

**INDIAN INSTITUTE OF TECHNOLOGY KANPUR**

**Tender Notice No. 20/Elect/2020**

**SCHEDULE OF QUANTITY**

**Name of Work: Extension of High voltage Lab (SH: Electrical Work) i/c providing power points, net points, light fittings and external power cable from substation No. 1**

Name of the Contractor					
S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
1	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed steel conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required.				
a	Group 'C'	40.00	Nos.		
2	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/recessed steel/PVC conduit as reqd.				
a	3 X 1.5 Sq.mm	90.00	Mtr		
b	3 X 2.5 Sq.mm	90.00	Mtr		
c	3 x 4 Sq.mm	180.00	Mtr		
d	6 x 6 sq. mm	50.00	Mtr		
e	3 X 10 Sq.mm	10.00	Mtr		
f	6 X 10 Sq.mm	20.00	Mtr		
g	3 X 16 Sq.mm	10.00	Mtr		
3	Supplying and fixing of following sizes of steel conduit along with accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as reqd.				
a	20 mm	5.00	Mtr		
b	25 mm	10.00	Mtr		
c	32 mm	10.00	Mtr		

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4	Supplying and fixing following of size/modules, GI box along with modular base & cover plate for modular switches in recess etc as reqd.				
a	3 module (100mm x 75mm)	1.00	Nos.		
b	6 module (200mm x 75mm)	1.00	Nos.		
c	8 module (125mm x 125mm)	1.00	Nos.		
d	12 module (200mm x 150mm)	1.00	Nos.		
5	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 volts, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)				
a	12 Way, double door	1.00	Nos.		
6	Supplying and fixing following way prewired TP&N MCB distribution board of steel sheet for 415 volts on surface/ recess complete with loose wire box, terminal connectors for all incoming and outgoing circuits, duly prewired with suitable size FR PVC insulated copper conductor up to terminal blocks, tinned copper bus bar, neutral link, earth bar, din bar, detachable gland plate, interconnections, powder painted including earthing etc. as required.(But without MCB/ RCCB/ Isolator)				
a	8 way ( 4 + 24 ), Double door	1.00	Nos.		
7	Supplying and fixing following way prewired vertical type TP&N MCB distribution board of steel sheet for 415 volts on surface/ recess complete with loose wire box of sheet steel, dust protected, duly powder painted, inclusive of 200 amps tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCB's, terminal connectors for all incoming and outgoing circuits, duly prewired with adequate size of FR PVC insulated copper conductor upto the terminal connector/ neutral link, earthing etc as required (But without MCB/ RCCB/ Isolator). (Note : Prewired vertical type MCB TPDB is normally used where 3 phase outlets are required.)				
a	12 way ( 4 + 36 ) Double door	1.00	Nos.		

S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
8	Supplying and fixing following rating, 240 volts, 'C' series, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc as reqd.				
a	Single Pole ( 5 Amp to 32 Amp )	51.00	Nos.		
b	Double Pole ( 5 Amp to 32 Amp )	1.00	Nos.		
c	Tripple Pole ( 5 Amp to 32 Amp )	2.00	Nos.		
d	Four Pole ( 5 Amp to 32 Amp )	2.00	Nos.		
e	Single Pole ( 40 Amp to 63 Amp )	2.00	Nos.		
f	Double Pole ( 40 Amp to 63 Amp )	1.00	Nos.		
g	Tripple pole ( 40 Amp to 63 Amp )	1.00	Nos.		
h	Four Pole ( 40 Amp to 63 Amp )	2.00	Nos.		
9	Supplying and fixing 20 amps, 240 volts, SPN industrial type, socket outlet, with 2 pole and earth metal enclosed plug top along with 20 amps ' C ' series SP, MCB, in the sheet steel enclosure, on surface or in recess, with chained metal cover for the soc	2.00	Nos.		
10	Providing and fixing following rating and breaking capacity four pole 415V 50Hz MCCB in existing cubicle panel board including drilling holes in cubicle panel, making connections, etc as required.				
a	125 Amp, 25 KA	2.00	Nos.		
b	250 Amp, 35/36 KA	1.00	Nos.		
11	S&F connecting and commissioning independent mounting of MCCB enclosure suitable upto 250 amp MCCB as per approved make in surface/recess I/c cutting the wall and making good the same in case of recessed as per approved make etc as reqd.	3.00	Nos.		
12	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).	4.00	Set		

