

Name of Work:-

DEVELOPMWNT OF AMBAPANI ECO-TOURISM SITE, AT. VYARA (Construction work of Dormitory)

BILL OF QUANTITIES					
Percentage Rate Tender					
Item No	Description of Item	Quantity	Unit	Rate In figures	Amount
1	Excavation for foundation upto 1.5M depth including sorting out and stacking of useful materials and disposing of the excavated stuff up to 50M. Lead (P.No. 49, Code No. 04001B, I.No. 0) (B) Dense or Hard Soil	223.00	Cumt.	153.40	34208.20
2	Excavation for foundation upto 1.5M depth including sorting out and stacking of useful materials and disposing of the excavated stuff up to 50M. Lead (P.No. 49, Code No. 04001E, I.No. 0) (B) Hard Rock	57.00	Cumt.	605.39	34507.23
3	Providing and laying cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 Machine cut stone aggregate 40mm nominal size) and curring complete excluding cost of formwork in (a) Foundation and plinth	36.00	Cumt.	3199.68	115188.48
4	Providing & Laying controlled cement concrete M-250 and curing complete including the cost of formwork and Excluding the cost of reinforcement for reinforced concrete work in (A) Foundation footing base of column and mass concrete	60.00	Cumt.	4686.59	281195.52
5	Filling available excavated earth (excluding rock) in trenches. plinth, sides of foundations etc. in layers not exceeding 20 cm. in depth consolidating each disposed layer by ramming and watering.	214.00	Cumt.	133.65	28601.10
6	Filling in foundation and plinth with murrum or selected soil in layers of 20 cm. thickness including watering, ramming and consolidating etc. completed.	194.00	Cumt.	296.29	57480.26
7	Providing & Laying controlled cement concrete M-250 and curing complete including the cost of formwork and exluding the cost of reinforcement for reinforced concrete work in Beam (C) Slabs, Landings, Shelves, Balconies, Lintel, Beams, Girders and Cantilever upto floor two level. G.F.	31.00	Cumt.	6060.11	187863.31
8	Providing & Laying controlled cement concrete M-250 and curing complete Including the cost of formwork and excluding the cost of reinforcement for reinforced concrete work in Lintel (C) Slabs, Landings, Shelves, Balconies, Lintel, Beams, Girders and Cantilever upto floor two level. G.F.	4.00	Cumt.	6474.19	25896.76
9	Providing & Laying controlled cement concrete M-250 and curing complete including the cost of formwork and excluding the cost of reinforcement for reinforced concrete work in Column (D) Columns, Pillars posts and struts upto floor two level G.F.	4.00	Cumt.	6832.07	27328.27
10	Providing & Laying controlled cement concrete M-250 and curing complete Including the cost of formwork and excluding the cost of reinforcement for reinforced concrete work in Slab (C) Slabs, Landings, Shelves, Balconies, Lintel, Beams, Girders and Cantilever upto floor two level. G.F.	43.00	Cumt.	7380.33	317354.18
11	Providing & Laying controlled cement concrete M-200 and curing complete Including the cost of formwork and excluding the cost of reinforcement for reinforced concrete work in Stair Case (E) Staircases excluding landing up to floor two level. G.F.	8.00	Cumt.	6943.17	55545.34

Item No	Description of Item	Quantity	Unit	Rate In figures	Amount
12	Providing TMT Bar FE 500D reinforcement for R.C.C. work including bending, binding and placing in position complete upto floor two level G.F.	19268.00	Kg.	77.28	1489031.04
13	(iii) Uncoursed Rubble Masonry with hard stone of approved quality in foundations,plinth and Superstructure in Lime Mortar 1:1.5 (1-Lime : 1.5-coarse sand including levelling up etc. complete Extra for brick work in superstructure above plinth level upto floor two level (B) Conventional	174.00	Cumt.	2957.68	514636.32
14	(i) Half brick masonry in common burnt clay building bricks having crushing strength not less than 35 Kg/Sq.Cm. in Cement mortar 1:4 (1- Cement : 4 -coarse sand) in foundation and plinth (B) Conventional	258.00	Sqmt.	656.33	169333.14
15	Pointing on Uncoursed stone masonry with cement mortar 1:3 (1-cement : 3-coarse sand)(B) Ruled pointing G.F.	1599.00	Sqmt.	111.05	177568.95
16	Providing 15 mm thick cement plaster in single coat on fair side brick/concrete wall for interior plastering up to floor two level finished even and smooth in with Floating coat of neat cement. (i) cement Mortar 1:3 (1 cement : 3 Sand).	676.00	Sqmt.	218.01	147374.76
17	Providing 10mm thick cement plaster in single coat on brick/concrete walls for interior plastering upto floor two level and finished even and smooth in (i) Cement mortar 1:3 (1-cement:3-sand) Extra over items 58 to 64 for finishing with a floating coat of neat cement slurry.	413.00	Sqmt.	144.79	59798.27
18	Providing and laying polished Kota stone slab flooring over 20mm (Average) thick base of cement mortar 1:6 (1-cement : 6-coarse sand) or L.M. 1:1.5 (1-Lime putty :1.5 - coarse sand) laid over and jointed with grey cement slurry mixed with pigment to match the shade of slab including rubbing and polishing etc. complete. (A) 25mm thick	809.00	Sqmt.	1015.81	821790.29
19	Granite Sill & Jambs Providing and laying 18 mm thick polished granite stone machine cut in single piece (Max. available) in tread,Riser, sill and jambs of door/window frame laid over 10 mm thick cement mortar 1 : 3 (1 cement : 3 coarse sand) and jointed with grey cement slurry with matching pigment incl. rubbing and polishing rounding edge etc. complete colour and shed as approved by architect engineer in charge	118.00	Sqmt.	1515.00	178770.00
20	Labour Charge Full Round Edge for Granite	553.00	Rmt.	51.51	28485.03
21	Providing and laying white glazed tiles 6 mm. Thick in flooring treads of steps and landings laid on a Bed of 12 mm. Thick cement mortar 1:3 (1 cement : 3 coarse sand) pointing in white cleaned jointed with white cement slurry	96.00	Sqmt.	891.90	85622.40
22	Providing and laying white glazed tiles 6mm thick skirting risers of steps and dedo on 10mm thick cement plaster 1:3 (1-Cement : 3-Coarse sand) & jointed with white cement slurry.	509.00	Sqmt.	922.87	469740.83
23	Providing and laying Vitrified tiles 8 to 10 mm thick , 24" x 24" in skirting risers of steps and dedo on 10mm thick cement plaster 1:3 (1-cement : 3-coarse sand) and jointed with white cement slurry	35.00	Sqmt.	1169.98	40949.30

