

Schedule

UNIVERSITY OF KERALA						
SUBDIVISION I,KARIAVATTOM						
TENDER SCHEDULE – ELECTRICAL WORKS FOR CONSTRUCTION OF AN EXTENSION AND RENOVATION OF THE CAFETERIA BUILDING AT KARIAVATTOM CAMPUS						
Sl. No	Item Description	Qty	Unit	Rate / Unit	Rate in Words	Amount
LIGHTS AND FIXTURES						
1	od257203/2021_2022 Supply of 20 W linear LED T8 tube (RoHS compliant) with extruded aluminium body, PC diffuser and inbuilt driver with double sided connection suitable for continuous operation on 230 V, 50 Hz AC supply and having THD <10%, power factor >0.98 etc as required. (Make- Crompton-LTT8-20, Philips or Havells)	16	each	497.03	Four Hundred and Ninety Seven Rupees Three Paise Only	7952.48
2	od258435/2021_2022 Supply of industrial box type luminaire made of CRCA sheet with 0.50 mm thickness suitable for single T8 LED tube as required. (Make: Crompton-IGP161LT8-16 , Philips, Havells or Wipro)	16	each	400.98	Four Hundred Rupees Ninety Eight Paise Only	6415.68
3	90.3.2 Conveyance installation testing and commissioning of pre-wired fluorescent fittings of all types complete with all accessories and fluorescent lamps etc. directly on wall or ceiling with Suitable size 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.	24	each	269.23	Two Hundred and Sixty Nine Rupees Twenty Three Paise Only	6461.52

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4	90.4.3 Conveyance installation testing and commissioning ceiling fan of all sizes using standard accessories excluding resistance type regulator wiring the down rod with 16/0.20mm PVC insulated and PVC sheathed 650/1100V grade 3 core round copper conductor flex wire or extending the original wiring etc. as required.	2	each	232.23	Two Hundred and Thirty Two Rupees Twenty Three Paisa Only	464.46
5	od261174/2021_2022 Supply of following size ceiling fan complete with all accessories including 300 mm long down rod, canopies, shackles, blades etc as required but excluding fan regulator and suitable for working on single phase 230 V, 50 Hz AC supply. (Make: Crompton-Hi Speed / plus, Havells-Aeroking, Orient or Bajaj) 1200 mm sweep ceiling fan.	2	each	1974.55	One Thousand Nine Hundred and Seventy Four Rupees Fifty Five Paisa Only	3949.10
6	1.25 Supplying and fixing two module stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required.	10	each	406.77	Four Hundred and Six Rupees Seventy Seven Paisa Only	4067.70
7	od258267/2021_2022 Supply of 400 mm sweep, 1300 rpm oscillating type wall mounting fan having 3-speed control, oscillation control etc and suitable for operation on single phase 230 V, 50 Hz AC supply complete with continuous duty fan motor, plastic blades, chrome plated front and rear guards and all other accessories as required. (Make: Crompton-High Flo LG, Havells, Orient or Almonard)	6	each	2362.10	Two Thousand Three Hundred and Sixty Two Rupees Ten Paisa Only	14172.60
8	90.4.6 Conveyance, installation, testing and commissioning of wall mounting fans of all types using mounting brackets supplied along with the fan.	6	each	146.71	One Hundred and Fourty Six Rupees Seventy One Paisa Only	880.26