S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
13	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)	2.00	Set		
14	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.	10.00	Mtr		
15	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required.	90.00	Mtr		
16	Providing & fixing 25mm x 5mm GI strip on surface or in recessd for connection etc. as reqd.	30.00	Mtr		
17	Supplying, installation DLP mini- trunking 32mm x 20mm and accessories white-system with independent cover-without central partion etc. as reqd.	20.00	Mtr.		
18	Supply and fixing of following items for plastic trunking accessories suitable for size 32 mm x 20 mm				
a	End cap	2.00	Nos.		
b	Internal angle/ External angle	4.00	Nos.		
c	Changeable flat angle	2.00	Nos.		
d	Flat Junction	2.00	Nos.		
19	Providing and fixing DLP plastic trunking of size 105 mm x 50 mm without cover on surface as reqd.	70.00	Mtr.		
20	Providing and fixing 85 mm width flexible cover of DLP plastic trunking. (size 105 mm x 50 mm.)	70.00	Mtr.		
21	Supply and fixing of following items for plastic trunking accessories suitable for size 105 mm x 50 mm.				
a	End cap	6.00	Nos.		
b	Internal angle.	8.00	Nos.		
c	External angle	4.00	Nos.		
d	Flat Junction	4.00	Nos.		
e	Changeable flat angle	2.00	Nos.		

S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
f	Separation partitions	50.00	Mtr.		
g	cover joint	15.00	Nos.		
h	Base joint	30.00	Nos.		
22	Supplying and fixing following modular switch/socket on the existing modular plate & switch box/ DLP plastic trunking including connections but excluding modular plate etc as reqd.				
a	5/6 amps switch	51.00	Nos.		
b	15/16 amps switch	17.00	Nos.		
c	3 pin 5/6 amps socket outlet	51.00	Nos.		
d	6 pin 15/16 amps socket outlet	17.00	Nos.		
e	Blanking Plate	2.00	Nos.		
23	Supplying and fixing following Modular GI/plastic base & cover plate on existing modular metal boxes/DLP plastic trunking etc. as required.				
a	3 Module	34.00	Nos.		
b	6 Module	17.00	Nos.		
24	Supplying and fixing stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required.	9.00	Nos.		
25	S/F, connecting, testing and commissioning 18 watt LED surface mounted luminaires with diffuser etc.as reqd.	4.00	Nos.		
26	S/F, connecting, testing and commissioning 34/35/36 watt LED recess mounted luminaires with diffuser suitable for 600 mm X 600 mm moduler POP/Gypsem ceiling etc.as reqd.	20.00	Nos.		
27	Supply & fixing of 7/9 watt wall mounted LED mirror light fitting etc.as reqd.	1.00	Nos		

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28	Supplying and fixing, 118 Watt Maxolid Highbay LED light fitting with toughened glass & PC cover IP66 Make PHILIPS Cat No.BY415P LED145S CW or its equivalent approved make complete with all accessories complete etc.as reqd.	4.00	Nos.		
29	S/F, connecting, testing and commissioning 1 x 20 watt LED tube fitting surface mounting/ceiling suspended luminaires suitable mounting rail for T-LED lamps with 1 No. 20 watt T-LED lamps and connection etc.as reqd	3.00	Nos.		
30	Supply, Installation, testing & commissioning of Ceiling fan of following 220 volts 50 Hz without regulator I/c wiring the down rods of standard length up to 30 cm with 1.5 sqmm PVC insulated copper conductor single core cable etc as reqd.				
a	1200 mm sweep	9.00	Nos		
31	Fixing, Internet Box of size 75mm x 75mm x 40 mm including brass screw on surface / recessed as reqd.	17.00	Nos.		
32	Drawing of computer network cable/ PVC insulated flexible cooper/ Aluminium single core cable of size 1.5sqmm to 25 sqmm/ telephone cable upto 10 pair in existing pipe / casing and capping as reqd including numbering the wires at both the ends.	800.00	Mtr.		
33	S & F metal enclosure suitable for DP/FP MCB/ on surface or recessed etc as reqd.	3.00	Nos.		
34	Supply & laying of one no. PVC insulated and PVC sheathed aluminium conductor steel armoured cable of size 1 C x 300 Sqmm grade 1.1 kV as reqd.				
a	In ground i/c excavation sand cushioning protective covering, refilling of earth as reqd.	200.00	Mtr.		
b	In existing pipe	140.00	Mtr.		
c	In existing open duct.	660.00	Mtr.		
35	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	80 mm dia	35.00	Mtr.		

S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
36	Supplying and making end termination with brass compression gland with aluminium lugs for following size of PVC insulated & PVC sheathed/XLPE aluminium cable of 1.1kV grade as reqd.				
a	1x300 sqmm	8.00	Nos.		
	<b>TOTAL Rs.</b>				