Item No	Description of Item	Quantity	Unit	Rate In figures	Amount
24	Providing and fixing flush door shutters, solid core construction with frame of first class hardwood with cross board and face veneer or plywood face panels, including anodised aluminium butt hinges with necessary screws. (B) Non-decorative type and block board core anodised aluminium butt hinges in flush door shutters (2) 35 mm thick.	29.00	Sqmt.	1829.73	53062.17
25	Providing and fixing FRP frame size 100x50 mm and 28mm thick FRP depress panel shutter having extra reinforcement on sides & edges in Gel coat finish. The core of the shutter & frame is to be filled up with injected fire retardant grade polyurethane foam done in situ alongwith embedded wooden pieces for stiffening & also taking hinges & fixtures. The whole FRP frame & shutter is to be water proof weather proof, termite proof & resistance to mild acid/alkali. Rates are to be inclusive of S.S hinges with necessary screws & aluminium fixtures & fastenings & fastener sleeve.	16.00	Sqmt.	2377.76	38044.16
26	Providing and fixing window having extruded aluminium Colour Powder Coated section frame main outer size 95mm x 24mm x 1.17mm @ wt.of 0.738 Kg/mt, horizontal Three track member size 92mm x 31.75mm x 1.30mm @ Wt.1.07 Kg/mt, vertical member of size 92mm x 31.75mm x 1.50mm ,@ Wt. 1.06 Kg/mt with sliding shutters of horizontal member size 40 mmx18mm x1.29mm @ wt.of 0.456 Kg/mt, vertical member of size 40mm x 18mm x 1.29 mm @ wt.of 0.456Kg/mt with 5 mm thick transparent bronze colour tinted float glass with powder coated aluminum fittings and fixtures and transparent silicon sealant glass fixing to frame as per details etc	136.00	Sqmt.	1591.87	216494.32
27	Structural steel work (Confirming to IS 4923-1997) riveted, bolted or welded in builtup for all type sections, in framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete as per the structural designs and directions of Engineer in charge.	18115.00	Kg.	131.14	2375601.10
28	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in-charge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.).	50.00	Rmt.	618.37	30918.50
29	Providing and fixing PVC SWR Nahni trap IS 14735 for drain - 100 mm diameter with jali of the following nominal diameter of self cleansing design with C.I screed down or hinged grating including the cost of cutting and making good the walls.	48.00	No.	585.36	28097.28
30	Providing and fixing S.W. gully trap with C.I. grating brick masonry chamber and water tight C.I. cover with frame of 300mm x 300mm size (inside) with standard weight.(i) Square mouth traps. (A) 100mm x 100mm size P type.	5.00	No.	1292.19	6460.95

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31	Constructing brick masonry chamber for underground C.I. Inspection chamber and bends with bricks having crushing strength not less than 35Kg. Cm ² in C.M. 1:5 C.I. cover with frame (Light duty) 455mm x 610mm intenal dimensions total weight of cover with frame to be not less than 38Kg. (Wt. of cover 23 Kg.) and Wt. of frame 15Kg.) (R.C.C. top slabe with 1:2:4 mix (1-cement :2- coarse sand :4-graded stone aggregate 20mm size) foundation concrete 1:5:10 inside plaster 15mm thick with cement mortar 1:3 finished smooth with a floating coat of neat cement on walls and bed concrete etc. complete.(i) Inside dimensions 455mmx 610mm and 450mm deep for single pipe line.	5.00	No.	2932.92	14664.60
32	Providing and fixing screw down bib taps of following size. (A) Brass screw down bib tap polished bright. (i) 15mm dia.	144.00	No.	186.83	26903.52
33	Providing and fixing Gun metal check or non-return fullway wheel valve.(E) 40mm dia.	2.00	No.	663.42	1326.84
34	Providing and fixing Gun metal check or non-return fullway wheel valve.(D) 32mm dia.	4.00	No.	314.72	1258.88
35	Providing and fixing wsh down water closet (European type, W.C. Pan) with integral P or S trap including jointing the trap with soil pipe in Cement Mortar 1:1 (1-Cement : 1-fine sand) (Seal and cover to be measured and paid for separately) (A) vitreous China Pattern :(i) in white colour	16.00	No.	1336.30	21380.80
36	Providing and fixing 12.5 Litres low level flushing cistern with a pair, of C.I. or Mild brackets, complete with fittings such as lead valve less syphon, 15mm nom.nal size brass ball valve with polythene float, C.P brass handle unions and couplings for connections, with inlet, outlet and overflow pipes, 40mm dia. porcelain enamelled flush bend including cutting holes in walls and making good the same connecting the flush bend with cistern and closet (overflow pipe to be measured and paid for separately) (A) Vitreous China (I) In white colour	6.00	No.	2370.39	14222.34
37	Providing and fixing G.I. inlet connection for flush pipe with W.C. Pan	16.00	No.	46.95	751.20
38	Providing and fixing plastic seat and cover for wash down water closer with C.P. brass hinges and rubber buffers. (B) Black plastic seal and cover.	16.00	No.	291.33	4661.28
39	Providing and fixing washbasin with single hole for pillar tap with C.I. or M.S. brackets painted white including sutting holes and making good the same but excluding fittings.(A) Vitreous China:(ii) Flat Back washbasin 550 mm x v 400mm size. (i) In white colour.	8.00	No.	1485.40	11883.20
40	Providing and fixing C.P. brass waste for washbasin or sink. (A) 32mmdia.	16.00	No.	67.91	1086.56
41	Providing and fixing chromium plated brass half trun flush cock of approved quality including fixing in pipe line etc. complete. (ii) 25mm dia.	16.00	No.	263.77	4220.32
42	Providing and fixing C.P. brass shower rose with 15mm or 20mm inlet. (A) 100mm dia. Each	16.00	No.	282.16	4514.56
43	Providing erecting and fixing double coated Syntex PVC. (ISI) water tank of required capacity each with all necessary fittings and connection etc. complete on terrace.	5000.00	Litr.	3.95	19750.00

