

Quantity Bifurcation

Electrical work in connection with the work of "Replacement of Old FOB by new FOB at Manauri (MRE) (3.05 M wide) and Bharwari (BRE) (6.1 M wide) of PRYJ Division. Replacement of old FOB by 6.10 M wide new FOB with ramp at Sirathu (SRO)."Replacement of old Fob by new FOB at ULD under Ambiapur- Tundla Section.

SN	Description of Item	Unit	Total QTY	FOB ULD	FOB SRO	FOB BRE&MRE
1	Supply and recessing/fixing of PVC Conduit pipe 25 mm (Medium) conforming to IS 9537/ Part III/1983 (Latest version) with accessories, junction box, etc including making chase, plastering/ clamping etc as per technical specifications.	Metre	4100	600	500	3000
2	Supply of PVC insulated multi stranded copper conductor single core FRLSH cable 2.5 Sq. mm conforming to IS: 694 (latest version), and drawing in laid (recessed /surface) PVC conduit pipe for wiring of point wiring/ circuit wiring/sub main/ Main as required as per technical specification including connections, testing and commissioning.	Metre	3800	400	400	3000
3	Supply of PVC insulated multi stranded copper conductor single core FRLSH cable 4.0 Sq. mm conforming to IS: 694(latest version), and drawing in laid (recessed /surface) PVC conduit pipe for wiring of point wiring/ circuit wiring/sub main/ Main as required as per technical specification including connections, testing and commissioning.	Metre	2700	400	300	2000
4	Supply of PVC insulated multi stranded copper conductor single core FRLSH cable 6.0 Sq. mm conforming to IS: 694 (latest version), and drawing in laid (recessed /surface) PVC conduit pipe for wiring of point wiring/ circuit wiring/sub main/ Main as required as per technical specification including connections, testing and commissioning.	Metre	2600	300	300	2000
5	Supply of PVC insulated multi stranded copper conductor single core HRFR cable 1.5 Sq. mm conforming to IS: 694 (latest version), and drawing in laid (recessed /surface) PVC conduit pipe for Earth wire as required as per technical specification including connections, testing and commissioning.	Metre	4800	400	400	4000
6	Supply, Erection, Testing and Commissioning of following Modular Type switch 10 A (1-way) complete in all respect. Inspection by- Consignee.	Numbers	250	100	50	100
7	Supply, Erection, Testing and Commissioning of following Modular type Plug socket outlet 2/3 Pin 10 A complete in all respect. Inspection by- Consignee.	Numbers	90	25	25	40
8	Supply, Erection, Testing and Commissioning of following Modular Type switch 20 A (1-way) complete in all respect. Inspection by- Consignee.	Numbers	80	20	20	40
9	Supply, Erection, Testing and Commissioning of following Modular type Plug socket outlet 5/3 Pin 20 A complete in all respect. Inspection by- Consignee.	Numbers	80	20	20	40

10	Supply and Erection of Modular type switch blanking set to fill the blank space White finished mounting cover plate complete in all respect. Inspection by- Consignee.	Numbers	50	20	20	10
11	Supply and Erection of Junction Box cover POP type complete in all respect including hardware material for fixing. Inspection by- Consignee.	Numbers	160	50	40	70
12	Supply and Erection of white finish single mounting cover plate with base frame suitable 3 module suitable for mounting of Modular type piano switches/ plug Socket, fan regulator and connection to wiring. Inspection by- Consignee.	Numbers	60	20	20	20
13	Supply and Erection of white finish single mounting cover plate with base frame suitable 8 module suitable for mounting of Modular type piano switches/ plug Socket, fan regulator and connection to wiring. Inspection by- Consignee.	Numbers	50	15	15	20
14	Supply and Erection of white finish single mounting cover plate with base frame suitable 12 module suitable for mounting of Modular type piano switches/ plug Socket, fan regulator and connection to wiring. Inspection by- Consignee.	Numbers	40	10	10	20
15	Supply and Erection of Modular Metal boxes concealed Boards suitable for mounting of 3 module white finish single mounting cover plate with Frame and Modular type piano switches/ plug Socket, fan regulators. Metal board boxes are to be concealed in wall. Inspection by- Consignee.	Numbers	60	20	20	20
16	Supply and Erection of Modular Metal boxes concealed Boards suitable for mounting of 8 module white finish single mounting cover plate with Frame and Modular type piano switches/ plug Socket, fan regulators. Metal board boxes are to be concealed in wall. Inspection by- Consignee.	Numbers	50	15	15	20
17	Supply and Erection of Modular Metal boxes concealed Boards suitable for mounting of 12 module white finish single mounting cover plate with Frame and Modular type piano switches/ plug Socket, fan regulators. Metal board boxes are to be concealed in wall. Inspection by- Consignee.	Numbers	40	10	10	20
18	Supply and Installation of Ceiling rose 3 plate as per IS No. 371/1999 (Latest Version) including connections, Testing and commissioning as per Tech. Specification. Inspection by- Consignee.	Numbers	700	250	250	200
19	Supply and recessing/fixing on surface of 6 SWG GI wire conforming to IS: 280/2006 (Latest Version) for loop earthing as required for earthing of installation as per IE Rule.	Numbers	3200	800	400	2000
20	Fabrication, Supply and Fixing of Fan Hook with clamp duly painted made of 50x6 mm MS Flat with nut bolts suitable to fix on PP shelter bracing angle as required. Inspection by- Consignee.	Numbers	60	20	0	40

