



AN ISO 9001 & 14001 COMPANY

TENDER DOCUMENT

e-TENDER No: SRO/CON/ETS/194

Tender for “MEP works including CCTV, Networking and swimming pool works for the project of Provision of Administrative and Logistic Infrastructure under WP-07 and WP-5b At Naval Station Rambilli Visakhapatnam – MEP-01”

VOLUME – III

Bill of Quantity

ENGINEERING PROJECTS (INDIA) LIMITED
(A GOVT. OF INDIA ENTERPRISE)
Southern Regional Office, Chennai

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**Tender Inviting Authority: General Manager (Contracts),
Engineering Projects (India) Ltd.
3D, EC Chambers, 92 GN Chetty Road
T.Nagar, Chennai – 600 017**

Name of Work: “MEP works including CCTV, Networking and swimming pool works for the project of Provision of Administrative and Logistic Infrastructure under WP-07 and WP-5b At Naval Station Rambilli Visakhapatnam – MEP-01”

Contract No: SRO/CON/ETS/194

Name of the Bidder/ Bidding Firm / Company :								
PRICE SCHEDULE								
NUMBER #	TEXT #	TEXT #	NUMBER #	TEXT #	NUMBER	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Item Code / Make	Quantity	Units	Estimated Rate in Rs. P	RATE including all taxes with GST In Figures To be entered by the Bidder in Rs. P	TOTAL AMOUNT With Taxes col (14) = sum (8) to (13) in Rs. P	TOTAL AMOUNT In Words
1	2	3	4	5	6	7	14	15
1.0	MEP works							
2.0	SCHEDULE "A" PART - III [INTERNAL WATER SUPPLY]							
3.0	S&F 15mm bore Bib tap, chromium plated, quarter turn, fancy type, cast copper alloy with crutch or butterfly handle, screwed down screwed for iron pipe or for brass ferrule, short/long body of approved quality, complete all as specifiedand as directed.	itemws1	128	Each	0.00		0.00	INR Zero Only
4.0	S&F 15mm bore chromium plated pillar taps, CP fancy type, cast copper alloy with capstan heads, screwed down high pressure with or without lettered Hot or cold with long screwed shanks and fly nuts, screwed for iron pipe, complete all as specified and as directed.	itemws2	304	Each	0.00		0.00	INR Zero Only
5.0	S&F 15mm bore Brass CP mixer for mixing hot & cold water screwed down for iron pipe and fixed, complete all as specified and as directed	itemws3	65	Each	0.00		0.00	INR Zero Only
6.0	S&F CP brass shower rose of 15mm inlet and 125mm outlet with swivel joint, CP shower arm and CP flange, complete all as specified and as directed	itemws4	65	Each	0.00		0.00	INR Zero Only

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7.0	S&F Galvanised steel water tubing 15mm bore, medium grade conforming to IS:1239 (Part I) including all fittings (such as bends, tees, short pieces connectors, elbows, reducers, unions, sockets etc) and fixed to walls/ceilings/ laid on floors including testing, complete all as specified and as directed.	itemws5	1200	Running Me	0.00		0.00	INR Zero Only
8.0	S&F Galvanised steel water tubing 20mm bore, medium grade conforming to IS:1239 (Part I) including all fittings (such as bends, tees, short pieces connectors, elbows, reducers, unions, sockets etc) and fixed to walls/ceilings/ laid on floors including testing, complete all as specified and as directed	itemws6	100	Running Me	0.00		0.00	INR Zero Only
9.0	S&F Galvanised steel water tubing 25mm bore, medium grade conforming to IS:1239 (Part I) including all fittings (such as bends, tees, short pieces connectors, elbows, reducers, unions, sockets etc) and fixed to walls/ceilings/ laid on floors including testing, complete all as specified and as directed	itemws7	720	Running Me	0.00		0.00	INR Zero Only
10.0	S&F Galvanised steel water tubing 40mm bore, medium grade conforming to IS:1239 (Part I) including all fittings (such as bends, tees, short pieces connectors, elbows, reducers, unions, sockets etc) and fixed to walls/ceilings/ laid on floors including testing, complete all as specified and as directed.	itemws8	310	Running Me	0.00		0.00	INR Zero Only
11.0	S&F Gun-metal, globe or gate valves, with iron wheel head, screwed both ends, suitable for iron pipe of 25mm bore, complete all as specified and as directed.	itemws9	50.00	Each	0.00		0.00	INR Zero Only
12.0	S&F Gun-metal, globe or gate valves, with iron wheel head, screwed both ends, suitable for iron pipe of 40mm bore, complete all as specified and as directed.	itemws10	8.00	Each	0.00		0.00	INR Zero Only
13.0	S&F Stop /Angle Valves, 15 mm bore dia pipe ,chromium plated, fancy, cast copper alloy, screwed down high pressure with crutch or butterfly handle, screwed both ends for iron pipe or for unions and fixed, complete all as specified.	itemws11	346.00	Each	0.00		0.00	INR Zero Only
14.0	S&F Stop /Angle Valves, 15 mm bore dia pipe ,chromium plated, fancy, long shank and cup concealed type cast copper alloy, screwed down high pressure with crutch or butterfly handle, screwed both ends for iron pipe or for unions and fixed complete all as specified.	itemws12	65.00	Each	0.00		0.00	INR Zero Only
15.0	SCHEDULE "A" PART – IV [INTERNAL ELECTRIFICATION]							
16.0	S&F Modular Socket, 6A, 2/3 pin combined , 2 module, 240 Volts, complete all as specified and as directed.	itemIE1	2220.00	Each	0.00		0.00	INR Zero Only