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<p align="center">9</p>	<p>od258302/2021_2022 Supply,Conveyance,Installation,Testing and Commissioning of SMD 45W LED Streetlight fixture with System efficacy of 120 lm/W (5400 lumens). Luminaire shall be made up of die cast Aluminium housing with IP PC lens . Luminaire shall be designed with street optic LENS for uniform light distribution. LM 80-08 compliant LEDs from reputed makes such as Nichia/Cree/ Bridgelux/ Lumiled/ Osram/Seoul should be provided. LEDs used in the product shall comply with EN 62471 for Photo-biological safety and certificate for the same from manufacturer shall be provided. Luminaire shall be with IP66 protection. The LED shall be compliant with LM80-08 standard with L70 life of 50000 Hrs tested at maximum current (Complete LM 80 test report for LED should be submitted for 10000 hrs of testing). The LEDs used should be with CCT of 5700 K and CRI of Minimum 70. LED Driver shall be potted, Integrated type, Multistage, Isolated,APFC Constant Current-Constant Voltage operated driver with range 150-300V AC and Safety Extra Low Voltage < 60V DC as per IEC standard., Driver Efficiency > 86% & 4 KV internal surge protection, Power factor greater than 0.95 and total harmonic distortion (THD) of less than 10% should be integral to the luminaire. Compliance to Indian Standards of IS10322 Part 5 / Sect 1:1967; 16105 : 2012; IS 16106 : 2012; IS 15885 (Part2/Sec13) : 2012; IS 16108 : 2012.(Make : Wipro Item Code:LR06311-XXX-57-XX /Crompton/Havells/Philips)</p>	<p align="center">3</p>	<p align="center">each</p>	<p align="center">4145.19</p>	<p align="center">Four Thousand One Hundred and Fourty Five Rupees Ninteen Paisa Only</p>	<p align="center">12435.57</p>
<p align="center">10</p>	<p>90.3.18.2 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.32 mm dia with HG company fabricated clamps</p>	<p align="center">3</p>	<p align="center">meter</p>	<p align="center">586.16</p>	<p align="center">Five Hundred and Eighty Six Rupees Sixteen Paiaasa Only</p>	<p align="center">1758.48</p>

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11	<p>od258373/2021_2022 Supplying the following ratings of recess mounting round LED down light fittings of all types complete with all accessories including driver in the existing opening of false ceiling, giving connections with required length of 16/0.20 mm 3-core PVC insulated and PVC sheathed copper conductor round flexible wire of grade 1.1 kV conforming to relevant ISS or extending the original wiring and giving connections as required.
18W recess mounting round LED down light suitable for continuous operation with THD <10%, power factor >0.98 and RoHS compliant. (Make: Havells, Philips or Wipro)</p>	8	each	1667.50	One Thousand Six Hundred and Sixty Seven Rupees Fifty Paise Only	13340.00
12	<p>90.6.10.1 Supply and fixing of following sizes of light gauge PVC conduit along with accessories in surface/ recess including cutting the wall and making good the same in case of recessed conduit as required 20 mm</p>	70	meter	97.71	Ninety Seven Rupees Seventy One Paise Only	6839.70
13	<p>90.6.10.2 Supply and fixing of following sizes of light gauge PVC conduit along with accessories in surface/ recess including cutting the wall and making good the same in case of recessed conduit as required 25 mm</p>	40	meter	108.07	One Hundred and Eight Rupees Seven Paise Only	4322.80
14	<p>1.27.2 Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc as required. 3 Module (100mmX75mm)</p>	4	each	317.28	Three Hundred and Seventeen Rupees Twenty Eight Paise Only	1269.12
15	<p>1.24.1 Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. 5/6 amps switch</p>	2	each	101.69	One Hundred and One Rupees Sixty Nine Paise Only	203.38

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16	1.24.3 Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.15/16 amp switch	4	each	155.93	One Hundred and Fifty Five Rupees Ninety Three Paisa Only	623.72
17	1.24.4 Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.3 pin 5/6 amp socket outlet	2	each	131.52	One Hundred and Thirty One Rupees Fifty Two Paisa Only	263.04
18	1.24.5 Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.6 pin 15/16 amp socket outlet	4	each	207.45	Two Hundred and Seven Rupees Fourty Five Paisa Only	829.80
19	1.17.1 Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface / recessed steel/ PVC conduit as required.1 x 1.5 sq. Mm	150	meter	33.90	Thirty Three Rupees Ninety Paisa Only	5085.00
20	1.17.3 Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface / recessed steel/ PVC conduit as required.3 X 1.5 sq.mm	40	meter	63.73	Sixty Three Rupees Seventy Three Paisa Only	2549.20
21	1.17.11 Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface / recessed steel/ PVC conduit as required.2 x 2.5 sq. Mm	150	meter	66.44	Sixty Six Rupees Fourty Four Paisa Only	9966.00
22	1.17.21 Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface / recessed steel/ PVC conduit as required.3 x 4 sq. Mm	15	meter	138.30	One Hundred and Thirty Eight Rupees Thirty Paisa Only	2074.50

