

KERALA CRICKET ASSOCIATION

Name of work: Construction of Pavilion at Mangalapuram – Installation of L.T Electrical system at Pavilion building.□

QUOTATION SCHEDULE

Item No	Quantity	Unit	Details of work	Rate in fugures	Unit	Rate in words	Amount
I			WIRING				
1	152.00	Point	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 medium class PVC conduit, 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.		/Point		
2	4.00	Point	Wiring for twin control light point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, 2 way 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.		/Point		
3	156.00	Nos	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 PVC conduit, and earthing the point with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable etc. as required.		/each		
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 medium class PVC conduit as required.				
4.01	1,584.00	m	2 x 1.5 sq.mm + 1 x1.5 sq.mm earth wire		/m		
4.02	2,178.00	m	2 x 2.5 sq.mm + 1 x 2.5 sq.mm earth wire		/m		
4.03	317.00	m	2 x 4 sq.mm +1 x 4 sq.mm earth wire		/m		
5			Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.				
5.01	50.00	m	20 mm		/m		

5.02	25.00	m	25 mm		/m		
5.03	25.00	m	32 mm		/m		
6	29.00	Nos	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.		/Nos		
7	20.00	Nos	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.		/each		
8	103.00	Nos	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 A modular socket outlet and 5/6 A modular switch, connections etc. as required.		/each		
9	69.00	Nos	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 A & 15/16 A modular socket outlet and 15/16 A modular switch, connections etc. as required.		/each		
10	29.00	Nos	Supply and fixing 3 pin, 6A ceiling rose on the existing junction box / wooden block including connection etc. as required.		/each		
11	319.00	Nos	Installation, testing and commissioning of pre-wired, fluorescent / LED fitting / compact fluorescent / Track Light / Garden Lights / Bollards / LED fitting of all types, complete with all accessories and tube/lamp etc. directly on ceiling/ wall/false ceiling, including connections with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable and earthing etc. as required.		/each		
12	29.00	Nos	Installation, testing and commissioning of ceiling fan, including wiring the down rods of standard length (up to 30 cm) with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable etc. as required.		/each		
			TOTAL COST FOR WIRING			Rs.	
II			MCB & DISTRIBUTION BOARDS				
13			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 MCB/RCCB/Isolator)				
13.01	4.00	Nos	12 way double door		/each		

14			Supplying and fixing following 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)				
14.01	1.00	Nos	4 way (8 + 12), Double door		/each		
14.02	4.00	Nos	6 way (8 + 18), Double door		/each		
15			Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 V, TPN MCCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 A, tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs (but without MCBs and incomer) as required. (Note : Vertical type MCB TPDB is normally used where 3 phase outlets are required.)				
15.01	3.00	Nos	4 way (8 + 12), Double door		/each		
16			Supplying and fixing 5 A to 32 A rating, 240/415 V, 10 kA, "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.				
16.01	122.00	Nos	Single pole		/each		
16.02	5.00	Nos	Triple pole		/each		
17	2.00	Nos	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.		/each		
18	8.00	Nos	Supplying and fixing Cable End Box (Loose wire box) suitable for triple pole and neutral, sheet steel, Vertical / Horizontal MCB / MCCB distribution board, 415 V, on surface/ recess, complete with testing and commissioning etc. as required.		/each		
			TOTAL COST FOR MCB's & DISTRIBUTION BOARDS			Rs.	
III			CABLE TRAY				

