

**INDIAN INSTITUTE OF TECHNOLOGY KANPUR****Tender Notice No. 125/Elect./2019****SCHEDULE OF QUANTITY****Name of Work: Construction of kitchen, rooms & other amenities near Marriage Lawn Type-2 (SH: Electrical work).****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 1.5sq.mm FRLS PVC insulated copper conductor single core cable etc. as required .				
a)	Group C	76.00	Point		
2	Wiring for twin control light point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface/recessed steel conduit,2 way modular type switch, modular plate, suitable GI box and Earthing the point with 1.5sq.mm FRLS PVC insulated copper conductor single core cable etc. as required.	6.00	Point		
3	Wiring for group controlled (looped) light point/fan point/exhaust fan point/ call bell point (without independent switch etc.) with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable in surface/recessed steel conduit, and Earthing the point with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable etc. as required.				
a)	Group C	55.00	Point		
4	Wiring for circuit/ sub main wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed steel conduit as required.				
a)	2 X 1.5 sq. mm +1 X 1.5 sq. mm earth wire	600.00	Metre		
b)	2 X 4 sq. mm +1 X 4 sq. mm earth wire	400.00	Metre		
c)	2 X 6 sq. mm +1 X 6 sq. mm earth wire	50.00	Metre		
d)	4 X 16 sq. mm + 2 X 6 sq. mm earth wire	20.00	Metre		

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5	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 required.				
a)	20 mm	50.00	Mtr.		
b)	25 mm	30.00	Mtr.		
c)	32 mm	10.00	Mtr.		
6	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 amps modular socket outlet and 5/6 amps modular switch, connection etc. as required. (For light plugs to be used in non residential buildings).	45.00	Each		
7	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 amps modular socket outlet and 15/16 amps modular switch, connection etc. as required.	40.00	Each		
8	Supplying and drawing 2 pair 0.5 mm dia FRLS PVC insulated annealed copper conductor, unarmoured telephone cable in the existing surface/ recessed steel/ PVC conduit as required.	40.00	Metre		
9	Supplying and fixing Telephone socket outlet (RJ-11) modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.	2.00	Each		
10	Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc. as required.				
a)	1 or 2 Module (75 mmX75 mm)	5.00	Each		
b)	4 Module (125 mmX75 mm)	5.00	Each		

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11	Providing and fixing circular/ Hexagonal cast iron or M.S. sheet box for ceiling fan clamp, of internal dia 140 mm, 73 mm height, top lid of 1.5 mm thick M.S. sheet with its top surface hacked for proper bonding, top lid shall be screwed into the cast iron/ M.S. sheet box by means of 3.3 mm dia round headed screws, one lock at the corners. Clamp shall be made of 12 mm dia M.S. bar bent to shape as per standard drawing.	15.00	Nos.		
12	Supply and fixing metal box of following size (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including painting etc. required .				
a)	150 mm x 150 mm x 60 mm	2.00	Set		
b)	180mm x 100 mm x 60 mm	2.00	Set		
c)	200 mm x 150 mm x 60 mm	2.00	Set		
d)	250 mm X 300 mm X 100 mm	2.00	Set		
13	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)	1 X 1.5 Sq.mm	20.00	Mtr		
b)	2 X 1.5 Sq.mm	20.00	Mtr		
c)	3 X 1.5 Sq.mm	20.00	Mtr		
d)	2 x4 Sq.mm..	20.00	Mtr.		
e)	3 x 4 Sq.mm	30.00	Mtr		
f)	2 x10 Sq.mm..	10.00	Mtr.		
g)	6 x10 Sq.mm..	10.00	Mtr.		
14	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.				
a)	5/6 Amp switch	5.00	Nos.		
b)	3 pin, 5/6 Amp socket	5.00	Nos.		
c)	Blanking plate	20.00	Nos.		
d)	two module stepped type electronic fan regulator	15.00	Nos.		

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15	Supplying and fixing of following way, single pole and neutral, sheet steel, MCB distribution board, 240 volts, on surface / recess, complete with loose wire box, terminal blocks, duly prewired with suitable size of FRLS PVC insulated copper conductor up to terminal blocks ,tinned copper bus bar, neutral link, earth bar, din bar, detachable gland plate, interconnection, phosphatized and powder painted including Earthing etc. as required (But without MCB/RCCB/Isolator).				
a)	8 Way Double door	1.00	Each		
16	Supplying and fixing 8 way (4 + 24), Double door way, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 V, 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)	3.00	Each		
17	Supplying and fixing following rating and pole , 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 (5-32A)	76.00	Each		
b)	Double pole(5-32A)	2.00	Each		
c)	Four Pole (40-63A)	3.00	Each		
18	Supplying and fixing single pole blanking plate in the existing MCB DB complete etc. as required.	5.00	Each		
19	Supplying and fixing following rating, double pole, (single phase and neutral), 240 V, residual current circuit breaker (RCCB), having a sensitivity current 300 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
a	40 Amps	1.00	Each		
b	63 Amps	9.00	Each		