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CABLE AND GLAND						
1	90.12.7.42 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.4 core 25 sq mm with factory made clamp	12	meter	328.81	Three Hundred and Twenty Eight Rupees Eighty One Paisa Only	3945.72
2	90.12.7.41 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.4 core 16 sq mm with factory made clamp	10	meter	276.81	Two Hundred and Seventy Six Rupees Eighty One Paisa Only	2768.10
3	90.12.5.42 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.4 core 25 sq mm	12	meter	297.69	Two Hundred and Ninety Seven Rupees Sixty Nine Paisa Only	3572.28
4	90.12.10.2 Supply & laying of DWC pipe in ordinary soil 0.75m below ground level including excavation 50/38 mm or nearest size	12	meter	290.15	Two Hundred and Ninety Rupees Fifteen Paisa Only	3481.80
5	9.1.34 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.4 X 25 sq. mm (28mm)	4	set	296.94	Two Hundred and Ninety Six Rupees Ninety Four Paisa Only	1187.76
6	9.1.33 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.4 X 16 sq. mm (28mm)	2	set	296.94	Two Hundred and Ninety Six Rupees Ninety Four Paisa Only	593.88

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7	90.16.1.3 Supply and drawing bare earthing conductors of the following sizes along with wiring/ cables and giving connection as required.3.15 mm copper conductor (10 SWG)	48	meter	62.98	Sixty Two Rupees Ninety Eight Paisa Only	3023.04
8	90.16.5.3 Supply of superior quality copper earth socket for the following size of earth conductor including crimping etc. as required.3.15 mm (10 SWG)	4	each	26.98	Twenty Six Rupees Ninety Eight Paisa Only	107.92
9	90.16.1.2 Supply and drawing bare earthing conductors of the following sizes along with wiring/ cables and giving connection as required.2.65 mm copper conductor (12 SWG)	20	meter	44.91	Fourty Four Rupees Ninety One Paisa Only	898.20
10	90.16.5.2 Supply of superior quality copper earth socket for the following size of earth conductor including crimping etc. as required.2.65 mm (12 SWG)	4	each	24.98	Twenty Four Rupees Ninety Eight PISA Only	99.92
POINT WIRING						
1	od258467/2021_2022 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 ISI marked rigid PVC conduit of minimum size 20 mm conforming to IS: 9537 Part-3 1983 with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required. Group B	23	point	920.93	Nine Hundred and Twenty Rupees Ninety Three Paisa Only	21181.39
2	od258468/2021_2022 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 ISI marked rigid PVC conduit of minimum size 20 mm conforming to IS: 9537 Part-3 1983 with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required. Group A	20	point	845.42	Eight Hundred and Fourty Five Rupees Fourty Two Paisa Only	16908.40

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3	<p>od260314/2021_2022 Supply and wiring points according to IS: 732-1989 using ISI marked rigid PVC conduit of minimum size 20 mm conforming to IS: 9537 Part-3 1983 and with suitable size specials conforming to IS: 3419-1988, fixing the conduit using metal saddles spacing not exceeding 50 cms or concealed suitably and with ISI marked 1.50 sq. mm PVC insulated stranded single core FRLS copper conductor cable of 650 / 1100 V grade, including providing switch board main and continuous earthing with ISI marked 1.50 sq. mm PVC insulated stranded single core FRLS copper conductor cable 650 / 1100 V grade, required quantity of copper earth socket, brass bolt and nut, crimping / soldering etc complete with suitable size modular type metal switch boxes, modular type front plates (white) etc up to and including 6A modular type 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. (RoHS compliant modular accessories) Combined plug point with 6A, 5-pin plug socket controlled by 6A switch in the same switch board as that of light points - Short point.</p>	3	point	497.21	Four Hundred and Ninety Seven Rupees Twenty One Paisa Only	1491.63
DISTRIBUTION BOARD						
1	<p>2.3.3 Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 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 MCBIRCCB/Isolator12 way, Double door</p>	1	each	2440.62	Two Thousand Four Hundred and Fourty Rupees Sixty Two Paisa Only	2440.62

