

UNIVERSITY OF KERALA							
ENGINEERING UNIT, KARIAVATTOM							
TENDER SCHEDULE FOR ELECTRIFICATION TO THE NEW BUILDING OF UNIVERSITY INSTITUTE OF TECHNOLOGY(UIT), PIRAPPANCODE, THIRUVANANTHAPURAM							
SI No	Qty	Unit	Description of Item	unit	Rate	Rate in words	Amount
1			Supply and wiring points according to IS 732-1989 using rigid PVC ivory conduit of minimum size 20 mm with specials conforming to IS 9537 part III 1983 and with suitable size specials conforming to IS 3419-1988, fixing the conduit using metal saddles spacing not exceeding 50 cm or concealed suitably and with 1.00 sq mm PVC insulated stranded single core FR copper conductor cable 650V grade, including <i>providing switch board main and continuous earthing with 14 SWG copper</i> , required quantity of copper earth socket, brass bolt and nut crimping/ etc with suitable size modular type metal switch boxes, <i>modular type front plates (white)</i> etc. up to and including 6A modular type ROHS compliant SP switches and making good the surface of wall, colour washing etc. complete. All the terminations in the switch boards and DB's shall be tinned and the wires shall be drawn and fixed along the periphery of the box using suitable ties, tie mounts etc as required.				
a	34	Nos	Single control light point with 6A, 3 plate ceiling rose	E	841.00	Rupees Eight hundred and forty one only	28,594.00
b	4	Nos	Single control light point without ceiling rose	E	947.00	Rupees Nine hundred and forty seven only	3,788.00
c	28	Nos	Single control ceiling fan point with 6 A, 3 plate ceiling rose & with socket size stepped electronic regulator.	E	1498.00	Rupees One thousand Four hundred and ninety eight only	41,944.00
d	7	Nos	Combined plug point with 6 A, 5 pin plug socket controlled by 6 A switch in the same switch board as that of light points.	E	421.00	Rupees Four hundred and twenty one only	2,947.00

2	32	Nos	Supply, conveyance, testing and commissioning of mounting rail fittings (box type fittings) made out of CRCA sheet of minimum thickness 0.50mm, powder coated/stove enameled suitable for 1x36/40 W FTL with open construction (VPIT) copper choke, starter, starter holder, lamp holder, power factor improvement capacitor etc directly on wall or ceiling with PVC round block neatly painted to suit the fitting and giving connection with required length of 16/0.20mm 3 core copper conductor flex wire conforming to relevant ISS or extending the original wiring and giving connections as required	E	945.00	Rupees Nine hundred and forty five only	30,240.00
3	2	Nos	Supply, conveyance, installation, testing and commissioning of pre-wired street light luminaire in a single piece deep drawn aluminium housing with anodised inside with 85W CFL complete with acrylic cover in the existing GI pipe and giving connections with required length of 16/0.20mm 3 core copper conductor flex wire conforming to relevant ISS or extending the original wiring and giving connection etc as required. (Havells make ORION-Retro 85/ equivalent to philips/bajaj)	E	2646.00	Rupees Two thousand Six hundred and forty six only	5,292.00
4	1	Nos	Supply and fixing <i>cast aluminium stove enameled bulk head fitting</i> with deep drawn anodised aluminium body, epoxy powder coated, heat resistant prismatic glass cover suitable for 9 W CFL to wall / ceiling including giving connections with required length of 16/0.20mm PVC insulated and PVC sheathed 3 core round copper conductor flex wire conforming to relevant ISS or extending the original wiring and making good the surface as required.	E	601.00	Rupees Six hundred and one only	601.00
5			Supply, fabrication, conveyance and fixing the following sizes of B class <i>GI pipe bent to shape / cut and welded to shape</i> and fixing the same to wall / parapet using clamps as noted along with each size, painting with 2 coats of synthetic enamel paint over a coat of zinc chromate primer, making good the damages, colour washing etc as required (for the installation of outdoor light fittings).				0.00

