

UNIVERSITY OF KERALA
ENGINEERING UNIT, KARIAVATTOM

TENDER SCHEDULE FOR PROVIDING COMPUTER PLUGS FOR CENTRALIZED UPS SYSTEM IN THE IDE, SH CAMPUS

SL.NO	Qty		Specification	Unit	Rate	Rate in words	Amount
1			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	270	m	20 mm dia light gauge	m	83.00	Rs. Eighty three only	22,410.00
b	180	m	25 mm dia light gauge	m	95.00	Rs. Ninety five	17,100.00
c	50	m	32 mm dia light gauge	m	119.00	Rs. One hundred & nineteen	5,950.00
2			Supplying and clamping the following sizes of <i>corrugated PVC flexible conduit</i> with necessary compression gland with locking ring and check nut at termination pointed using suitable size GI / painted MS saddles spacing not exceeding 60 cms on surface including making good the damages, colour washing etc. as required.				
a	5	m	16 mm dia	m	48.00	Rs. Forty eight only	240.00
b	5	m	20 mm dia	m	52.00	Rs. Fifty two	260.00
c	5	m	25 mm dia	m	63.00	Rs. Sixty three only	315.00
			<i>Supply & drawing copper wires</i>				
3			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	200	m	2.50 sq mm 2 run +1 Run 2.5 Sqmm green colour for earth wire	m	107.00	Rs. One hundred & seven	21,400.00

b	150	m	2.50 sq mm 4 run+ 2 Run 2.5 Sqmm green colour	m	186.00	Rs. One hundred & eighty six	27,900.00
c	60	m	2.50 sq mm 6 run +3 Run 2.5 Sqmm green colour	m	265.00	Rs. Two hundred & sixty five	15,900.00
d	60	m	6.00 sq mm 2 run +1 Run 6 Sqmm green colour for earth wire (for UPS out going and incoming)	m	202.00	Rs. Two hundred & two	12,120.00
4			Supplying & Drawing the following types of <i>UTP Cable</i> conforming to relevant standards through the existing conduit and giving connections as required				
a	70	m	Cat 6 UTP Cable	m	52.00	Rs. Fifty two	3,640.00
b	10	m	Supply and crimping RJ 45 socket using crimping tools	E	17.00	Rs. Seventeen	170.00
5			Supplying and fixing the following sizes of <i>M.S. Boxes</i> made out of 1.60 mm thick sheet painted grey (both inside and outside) <i>in surface/ recess</i> including phenolic laminated sheet covers of thicknesses noted along with screwed to the box as front cover with steel screws, cup washers etc. making good the surface, painting /colour washing etc. as required.				
a	2	Nos	200x150x 50mm with 3 mm sheet	E	317.00	Rs. Three hundred & seventeen	634.00
			<i>Industrial plug & socket</i>				
6			Supply and fixing <i>SP & N metal case enclosure</i> with 2 pole and earth plug socket with pin suitable for incorporating , SP MCB (including cost of 25 A SP MCB) in surface/ recess including giving necessary connections, making good the damages etc. as required.				
a	4	Nos	250V, 25A, 2 pole and earth	E	917.00	Rs. Nine hundred & seventeen	3,668.00

8			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	10	Nos	1 module moulded plastic box on surface	E	185.00	Rs. One hundred & eighty five	1,850.00
b	60	Nos	8 module moulded plastic box on surface	E	233.00	Rs. Two hundred & thirty three only	13,980.00
c	2	Nos	3 module metal box in recess	E	180.00	Rs. One hundred & eighty only	360.00
9			Supply & Fixing the following types/ sizes of front plates on the existing modular boxes. <i>(Group B/ RoHS compliant)</i>				
a	10	Nos	1 module white/ off-white	E	101.00	Rs. One hundred & one	1,010.00
b	60	Nos	8 module white/ off-white	E	187.00	Rs. One hundred & eighty seven	11,220.00
c	2	Nos	3 module white/ off-white	E	116.00	Rs. One hundred & sixteen only	232.00
10			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	120	Nos	6 A SP 1 way switch with indicator	E	138.00	Rs. One hundred & thirty eight	16,560.00
b	180	Nos	6 A Universal socket	E	147.00	Rs. One hundred & forty seven	26,460.00
c	2	Nos	6/16 A socket	E	223.00	Rs. Two hundred & twenty three only	446.00
d	2	Nos	6 / 10/13 A combined shuttered socket	E	209.00	Rs. Two hundred & nine only	418.00
e	10	Nos	RJ45	E	119.00	Rs. One hundred & nineteen only	1,190.00
f	12	Nos	Blank plate 1 M	E	19.00	Rs. Nineteen only	228.00