19			Supply and fixing of Perforated Cable tray with horizontal & vertical bends, reducers, Tee's, cross over, suitable supports and brackets and other accessories as required confirming to IEC-61537. The Tray shall be galvanized for corrosion protection confirming to DIN EN 10346 / ISO 1461 .The trays should be tested for a max. safe working load of 150 Kgs with a span distance of 1.5 meters and the deflection should be within the limits as per standard. The safety factor shall be 1.7 times of the safe working load. The perforated tray shall be supplied with the standard length of 3 Mtr . Make: OBO Bettermann or Equivalent				
19.01	36.00	m	200 mm width x 60mm Height		/m		
19.02	3.00	m	150 mm width x 60mm Height		/m		
19.03	46.00	m	100 mm width x 60mm Height		/m		
19.04	13.00	m	50 mm width x 60mm Height		/m		
			TOTAL COST FOR CABLE TRAY			Rs.	
IV			MV CABLE SUPPLY, LAYING & END TERMINATION				
20.00			LT CABLE SUPPLY				
			Supply of the following size 1.1kV grade XLPE insulated PVC sheathed, armoured Aluminium conductor power cable confirming to IS 7098 (part 1) amended up to date.				
20.01	103.00	m	3.5CX185sq.mm Al Cable		/m		
20.02	49.00	m	3.5CX70sq.mm Al Cable		/m		
20.03	78.00	m	3.5CX35sq.mm Al Cable		/m		
20.04	82.00	m	4CX25sq.mm Al Cable		/m		
20.05	106.00	m	4CX10sq.mm Al Cable		/m		
20.06	7.00	m	4CX6sq.mm Al Cable		/m		
20.07	83.00	m	2CX4sq.mm Al Cable		/m		
			MV CABLE LAYING				
21.00			Laying of PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc. as required.				
21.01	78.00	m	Above 95 sq. mm and up to 185 sq. mm		/m		
22			Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 kV grade of following size on wall surface / cable tray as required.				

22.01	356.00	m	Upto 35 sq. mm (clamped with 1mm thick saddle)		/m		
22.02	49.00	m	Above 35 sq. mm and up to 95 sq. mm (clamped with 25x3mm MS flat clamp)		/m		
22.03	25.00	m	Above 95 sq. mm and up to 185 sq. mm (clamped with 25/ 40x3mm MS flat clamp)		/m		
			END TERMINATION				
23.00			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.				
23.01	2.00	Nos	3.5CX185sq.mm Al Cable		/each		
23.02	2.00	Nos	3.5CX70sq.mm Al Cable		/each		
23.03	4.00	Nos	3.5CX35sq.mm Al Cable		/each		
23.04	8.00	Nos	4CX25sq.mm Al Cable		/each		
23.05	10.00	Nos	4CX10sq.mm Al Cable		/each		
23.06	2.00	Nos	4CX6sq.mm Al Cable		/each		
23.07	8.00	Nos	2CX4sq.mm Al Cable		/each		
			TOTAL COST FOR MV CABLE SUPPLY, LAYING & END TERMINATION			Rs.	
V			LT PANELS				
24.00			LIFT PANEL 1				
			Fabrication, supply, erection, testing and commissioning of cubicle type, dust and vermin proof, floor mounted/wall mounted, front operated MV panel board made out of 16 SWG thick CRCA sheet (7 tank treatment) fully compartmentalised complete with hinged and earthed front doors with name plate, danger notice board, heavy duty rubber gaskets, removable gland plates made out of 3mm thick sheet steel including all components as shown in the schematic drawing. All opening parts of the panel shall be sealable.				
			Incomer - 32A, FP MCB Isolator - 1No.				
			32A, 415V, 10 kA best conductivity Al TPN bus bar with SMC supports, heat shrinkable sleeves etc complete as required.				
			Multi function digital LED meters with accuracy class 1, with necessary CT and accessories for measuring Voltage, current, Frequency, Power Factor, kW, kVA, Old energy, On hours, site selectable kWh/kVAh - 1Set				