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17.0	S&F Modular Socket, 6A/16A, multipurpose, 2 module, 240 Volts complete all as specified and as directed.	itemIE2	996.00	Each	0.00		0.00	INR Zero Only
18.0	S&F Modular switch 1 way 6A, 1 Module, 240 Volts complete all as specified and as directed.	itemIE3	10433.00	Each	0.00		0.00	INR Zero Only
19.0	S&F Modular switch 1 way 16A, 1 Module, 240 Volts complete all as specified and as directed.	itemIE4	996.00	Each	0.00		0.00	INR Zero Only
20.0	S&F Modular Switch 2 way 6A, 1 Module, 240 volts complete all as specified and as directed.	itemIE5	98.00	Each	0.00		0.00	INR Zero Only
21.0	S&F Modular Bell push 5/6Amp, 1 module, 230Volt, complete all as specified and as directed.	itemIE6	73.00	Each	0.00		0.00	INR Zero Only
22.0	S&F Bell Multi Music type, AC 230Volt, single pole, complete all as specified and as directed.	itemIE7	561.00	Each	0.00		0.00	INR Zero Only
23.0	Ceiling rose, 3 terminals PVC/Polycarbonate, 3 phase, isolated body complete all as specified and as directed.	itemIE8	8239.00	Each	0.00		0.00	INR Zero Only
24.0	S&F Sheet metal clad SPN enclosure with a 3 pin and earth plug & socket type, with and including one single pole MCB 25Amp, 10kA, C series, 240Volt with connections, complete all as specified and as directed.	itemIE9	297.00	Each	0.00		0.00	INR Zero Only
25.0	S&F MCCB TPN, 160Amp, breaking capacity 36kA, Adjustable type, 415Volt, with necessary connecting up, complete all as specified and as directed.	itemIE10	4.00	Each	0.00		0.00	INR Zero Only
26.0	S&F MCCB TPN, 250Amp, breaking capacity 36kA, Adjustable type, 415Volt, with necessary connecting up, complete all as specified and as directed.	itemIE11	2.00	Each	0.00		0.00	INR Zero Only
27.0	S&F MCCB TPN, 125Amp, breaking capacity 16kA, Adjustable type, 415Volt, with necessary connecting up, complete all as specified and as directed.	itemIE12	3.00	Each	0.00		0.00	INR Zero Only
28.0	S&F MCB SP 06 to 32Amp, 10kA, 415Volt, B curve with necessary connecting up in MCB DB, testing and commissioning, complete all as specified and as directed.	itemIE13	1775.00	Each	0.00		0.00	INR Zero Only
29.0	S&F MCB SPN 40Amp, 10kA, 415Volt, B curve with necessary connecting up in MCB DB, testing and commissioning, complete all as specified and as directed.	itemIE14	179.00	Each	0.00		0.00	INR Zero Only
30.0	S&F MCB SPN 40-63Amp, 10kA, 415Volt, C curve with necessary connecting up in MCB DB, testing and commissioning, complete all as specified and as directed.	itemIE15	74.00	Each	0.00		0.00	INR Zero Only
31.0	S&F MCB TPN/FP 40 to 100Amp, 10kA, 415Volt, B curve with necessary connecting up in MCB DB, testing and commissioning, complete all as specified and as directed.	itemIE16	175.00	Each	0.00		0.00	INR Zero Only

