

**INDIAN INSTITUTE OF TECHNOLOGY KANPUR****Tender Notice No. 90 /Elect./2019****SCHEDULE OF QUANTITY****Name of Work: Replacement of existing metal halide / sodium vapour street light in the campus (Phase-II) and providing additional street lights on another side of main road from main gate to Hall-II and nursery to 33 KV substation. (Phase-I).**

Name of the Contractor					
S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
<b>Phase-I</b>					
1	Numbering of street light poles/ceiling fan/exhaust fan/ fluorescent fittings as required.	100.00	Each		
2	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
a	Single pole	90.00	No's		
3	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.	20.00	No's		
4	Supplying and laying 6 SWG G.I. wire at 0.50 metre below ground level for conductor earth electrode, including connection/ termination with GI thimble etc. as required.	3500.00	Mtrs.		
5	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.				
a	2 X 6 sq. mm (19mm)	100.00	No's		
b	2 X 10 sq. mm (19mm)	70.00	No's		
c	2 X 16 sq. mm (22mm)	50.00	No's		
d	3½ X 95 sq. mm (45 mm)	10.00	No's		

S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
e	3½ X 150 sq. mm (50 mm)	10.00	No's		
6	Supplying and erection of galvanised Octagonal street light pole 6mtr. long with Single arm (Bracket) high hot dip with 130mm bottom A/F & 70mm top A/F made up of (BOP-6030) (Make:BAJAJ) with base plate 3mm thickness sheet and 200 mm x 200mm x 12mm size & cap i/c CC foundation complete 1:3:6 ( 1 cement:3 coarse sand:6 stone aggr. 20mm size).including steel reinforcement of RCC work i/cstrengthening,cutting,bending,placing in position and winding all complete up to plinth level Making good etc. as required. Make: Bajaj or its equivalent.	90.00	No's		
7	S/F testing commissioning of street light New generation energy saving and environmental friendly long life LED street light made up of pressure die cast aluminium housing with high power LED cat no. ENDURACITYLINERNEXGENSL48WLED757SAS YBOPC as lighting source and lens embedded PC cover with IP66 protection and impact resistance of IK07. make:havells or its equivalent, on the existing street light pole complete as required.	90.00	No's		
8	Supplying,fixing,testing commissioning of garden light 40W LED postop lantern Luminures. New generation, post-top, energy saving, environmental friendly, long life aesthetically designed with symmetrical light distribution, spun aluminium landscape luminaire with high power LEDs as light source Cat no. LPTO-40-CDL /M, IP 65, make:Crompton Greaves, on the existing pole complete as required.	10.00	Nos.		

S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
9	Supplying and drawing of following sizes of FRLS, PVC insulated copper conductor, 3 core round cable of following size in the existing surface/ recessed steel/ PVC conduit as required.				
a	1.5 sq. mm	850.00	Mtrs.		
10	Supply and laying of HDPE pipe ISI mark of 40mm size inner dia, 2mm thick I/c cartage loading & unloading etc. as reqd.				
a	In ground i/c excavation, sand cushioning, protective covering and refilling the trench with dressing of earth etc. as required.	150.00	Mtrs.		
b	Laying direct in open duct	20.00	Mtrs.		
11	Design, manufacturing ,supplying, fixing, connecting,testing & commissioning of following front operated with lockable door 2mm thick steel enclosure dust vermin proof, Including foundation mounting,out door type street light feeder pillars with IP-65 protection, ,earth terminal and painting suitable for use at 415 volt three phase-4 wire.				
	<b>Incoming: 125 Amp. TPN MCCB 415 volt - 1 No.</b>				
	<b>Outgoing : 63 Amp SPMCB- 10Nos,32 amp SP MCB 5 Nos, multifunctional digital timer equivalent to Astorex D21 of legrand make , power contactor-75 amps, 4Pole and terminal block as reqd.</b>				
	The feeders shall be completed with all interconnections, bus bar, phase indication lamp and manual operation with On/ Off button etc. complete as per design approved .	5.00	Nos.		