Item No	Description of Item	Quantity	Unit	Rate In figures	Amount
44	Providing and supplying in standard length ISI mark rigid unplasticised PVC pipes suitable for potable water with ringfit joint including cost of rings, as per IS specification no. 4985/1988 including all local and central taxes, transportation, freight charges, octroi, inspection charges, loading, unloading, conveyance to the departmental stores and including cost of jointing material etc. complete. 1.One coupler / ring shall be provided with each full length pipe cost of which is included in rates below. (C) Test Pressure 6 Kg/cm ² (90mm Dia Pipe)	20.00	Rmt.	139.38	2787.60
45	Providing and supplying in standard length ISI mark rigid unplasticised PVC pipes suitable for potable water with ringfit joint including cost of rings, as per IS specification no. 4985/1988 including all local and central taxes, transportation, freight charges, octroi, inspection charges, loading, unloading, conveyance to the departmental stores and including cost of jointing material etc. complete. 1.One coupler / ring shall be provided with each full length pipe cost of which is included in rates below. (C) Test Pressure 6 Kg/cm ² (110mm Dia Pipe)	15.00	Rmt.	199.98	2999.70
46	Providing laying and jointing in true line and level 15mm dia. U.P.V.C. Pipe (SCH- 40) for cold water including fittings make PRINCE / SUPREME / ASTRAL / FINOLEX or equivalent as approved by Engineer In Charge. Pipe shall be fixed on the wall with the help of clamp at every two metre C/C or shall be cancelled as directed including necessary fittings etc. including testing of pipe and joints and fixing the same with adhesive solvent, including cost of all materials.	65.00	Rmt.	72.65	4722.25
47	Providing laying and jointing in true line and level 25mm dia. U.P.V.C. Pipe (SCH- 40) for cold water including fittings make PRINCE / SUPREME / ASTRAL / FINOLEX or equivalent as approved by Engineer In Charge. Pipe shall be fixed on the wall with the help of clamp at every two metre C/C or shall be cancelled as directed including necessary fittings etc. including testing of pipe and joints and fixing the same with adhesive solvent, including cost of all materials.	65.00	Rmt.	91.84	5969.60
48	Providing laying and jointing in true line and level 32mm dia. U.P.V.C. Pipe (SCH- 40) for cold water including fittings make PRINCE / SUPREME / ASTRAL / FINOLEX or equivalent as approved by Engineer In Charge. Pipe shall be fixed on the wall with the help of clamp at every two metre C/C or shall be cancelled as directed including necessary fittings etc. including testing of pipe and joints and fixing the same with adhesive solvent, including cost of all materials.	70.00	Rmt.	119.15	8340.50
49	Providing laying and jointing in true line and level 40mm dia. U.P.V.C. Pipe (SCH- 40) for cold water including fittings make PRINCE / SUPREME / ASTRAL / FINOLEX or equivalent as approved by Engineer In Charge. Pipe shall be fixed on the wall with the help of clamp at every two metre C/C or shall be cancelled as directed including necessary fittings etc. including testing of pipe and joints and fixing the same with adhesive solvent, including cost of all materials.	35.00	Rmt.	148.11	5183.85

Item No	Description of Item	Quantity	Unit	Rate In figures	Amount
50	Providing laying and jointing in true line and level 50mm dia. U.P.V.C. Pipe (SCH- 40) for cold water including fittings make PRINCE / SUPREME / ASTRAL / FINOLEX or equivalent as approved by Engineer In Charge. Pipe shall be fixed on the wall with the help of clamp at every two metre C/C or shall be cancelled as directed including necessary fittings etc. including testing of pipe and joints and fixing the same with adhesive solvent, including cost of all materials.	35.00	Rmt.	195.66	6848.10
51	Providing, laying and jointing in true line and level 160 diameter U.P.V.C (Type B) conforming to IS 13592-1992 with one end plain and other end socketed with rubber ring, & fittings conforming to ISI 14735-1999 of approved make for drainage system pipe line, pipe shall be jointed with each other with rubber lubricant, pipe shall be fixed on wall using of PVC clamp of the size 160 mm diameter x 210 mm length x 196 mm height at every 2000 mm center to center or shall be concealed in walls as directed including necessary fittings such as bends, shoes etc. including testing of pipes and joints and jointed with adhesive solvent cement including cost of all materials.	25.00	Rmt.	834.38	20859.50
52	Wall painting (two coats) with plastic emulsion paint of approved brand and manufacture on undecorated wall surface to give an even shade including thoroughly brushing the surface free from mortar droppings and other foreign matter and sand papered smooth.	2688.00	Sqmt.	81.37	218722.56
53	Providing and fixing tiles roofing with mangalore tiles including teak reepers of sizes 50mm x 25mm.	556.00	Rmt.	272.30	151398.80
54	(B) Providing sock pit of 5.00 Cu.M. Volume including excavating and filling brickbats with dry masonry work at top for 45cm. height including covering the top with stone including providing vatas in C.M. 1:3 with finishing curing etc. complete as directed.	2.00	No.	3427.64	6855.28
55	Providing & Fixing Bunk Bed , as per refer architect detail Drawing made with Wooden finishes, with laminated/veneer coated shade approved by architect,also include with Spring Bed mattress 5"thk. 5year warranty with ,Bedsheet,Blanket and Pillow with standard size as per Architect Selection The rate also includes for all necessary items required to complete the job as per design /drawing and consultant's instructions.Bed Size(6'L x 3'W x 7'H)	32.00	No	17430.00	557760.00
56	Providing & Fixing Wardrobe Storage unit 900 mm X 450-750 mm table-top along with height as per architectural detail made of 19mm thick plywood, with Laminate shutters/Glass Sliding Sutter, sides and bottom, with middle shelf in 19mm thick plywood with 1mm thick laminate on top face, complete with 5mm teakwood lipping on all exposed edges of plywood and all necessary accessories including polishing/painting as specified in the detail drawing and to The rate also includes for all necessary items required to complete the job as per design /drawing and client/consultant's instructions.	64.00	No	6000.00	384000.00