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32.0	S&F Sheet metal enclosure MCB DB double door, single pole and neutral 04 Way sheet steel phosphetised power coated with 200 Amps rated bus bar 240 Volts nutral link, IP-20 protection, fixed in concealed position, complete all as specified and as directed.	itemIE17	14.00	Each	0.00		0.00	INR Zero Only
33.0	S&F Sheet metal enclosure MCB DB double door, single pole and neutral 08 Way sheet steel phosphetised power coated with 200 Amps rated bus bar 240 Volts nutral link, IP-20 protection, fixed in concealed position, complete all as specified and as directed.	itemIE18	42.00	Each	0.00		0.00	INR Zero Only
34.0	S&F Sheet metal enclosure MCB DB double door, single pole and neutral 12 Way sheet steel phosphetised power coated with 200 Amps rated bus bar 240 Volts nutral link, IP-20 protection, fixed in concealed position, complete all as specified and as directed.	itemIE19	50.00	Each	0.00		0.00	INR Zero Only
35.0	S&F Sheet metal enclosure MCB DB double door, Triple pole and neutral 4Way sheet steel phosphetised power coated with 200 Amps rated bus bar 415 Volts nutral link, IP-20 protection, fixed in concealed position, complete all as specified and as directed.	itemIE20	48.00	Each	0.00		0.00	INR Zero Only
36.0	S&F Sheet metal enclosure MCB DB double door, Triple pole and neutral 6 Way sheet steel phosphetised power coated with 200 Amps rated bus bar 415 Volts nutral link, IP-20 protection, fixed in concealed position, complete all as specified and as directed.	itemIE21	13.00	Each	0.00		0.00	INR Zero Only
37.0	S&F Sheet metal enclosure MCB DB double door, Triple pole and neutral 8 Way sheet steel phosphetised power coated with 200 Amps rated bus bar 415 Volts nutral link, IP-20 protection, fixed in concealed position, complete all as specified and as directed.	itemIE22	20.00	Each	0.00		0.00	INR Zero Only
38.0	S&F Sheet metal enclosure MCB DB double door, Triple pole and neutral 12 Way sheet steel phosphetised power coated with 200 Amps rated bus bar 415 Volts nutral link, IP-20 protection, fixed in concealed position, complete all as specified and as directed.	itemIE23	12.00	Each	0.00		0.00	INR Zero Only
39.0	S&F Sheet metal clad TPN enclosure with a 3 pin and earth plug & socket type, with and including one Triple Pole MCB 32Amp, 10kA, C series, 415Volt with connections, complete all as specified and as directed.	itemIE24	30.00	Each	0.00		0.00	INR Zero Only
40.0	S&F Sheet metal clad SPN enclosure with a 3 pin and earth plug & socket type, with and including one Single Pole MCB 20/25Amp, 10kA, C series, 415Volt with connections, complete all as specified and as directed.	itemIE25	106.00	Each	0.00		0.00	INR Zero Only