			Class B+C / Class 1 + 2 Surge arrestor device with necessary MCB for back-up protection - 1 No.				
			RYB phase indicating LED lamps with control fuses and switches - 1 set.				
			Outgoing				
			25/32A, FP, 300 mA, RCBO - 1 No.				
			16A, DP, 30 mA, RCBO - 1 No.				
			16A, 415V, 10 kA best conductivity Al DP bus bar with SMC supports, heat shrinkable sleeves etc complete as required - 2 Set				
			6A, SP, MCB - 2 Nos.				
			10A, SP, MCB - 2 Nos.				
	1.00	Nos	Supply, Installation, testing and commissioning		/each		
25.00			FLOOR DISTRIBUTION LOAD BANK / SM DB 1 (PB)				
			Supply, erection, testing and commissioning of wall mounting type, double door 3 phase 8 Way Load Bank of approved make IP43 and quality with cable end box, meter module including busbar, neutral link and DIN bar with all accessories etc. complete with all connections and inter-connections as shown in the schematic drawing, Providing all connections and interconnections as required and providing all accessories as required for complete installation as instructed by engineer in charge/consultant.				
			Incomer - 250A FP 25kA Thermal Magnetic Release MCCB - 1No.				
			250A 415V 25kA best conductivity Al TPN bus bar with SMC supports, heat shrinkable sleeves etc complete as required.				
			Multi function digital LED meters with accuracy class 1, with necessary CT and accessories for measuring Voltage, current, Frequency, Power Factor, kW, kVA, Old energy, On hours, site selectable kWh/kVAh - 1 Set				
			Cable alley - 2 Nos				
			Class B+C / Class 1 + 2 Surge arrestor device with necessary MCB for back-up protection - 1 No.				
			Outgoings				
			125A 16kA TP MCCB, with thermal magnetic release - 2 Nos.				
			80A 16kA TP MCCB, with thermal magnetic release - 3 Nos.				
			63A 16kA TP MCCB, with thermal magnetic release - 2 No.				

			32A 16kA SP MCCB, with thermal magnetic releas - 1 No.				
	1.00	Nos	Supply, Installation, testing and commisioning		/each		
26.00			FLOOR DISTRIBUTION LOAD BANK / SM DB 2 (HVAC)				
			Supply, erection, testing and commissioning of wall mounting type, double door 3 phase 4 Way Load Bank of approved make IP43 and quality with cable end box, meter module including busbar, neutral link and DIN bar with all accessories etc. complete with all connections and inter-connections as shown in the schematic drawing, Providing all connections and interconnections as required and providing all assecories as required for complete installation as instructed by engineer in charge/consultant.				
			Incomer - 125A FP 16kA thermal magnetic release MCCB - 1No.				
			125A 415V 16kA best conductivity Al TPN bus bar with SMC supports, heat shrinkable sleeves etc complete as required.				
			Multi function digital LED meters with accuracy class 1, with necessary CT and accessories for measuring Voltage, current, Frequency, Power Factor, kW, kVA, Old energy, On hours, site selectable kWh/kVAh - 1 Set				
			Cable alley - 2 Nos				
			Class B+C / Class 1 + 2 Surge arrestor device with necessary MCB for back-up protection - 1 No.				
			Outgoings				
			63A 16kA TP MCCB, with thermal magnetic releas - 4 No.				
	1.00	Nos	Supply, Installation, testing and commisioning		/each		
			TOTAL COST FOR LT PANELS			Rs.	
VI			MISCELANEOUS ITEMS				
27.00			PVC FLEXIBLE CONDUIT				
			Supply and clamping the following size of corrugated pvc fiexible conduit with necessary 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				
27.01	50.00	m	20mm dia		/m		

27.02	30.00	m	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 medium class PVC conduit, 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.		/m		
28.00			RCBO				
			Supplying, fixing, testing and commissioning following four pole and double pole , 415 volts and 240 volts, residual current circuit breaker with overload protection (RCBO) of the following rating and sensitivity current in the existing MCB SPN and TPN horizontal/vertical DB's complete with connections, etc. as required and instructed by engineer in charge/consultant..				
28.01	4.00	Nos	25A 30mA DP RCBO		/each		
28.02	1.00	Nos	25A 100mA FP RCBO		/each		
28.03	1.00	Nos	32A 100mA FP RCBO		/each		
28.04	3.00	Nos	40A 100mA FP RCBO		/each		
29.00			MCCB:				
			Supply, fixing, testing and commissioning of following rating, breaking capacity and pole, type MCCB in existing Vertical Distribution Board with spreader links, terminal connections and all accessories as required making all necessary connections etc as required and instructed by engineer in charge/consultant.				
29.01	1.00	Nos	63 Amp 16kA FP MCCB with Thermal - Magnetic Release		/each		
29.02	2.00	Nos	80 Amp 16kA FP MCCB with Thermal - Magnetic Release		/each		
30.00			Wiring for Staircase Light Point				
			Wiring for stair case light points with 2.5 sq.mm FRLS PVC insulated copper conductor single core cable in and including surface / recessed medium class PVC conduit and all accessories required for complete installation etc , with 1 way modular switch, modular plate, suitable GI box medium class PVC conduit and all accessories required etc and earthing the point with 2.5 sq.mm FRLS PVC insulated copper conductor single core cable etc as required and instructed by engineer in charge/consultant. (Note - Staircase light point shall be controlled by a single switch located inside fire control room in ground floor as per latest fire norms)				
30.01	2.00	Point	One light point controlled by one way switch (at ground floor)		/Point		