Item No	Description of Item	Quantity	Unit	Rate In figures	Amount
57	Providing and installing Side Table in the Bsf Baracks room are having 600mm X 600 mm along with height as per architectural detail table-top out of post-formed laminate top of approved design with smooth edges and having necessary structural frame made out of pre-laminated ply fins of the same design as the top and SS tubes , 16G, brushfinished. HOF/BP-ergo/Haworth or equivalent. Complete and directed by consultant instruction.The rate also includes for all necessary items required to complete the job as per design /drawing and consultant's instructions.	12.00	No	2500.00	30000.00
58	Providing and fixing 75 mm thk Wooden Partition in slab, level and plumb made out of 50 mm X 35 mm thk salwood framework @ 600 mm c/c with 18 mm thk commercial ply fixed on both the sides of the frame work etc. all complete as per architects instructions. , 75mm x 25mm cover moulding in TW as Trim on top and side The rate also includes for all necessary items required to complete the job as per design /drawing and client/consultant's instructions.	170.00	Sqmt	4500.00	765000.00
59	Providing & fixing sofa made from 60 x 40 mm teak wood framework at every 600-700 mm along the length of the sofa, rubber-foam padding,as well as the fabric of sofa along all sides as per detail drawing and approved by Architect, approved upholstery & SS legs , as per design etc complete .The rate shall apply for all heights & all levels.As per design by Architect,The rate includes the cost of all necessary item	20.00	Rmt	11500.00	230000.00
60	Providing & supplying Centre/Corner tepoy with teak wood frame and laminated plywood top of 18mm plywood, as per design. Wooden edges/surfaces to be finished in stained melamine polish. Minimum size of table - 600 x 600 x 450 mm with necessary hardware as per design, complete.	4.00	No	4500.00	18000.00
61	Providing and fixing Geyser 25 Ltr Capacity The rate also includes for all necessary items required to complete as per design/drawing/location and client/consultant's instructions jaquar or equivalent make	8.00	No	6000.00	48000.00
62	Point Wiring Point wiring for Light / Bell with 2-1.5 sq.mm & earthwire of 1.5 sq.mm (Green) both are of ISI marked 1.1 KV grade FRLS PVC insulated multistrand copper wires, in following type of pipe to be erected concealed in/ on surface on wall/ceiling complete with 6A Modular type switch / bell push & accessories and earth continuity of following type, erected on PVC / Metallic box, single mounting base frame covered with textured/metallic front plate modules erected on / in wall / ceiling as per pipe erected, with necessary Lamp holder/ceiling rose / H.D.Connector as directed. (a) with medium class Rigid PVC pipe and accessories	210.00	no	449.45	94384.50

Item No	Description of Item	Quantity	Unit	Rate In figures	Amount
63	Point wiring for secondary light point with 2-1.5 sq.mm & earthwire of 1.5 sq.mm (green) both are of ISI marked 1.1 KV grade FRLS PVC insulated multistrand copper wires, in following type of pipe to be erected concealed in / flushed on wall/ceiling, complete with earth continuity and necessary connection with primary light with accessories erected on Metal / PVC box covered with 3 mm thick PC(Polycarbonet) / Acrylic sheet for open / concealed wiring. with necessary Lamp holder / ceiling rose / H.D.Connector as directed. (a) with medium class Rigid PVC pipe and accessories	58.00	no	132.31	7673.98
64	Point wiring for Two Way Controlled Light Point with 2-1.5 sq.mm & earthwire of 1.5 sq.mm (green) both are of .ISI marked 1.1 KV grade FRLS PVC insulated multistrand copper wires, in following type of pipe to be erected concealed in / flushed on wall/ceiling ,complete with 6A Modular type switches and following type of accessories erected on PVC / Metallic box, single mounting base frame covered with textured / metallic front plate modules erected on / in wall / ceiling as per pipe erected. with necessary batten/angle holder or ceiling rose or H.D.Connector as directed. (a) with medium class Rigid PVC pipe and accessories	10.00	no	567.62	5676.20
65	Do as above but for Secondary light point controlled by same two way switch	1.00	no	132.31	132.31
66	Point wiring for FAN with 2-1.5 sq.mm & earthwire of 1.5 sq.mm (Green) both are of .ISI marked 1.1 KV Grade FRLS PVC insulated multistrand copper wires, in following type of pipe to be erected concealed in / flushed on wall/ceiling complete with 6A Modular type switch and hum free EME four or more step type electronic fan regulator with separately mounted and accessories with earth continuity of following type erected on PVC / Metallic box, single mounting base frame covered with textured/metallic front plate modules erected on / in wall / ceiling as per pipe erected. with necessary ceiling rose / H.D.Connector as directed. (a) with medium class Rigid PVC pipe and accessories	42.00	no	638.32	26809.44
67	Point wiring for Looped Plug with 6A Modular type switch & 5 pin socket erected on PVC / Metallic box, single mounting base frame covered with textured / metallic front plate modules erected on / in wall / ceiling with following type accessories	30.00	no	257.55	7726.50
68	Do - As - Above but for 6 A x 5 pin 250 Volt switched socket outlet point at convenient location. (Plug & Switch can be together or at different location)	2.00	no	475.71	951.42