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41.0	S&F Earth continuity conductor 32x6mm galvanised iron strip, fixed to wall / under floor or in roof / ceiling, for loop earthing etc., complete all as specified and as directed.	itemIE26	129.00	Each	0.00		0.00	INR Zero Only
42.0	S&F Rigid non-metallic, PVC concealed conduit of size 20mm, ISI marked (Meadium grade) exclusive of Junction/terminal boxes but inclusive of all tees,bends,elbows,reducers,bell mouth tube ends and fixing accessories such as couplers, lock nuts, saddles, pipe hooks etc to run the Telephone & LAN connections, complete all as specified and as directed.	itemIE27	4500.00	Each	0.00		0.00	INR Zero Only
43.0	S&F Rigid non-metallic, PVC concealed conduit of size 25mm, ISI marked (Meadium grade) exclusive of Junction/terminal boxes but inclusive of all tees,bends,elbows,reducers,bell mouth tube ends and fixing accessories such as couplers, lock nuts, saddles, pipe hooks etc to run the Telephone & LAN connections, complete all as specified and as directed.	itemIE28	3800.00	Each	0.00		0.00	INR Zero Only
44.0	S&F PVC Junction boxes (1 to 4 way) of 20 mm external dia, complete all as specified and as directed.	itemIE29	450.00	Each	0.00		0.00	INR Zero Only
45.0	S&F PVC Junction boxes (1 to 4 way) of 20 mm external dia, complete all as specified and as directed.	itemIE30	380.00	Each	0.00		0.00	INR Zero Only
46.0	S&F MCCB 4 Pole, 250Amp, breaking capacity 36kA, Adjustable type, 415Volt, with necessary connecting up, complete all as specified and as directed.	itemIE31	28.00	Each	0.00		0.00	INR Zero Only
47.0	S&F Ceiling fan complete with three blades, down rod as per site requirement to maintain 2.25m height from FFL and minimum 30cm clearance from ceiling roof, electronic regulator and accessories, 230Volt, 1200mm sweep, with squirrel cage induction motor, complete all as specified and as directed.	itemIE32	1097.00	Each	0.00		0.00	INR Zero Only
48.0	S&F Exhaust fan, steel body, AC single phase, 230Volt, 450mm sweep, heavy duty with blades, frame, louvers, wiremesh with all accessories and necessary PCC work, complete all as specified and as directed.	itemIE33	19.00	Each	0.00		0.00	INR Zero Only
49.0	S&F Exhaust fan, steel body, AC single phase, 230Volt, 380mm sweep, heavy duty with blades, frame, louvers, wiremesh with all accessories and necessary PCC work, complete all as specified and as directed.	itemIE34	198.00	Each	0.00		0.00	INR Zero Only
50.0	S&F Exhaust fan, steel body, AC single phase, 230Volt, 300mm sweep, heavy duty with blades, frame, louvers, wiremesh with all accessories and necessary PCC work, complete all as specified and as directed.	itemIE35	304.00	Each	0.00		0.00	INR Zero Only

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51.0	M&L for Circuit / Sub main wiring with two runs of 2.50Sqmm PVC FRLSH insulated copper conductor cable, single core multi stranded 1100Volt along with one run of 2.5 Sqmm as earth wire, drawn through and including rigid PVC conduit of minimum 32mm dia, concealed type, medium grade as per IS 9537 (Part 1-1983) with conduit accessories, complete all as specified and as directed. Note: Two/four runs of cable, one/two run of earth wire and one run of conduit shall be measured as one unit.	itemIE36	10509.00	Running Me	0.00		0.00	INR Zero Only
52.0	All as per Serial Item No. 36 here- in-before but for two runs of 4.0Sqmm and one run of 4.0Sqmm as earth wire.	itemIE37	4070.00	Running Me	0.00		0.00	INR Zero Only
53.0	All as per Serial Item No. 36 here- in-before but for two runs of 6.0Sqmm and one run of 6.0Sqmm as earth wire.	itemIE38	2547.00	Running Me	0.00		0.00	INR Zero Only
54.0	All as per Serial Item No. 36 here- in-before but for Four runs of 6.0Sqmm and two runs of 6.0Sqmm as earth wire.	itemIE39	2835.00	Running Me	0.00		0.00	INR Zero Only
55.0	All as per Serial Item No. 36 here- in-before but for Four runs of 10.0Sqmm and two runs of 10.0Sqmm as earth wire.	itemIE40	1404.00	Running Me	0.00		0.00	INR Zero Only
56.0	All as per Serial Item No. 36 here- in-before but for Two runs of 1.50Sqmm and one run of 1.50Sqmm as earth wire.	itemIE41	20964.00	Running Me	0.00		0.00	INR Zero Only
57.0	S&F LED light fitting 1X18/20watt, 220Volt, >100 lum/W, PF>0.95, AC, 4 feet integrated driver and LED tube light and connecting up with three core flexible copper conductor cable of suitable size from ceiling rose, complete all as specified. Make: Cat No. CCS-103-20-65-SL-DP-NWH of Crompton Greaves or Equivalent make as specified here -in-after	itemIE42	68.00	Each	0.00		0.00	INR Zero Only
58.0	S&F LED light fitting, 2 feet, 09/10watt, 220Volt, >100 lum/W, PF>0.95, integrated driver, including LED lamp and lum/W, PF>0.95, integrated driver, including LED lamp and connecting up with three core flexible copper conductor cable of suitable size from ceiling rose, complete all as specified. Make: Cat No. CCS-103-10-65-SL-DP-NWH of Crompton Greaves or Equivalent make as specified here -in-after	itemIE43	716.00	Each	0.00		0.00	INR Zero Only
59.0	S&F LED light fitting 1 x 10w, 220volt, P.F>0.95, >100 lum/watt, bulkhead luminaries including LED light driver holder connecting of with three core flexible copper conductor cable of suitable size, complete all as directed by Engr-in-charge. Make: Cat No. LBHP-10-CDL of Crompton Greaves or Equivalent make as specified here -in-after	itemIE44	1199.00	Each	0.00		0.00	INR Zero Only