21	Supply, Installation, Testing and Commissioning of 1200 mm sweep, BEE 5 star rated, ceiling fan with Brush Less Direct Current (BLDC) Motor, class of insulation: B, 3 nos. blades, 30 cm long down rod, 2 nos. canopies, shackle kit, safety rope, copper winding, Power Factor not less than 0.9, Service Value (CM/M/W) minimum 6.00, Air delivery minimum 210 Cum/Min , 350 RPM (tolerance as per IS : 374-2019), THD less than 10%, remote or electronic regulator unit for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise=75 degree C (max.), insulation resistance more than 2 mega ohm, suitable for 230 V, 50 Hz, single phase AC Supply, earthing etc. complete as required. Inspection by- Consignee.	Numbers	60	20	0	40
22	Termination of LT XLPE cables of various sizes (One Job means all 4 cores of cables)	Job	70	10	10	50
23	Supply and laying of B class, 50 mm dia, GI pipe of for cable riser/road crossing as required and as per relevant technical specification. Inspection by- Consignee.	Metre	395	45	50	300
24	Collecting, Transporting from SSE/PS/ store to site, laying, testing, and commissioning of above LT cable . Laying direct in ground (Including excavation, sand cushioning, protection brick covering and refilling the trench etc.), direct in RCC/Metal pipes in rod/track crossings and on surface/required in wall/in concrete floor by cutting recessed and finished originally as required as per relevant technical specifications.	Metre	5800	1000	800	4000
25	Drilling of bituminous road/track and laying charges of cable in road crossing for laying 110 mm dia HDPE pipe through it.	Metre	1550	500	250	800
26	Supply and laying of HDPE Pipes (Upto PN 8.0 Pressure Rating Material Grade: PE 63, Pressure Rating: PN 8.0, Nominal Dia(mm): 110) as per IS-4984:2016 suitable for HT/LT XLPE cable & as required and as per relevant technical specification. Inspection by- RITES.	Metre	1550	500	250	800
27	Excavation of cable duct by horizontal boring method 1.4 to 2.1 mtr depths from the bottom of sleeper for trench less track crossing and laying of 120 mm outer dia. DWC pipe. The work shall be done as per extent practice and instruction of site engineer. It includes supply of DWC/DHPE pipes conforming to IS : 14930 (Part 2, 2001).(Rex Poly Extrusion or similar make	Metre	400	0	0	400