a	4	m	25 mm dia with HG company fabricated clamps	m	274.00	Rupees Two hundred and seventy four only	1,096.00
6	3	Nos	Supply and fixing angle / straight brass lined skirt type, <i>bakelite batten holder</i> without shade and giving connection etc as required	E	63.00	Rupees Sixty three only	189.00
7			Supply and providing the following types and power rated <i>lamps</i> in the existing fittings as required				0.00
a	3	Nos	Normal size 14 W BC / ES retrofit CFL	E	167.00	Rupees One hundred and sixty seven only	501.00
8	28	Nos	Supply and installation of suitable size <i>MS rod type fan clamp</i> as per IS 732 as required.	E	124.00	Rupees One hundred and twenty four only	3,472.00
9	20	m	Supply and providing every <i>additional length of down rod</i> of suitable size heavy gauge GI / WI pipe with 16/0.20mm PVC insulated and PVC sheathed 3 core round copper conductor flex wire conforming in relevant ISS or with original wiring extended including painting as required.	m	115.00	Rupees One hundred and fifteen only	2,300.00
10			<i>Supply</i> , conveyance, installation, testing and commissioning of ceiling fans of the following sizes using standard accessories <i>excluding resistance type regulator</i> , wiring the down rod with 16/0.20mm PVC insulated and PVC sheathed 650/1100V grade 3 core round copper conductor flex wire or with extended original wiring etc. as required.				
a	12		1200 mm sweep - 5 star rated	E	1853.00	Rupees One thousand Eight hundred and fifty three only	22,236.00
11			Supply and fixing the following sizes of <i>PVC Conduit</i> conforming to IS 9537 / 1983 part III along with all required accessories <i>on surface</i> including making good the damages etc as required.				
a	160	m	20 mm dia light gauge	m	83.00	Rupees Eighty three only	13,280.00
b	10	m	25 mm dia light gauge	m	95.00	Rupees Ninety five only	950.00
c	20	m	32 mm dia light gauge	m	119.00	Rupees One hundred and nineteen only	2,380.00

12			Supply and drawing 650/1100 V grade <i>PVC insulated stranded single core copper conductor cables</i> conforming to IS 694 part I 1990 in the existing surface / recess conduit as required including giving necessary connections of the following sizes.				
a	110	m	1.50 sq mm 1 run	m	45.00	Rupees Forty five only	4,950.00
b	10	m	1.50 sq mm 2 run	m	61.00	Rupees Sixty one only	610.00
c	160	m	2.50 sq mm 2 run	m	81.00	Rupees Eighty one only	12,960.00
d	10	m	2.50 sq mm 4 run	m	134.00	Rupees One hundred and thirty four only	1,340.00
e	20	m	4.00 sq mm 2 run	m	106.00	Rupees One hundred and six only	2,120.00
f	50	m	6.00 sqmm 4run	m	260.00	Rupees Two hundred and sixty only	13,000.00
g	20	m	10.00 sq mm 4 run	m	426.00	Rupees Four hundred and twenty six only	8,520.00
13			Supply & Fixing the following types/ sizes of boxes suitable for modular accessories in surface/ recess including making good the damages, colour washing etc as required (<i>Group B/ RoHS compliant</i>)				
a	7	Nos	3 module moulded plastic box on surface	E	194.00	Rupees One hundred and ninety four only	1,358.00
b	13	Nos	8 module moulded plastic box on surface	E	233.00	Rupees Two hundred and thirty three only	3,029.00
14			Supply & Fixing the following types/ sizes of front plates on the existing modular boxes. (<i>Group B/ RoHS compliant</i>)				
a	7	Nos	3 module white/ off-white	E	116.00	Rupees One hundred and sixteen only	812.00
b	13	Nos	8 module white/ off-white	E	187.00	Rupees One hundred and eighty seven only	2,431.00
15			Supply and Fixing the following modular switches & accessories in the existing front plates and giving necessary connections as required (<i>Group B RoHS compliant</i>)				