30.02	5.00	Point	Loop wiring for Light point		/Point		
31.00			Computer Point				
	9.00	Point	Wiring for computer point using 2 Nos 6A plug points controlled by 2 Nos independent 6A switches using 1.5 sq.mm FRLS PVC insulated copper single core stranded wire and earthing using using 1.5 Sqmm FRLS PVC insulated copper single core stranded wire, green colour continuous run thorough conduit as per IS, earthing etc in surface/ recessed medium class PVC conduit including all accessories as required for complete installation and as directed by engineer in charge and making good all damages made for installation. Cost inclusive of sockets, switches, suitable cover plate and base plate and suitable size GI box with all accessoires required for complete installation etc. Circuit main shall be measured seperatlv		/Point		
32.00			Popup Box				
	12.00	Point	Wiring for pop up box in floor, suitable for fixing 1 No 6A socket controlled by one switch fixed in recess using 1.5 sq.mm FRLS PVC insulated copper single core stranded wire and earthing using using 1.5 Sqmm FRLS PVC insulated copper single core stranded wire, green colour continuous run thorough floor trunking / conduit and through PVC flexible conduit from trunking earthing etc with all accessories as required for complete installation but excluding circuit main as directed by engineer in charge and making good all damages made for installation.(Cost inclusive of approved make Pop-up box with one 6A socket, one switch and flexible wire for 6A socket connection & interconnection)		/Point		
33.00			Isolator With Enclosure				
			Supply and fixing of following DP 230V, isolators in sheet steel powder coated enclosure with door interlock facility on surface confirming to IEC 60947-3 complete with all accesories, connections, testing and commissioning etc as required and as instructed by engineer in charge also making good any damages made during installation.				
33.01	2.00	Each	25A DP Isolator with enclosure		/Each		
34.00			Supply and fixing of following FP 415V, MCCB isolators in sheet steel powder coated enclosure with door interlock and padlock facility on surface confirming to IEC 60947-3 complete with all accesories, connections, testing and commissioning etc as required and as instructed by engineer in charge also making good any damages made during installation.				
34.01	3.00	Nos	63A FP Isolator with enclosure		/each		

35.00			MCB				
			Supply, installation, testing and commissioning of following rating SP/TP C curve MCB, 16kA as per IS/IEC 60898-12002 in the existing MCCB VDB including all connections and interconnections as required and as instructed by engineer in charge/consultant.				
35.01	5.00	Nos	40A TP MCB		/each		
			TOTAL COST FOR MISCELLANEOUS ITEMS			Rs.	
VII			UNINTERRUPTED POWER SUPPLY (UPS)				
36.00			2 kVA UPS in PRS Mode				
			Supply, installation, and commissioning of 2 kVA UPS standalone Configuration. 1 phase in and out. with indoor (IP21) with surge protection system with 30 Min backup battery @ 5 kva Load Minimum VAH 10080 per UPS SMF battery of approved make, Input pf 0.99, Input THDi < 5%, double conversion technology, 230V, 50Hz single phase, output 230V, 50Hz single phase, It shall be 100% generator compatible, with Efficiency > 94 % and output power factor 0.9 (10kVA = 9kW), Eco mode Efficiency 98% and including all accessories etc as required. The acoustic noise at 1m of the system should be < 70dB. The system shall comply to IEC /EN 62040-1 (type test of same model will be provided, and relevant IS standard along. The system shall be true online double - conversion DSP based UPS system and also UPS shall be with automatic & manual bypass switch. The system shall have IGBT rectifier and inverter.				
	1.00	SET	Supply, installation, testing & commissioning		/SET		
			TOTAL COST FOR UNINTERRUPTED POWER SUPPLY (UPS)			Rs.	
VIII			LIGHTNING & EARTHING PROTECTION				
			EARTHING				