28	Supply, fixing, testing, connecting and commissioning of 120 Watt or above Highbay LEDlight fittings.LED Luminaries:-(1) A complete LEDlighting unit consisting of a light source anddriver together with parts of distribute lights,toposition and protect the light source,and toconnect the light source to a branch circuit.The light source itself may be an LED array and LEDmodule, or an LED lamp.(2):-Supplied LEDluminaries shall confirm to IS:16101(2012) IS:16106(2012).Light Source(LED) in theLuminaries should be of make:- (1):- NICHIA/CREE/OSRAM/ SEOUL/ PHILIPS/LUMILEDS/LEDNIUM. (2):- LEDs toIS:16105(2012).IS:16108(2012),IEC:62471.TypeLED:- High power LED,SMD(Surface Mountingdevice)/COB(Clip on board).1.Input operatingvoltage :-105-295 V AC.2:- Normal Voltage-220VAC, 3.Driver type: constant current driver withshort circuit protection. 4.LED life:- >50000burning hours.5.Depreciation:- 30% max.after50000 burning hours. 6.Control of distribution:-Full cut off. 7.Surge protection:4KV.8.Drivecomponent :Industrial grade only. 9.Efficiency ofdriver electronic: > 85%. 10.Beam angle:>=140degree along with road and >=80 degree across the road. 11.Colour temperature:5000-6500K.12.Colour rendering index(CRI):>=75.13.Ingressprotection :IP-66.14.Lumen output: >120 lumens/watt.15.Power factor:->0.95. 16.Totalharmonics distrotion(THD):-<15%. 17.Lampcover:Toughened glass or UV stabilised polycarbonate.18.Finishing:Powercoated/Anodized.19.Secondry optics:polycarbonate reflector/ poly carbonateslens.20.Construction of housing: extrudedaluminum/CRCA/Pressure die castaluminum.21.Mounting:Suitable for existingpole/Truss/Lantern mounted.22.Certificate:Firmto submit LM80(In respect of LED used)&LM79(In respect of luminare used) test certificatefrom National/International accredited Laboratoryand OEM certificate for compliance ofBIS/IEC.23.Warranty:Firm to submit warrantycertificate for five year along with the supply.Allfittings shall be fitted with new suitablebend/elbow with clamp and proper nut and boltand connection with twisted twin flexible cord ofminimum size 16/1 mm copper conductor as perrelevant technical specification. Materialsprameters	Numbers	20	0	0	20
29	Supply, fixing, testing, connecting and commissioning of 300 mm sweep Exhaust Fan suitable for 230 volts, 50 Hz AC supply, 1400 RPM heavy duty with wiring and flexible PVC pipe as required. Inspection by Consignee.	Numbers	24	4	0	20
30	Supply, fixing, testing, connecting and commissioning of 750 mm heavy duty wall mountedair circulator Fan suitable for 230 volts, 50 Hz - ACsupply, >=1400 RPM, with wiring in flexible PVC pipe as required. Inspection by- RITES.	Numbers	20	0		20
31	Design, Manufacturing, Supply, Erection, testing and commissioning of LT switchgear panel board of 02 mm Tk. Dia pressed CRS steel sheet panel shall be treated for anti corrosion treatment and finished with smoke gray paint as per technicalspecification no. Sr.DEE/G/ALD/Panel-94/113 Comprising with as under: MCCB of 400 A, 36 kA Standard breaking capacity, 415 volt, 3 Phase 4 Pole current rating 400 Amp.	Numbers	4	2	0	2
32	MCCB of 125A, 36 kA Standard breaking capacity, 415 volt, 3 Phase 4 Pole current rating 125 Amp.	Numbers	8	4	0	4
33	MCCB of 63A, 36 kA Standard breaking capacity, 415 volt, 3 Phase 4 Pole current rating 63 Amp.	Numbers	14	6	0	8
34	Supply of Indicator lamps with suitable holder.	Numbers	76	36	0	40