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60.0	S&F LED luminaires 600mm x 600mm, 35/36 watt, 220Volt, >100 lum/W, PF>0.95, AC recessed type with high efficiency PMMA diffuser soft glare free light, complete with driver, holders & LED lamp and connecting up with three core flexible copper conductor cable of suitable size, complete all as specified. Make: Cat No. CTRLNE-36-FO-CDL of Crompton Greaves or Equivalent make as specified here -in-after	itemIE45	54.00	Each	0.00		0.00	INR Zero Only
61.0	S&F LED luminaires 600mm x 600mm, 40watt, 220Volt, >100 lum/W, PF>0.95, AC recessed type with high efficiency PMMA diffuser soft glare free light, complete with driver, holders & LED lamp and connecting up with three core flexible copper conductor cable of suitable size, complete all as specified. Make: Cat No. CCR-126-50-57-SL-NWH of Crompton Greaves or Equivalent make as specified here -inafter	itemIE46	14.00	Each	0.00		0.00	INR Zero Only
62.0	S&F LED light fitting 1X20watt, 220Volt, >100 lum/W, PF>0.95, AC decorative box type with driver, holder, including LED tube light and connecting up with three core flexible copper conductor cable of suitable size from ceiling rose, complete all as specified. Make: Cat No. LHEBAAP7PW1W020 of Havells or Equivalent make as specified here -in-after	itemIE47	2531.00	Each	0.00		0.00	INR Zero Only
63.0	S&F LED light fitting, 2 feet, 5/7watt, 220Volt, >100 lum/W, PF>0.95, integrated driver, including LED lamp and connecting up with three core flexible copper conductor cable of suitable size from ceiling rose, complete all as specified. Make: Cat No. LHEXBQP7IW005 of Havells or Equivalent make as specified here -in-after	itemIE48	1108.00	Each	0.00		0.00	INR Zero Only
64.0	S&F LED light fitting round shape 10/12 watt, 220 volts, AC, recessed type with high efficiency PMMA diffuser, soft glare free light complete with drivers, holders, LED lamp suitable for roof ceiling including connecting up with three core flexible copper conductor cable of suitable size, complete all as specified. Make: Cat No. LCRP-10-CDL of Crompton Greaves or Equivalent make as specified here -in-after	itemIE49	132.00	Each	0.00		0.00	INR Zero Only
65.0	S&F LED light fitting 2x16 Watt flame proof, CMRI certified recommended for gas/ vapor group of IIA & IIIB, Zone 1 & 2 and IP 65 protection with die cast aluminum housing with heat resistant toughened glass with LED tube light fixtures driver, holders, connector etc., complete with all accessories, prewired and including connecting up with three core flexible copper conductor cable with suitable size, complete all as specified. Make: Cat No. EXTN2LT8-16/20 of Crompton Greaves or Equivalent make as specified here -in-after	itemIE50	7.00	Each	0.00		0.00	INR Zero Only