Item No	Description of Item	Quantity	Unit	Rate In figures	Amount
69	Point wiring for Individual Plug with & earthwire of 1.5 sq.mm (Green) both are of ISI marked 1.1 KV grade FRLS PVC insulated multistrand copper wires, in following type of to be erected concealed in / on surface of wall / ceiling complete with Modular type switch & 5 pin Plug erected on PVC / Metallic box covered with appropriate front plate modules erected on / in wall / ceiling as per pipe erected with following type of accessories. [II] For 16A Plug with 2-2.5 sq.mm Cu. Wire (a) with medium class Rigid PVC pipe and accessories	31.00	no	711.04	22042.24
70	Point wiring for Individual Plug with & earthwire of 1.5 sq.mm (Green) both are of ISI marked 1.1 KV grade FRLS PVC insulated multistrand copper wires, in following type of to be erected concealed in / on surface of wall / ceiling complete with Modular type switch & 5 pin Plug erected on PVC / Metallic box covered with appropriate front plate modules erected on / in wall / ceiling as per pipe erected with following type of accessories. [III] For 16A Plug with 2-4 sq.mm Cu. Wire (a) with medium class Rigid PVC pipe and accessories	28.00	no	837.29	23444.12
71	Providing and erecting ISI mark Medium class RIGID PVC PIPES of following size complete to be erected on/in wall or ceiling erected with necessary PVC fittings & Junction boxes fixed with adhesive solution & Clamps with following dia of pipes, in approved manner as directed Supply and laying of 25 mm rigid PVC pipe of 1.6-1.8 mm thickness	250.00	rmt	33.33	8332.50
72	Supply and laying of 32 mm rigid PVC pipe of 1.6-1.8 mm thickness	105.00	rmt	54.54	5726.70
73	Supply and laying of 40 mm rigid PVC pipe of 1.6-1.8 mm thickness	70.00	rmt	67.67	4736.90
74	MAINS : (not for Point wiring) Supplying and Laying of mains with Cu. PVC insulated flexible wire with ISI and FIA approval for 650 V/ 1100 V with earth wires of Cu. PVC insulated flexible wires with ISI approval for 650 V/ 1100 V as earth wires with Suitable dia rigid PVC Pipe of Heavy Gauge (Scope Also includes Supply of pipe.) Supplying and Laying of 4 nos. of 16 sq mm Cu. FRLS flexible wires with 2 nos 4.0 sqmm Cu. FRLS flexible wires with 40 mm dia Pipe	20.00	mtr	237.35	4747.00
75	Supplying and Laying of 2 nos. of 6 sq mm Cu. FRLS flexible wires with 1 nos 2.5 sqmm Cu. FRLS flexible wires with 40 mm dia Pipe	100.00	mtr	147.46	14746.00
76	Supplying and Laying of 2 nos. of 4 sq mm Cu. FRLS flexible wires with 1 nos 2.5 sqmm Cu. FRLS flexible wires with 25 mm dia Pipe	250.00	mtr	112.11	28027.50
77	Supplying and Laying of 2 nos. of 2.5 sq mm Cu. FRLS flexible wires with 1 nos 1.5 sqmm Cu. FRLS flexible wires with 25 mm dia Pipe	1300.00	mtr	82.82	107666.00
78	Supplying and Laying of 2 nos. of 1.5 sq mm Cu. FRLS flexible wires with 1 nos 1.5 sqmm Cu. FRLS flexible wires with 25 mm dia Pipe	180.00	mtr	62.62	11271.60

Item No	Description of Item	Quantity	Unit	Rate In figures	Amount
79	Distribution Board Supply, Assembling, grouting, leveling Connecting & testing D.B of IP 43 of specified make. Distribution Board-VTPN Supply, Erecting, testing and commissioning of only VTPN D.B. with space for FPMCCB / FPMCB as incoming and 8 TPMCB / SPMCB as outgoing per phase (i.e. 8 way VTPN D.B.) of Legrand Make Cat. No. 507727	1.00	no	11546.32	11546.32
80	Distribution Board-SPN Supply, Erecting, testing and commissioning of SPN D.B. PPI type with space for DPELMCB as incoming and 8 SPMCB as outgoing per phase (i.e. 12 way D.B.) of Hensel Make KV9112M	1.00	no	5316.64	5316.64
81	Supply, Erecting, testing and commissioning of SPN D.B. PPI type with space for DPELMCB as incoming and 4 SPMCB as outgoing per phase (i.e. 8 way D.B.) of Hensel Make KV7109M	32.00	no	3339.06	106849.92
82	MCB All MCB's, ELMCB's, ELCB's should be of 10 KA only 6 to 32 A SP MCB	50.00	no	270.68	13534.00
83	6 to 32 A DP MCB	10.00	no	299.97	2999.70
84	25 to 32A / 100 mA DP ELMCB	20.00	no	1969.50	39390.00
85	40 A / 100 mA DP ELMCB	1.00	no	2235.13	2235.13
86	63 A / 100 mA DP ELMCB	1.00	no	2654.28	2654.28
87	6 to 32 A TP MCB	6.00	no	1285.73	7714.38
88	25 to 32A FP MCB	1.00	no	595.90	595.90
89	40 A FP MCB	1.00	no	668.62	668.62
90	63 A FP MCB	1.00	no	737.30	737.30
91	Approved make Three pole moulded case circuit breaker having breaking capacity /strength ICU of 35KA at 415 V. having normal current rating up to 100/125Amp. With fixed thermal & megnetic release suitable to work on A.C. supply 50 c/s. with all internal connections & complete erected in existing 16 G.M.S. housing	1.00	no	6575.10	6575.10
92	SITC of IP65 Polycarbonate enclosure for DP MCB	15.00	no	1368.55	20528.25
93	SITC of IP65 Polycarbonate enclosure for FP MCB	1.00	no	1464.50	1464.50
94	Cable Trench Making trench in soft soil of suitable width of 90 cms deep for laying cable or locating the fault all over the run and backfilling the same and making the surface as normal ground.	50.00	mt	55.55	2777.50
95	Covering of cable with second class bricks or cement tiles laid cover the cable crosswise & also on both sides with covering of 7. 5 Cms. layer of sand above & below cable (16 bricks per meter)	50.00	rmt	140.39	7019.50
96	Construction of brick masonry pulling chamber 600 mm x 600 mm inside clear size and depth up to 0.60 meter with 350 mm thick masonry in cement mortar proportion 1:5,cement finish cement plaster in CM proportion of 15 mm thickness from inside with 150 mm thick PCC at bottom with top slab minimum 200 mm thickness in M20 grade with reinforcement. The rate shall be inclusive of providing and fixing frame and 600 mm dia cover of FRC for the Heavy Duty. Rate also inclusive of excavation and back filling & clearing the site by removing debris & Shifting of the debris & making site good As per the Instruction of the Engineer In charge complete in all respect.	5.00	no	9472.79	47363.95