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2	<p>90.11.1.10 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 4 way (8+12) - three phase double cover (IP 42/43)</p>	1	each	2848.18	Two Thousand Eight Hundred and Fourty Eight Rupees Eighteen Paisa only	2848.18
3	<p>90.11.1.14 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 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)</p>	2	each	6555.18	Six Thousand Five Hundred and Fifty Five Rupees Eighteen Paisa Only	13110.36
4	<p>2.10.1 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. Single pole</p>	21	each	237.28	Two Hundred and Thirty Seven Rupees Twenty Eight Paisa Only	4982.88

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5	2.12.1 Supplying and fixing following rating, double pole, 240 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.40 amps	1	each	402.70	Four Huundred and Two Rupees Seventy Paisa Only	402.70
6	2.14.2 Supplying and fixing following rating, double pole, (single phase and neutral), 240 V, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required.40 amps	1	each	2490.79	Two Thousand Four Hundred and Ninety Rupees Seventy Nine Paisa Only	2490.79
7	2.13.1 Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.40 amps	1	each	989.81	Nine Hundred and Eighty Nine Rupees Eighty One paisa Only	989.81
8	2.15.2 Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required.40 amps	1	each	3121.28	Three Thousand One Hundred and Twenty One Rupees Twenty Eight Paisa Only	3121.28
9	od260348/2021_2022 Supplying and fixing 40 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. Single pole	2	each	455.97	Four Hundred and Fifty Five Rupees Ninety Seven Paisa Only	911.94

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10	od260353/2021_2022 Supplying and fixing 63 A, 10 kA, TP MCB (C-curve) suitable for 415 V, 50 Hz AC supply conforming to IS: 8828 / IEC: 60898 in the existing VDB complete with connections, testing, commissioning etc. as Required.	4	each	1574.39	One Thousand Five Hundred and Seventy Four Rupees Thirty Nine Paisa Only	6297.56
11	od260385/2021_2022 Supply, Installation and testing of Three phase KWh meter, 230/440 V, 10 to 40 A ,electronic type energy meter of accuracy class 1 with LCD display (Make : L&T or as instructed by Engineer-in Charge)	1	each	2651.97	Two Thousand six Hundred and Fifty One Rupees Ninety Seven Paisa Only	2651.97
12	od260354/2021_2022 Supplying and fixing 40 A, 10 kA, TP MCB (C-curve) suitable for 415 V, 50 Hz AC supply conforming to IS: 8828 / IEC: 60898 in the existing VDB complete with connections, testing, commissioning etc. as Required.	1	each	1563.73	One Thousand Five Hundred and Sixty Three Rupees Seventy Three Paisa Only	1563.73
MCCB						
1	90.14.10.4 Supply, conveyance and fixing the following types & current rated control gears & switchgears conforming to IS 13947 suitable for 440 V, 50 Hz, AC supply in the existing panel assembly as required.16 A-100A, 25/35 kA (Ics=100%Icu), 4 pole, current limiting type MCCB having thermal setting range of 80 - 100% with thermal magnetic release having adjustable OL	1	No	7712.03	Seven Thousand Seven Hundred and Twelve Rupees Three Paisa Only	7712.03

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2	2.13.3 Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.100 amps	1	each	1244.72	One Thousand Two Hundred and Fourty Four Rupees Seventy Two Paisa Only	1244.72
3	od260334/2021_2022 Fabrication, supply and installation of dust and vermin proof, wall mounting, thermoplastic meter box of following size suitable for fixing KSEB meter, fuse units, CTs etc having hinged door construction and locking system for the front side with compartments if necessary, providing vision panel for the meter compartment, knock out for cable entry and exit etc as required. 600 x 300 x 214 mm	1	No	6685.08	Six Thousand Six Hundred and Eighty Five Rupees Eight Paisa Only	6685.08
	Total					222637.80
	GRAND TOTAL after round off:					222638.00

(Rupees Two lakh Twenty Two Thousand Six hundred and Thirty Eight only)

I / We agree to undertake the above mentioned work:-

- 1) At the estimate rate.
- 2) At.....% below the estimate rate.
- 3) At% above the estimate rate.

Rate should be quoted both in figures and words

CONTRACTOR

ASSISTANT EXECUTIVE ENGINEER