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66.0	S&F Flame proof switch socket & plug combined in LM6 cable termination box in LM6, 25A, 250Volt, 2P+earth, complete all as specified.	itemIE51	3.00	Each	0.00		0.00	INR Zero Only
67.0	S&F Flame proof rotary type switch, with termination box in LM6, 25A, 250Volt, double pole, complete all as specified.	itemIE52	7.00	Each	0.00		0.00	INR Zero Only
68.0	SCHEDULE "A" PART - V [EXTERNAL WATER SUPPLY]							
69.0	S&F Galvanised steel water tubing 80mm bore, medium grade conforming to IS:1239 (Part I) including all fittings (such as bends, tees, short pieces connectors, elbows, reducers, unions, sockets etc), laid in trenches/drains, including testing, complete all as specified.	itemEws1	900.00	Running Metre	0.00		0.00	INR Zero Only
70.0	S&F Galvanised steel water tubing 50mm bore, medium grade conforming to IS:1239 (Part I) including all fittings (such as bends, tees, short pieces connectors, elbows, reducers, unions, sockets etc), laid in trenches/drains, including testing, complete all as specified.	itemEws2	2262.00	Running Metre	0.00		0.00	INR Zero Only
71.0	S&F Galvanised steel water tubing 40mm bore, medium grade conforming to IS:1239 (Part I) including all fittings (such as bends, tees, short pieces connectors, elbows, reducers, unions, sockets etc), laid in trenches/drains, including testing, complete all as specified.	itemEws3	3220.00	Running Metre	0.00		0.00	INR Zero Only
72.0	S&F Galvanised steel water tubing 25mm bore, medium grade conforming to IS:1239 (Part I) including all fittings (such as bends, tees, short pieces connectors, elbows, reducers, unions, sockets etc), laid in trenches/drains, including testing, complete all as specified.	itemEws4	1080.00	Running Metre	0.00		0.00	INR Zero Only
73.0	S&F Cast Iron Sluice valve suitable for 200mm bore pipe, flanged of class PN 1.6, ISI marked, confirming to IS:4846, including brass spindle and necessary fixing arrangement like rubber gasket etc., complete all as specified.	itemEws5	3.00	EACH	0.00		0.00	INR Zero Only
74.0	S&F Cast Iron Sluice valve suitable for 150mm bore pipe, flanged of class PN 1.6, ISI marked, confirming to IS:4846, including brass spindle and necessary fixing arrangement like rubber gasket etc., complete all as specified.	itemEws6	4.00	EACH	0.00		0.00	INR Zero Only
75.0	S&F Cast Iron Sluice valve suitable for 100mm bore pipe, flanged of class PN 1.6, ISI marked, confirming to IS:4846, including brass spindle and necessary fixing arrangement like rubber gasket etc., complete all as specified.	itemEws7	4.00	EACH	0.00		0.00	INR Zero Only
76.0	S&F Cast Iron Sluice valve suitable for 80mm bore pipe, flanged of class PN 1.6, ISI marked, confirming to IS:4846, including brass spindle and necessary fixing arrangement like rubber gasket etc., complete all as specified.	itemEws8	9.00	EACH	0.00		0.00	INR Zero Only