S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
12	S/Laying of one no. PVC insulated and PVC sheathed /XLPE aluminium conductor steel armoured cable of size 2x6 sqmm, grade 1.1kV as reqd.				
a	In Ground I/c excavation, sand cushioning protective covering, refilling as reqd.	1000.00	Mtr.		
b	In existing Pipe	100.00	Mtr.		
c	In existing open duct	100.00	Mtr.		
13	S/Laying of one no. PVC insulated and PVC sheathed /XLPE aluminium conductor steel armoured cable of size 2x10 sqmm, grade 1.1kV as reqd.				
a	In Ground I/c excavation, sand cushioning protective covering, refilling as reqd.	1000.00	Mtr.		
b	In existing Pipe	100.00	Mtr.		
c	In existing open duct	100.00	Mtr.		
14	S/Laying of one no. PVC insulated and PVC sheathed /XLPE aluminium conductor steel armoured cable of size 2x16 sqmm, grade 1.1kV as reqd.				
a	In Ground I/c excavation, sand cushioning protective covering, refilling as reqd.	1000.00	Mtr.		
b	In existing Pipe	100.00	Mtr.		
c	In existing open duct	100.00	Mtr.		
15	S/Laying of one no. PVC insulated and PVC sheathed /XLPE aluminium conductor steel armoured cable of size 31/2x95 sqmm, grade 1.1kV as reqd.				
a	In Ground I/c excavation, sand cushioning protective covering, refilling as reqd.	300.00	Mtr.		
b	In existing Pipe	10.00	Mtr.		
c	In existing open duct	10.00	Mtr.		

S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
16	S/Laying of one no. PVC insulated and PVC sheathed /XLPE aluminium conductor steel armoured cable of size 31/2x150 sqmm, grade 1.1kV as reqd.				
a	In Ground I/c excavation, sand cushioning protective covering, refilling as reqd.	400.00	Mtr.		
b	In existing Pipe	30.00	Mtr.		
c	In existing open duct	30.00	Mtr.		
17	Supplying and fixing of GI pipe of 80mm dia (medium class) 3 mtrs along the pole for protection of under ground cable as reqd.				
a	50mm dia	50.00	Mtr.		
b	80mm dia	100.00	Mtr.		
18	Supplying & fixing bakelite sheet 6mm (1/4") complete with nut & bolts as reqd.	4000.00	Sq.inch		
19	S&F brass neutral link 5/8" square rod 6 way as required I/c hole and drilling & tapping with suitable size.	200.00	Nos.		
	<b>Phase-II</b>				
1	Numbering of street light poles/ceiling fan/exhaust fan/ fluorescent fittings as required.	10.00	Each		
2	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
a	Single pole	70.00	No's		
3	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.	10.00	No's		

S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
4	Supplying and laying 6 SWG G.I. wire at 0.50 metre below ground level for conductor earth electrode, including connection/ termination with GI thimble etc. as required.	100.00	Mtrs.		
5	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.				
a	2 X 6 sq. mm (19mm)	110.00	No's		
b	2 X 10 sq. mm (19mm)	110.00	No's		
c	2 X 16 sq. mm (22mm)	10.00	No's		
d	3½ X 95 sq. mm (45 mm)	10.00	No's		
e	3½ X 150 sq. mm (50 mm)	10.00	No's		
6	Supplying and embedding following dia G.I. pipe (medium class) in pole collar/ foundation (during casting) for cable entry including bending the pipe to the required shape complete as required.				
a	40mm dia	140.00	Mtr.		
7	Dismantling of ST pole/ street light standard/ strut embedded in brick ballast foundation/ cement foundation etc. as required.	20.00	Each		
8	Dismantling RCC of pole/ street light standard/ strut embedded in cement concrete foundation etc. as required.	20.00	Each		
9	Supplying and drawing of following sizes of FRLS, PVC insulated copper conductor, 3 core round cable of following size in the existing surface/ recessed steel/ PVC conduit as required.				
a	1.5 sq. mm	200.00	Mtrs.		