Item No	Description of Item	Quantity	Unit	Rate In figures	Amount
97	Cables Supply, Installation, Testing, Laying, Commissioning of following 1100 volt grade XLPE insulated PVC sheathed aluminum / Copper conductor armored cables as per (IS:7098)(I)-88 ISI marked & specification in trenches, cable trays, ducts, over bed of sand, clamped to wall with suitable clamps including, saddles fixing bolts, connecting testing and commissioning with identification tags at every 10 mtr. & Both ends. with All the fixing accessories, excavation Back filling & Cable protection with Bricks as per the drawing (If required). 70 sq.mm x 3.5 c Al. XLPE Arm. Cable	30.00	mt	378.75	11362.50
98	35 sq.mm x 3.5 c Al. XLPE Arm. Cable	30.00	mt	220.18	6605.40
99	10 sq.mm x 4 c Al. XLPE Arm. Cable	50.00	mt	140.39	7019.50
100	6 sq.mm x 3 c Al. XLPE Arm. Cable	500.00	mt	107.06	53530.00
101	4 sq.mm x 3 c Al. XLPE Arm. Cable	100.00	mt	87.87	8787.00
102	Cable Termination SITC of Cable end termination of the following XLPE insulated PVC sheathed aluminum/copper conductor armored cables of 1100 volt grade including supplying and fixing of bimetallic Long neck crimping lugs, double compression type Brass glands with earthing. 70 sq.mm x 3.5 c Al. cable	2.00	no	168.67	337.34
103	35 sq.mm x 3.5 c Al. cable	2.00	no	200.99	401.98
104	10 sq.mm x 4 c Al. cable	2.00	no	57.57	115.14
105	6 sq.mm x 3 c Al. XLPE Arm. Cable	32.00	no	53.53	1712.96
106	4 sq.mm x 3 c Al. XLPE Arm. Cable	8.00	no	53.53	428.24
106 A	MV Switchgear & Power Panels Supply, Unloading at site, shifting to site, assembling, leveling, grouting, erecting, Testing, & Commissioning main L.T. panel board, fabricated from M.S. sheet & folded channel totally enclosed cubical type compartmentalized. Scope Covers Unloading at Site, Store in Weather Proof Condition, Shift to the Location Basement / GF / FF, Grouting, Installation, Testing & Commissioning complete in all respect & As per the instruction of Architect / Consultant / Engineer Incharge. Scope also covers Co ordination with Panel Manufacturer. Design, fabrication, assembling, supply, installation , testing of Panels for 415 V, 3 phase, 50 Hz, 4 wire power supply system. Panels shall be fabricated out of 2 mm thick CRCA sheet steel in cubical formation, compartmentalized in Form 4b Construction, floor mounted, free standing and shall be dust and vermin proof. 3 mm thick cable gland plate, shall be provided both at the top and the bottom of the panel. All large panels shall be provided with lifting hooks. Distribution panels shall be fabricated in accordance with the specifications. Note : Panel vendor has to provide Surge Protection at every stage of the Distribution. 1) Supporting rigid steel framework. 2) Cubicle type, 14 gauge CRCA sheet steel enclosed. 3) Complete with interconnections and distribution bus bars. 4) Proper bonding to earth. 5) Painting/lettering on Breakers and distribution boards, the location they serve, providing on each panel its circuit diagram.				

Item No	Description of Item	Quantity	Unit	Rate In figures	Amount
	6) Providing cable clamps / supports within distribution boards cable alley.				
	7) TPN ACB's / MCCB's shall mean 3 pole ACB's / MCCB's with adequate size of neutral link.				
	8) All MCB's shall be of minimum 10 KA breaking capacity.				
	9) The breaking capacity of MCCB's are mentioned panel wise.				
	10) All motor feeders MCCBs shall be of motor duty.				
	11) Distribution panels shall be Powder Coated with Siemens gray paint shade no. RAL-7032 of IS-5.				
	12) Degree of protection for following type of distribution panel enclosure shall be as per IS:13947-1993. a) IP 52 for indoor panels. b) IP 54 for kitchen and laundry panels. c) IP 55 for outdoor panels.				
	13) All MCCB's shall be provided with operating mechanism for door interlock & with the rotary handle.				
	14) Current density of aluminium shall be 1 sq mm for 0.8 amps for rated current of bus bars and current density of copper shall be 1 sq.mm for 1 amps for rated current of bus bars.				
	15) Tinned copper earth bus as specified in the BOQ / SLD shall be provided throughout the length of each board.				
	16) All measuring instruments (Meters) shall be of digital electronic with LED of approved make and compatible with BAS.				
	17) All hinged door shall be earthed through 2.5 sq mm tinned braided copper wire.				
	18) All panels shall have provision of the following: a) IP 55 for outdoor panels. b) Pad locking of MCCB's handles in "OFF" Position.				
	19) Additional set of C.T.s, potential free contacts, connectors, contactors with wiring etc are to be provided for BAS including space required for various transducers in Main Switch Board sections. Only transducers shall be supplied by BAS contractor.				
	20) All the C.T.s should be auto short link type.				
	21) All the MCCB's should be with rotary handle.				
	22) All MCB's used for protection of resistive and lightly inductive load shall be type "B" characteristic and inductive (motor) load shall be of type "C" characteristic and discharge lamps and UPS etc. shall be of type D characteristic.				
	23) All incoming and outgoing air circuit breakers shall be placed on middle portion of the vertical in single tier formation.				
	24) All PTs / control transformer shall be provided with centre tap earth secondary.				
	25) If Any discrepancy found in SLD & BOQ, it should be brought in the notice of the Client / Consultant, Client / Consultant's decision will be final in case of any discrepancy.				
	26) G.A. Drawing should be checked & Finalised by consultant before fabrication.				

