bending to suitable shape, making hole for nut- bolts, providing and fixing busbar insulaotrs, sleeveing, nut- bolts in existing panel/ box for connections etc.as required complete.				
a)	20.0 mm X 10.0 mm	5.00	Mtr.		
b)	30.0 mm X 10.0 mm	5.00	Mtr.		
c)	40.0 mm X 10.0 mm	5.00	Mtr.		
d)	50.0 mm X 10.0 mm	5.00	Mtr.		
e)	60.0 mm X 10.0 mm	5.00	Mtr.		
f)	80.0 mm X 10.0 mm	5.00	Mtr.		
g)	100.0 mm X 10.0 mm	5.00	Mtr.		
h)	120.0 mm X 10.0 mm	5.00	Mtr.		
89	Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.	10.00	Sq.Mtr		
<b>Total</b>					