11			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	4	Nos	16 way single phase double cover (IP 42/43)	E	1899.00	Rs. One thousand eight hundred & ninety nine only	7,596.00
b	2	Nos	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	Rs. Seven thousand seven hundred & thirty nine only	15,478.00
c	4	Nos	40 A four pole mini break isolator	E	716.00	Rs. Seven hundred & sixteen only	2,864.00
d	4	Nos	40 A double pole mini break isolator	E	356.00	Rs. Three hundred & fifty six	1,424.00
c	4	Nos	40 A, 2 pole, 30 mA RCCB	E	2357.00	Rs. Two thousand three hundred & fifty seven	9,428.00
d	48	Nos	6/10/16/25-32A(C curve)	E	219.00	Rs. Two hundred & nineteen only	10,512.00
12			Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.				
a	15	Nos	4 core 16 sq mm with factory made clamp	m	231.00	Rs. Two hundred & thirty one	3,465.00

13			Supplying siemens / tropodur type nickel plated <i>Double compression brass cable gland</i> for PVC insulated and PVC sheathed armoured aluminium/ copper conductor cable 1.1 KV grade, and making end termination suitable for 2/ 3/ 3½/ 4 core cable of the following sizes as required.				
a	4	Nos	16 sq mm	E	319.00	Rs. Three hundred & nineteen only	1,276.00
14			Supplying and providing <i>earth clamps</i> for siemens/ tropodur type cable glands of suitable length and other dimensions noted along with each size of glands for the following sizes of cables as required.				
a	4	Nos	4sqmm-16 sq mm with 12 mm wide x 1 mm thick clip	E	18.00	Rs. Eighteen only	72.00
15			Supply of superior quality <i>aluminium reducer (banana) cable socket</i> and making core termination of cables of the following sizes including crimping etc. as required.				0.00
a	16	Nos	16 sq mm	E	19.00	Rs. Nineteen only	304.00
16			Supply of superior quality <i>copper tubular cable socket</i> and making core termination of cables of the following sizes including crimping etc. as required.				
a	30	Nos	6 sq mm	E	19.00	Rs. Nineteen only	570.00

17	1	No	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	Rs. Four thousand one hundred & two only	4,102.00
18			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	1	No	300 x 300 x 6 mm cast iron gully trap with covering	E	267.00	Rs. Two hundred & sixty seven only	267.00
19			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	0.3	M	2 x 25 x 3 mm GI strip	m	165.00	Rs. One hundred & sixty five only	49.50

20			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	3	M	3.15 mm bare copper conductor (10 SWG)	m	55.00	Rs. Fifty five only	165.00
21			Supply and drawing bare <i>earthing conductors</i> of the following sizes <i>along with wiring/ cables</i> and giving connection as required.				
a	50	M	3.15 mm copper conductor (10 SWG)	m	62.00	Rs. Sixty two only	3,100.00
22			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 hard soil)</i> .				
a	5	M	3.15 mm copper conductor (10 SWG)	m	97.00	Rs. Ninety seven only	485.00
23			Supply and laying <i>strips</i> of the following sizes <i>along with wiring/ cables</i> and giving connection as required.				
a	0.6	M	25 x 3 mm copper strip tinned at the points of contacts(for earth bus)	m	482.00	Rs. Four hundred & eighty two only	289.20
			SOCKETS FOR earthing CONDUCTORS				
24			supply of superior quality <i>copper earth socket</i> for the following sizes of earth conductor including crimping etc. as required.				
a	10	Nos	3.15 mm (10 SWG)	E	19.00	Rs. Nineteen only	190.00
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	8	Nos	25 x 6 mm brass bolt & nut	E	20.00	Rs. Twenty only	160.00
b	10	Nos	25 x 3mm brass bolt & nut	E	17.00	Rs. Seventeen only	170.00
			SH: PROTECTIVE PIPES TO EARTH LEADS				

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	2	M	15 mm dia	m	90.00	Rs. Ninety only	180.00
27			<i>Painting letters or figures</i> of the following sizes with enamel paint as identification mark to SB, DB, panel board etc as required				
a	50	Nos	2.50 cm, 4 cm or 5 cm height	E	12.00	Rs. Twelve only	600.00
28	4	Nos	Supply and providing <i>5 Kg. Dry Chemical Powder type Fire Extinguisher</i> with hose and clamps including fixing it to wall as required.	E	2324.00	Rs. Two thousand three hundred & twenty four	9,296.00
29	1	No	Supply and providing <i>First Aid Chart</i> duly framed and placed in a conspicuous location for clear vision.	E	204.00	Rs. Two hundred & four only	204.00
30	2	m2	Supply and providing <i>2mm thick</i> Elastomeric fire retardant insulating mat as per IS 15652/2006 to withstand 3.3 KV dielectric strength.	m2	1809.00	Rs.one thousand eight hundred & nine	3,618.00
			Total Rs.				281,525.70

PAC Rs.2,81,526/- (Rupees Two lakh eighty one thousand five hundred & twenty six only)

I/We agreed to execute the work. 1.below the estimate rate.

2.above the estimate rate 3. At the estimate rate.

UNIVERSITY ENGINEER

CONTRACTOR