Item No	Description of Item	Quantity	Unit	Rate In figures	Amount
107	<p>Main LT Panel</p> <p>Incoming :</p> <p>100 amps FP MCCB (16 KA) with following accessories: 1 Set Breaker ON / OFF / TRIP indicating lights with control MCB's.</p> <p>Under voltage release</p> <p>24 V DC Shunt trip coil</p> <p>3 Nos. of 0-100/ 5 amps CTR digital VAF with 3 nos 100 / 5 amps, 15 VA Class 0.5 CT's.</p> <p>Digital type 0-500 Volt digital voltmeter with inbuilt selector switch & shall be protected by 2 amp TP MCB's</p> <p>Bus Bars</p> <p>100 amps FP Tinned copper bus bars with coloured heat shrinkable insulated sleeve.</p> <p>Outgoing</p> <p>All the outgoing should be provided with RYB - On - Off - Trip I/L . (For MCCB only)</p> <p>40-63 amps 4 pole MCB (10 KA) : 2 Nos.</p> <p>6-32 amps 2 pole MCB (10 KA) : 20 Nos.</p> <p>Panel should be as per SLD</p>	1.00	no	169096.22	169096.22
108	<p>Light Fixture</p> <p>Supplying and erecting LED indoor fittings with LEDs of wattage 0.2 Watt to 0.5 Watt assembled on single MCPCB, with housing used as a heat sink shall be made of thick sheet Steel conforming to IS: 513/CRCA polyester powder coated and high U.V. & corrosion resistance with diffuser and/or Polycarbonate optics with company mark/name</p> <p>120 to 300 V,Power Factor more than 0.9, THD < 10 %,</p> <p>CCT 4000 K to 6500K, Uniformity ratio >0.7,</p> <p>Luminaire efficiency> 85 lumens/watt ,</p> <p>LED driver efficiency > 85 %</p> <p>CREE / OSRAM / PHILIPS Lumileds / NICHIA / SEOUL/Bridgelux(U.S.A.) make LED used for luminaire. (Each fitting required LM-79 & LM-80 Certificates)</p> <p>(A) Tube Light with integral/ non-integral driver</p> <p>(a) 5 Watts, Surge-2 KV, IP-20,2 feet (Cat-III)</p>	50.00	no	480.76	24038.00
109	<p>Supplying and erecting LED indoor fittings with LEDs of wattage 0.2 Watt to 0.5 Watt assembled on single MCPCB, with housing used as a heat sink shall be made of thick sheet Steel conforming to IS: 513/CRCA polyester powder coated and high U.V. & corrosion resistance with diffuser and/or Polycarbonate optics with company mark/name</p> <p>120 to 300 V,Power Factor more than 0.9, THD < 10 %,</p> <p>CCT 4000 K to 6500K, Uniformity ratio >0.7,</p> <p>Luminaire efficiency> 85 lumens/watt ,</p> <p>LED driver efficiency > 85 %</p> <p>CREE / OSRAM / PHILIPS Lumileds / NICHIA / SEOUL/Bridgelux(U.S.A.) make LED used for luminaire. (Each fitting required LM-79 & LM-80 Certificates)</p> <p>(A) Tube Light with integral/ non-integral driver</p> <p>(d) 20-22 Watts, Surge - 4KV,IP-20, 4feet</p>	50.00	no	823.15	41157.50

Item No	Description of Item	Quantity	Unit	Rate In figures	Amount
110	Supplying and erecting LED indoor fittings with LEDs of wattage 0.2 Watt to 0.5 Watt assembled on single MCPCB, with housing used as a heat sink shall be made of thick sheet Steel conforming to IS: 513/CRCA polyester powder coated and high U.V. & corrosion resistance with diffuser and/or Polycarbonate optics with company mark/name 120 to 300 V, Power Factor more than 0.9, THD < 10 %, CCT 4000 K to 6500K, Uniformity ratio >0.7, Luminaire efficiency > 85 lumens/watt , LED driver efficiency > 85 % CREE / OSRAM / PHILIPS Lumileds / NICHIA / SEOUL/Bridgelux(U.S.A.) make LED used for luminaire. (Each fitting required LM-79 & LM-80 Certificates) (c) Square / Circular Surface / recessed Mounted Downlight with Provision for Spring loaded mounting clips complete (a) 5-6 Watts, Surge - 2KV	28.00	no	480.76	13461.28
111	Providing & erecting Approved make Power Saving 50 Watt Ceiling Fan with double ball bearing ISI mark with Condenser 230 volt A.C. 50 Hz 1200 mm sweep complete having 3 blades with aluminium blades with , canopy & 30 cms. down rod erected with 24/ 0.2, 3 core flexible wire with earthing.(Make shall be approved by Engineer in charge)	58.00	no	1948.29	113000.82
112	Supplying and erecting 19 / 20 mm. nominal bore Medium Class M.S. Pipe down rod erected duly painted for fan complete with necessary 24/ 0.20, 3 core flexible wire with earthing.	58.00	Rmt	108.07	6268.06
113	Exhaust Fans : Supplying & erecting approved make low noise decorative exhaust fan having size 200mm with 1350 RPM with square frame ABS body with inbuilt lowers & square frame.	8.00	no	1703.87	13630.96
114	Providing suitable M.S. louver shutter of the Exhaust fan.	24.00	no	368.65	8847.60
115	Earthing Supplying & erecting funnel type earthing having earth plate of following size buried in specifically prepared earth pit 3 mtr. below ground with 40 kg. charcoal and salt with alternate layers of charcoal & salt, 20mm.dia. G.I. pipe with Funnel with a wire mesh for watering & bricks masonry block, C.I. Cover complete as per para 7.3 of IS 3043 with necessary length of double Galvanised Iron / copper earth wire No 6 SWG bolted with lug to the plate and covered in 12 mm dia. G.I. pipe 2.5 mtr long complete connected to the nearest switch gear with end socket as per direction & duly tested by earth tester confirming to IS (As per drawing) with following specification 60 x 60 x 0.315 cms. Copper earth Plate	2.00	no	7874.97	15749.94

