

UNIVERSITY OF KERALA
ENGINEERING UNIT, KARIAVATTOM.

Tender Schedule for the work of Providing Outdoor lighting in the Kerala University Library Palayam							
Sl. No	Qty		Specification	Unit	Rate	Rate in words	Amount
1	11	Nos	Fabrication and supply of lamp post made from 5 M long 75/80mm dia B class GI pipe with 250x250x6mm Ms anchor plate at the bottom , 2 M long 40 mm dia B class dia GI pipe bend to shape and welded to the lamp post as shown in the layout out drawing, grinding the welded portion for fine surface and shape drilling necessary holes for drawing wires , painting the post with 2 coats of best quality aluminbium paint over a coat of zinchromate primer. The layout drawig should be brought from the section office before fabrication of the lamp post	E			
2	11	Nos	Errection of 1 No lamp post in ground including excavation of pit to a depth of 1 Metre below ground level and 30 cm above ground level ,providing cement concrete mixture 1:2:4 arround the post in circular shape of 400mm dia to a total height of 1.30 M and providing coping at the top , plastering the surface above the ground colour washing etc as required.	E			
3	1	Nos	Providing concrete foundation for .30m above ground level ,providing cement concrete mixture 1:2:4 arround the post in rectangular shape of 350mm *250mm and , plastering the surface above the ground colour washing etc as required.(For flood light)	E			
4	15	Nos	Supply, conveyance, installation, testing and commissioning of pre-wired 48 W LED <i>pressure die cast aluminium IP66 Outdoor light fitting</i> complete with all accessories <i>in the existing GI pipe</i> and giving connections etc. as required.(Havels make ENDURA CITYLINER NEO/Philips/Crompton/Bajaj)	E			

5	2	Nos	Supply, conveyance, installation, testing and commissioning of pre-wired 80 W LED <i>pressure die cast aluminium IP66 Outdoor light fitting</i> complete with all accessories <i>in the existing GI pipe</i> 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 LHETAXU7PN6J080/ Philips/ Crompton/ Bajaj))	E			
6	1	Nos	Supply, conveyance, installation, testing and commissioning of pre-wired 120 W LED <i>pressure die cast aluminium IP66 Outdoor light fitting</i> complete with all accessories <i>in the existing GI pipe</i> 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 LHETAXU71N6J120/ Philips/ Crompton/ Bajaj)	E			
7	1	Nos	Supply, conveyance, installation, testing and commissioning of pre-wired 200 W LED <i>pressure die cast aluminium IP66/65 flood light fitting</i> with high power LED as light source complete with all accessories <i>in the existing concrete foundation</i> and giving connections with required length of 16/0.20mm 3 core copper conductor flex wire conforming to relevant ISS etc. as required.(Havells make LHEPDFU7P47J200/ Philips/ Crompton/ Bajaj Turbo LED BARFEG200W)	E			
8	2	Nos	Supply conveyance, installation, testing and commissioning Surface mounting 4x1 LED Luminaire with all accessories and lamps <i>directly on wall</i> and giving connections with 16/0.20 mm 3 core PVC insulated and sheathed round copper conductor flex wire or extending the original wiring and giving connections as required. (Bajaj make BZSSLL36W WH/ Philips/ Crompton/ Havells)	E			

9	45	Nos	Supply conveyance, installation, testing and commissioning of 18W pre-wired LED light fittings made of CRCA with 0.5mm thickness with all accessories and lamps <i>directly on wall</i> and giving connections with 16/0.20 mm 3 core PVC insulated and sheathed round copper conductor flex wire or extending the original wiring and giving connections as required. (Bajaj make BZSSL36W WH/ Philips/ Crompton/ Havells)	E			
10			Supply and drawing the following sizes of multi-core PVC insulated & PVC sheathed 650/1100 V grade <i>copper conductor round flexible cables</i> conforming to IS 694 part I 1960 in the existing surface / recess conduit as required including giving necessary connections of the following sizes.				
a	25	m	3 core 1 sq. mm.	m			
11	1	Nos	Supply and installation of sheet steel, phosphatised and painted, dust and vermin proof enclosure of 16way single phase MCB DB including copper /brass bus bar, neutral link, earth bus, 1No of 4ple 40A isolator, 1No of 40A,30mA 4pole RCCB, 3Nos of 25A 2pole isolator 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	E			
12			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	1	Nos	DP enclosure for independent mounting of MCB	E			
b	1	Nos	40 A double pole mini break isolator	E			
c	15	nos	6-32A(C curve)	E			