35	Supply, fixing, testing, connecting and commissioning of Outgoing/Feeder Panel Mounted Multi-function Mtrs. with Accuracy Class 1 as per IEC 62053-21 or Class 0.5, 0.5S as per IEC 62053-22.LED Mtrs. Cl 1 with RS485: Mtrs. should have following features built-in LED • Flush mounting 96 x 96 mm • True RMS measurement • Password protection provision for security • Site selectable for 3 Phase 4 wire, 3 Phase 3 wire, 1 Phase, CT Secondary 1A/5A, Universal Auxiliary Supply 80-300 VAC/DC, Input Voltage Measurement 50-500 VAC, 64 samples/ cycle The Mtrs. should be able to read/display following paraMtrs.s Instantaneous ParaMtrs.s (V1, V2, V3, V12, V23, V31, Avg (VLN, VLL), A1, A2, A3, Aavg, F, PF-1, PF-2, PF-3, PF (Avg) W1, W2, W3, W (total) VA1, VA2, VA3, VA (total) Cumulative ParaMtrs.s (Import Wh, Import Vah, Import load hours, Reset (old) Cumulative paraMtrs.s (Import Wh, Import load hours, Communication (RS485 Modus RTU).complete with all accessories.	Numbers	26	12	0	14
36	Fabrication works and insulated Aluminum bus bars of 800A capacity for phases & 800A capacity for neutral Bus bar shall be suitably insulated with heat shrinkable sleeves/ epoxy coating/insulating tap to withstand the test voltage of 2.5 KV Copper strip for connection outgoing as well as incoming with suitable size be provided.	Numbers	4	2	0	2
37	Supply, replacement, fixing, testing, connecting and commissioning of energy efficient luminaries complete with all accessries of capacity 18/20 watt, 4 feet length, T8 LED lamps with suitable current control driver circuit ,suitable for surface/recessed mounting.LED Luminaries:-(1) A complete LED lighting unit consisting of a light source and potted driver together with parts of distribute light,to position and protect the light source,and to connect the light source to a branch circuit.The light source itself may be an LED array and LED module, or an LED lamp. (2):-Supplied LED luminaries shall confirm to IS:16101(2012) IS :16106(2012) .Light Source (LED) in the Luminaries should be of make:- (1):-NICHIA/ CREE/OSRAM/ SEOUL/ PHILIPS/LUMILEDS /LEDNIUM. (2):-LEDs to IS: 16105(2012). IS:16108(2012), IEC:62471.1.Input operating voltage :-105-295 V AC. 2:-Normal Voltage-220V AC.3.Driver type: constant current driver with short circuit protection(For tube light). 4.Control of distribution:-Full cut off. 5.Drive component :Industrial grade only .6.Efficiency of driver electronic: > 85% (For tube light).7.Colour temperature:5000- 6500K(For tube light). 8.Colour rendering index(CRI):>75(For tube light). 9.Ingress protection :IP-20. 10.Lumen output: >100 lumens/watt@Max.350mA drive current(For	Numbers	750	200	150	400

38	Supply, erection, testing and commissioning of One phase distribution board comprising of one no. 32/40 amps DP MCB with 40 A ELCB/RCCB as incoming and 4 nos. 10 amps SP MCB , 4 nos. 20 A SP MCB as outgoing complete with copper bus bars, neutral link and other accessories housed in CRCA sheet enclosure with double door type. Inspection by- Consignee.	Numbers	35	10	5	20
39	Supply, replacement, fixing, testing, connecting and commissioning of 72 Watt or above LED street lights fittings as per IS:10322. LED Luminaries:-(1) A complete LED lighting unit consisting of a light source and potted driver together with parts of distribute lights,to position and protect the light source,and to connect the light source to a branch circuit. The light source itself may be an LED array and LED module, or an LED lamp.(2):-Supplied LED luminaries shall confirm to IS:16101 (2012) IS :16106(2012). Light Source(LED) in the Luminaries should be of make:- (1): NICHIA/ CREE/OSRAM/ SEOUL/ PHILIPS/LUMILEDS /LEDNIUM. (2):-LEDs to IS:16105(2012). IS:16108(2012), IEC:62471. Type LED:- High power LED,SMD(Surface Mounting device)/COB(Clip on board). 1.Input operating voltage :-105-295 V AC.2:- Normal Voltage-220V AC,3.Driver type: constant current driver with short circuit protection. 4.LED life:- >50000 burning hours. 5.Depreciation:- 30% max.after 50000 burning hours.6.Control of distribution:-Full cut off. 7.Surge protection:4KV. 8.Drive component :Industrial grade only.9.Efficiency of driver electronic: > 85%.10.Beam angle:>=140 degree along with road and >=80 degree across the road.11.Colour temperature:5000-6500K. 12.Colour	Numbers	100	40	20	40
40	Supply and erection of 6 Mtr. Galvanized (as per BS EN ISO 1461) octagonal pole with base plate 220x220x12mm, top 70mm and bottom 130mm of 3mm thick sheet suitable for maximum wind speed upto 160 Km/Hr. including foundation bolts and foundation with M 20 grade RCC and FE 415 grade reinforcement (450x450x800 mm deep) (foundation should be as per design approved by pole manufacturer) GI base plate G.I. anchor plate etc.as required including supplying and fixing of double arm hot dipped galvanized bracket suitable for street light fittings and supplying and drawing of 3x2.5Sq.mm FRLS copper conductor single core cable from junction box with two Nos 6/10AMP MCB to luminaire complete including termination with copper lugs as required.	Numbers	50	20	10	20
41	Supply, erection, testing and commissioning of single earth electrode of 50 mm. dia 4000mm long GI pipe class B complete with earth box with CI cover hinged to CI frame including connection from earth electrode to MDB/SDB/poles/with 8 swg GI wire/strip as per attached drawing. Inspection by- Consignee.	Numbers	40	10	10	20