a	20	Nos	6 A SP 1 way switch	E	119.00	Rupees One hundred and nineteen only	2,380.00
b	13	Nos	16 A SP 1 way switch	E	161.00	Rupees One hundred and sixty one only	2,093.00
c	33	Nos	6A 3 pin shuttered socket	E	157.00	Rupees One hundred and fifty seven only	5,181.00
d	13	Nos	6/16 A socket	E	223.00	Rupees Two hundred and twenty three only	2,899.00
16			Supply and installation of sheet steel, phosphatised and painted, dust and vermin proof enclosure of MCB DB including copper /brass bus bar, neutral link, earth bus and DIN rail suitable for fixing MCB/ isolator etc. fixed on wall using suitable anchor bolts or fixed in recess including cutting hole on the wall , making good the damages, colour washing etc. as required				
a	2	Nos	4 way (8+12) - three phase double cover (IP 42/43)	E	3329.00	Rupees Three thousand Three hundred and twenty nine only	6,658.00
b	1	No	4 way (8+12) - double cover TPN vertical DB with provision for fixing 4P MCB / Isolator/ RCCB/ RCBO as incomer and SP/ TP MCB as outgoing (IP 42/43)	E	7739.00	Rupees Seven thousand Seven hundred and thirty nine only	7,739.00
17			Supply and installation of the following <i>accessories</i> suitable for 50 Hz , AC supply conforming to IS 8828-1995/ IEC 60898 of the following current ratings in the existing enclosure and giving connections as required				
a	2	Nos	40 A four pole mini break isolator	E	716.00	Rupees Seven hundred and sixteen only	1,432.00
b	1	No	63 A four pole mini break isolator	E	752.00	Rupees Seven hundred and fifty two only	752.00
c	2	No	40 A, 4 pole, 30 mA RCCB	E	2780.00	Rupees Two thousand Seven hundred and eighty only	5,560.00

d	20	No	6-32A(C curve)	E	219.00	Rupees Two hundred and nineteen only	4,380.00
e	2	No	32A,10kA, TP MCB (C Curve)	E	908.00	Rupees Nine hundred and eight only	1,816.00
18	2	Nos	Supply and providing <i>plate earthing</i> as per IS 3043 <i>with 600x600x6.30 mm GI/CI earth plate</i> , 20 mm GI watering pipe fixed to the earth plate with 20 x 3 mm GI clamps, GI funnel with weld mesh, filling required quantity of charcoal including construction of inspection chamber with a bed concrete of 1:4:8 PCC using 40 mm broken stone (10 cm thick), brick work in cement mortar 1:6, plastering the surface of brick masonry and the exposed surface of PCC bed with cement mortar 1:4, 12 mm thick, (the finished inside dimension shall be 300 x 300 x 300 mm) but excluding test joint, earth continuity conductor to the plate, and covering at the top. <i>(in hard soil)</i>	E	4102.00	Rupees Four thousand One hundred and two only	8,204.00
19			Supply and providing the following sizes of <i>cast iron gully trap with covering</i> at the top of the inspection chamber of earth pit as required				
a	2	Nos	300 x 300 x 6 mm cast iron gully trap with covering	E	267.00	Rupees Two hundred and sixty seven only	534.00
20			Supply and providing <i>test joint for the earthing system</i> using 2 Nos of the following sizes of strips including cutting and bending to shape, drilling necessary holes and fixed to the watering pipe etc as required.				
a	1	m	2 x 25 x 3 mm GI strip	m	165.00	Rupees One hundred and sixty five only	165.00
21			Supply and providing <i>earth lead from the test joint to the earth electrode</i> using the following sizes of conductors/ strips including cutting, drilling necessary holes (in case of strip) and fixing firmly with plate test joint etc as required.				
a	6	m	25 x 3 mm GI strip	m	73.00	Rupees Seventy three only	438.00
22			Supply and drawing bare <i>earthing conductors</i> of the following sizes <i>along with wiring/ cables</i> and giving connection as required.				