37.00	2.00	Nos	Supply, installation and tesing of 1200mm X 1200mm X 12mm CI plate electrode earth station conforming to IS:3043-1987 / NEC / IEE complete with brick masonry chamber, CI cover, CI frame, GI watering pipe of 50 mm dia with funnel having 20G GI wire mesh etc. The CI cover frame/ chamber shall be of 1000mm x 500mm x 600mm size. CI manhole cover with frame shall be painted with bitumastic paint, identification of earthpit with yellow paint below the chamber cover, mixtures of charcoal & common salt around electrode including digging of pit up to permanent moisture level but not less than 3 metre depth and back filling. (value of earth resistance should be less than 1 ohm)		/each		
38.00			Supply and laying the following sizes of Cu strips laid 0.6 m below ground level including excavating trench of suitable size and refilling, including necessary clamps and bolts etc and all accessories as required for complete installation as instructed by engineer in charge/consultant.				
38.01	28.00	m	25x3 Cu strips tinned at the joints		/each		
39.00			Supply and laying the following sizes of earthing bare copper/strips on cable tray or wall surface, including necessary clamps (each clamp not exceeding 60 cm) and bolts etc as required for complete installation as instructed by engineer in charge / consultant.				
39.01	22.00	m	25x3 Cu strips tinned at the joints		/m		
39.02	12.00	m	Copper wire No.10 SWG		/m		
39.03	179.00	m	Copper wire No.8 SWG		/m		
			TOTAL COST FOR LIGHTNING & EARTHING PROTECTION			Rs.	
IX			SAFETY EQUIPMENTS				
40.00	1.00	Nos	Supply and fixing of 4 Kg ABC Dry Powder (Stored Pressure) Type Fire Extinguisher. pressurized with dry nitrogen gas at 15 bar. Design, construction and testing as per IS 2171-1999 external epoxy powder coating with PO Red Shade No. 538 of IS 5, Supplied with standard accessories.		/each		
41.00	4.00	Sqm	Supply and providing 2/3 mm thick sythetic type and 1 m wide electrical grade chequered type rubber mat to withstand 3.3 kV dielectric strength conforming to IS 5429/1969.		/Sqm		
42.00	1.00	Nos	Supply and providing First Aid Box.		/each		
43.00	1.00	Nos	Supply and providing laminated First Aid chart duly framed and placed in a conspicuous location for clear vision.		/each		

44.00	1.00	LS	Supply & fixing Laminated drawings of electrical lay out, schematic drawing etc on good frame work.		/LS		
45.00	0.50	sqm	Supply and providing MS chequered plate of suitable thickness including cutting, welding, painting etc. as required for cable duct covering etc.		/sqm		
			TOTAL COST FOR SAFETY EQUIPMENTS			Rs.	
			CONSOLIDATED ABSTRACT				
		I	WIRING				
		II	MCB & DISTRIBUTION BOARDS				
		III	CABLE TRAY				
		IV	MV CABLE SUPPLY, LAYING & END TERMINATION				
		V	LT PANELS				
		VI	MISCELANEOUS ITEMS				
		VII	UNINTERRUPTED POWER SUPPLY (UPS)				
		VIII	LIGHTNING & EARTHING PROTECTION				
		IX	SAFETY EQUIPMENTS				
			Total				
			Add GST @ 18 %			Rs.	
			TOTAL			Rs.	
			Rounded to		Rs.		

Rupees in words :

Signature of
Cotractor:

Name and adress

Place:

Date :