42	Supply and instalation of 1-phase 5KVA, 120/96Volt DC input UPS with Battery Bank of 12V, 10 Nos tubular battereies of Okaya or any superior approved make each of 150AH for Emergency Supply of Metring system and sub-station lightings .After completion of the works all materials to be deposited to the concern SSEs stores. Inspection by- Consignee.	Numbers	4	1	1	2
43	Supply of heavy duty aluminium stool type folding ladder having "C" shapes section of size 16"x12" on top suitable for height upto 12 feet complete similar to Sumer make design no. AL-201/8818 (heavy duty) or equivalent.	Numbers	2	0	0	2
44	Supply, laying, fixing, testing and commissioning of 10.0 sq mm FRLS, PVC insulated multi stranded copper conductor single core cable 1100 Volts confirming to IS-694 (latest version) of approved make in the existing PVC conduit for wiring of point wiring/circuit wiring/sub main/main as per Tech Spec-I attached, IS & IE rules.	Metre	1030	230	0	800
45	"Design ,fabrication , supply and fixing of GI perforated horizontal cable - tray with all connected accessories viz- bend, tree,cross, reducer, 45° horizontal bend, coupler plates etc. including painting besides clamping, shifting of existing cables into the trenches along with tagging and labling of shifted cables with numbering sleeve sfof easy identification. size 300 mm width, 150 mm depth, 2mm thickness. Inspection by- RITES.	Metre	1000	300	200	500
46	Supply, fabricating and installing of G.I.perforated type cables trays with perforation not more than 17.5%)including suspending from ceiling with MSangle, rods connection pieces, (L pieces, T pieces, 90/45 degree any other fitting required) G.I. nutbolts, G.I. washers,fasteners etc.complete in all respects required at site andas per PCEE/NR specification at Tech Spec-I. 150 mmwide, 50mm depth 2mm thick with protective cover.	Metre	500	0	0	500
47	Supply, fixing, testing, connecting and commissioning of storage type water cooler similar to Model SDLX 100, Cooling Capacity-170 litre per hour, 380 litre Storage with foundation/platform & cage.	Numbers	4	1	1	2
48	Electric Pole cutting (Pole to be deposited in Consigence's office.)	Numbers	85	20	15	50
49	Supply, fixing, testing and commissioning of wall mounted LT distribution board made up of steel sheet, phosphatised powder painted complete with neutral link,earth point, Din rail and prewired confirming to IS:13032 & 8623:1991 withfollowing items to be fixed in distribution board, confirming to IS:8828 :1996 orlatest, IE rules and site requirement. 4P, MCCB 125 Amps. 10 kA 'C' series= 01 No.(Incoming) DP RCCB (25, 40 Amps., three nos. each) 10 kA 'C' series = 06 Nos.(Outgoing).	Numbers	5	0	1	4