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20	Supply and fixing 20 Amp. 240 volts SPN industrial type socket outlet with two pole and earth metal enclosure plug top along with 20 Amp. C series SP MCB in sheet steel enclosure on surface in recess with chain metal cover for the socket outlet and complete with connection testing and commissioning etc. as required.	2.00	Nos.		
21	S & F metal enclosure suitable for DP/TPN MCB / DP ELCB on surface or recessed etc. as reqd.	1.00	Nos.		
22	Supplying, Installation, testing and commissioning of M.V. cubical type totally enclosed free standing type, dust, dump and vermin proof Main LT Panel complete with bus bars , MV danger notice plate, Ammeter, Ammeter selector switch , voltmeter , Voltmeter selector switch , indicating lamps, CT's , Interconnection with suitable capacity aluminium strips / rods, connection of incoming and outgoing cables with thimbles , stove enamelled painted and having following incoming and outgoing ACB, MCCB, switch fuse/ fuse with complete as required.				
	1 no. 250A, 415V, Ics= 35kA, 4P MCCB with variable O/C &, S/C and E/F releases.				
	1 No. Digital type multifunction meter of CL 1.0, CTR-/1A to show KWH, KVAH, P.F., H2 and digital 0 - 500V voltmeter with selector switch, 0-125A ammeter with selector switch, and set of cast resin C.T.'s 200/5A				
	1 Set of phase indicating lamp with MCB.				
	BUS BARS:				
	400A four pole bus bars of aluminium alloy.				
	OUT GOING:				
	6 nos. 100A TPN MCCB of 25 kA.	1.00	Set		
23	Supplying and laying one number of 3 1/2 x 400 sq.mm. XLPE power cables (heavy duty) aluminium conductor, steel armoured cable of 1.1kV grade as per IS:1554 (Part-1) as reqd complete in following manners.				
a)	Direct in ground I/c excavation, sand cushioning, protective covering and refilling the trench etc. as reqd.	230.00	Mtr.		
b)	Laying charges direct in pipe	25.00	Mtr.		

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c)	Laying charges direct in open duct	5.00	Mtr.		
d)	Laying charges on surface 25x 3 mm MS flat Clamp) as required complete	8.00	Mtr.		
24	Supplying and making end termination with brass compression glands and aluminium lugs for following sizes of XLPE aluminium conductor cable of 1.1. kv grade as required.				
a)	3 1/2 x 400 sq.mm	2.00	Set		
25	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	Each		
26	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	30.00	Metre		
27	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	10.00	Metre		
b)	80mm dia	20.00	Metre		
28	Supply & laying of HDPE pipe ISI mark of size 32 mm dia, 8Kg / cm ² and minimum 2mm thick I/c cartage loading & unloading etc. as reqd.				
a)	Direct in ground I/c excavation, sand cushioning, protective covering and refilling the trench etc. as reqd.	230.00	Mtr.		
b)	Laying charges direct in pipe	25.00	Mtr.		
c)	Laying charges direct in open duct	5.00	Mtr.		
d)	Laying charges on surface	8.00	Mtr.		
29	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.	500.00	Mtr.		
30	Supplying and laying Insulating mat "Shock safe" in front of electrical panels, ISI marked as required complete. 2.5 mm thick class B up to 11 kV	2.00	sq. Mtr.		

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31	Supply and installation testing and commissioning of 38W LED surface mounted, IP20, 3300 Lumens colour temperature 6500 K, with metallic CRCA powder coated housing cover highefficiency diffuser, THD less than10, power factor above 0.9. cat no. SM 365 Philips make or its equivalent approved make)	35.00	Each		
32	Supply and installation testing and commissioning of 18W LED surface mounted, IP20, 2000 Lumens colour temperature 6500 K, with metallic CRCA powder coated housing cover highefficiency diffuser, THD less than10, power factor above 0.9. cat no. SM 251/261 Philips make or its equivalent approved make)	50.00	Each		
33	Supply and fixing testing and commissioning of 1X10 watt LED mirror light fixture with Electronic driver, lamp, reflector, diffuser, MS body/housing holder etc. complete with all fixing accessories and lamp as required complete.(eq. To Havells ENDURA LINEAR NEOBS 10W LED 865 SPCWH or its equivalent approved make)	7.00	Each		
34	Supply and fixing testing and commissioning of 1X10 watt LED bulkhead fixture with Electronic driver, lamp, reflector, diffuser, MS body/housing holder etc. complete with all fixing accessories and lamp as required complete.(eq. To Havells cat. no. RUG BY NEO NFT 10W LED 760 SSYMBOPC or its equivalent approved make)	2.00	Each		
35	Supply installation testing and commissioning of 5 star rated 1200mm sweep ceiling fan, ISI marked, along with copper wound stator, blades, capacitor, down rod, split pin, reel but without regulator complete as required including wiring down rod with 1.5 sq.mm copper wire. (Havells ES 50 Premium or its equivalent approved make)	13.00	Each		
36	Supply installation testing and commissioning of 300 mm sweep metal body heavy duty, 900 RPM Exhaust fan with guard/ shutter and mounting arrangement.	2.00	Each		
37	Supply installation testing and commissioning of 450 mm sweep metal body heavy duty, 900 RPM Exhaust fan with guard/ shutter and mounting arrangement.	7.00	Each		

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38	Supplying and fixing 3 pin, 5 A ceiling rose on the existing junction box/ wooden block including connections etc. as required.	15.00	Each		
39	Numbering of ceiling fan/ exhaust fan/ fluorescent fittings as required.	80.00	Each		
40	Providing and fixing M.V. danger notice plate of 200 mm X 150 mm, made of mild steel, at least 2 mm thick, and vitreous enamelled white on both sides, and with inscription in single red colour on front side as required.	1.00	Nos.		
41	Supplying, installation, testing and commissioning of Astronomical time switch of following configuration to be mounted in feeder pillars / Lighting DBs for automatic switching On & OFF of street lights at sun set & sun rise or twilight(Auto ON, Auto OFF, Auto modes) with manual override facility with 12/24 hour display format with suitable battery and indication for relay status i/c programming at site complete as required.				
a)	1 out put per phase and suitable for single phase only	1.00	Nos		
	Total Rs.				