Item No	Description of Item	Quantity	Unit	Rate In figures	Amount
116	Supplying & erecting in earthpit of minimum bore dia. 225mm size ASH or approved make Safe Earthing Electrode consisting Pipe-in-Pipe Technology as per IS 3043-1987 made of corrosion free G.I.Pipes having Outer pipe dia of 80 mm having 80-200 Micron galvanising, Inner pipe dia of 40 mm having 200-250 Micron galvanising, connection terminal dia of 14 mm with constant ohmic value surrounded by highly conductive compound with high charge dissipation suitable for following type of applications. For Electrical Installation covering Transformer Neutrals, Lightning arrester Earthing, A.C.Plant & Sensitive Computer System(like Automation, SCADA)i.e. independent Earthing located in other than normal soil i.e. Soft Rock, Marshy Soil etc.. -Length of Pipe : 3 Mtrs. -Back filling Compound :2 nos Bags of 25 Kg.	1.00	no	10593.89	10593.89
117	Earth wire/strips : Supply and laying cu. earthing strips for interconnecting the earthing stations, panels, DB's etc. in built up trenches, on walls/ceiling, buried in ground generally as specified and shown on drawings complete with : fixing accessories Corrosion protection of buried conductors with bituminous coating and covered with PVC tapes. Providing and erecting HOT deep Galvanized strip iron wire 8 to 16 S.W.G.	50.00	kg	77.77	3888.50
118	32x 6 mm cu. Tape	15.00	kg	794.87	11923.05
119	25 x 3 mm cu. Tape	15.00	kg	794.87	11923.05
120	No.8 gauge bare cu. earth wire	15.00	kg	794.87	11923.05
121	Earth Link : 40mm x 6 mm earth link fixed by necessary screws on wall.	1.00	no	545.40	545.40
122	SITC of Water Tight Junction Box of Hensel make Cat. No. KG9003IN With necessary clamp for mounting of the J.B. (All the cable / wire connections to the JB shall be with the Water tight Glands only)	3.00	no	2135.14	6405.42
123	Miscellaneous Supplying & erecting carbon dioxide (CO2) fire extinguisher user of following capacity with necessary clamps made from 50 x 6 mm M.S. Flat with nut & bolts grouted in wall complete. 4.5 Kg Capacity	4.00	no	6591.26	26365.04
124	Supplying & Erecting automatic emergency light with maintenance free battery for 20 watts tube.	2.00	no	5524.70	11049.40
125	Supplying rubber matting of 6 mm thickness as per IS 5424 and of required length and breadth with good insulation property for 22 KV	1.00	sq. mtr	3081.51	3081.51
126	Providing and erecting metallic vitrified danger notice board for MEDIUM VOLTAGE installation to be erected as per IS.	2.00	no	69.69	139.38
127	Providing printed instruction chart both in English and Gujarati and duly framed with front glasses, for treatment of person suffering from Electric shock	2.00	no	130.29	260.58
128	Providing & laying. Double walled corrugated pipes (DWC) of polyethylene(conforming to IS 14930 II) Anti Rodent type with necessary connecting accessories of same material at required depth for laying of cable. below ground / road surface for enclosing cable and backfilling the same to make ground as per original. (A)50 mm dia	100.00	mt	62.62	6262.00
129	(B)90 mm dia	50.00	mt	95.95	4797.50

Item No	Description of Item	Quantity	Unit	Rate In figures	Amount
130	Pump Supplying & erecting approved make self-priming domestic monoblock water pump with 1 H.P motor, suitable for operation on 230 volts, 50c/s. AC supply with metallic flange, and M.S. impeller delivery and following discharge (a) 40 LPM at 24 mtrs. head suitable for 25mm dia. Delivery	1.00	Ea	7679.03	7679.03
131	Supplying & erecting approved make Automatic liquid level controller 6A.as per instruction of Engineer in charge on site complete with wiring connection with existing wires , with copper conductor from pump to upper and lower tank.	2.00	Ea	2355.32	4710.64
132	Supplying & erecting approved make motor control cubical panel (Direct - on - line) made from 16 G. CRCA sheet duly epoxy powder painted inside and outside with hinged doors and locking, arrangement consisting of suitable size of ON- OFF isolator (AC - 3/23duty) main fuses, single phasing preventer, indicating lamps for R- Y - B phases, overload relay, Automatic water level controller, Ammeter, Voltmeter each with two way selector switch incoming, wires duly socket crimped, main contactor & overload relay, start - stop push buttons, to be erected on angle iron frame grouted on wall as directed. The isolator, overload relay & contactors will be of L & T, Siemens or BCH make only. (a) DOL up to 5.0 H.P.	2.00	Ea	7722.46	15444.92
133	Providing and erecting ISI marked PVC insulated PVC Sheathed Flat flexible Submersible copper cable approved make of following Size. (b) 3 Core x 2.5 Sq. mm.	40.00	Mtr.	104.03	4161.20
				Total Rs.	11981789.19

I/We am/are willing to carry out the work at.....% above/below percent(Should be written in figures and words) of the estimated rate mentioned above. Amount of my /our

Tender works out as under.

Estimated amount put to tender

Deduct.....% below

Net

In words

Estimated amount put to tender

Add.....% Above

Net

In words

Notes:

- The Contractor shall exhibit a board with detailed specification and details of work as directed by the Engineer-In-Charge for which no extra payment shall be made.
 - The labour cess will be deducted as per prevailing rules i.e. 1% of the work done.
 - Income tax TDS will be deducted at a source while making payments of bills
- In all R.C.C. Items in Rate Analysis Standard Cement Consumption has been taken as per Govt. G.R.: PRC-10/2017 Cement Consumption/16/C Date:11/05/2017 as stated in S.O.R. therefore in R.C.C. items where there is a change as per actual mix design the cost of difference of cement consumption have been deducted from the rate of original item at the rate of input rate mentioned in all the tender.

Executive Engineer
Tapi (R & B) Division
Vyara