13			Supply & laying of one number PVC insulated and PVC sheathed armoured aluminium power cable of 1.1KV grade of the following sizes in the existing RCC/ HUME / STONE WARE/ GI/ DWC pipe as required.				
a	200	m	2 core 4 sq mm	m			
14			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	20	m	4 core 6 sq mm with factory made clamp	m			
b	90	m	2 core 4 sq mm with factory made clamp	m			
15			Supply & laying of DWC pipe in ordinary soil 0.75m below ground level including excavation				
a	115	m	40 / 32 mm or nearest size	m			
16			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	21	Nos	2 core 4 sq mm	m			
a	2	Nos	2 core 6 sq mm	m			
17			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	23	Nos	4sqmm-16 sq mm with 12 mm wide x 1 mm thick clip	E			
18			Supply of superior quality <i>aluminium tubular cable socket</i> and making core termination of cables of the following sizes including crimping etc. as required.				
a	42	Nos	4 sq mm	E			
19			Supply and drawing bare <i>earthing conductors</i> of the following sizes <i>along with wiring/ cables</i> and giving connection as required.				
a	300	m	2.65 mm copper conductor (12 SWG)	m			

20			supply of superior quality <i>copper earth socket</i> for the following sizes of earth conductor including crimping etc. as required.				
a	30	nos	2.65 mm (12 SWG)	E			
21			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	80	m	25 mm dia light gauge	m			
22	11	Nos	Supply and providing Sintex box with side hinged door of size 250x200x105 mm with DIN rail for fixing MCB , provision for fixing Neutral Link for termination of cables , fixing the same on lamp post using suitable size painted flat iron clamps with bolt and nut with washers.	E			
23	1	Nos	Supply and providing Sintex box with side hinged door of size 100x100x75 mm with DIN rail for fixing MCB , provision for fixing Neutral Link for termination of cables , fixing the same on lamp post using suitable size painted flat iron clamps with bolt and nut with washers.	E			
24	11	Nos	Supply and providing 32 A 2/ 4 way neutral link in the existing enclosure and giving connections etc as required	E			
25	11	Nos	Supply and providing 20 A 4/6way terminal connector in the existing pillar box with suitable size screws etc as required.	E			

26			Supply and wiring points according to IS 732-1989 using rigid PVC ivory conduit of minimum size 20 mm 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 <i>copper conductor cable</i> 650V grade,including providing switch board main ,and continuous earthing with 14SWG copper , required qty of copper earth socket, brass bolt and nut crimping etc complete with suitable size modular type metal switch boxes, <i>modular type front plates (white)</i> etc. up to and including 6 A 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	30	Nos	Single control light point with 6A, 3 plate ceiling rose	E			
b	4	Nos	Single control light point with 6A, 3 plate ceiling rose (Medium point)	E			
28	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			
29			Supply and providing the following types and power rated <i>lamps</i> in the existing fittings as required				
a	1	Nos	Normal size 15 W BC / ES retrofit CFL	E			
30	12	Nos	Supply and renewing the 26W single ended 2 pin plug CFL in the existing installations and giving connections etc as required.	E			

31	5	m	Supply and laying 20mm PVC Pipe (10kg/cm2) through ground for drawing cable.	m			
32	3	Nos	Supply and fixing 6 A-100A DIN type fuse link of size 00	E			
33	7	m2	Supply and providing 2mm thick Elastomeric fire retardent insulating mat as per IS 15652/2006 to withstand 3.3 KV dielectric strength.	m2			
34			Supply, fabrication, conveyance and fixing the following sizes of B class GI pipe bent to shape / cut and welded to shape 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).				
a	5	m	32 mm dia with clamps made from 20 x 3 mm MS flat	m			
b	5	m	50 mm dia with clamps made from 25 x 3 mm MS flat	m			
35			Supplying , threading , laying and jointing of the following sizes of 'B' class GI pipe with all required accessories in ground in the existing trench as protective covering to earth leads.				
a	2	m	25 mm dia	m			
			Total				

PAC Rs.

I/We agreed to execute the work at quoted rates.

CONTRACTOR

Sd/-
UNIVERSITY ENGINEER