S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
10	Supply and laying of HDPE pipe ISI mark of 40mm size inner dia, 2mm thick I/c cartage loading & unloading etc. as reqd.				
a	In ground i/c excavation, sand cushioning, protective covering and refilling the trench with dressing of earth etc. as required.	40.00	Mtrs.		
b	Laying direct in open duct	40.00	Mtrs.		
11	Supply and laying of HDPE pipe ISI mark of 63mm size inner dia, 2mm thick I/c cartage loading & unloading etc. as reqd.				
a	In ground i/c excavation, sand cushioning, protective covering and refilling the trench with dressing of earth etc. as required.	40.00	Mtrs.		
b	Laying direct in open duct	40.00	Mtrs.		
12	S/Laying of one no. PVC insulated and PVC sheathed /XLPE aluminium conductor steel armoured cable of size 2x6 sqmm, grade 1.1kV as reqd.				
a	In Ground I/c excavation, sand cushioning protective covering, refilling as reqd.	100.00	Mtr.		
b	In existing Pipe	20.00	Mtr.		
c	In existing open duct	20.00	Mtr.		
13	S/Laying of one no. PVC insulated and PVC sheathed /XLPE aluminium conductor steel armoured cable of size 2x10 sqmm, grade 1.1kV as reqd.				
a	In Ground I/c excavation, sand cushioning protective covering, refilling as reqd.	100.00	Mtr.		
b	In existing Pipe	10.00	Mtr.		
c	In existing open duct	10.00	Mtr.		

S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
14	S/Laying of one no. PVC insulated and PVC sheathed /XLPE aluminium conductor steel armoured cable of size 2x16 sqmm, grade 1.1kV as reqd.				
a	In Ground I/c excavation, sand cushioning protective covering, refilling as reqd.	100.00	Mtr.		
b	In existing Pipe	10.00	Mtr.		
c	In existing open duct	10.00	Mtr.		
15	Supplying & fixing bakelite sheet 6mm (1/4") complete with nut & bolts as reqd.	500.00	Sq.inch		
16	S&F brass neutral link 5/8" square rod 6 way as required I/c hole and drilling & tapping with suitable size.	50.00	Nos.		
17	S&F, connecting and commissioning looping type cable end control box with MS sheet of 16 SWG of size 200 mm x 200 mm x 125 mm having 1 no. 6amp to 32 amp SPMCB 250 volt and 2 nos. brass neutral link 12.5 mm square rod 6 way approx. 60 mm long and fixed on 5 mm thick bakelite sheet. Box shall have almirah type hing and panel key type lock front door duly painted with earthing strud etc. complete as required.	50.00	Nos.		
18	Disconnecting and Dismantalling damaged Switch /DB/KWH meter/pole fuse box of any size from site and depositing in store I/c cartage etc. as reqd.	100.00	Nos.		
19	Dismantling of cross arm / street light brakcet/street light fitting from street light pole complete and depositing in the department store as required.	3050.00	Nos.		
20	Fixing of Switch /DB/KWH meter/pole fuse box of any size from site and depositing in store I/c cartage etc. as reqd.	100.00	Nos.		



S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
21	S/F testing commissioning of street light Luminures. New generation energy saving and environmental friendly long life LED street light made up of pressure die cast aluminium housing with high power LED as lighting source and lens embedded PC cover IP66 protection and impact resistance of IK07 cat No. ENDURAPEARLPLUSL60WLED757PASYTOPC, make: havells or its equivalent, on the existing street light pole complete as required.	800.00	Nos.		
22	S/F testing commissioning of street light Luminures. Energy saving and environmental friendly long life LED street light made up of pressure die cast aluminium housing with high power LED as lighting source and lens embedded PC cover having IP65 protection and Impact resistance of IK07. cat No. ENDURACITYLITEPLATPLUSL35WLED757SASYBOPC, make: havells or its equivalent, on the existing street light pole complete as required.	2200.00	Nos.		
23	Supplying and fixing of GI pipe of 50mm dia (medium class) 3 mtrs along the pole for protection of under ground cable as reqd.	10.00	Mtr.		
24	S&F M.S. clamps for fixing insulator 'D' clamp street light bracket / cross arm, GI pipe etc. as required.	50.00	No's		
25	Digging cable trench/lifting brick/s and cable for locating fault and refilling the trench, ramming & making good the same as reqd.	50.00	Mtr.		
26	Dismantling and refixing brass compression type gland up to 35 sq. mm. cable	50.00	Nos.		

S. No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
27	Supplying,fixing,testing commissioning of garden light 40W LED postop lantern Luminures. New generation, post-top, energy saving, environmental friendly, long life aesthetically designed with symmetrical light distribution, spun aluminium landscape luminaire with high power LEDs as light source Cat no. LPTO-40-CDL /M, IP 65, make:Crompton Greaves, on the existing pole complete as required.	200.00	Nos.		
<b>Total Rs. (Phase-I &amp; Phase-II)</b>					