50	Supply, fixing, testing and commissioning of wall mounted LT distribution board made up of steel sheet, phosphatised powder painted complete with neutral link, earth point, Din rail and prewired confirming to IS:13032 & 8623:1991 with following items to be fixed in distribution board, confirming to IS:8828 :1996 or latest, IE rules and site requirement. 4P, MCCB 125 Amps. 10 kA 'C' series= 01 No.(Incoming) DP RCCB (40 & 63 Amps., two nos. each) 10 kA 'C' series = 04 Nos.(Outgoing).	Numbers	5	0	1	4
51	Supply erection, testing & commissioning of basic Earthing Kit 1set as per RDSO spec. No RDSO/PE/SPEC/PS/0109(REV.0)-2008, Amendment '1' or latest specification.	Set	10	0		10
52	Supply, fixing, testing and commissioning of wall mounted/recessed LT Double door 4Way distribution board made up of steel sheet, phosphatised powder painted complete with neutral link, earth point, Din rail and prewired with following items to be fixed in distribution board and site requirement. Inspection by-Consignee.	Nos.	32	5	7	20
53	Supply, fixing, testing and commissioning of wall mounted/recessed LT Double door 6Way distribution board made up of steel sheet, phosphatised powder painted complete with neutral link, earth point, Din rail and prewired with following items to be fixed in distribution board and site requirement. Inspection by-Consignee.	Nos.	32	5	7	20
54	Supply, fixing, testing and commissioning of DP RCBO's 10 (2P, 30 mA) Amp outgoing confirming to IS: 12640-2, IEC-61009-1 or latest. Inspection by-Consignee.	Nos.	33	10	5	18
55	Supply, fixing, testing and commissioning of DP RCBO's 16 (2P, 30 mA) Amp outgoing confirming to IS: 12640-2, IEC-61009-1 or latest. Inspection by-Consignee.	Nos.	18	0	0	18
56	Supply, fixing, testing and commissioning of DP RCBO's 20 (2P, 30 mA) Amp outgoing confirming to IS: 12640-2, IEC-61009-1 or latest. Inspection by-Consignee.	Nos.	10	0	0	10
57	Supply, fixing, testing and commissioning of DP RCBO's 25 (2P, 30 mA) Amp outgoing confirming to IS: 12640-2, IEC-61009-1 or latest. Inspection by-Consignee.	Nos.	20	5	5	10
58	Supply ,of Auto change Over pannel for CLS 25KVA 150A capacity as per RDSO specification no.TI/SPC/PSI/CLS/0023	Metre	4	1	1	2
59	Erection ,Testing commissioning of Auto change Over pannel for CLS 25KVA 150A capacity as per RDSO specification no.TI/SPC/PSI/CLS/0023	Metre	4	1	1	2
60	Supply, installation, testing, connecting and commissioning of LED base name board of different stations (01 set includes 01 No Hindi, 01 No English & 01 No Urdu name board) with power LEDs, Drivers & wiring of board. The signage board should have alphabet of vertical peak height of 600 mm and proportionate horizontal span. Approximate size of Hindi, English signage panel shall have Length 6400 mm, Height- 912 mm. Note - 01 set includes, a. Hindi board 01 No, b. English board 01 No, c. Urdu board 01 No. Inspection by-Consignee.	Nos.	1		1	0

61	Design, Survey, Proposal with Technical Elevation Drawings & 3D layout, Supply, Manufacture, Erection, Installation, testing and Display of wall / hanging / floor / pole mounting type LED illuminated, Modular, Changeable Aluminium extruded profile signage / direction board in full/half Parabolic and Elliptical square and multiangle shape and flat, with die molded internal structural brackets (Nylon/SS) and aluminium extruded heat sink. Suitable size end cap PC/ SS304 should be provided with provision of illuminated Logo. The display sheet shall be of unbreakable 040 translucent polycarbonate sheet of 2-3 mm thickness. The text / graphics matter vision angle shall not be less than 160 degree and visibility not be less than 75%. The approved color text and graphics shall be printed / router cut on monomer ic alendered vinyl of 100 um thickness and shall be firmly pasted on display sheets. A pole with grooves for tricolor LED/Neon light installation. The mounting arrangement shall be hanging, wall mounting, ceiling mounting, pole mounting or floor mounting and as per site requirement. The signage shall have the integral mounting arrangements with sturdy structural frame and ACP cladding on the backside of the signage to avoid rusting and entry of dust. The LED board shall have uniform illumination with 4-8 W / sq. ft and with brightness more than ambient light. It shall confirm the latest specification issued by railway board (also uploaded). Specification to be read with explanatory Note uploaded. Inspection by- Consignee.	Square Foot	100		100	0
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