a	10	m	3.15 mm copper conductor (10 SWG)	m	62.00	Rupees Sixty two only	620.00
23			Supply and laying bare <i>earthing conductors</i> of the following sizes <i>laid 0.6 m below ground level including excavating trench</i> of suitable size and refilling etc. as required (<i>in ordinary soil</i>).				
a	20	m	3.15 mm copper conductor (10 SWG)	m	77.00	Rupees Seventy seven only	1,540.00
24			supply of superior quality <i>copper earth socket</i> for the following sizes of earth conductor including crimping etc. as required.				
a	20	Nos	3.15 mm (10 SWG)	E	19.00	Rupees Nineteen only	380.00
25			Supply and providing the following sizes of <i>bolt and nut</i> with washers on the existing MS box / earth bus etc. as required including drilling necessary holes as required				
a	30	Nos	25 x 3mm brass bolt & nut	E	17.00	Rupees Seventeen only	510.00
26			Supplying , threading , laying and jointing of the following sizes of 'B' class <i>GI pipe</i> with all required accessories <i>in ground in the existing trench</i> as protective covering to earth leads.				
a	10	m	15 mm dia	m	90.00	Rupees Ninety only	900.00
27			METER BOARD				
a	1	No	Fabrication, supply, conveyance, installation of fully partitioned, dust and vermin proof enclosure for meter board of size 600x450x300mm as per form 4 of IS 8623 (with latest amendments) using 1.60mm CRCA sheet as per approved design and requirement, with front access facility, hinged doors with two compartments, upper compartments for fixing energy meter with vision panel providing necessary slotted angles for fixing meter, cut outs and neutral links and other compartment for fixing TPN including supply and fixing 1 No. 63A TPN SDF with 40A HRC fuse links and 1 no. 63A neutral link and giving connections with 6 sq mm PVC insulated copper wires etc, fixing the same on wall using suitable angle iron frame work grouted on wall, painting the same with two coats of synthetic enamel paint over a coat of redoxide primer and making good the surface of wall colour washing etc as required.	E	10741.00	Rupees Ten thousand Seven hundred and forty one only	10,741.00

28			Supply and fixing the following types of <i>beeding</i> along the periphery of doors/ other detachable compartments to make the panel assembly dust & vermin proof including sticking with glue				
a	5	m	U section rubber beeding suitable for 1.60/2.00 mm sheet	m	8.00	Rupees Eight only	40.00
29	20	m	Supply and providing 2x2.5sqmm weather proof aluminium wire clipped with 12 SWG GI guy wire for service connection	m	26.00	Rupees Twenty six only	520.00
			MISCELLANEOUS				
30	16	Nos.	Dismantling the existing 1200mm sweep celing fan, scraping, cleaning overhauling and greasing the bearings, reasembling, and painting the same using suitable colour enamel paint, refitting the same in position and giving connections etc as required	E	155.00	Rupees One hundred and fifty five only	2,480.00
31			Supply and renewing the following accessories in place of damaged/ faulty ones of existing celing fan and giving connection				
a	10	Nos.	Fan Condenser	E	62.00	Rupees sixty two only	620.00
b	10	Nos.	TVS nut and bolt	E	10.00	Rupees Ten only	100.00
c	10	Nos.	Rubber shackle	E	21.00	Rupees Twenty one only	210.00
TOTAL							Rs. 2,79,832.00

PAC Rs.2,79,832/- (Rupees Two Lakh Seventy nine thousand Eight hundred and thirty two only)

I/We agreed to execute the work.

1.% below the estimate rate.

2. % above the estimate rate.

3. At the estimate rate.

CONTRACTOR

UNIVERSITY ENGINEER