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77.0	S&F Gun-metal, globe or gate valves, with iron wheel head, screwed both ends, suitable for iron pipe of 50mm bore, complete all as specified.	itemEws9	28.00	EACH	0.00		0.00	INR Zero Only
78.0	S&F Gun-metal, globe or gate valves, with iron wheel head, screwed both ends, suitable for iron pipe of 40mm bore, complete all as specified.	itemEws10	22.00	EACH	0.00		0.00	INR Zero Only
79.0	S&F Gun-metal, globe or gate valves, with iron wheel head, screwed both ends, suitable for iron pipe of 25mm bore, complete all as specified.	itemEws11	104.00	EACH	0.00		0.00	INR Zero Only
80.0	S&F Cast Iron Non Return Sluice valve suitable for 80mm bore pipe, flanged of class PN 1.6, ISI marked, confirming to IS:4846, including brass spindle and necessary fixing arrangement like rubber gasket etc., complete all as specified.	itemEws12	2.00	EACH	0.00		0.00	INR Zero Only
81.0	SCHEDULE "A" PART - VI [EXTERNAL ELECTRIFICATION]							
82.0	Supply and erect steel tubular swaged pole complete with cast iron base plate, finial taper plug, bolts, nuts and screws all as specified type 410 SP-55 (11.0m long) as per IS-2713 (Part-III) of 1980 and applying three coats of black bituminous paint through out internally and two coats externally on the portion embedded in concrete and applying two coats of aluminium paint over a coat of zinc chrome primer to the exposed surfaces, complete all as specified and as directed. Note: Excavation and concrete shall be measured and paid separately.	itemEE1	4	Each	0.00		0.00	INR Zero Only
83.0	M&L for Cross arms, bracings, supports, clamps and back plates fabricated from structural steel sections including nuts, bolts, washers, welding, bending cold or hot, drilling holes for bolts, in any shape or size as indicated or directed and inclusive of one primer coat, one under coat and one finishing coat of paint complete all as directed	itemEE2	1	Qtl	0.00		0.00	INR Zero Only
84.0	PCC 1:3:6, Type C-2, using 40mm graded stone aggregate as in Foundation, Fillings, Mass concrete, Footings for erection of steel tubular poles complete all as specified.	itemEE3	1	Cu.m	0.00		0.00	INR Zero Only
85.0	M&L for PCC 1:2:4, Type B-1, using 20mm graded stone aggregate as in plinth courses, bed plates, coping etc including necessary form work etc for erection of steel tubular poles complete all as specified.	itemEE4	1	Cu.m	0.00		0.00	INR Zero Only

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86.0	M&L for Dry river sand cushioning over and around the cable for cable protection in trenches, leveled and punned down complete all as specified and as directed. Note: The punned down thickness shall be measured for payment	itemEE5	423	Cu.m	0.00		0.00	INR Zero Only
87.0	M&L for Un-reinforced Precast Cement Concrete Cable Covers, Class LV, Type - 1 flat, size 250mm X 150mm X 40mm in trenches for cable protection, embossed with "ELECTRIC" on the top surface complete all as specified and as directed.	itemEE6	79500	Each	0.00		0.00	INR Zero Only
88.0	M&L for Un-reinforced Precast Cement Concrete Cable Covers, Class HV, Type - 1 flat, size 300mm X 180mm X 40mm in trenches for cable protection, embossed with "ELECTRIC" on the top surface complete all as specified and as directed	itemEE7	6667	Each	0.00		0.00	INR Zero Only
89.0	M&L for GI Tubing, 50 mm bore, Light Grade, conforming to IS - 1239 [Part - 1] including all fittings laid in trenches or in floors/Walls or under road/drain for protection of cable complete all as specified and as directed	itemEE8	290	Running Metre	0.00		0.00	INR Zero Only
90.0	S&F Danger notice plate of 1.6mm thick mild steel sheet, vitreous enamelled white, with letters, figures and conventional skull and bones in signal red colour and fixed with MS. clamps, bolts and nuts of approved size, for LT, 20x15cm complete all as specified	itemEE9	4	Each	0.00		0.00	INR Zero Only
91.0	M&L for GI Tubing, 80mm bore, Light Grade, conforming to IS - 1239 [Part - 1] including all fittings laid in trenches or in floors/Walls or under road/drain for protection of cable complete all as specified and as directed	itemEE10	260	Running Metre	0.00		0.00	INR Zero Only
92.0	M&L for GI Tubing, 100mm bore, Light Grade, conforming to IS - 1239 [Part - 1] including all fittings laid in trenches or in floors/Walls or under road/drain for protection of cable complete all as specified and as directed.	itemEE11	26	Running Metre	0.00		0.00	INR Zero Only
93.0	M&L for GI Tubing, 150mm bore, Light Grade, conforming to IS - 1239 [Part - 1] including all fittings laid in trenches or in floors/Walls or under road/drain for protection of cable complete all as specified and as directed.	itemEE12	26	Running Metre	0.00		0.00	INR Zero Only
94.0	S&F Earth continuity conductor 4mm dia galvanised iron or steel wire, fixed to wall / under floor or in roof / ceiling, for loop earthing etc., complete all as specified and as directed.	itemEE13	870	Running Metre	0.00		0.00	INR Zero Only
95.0	S&F Earth continuity conductor 32x6mm galvanised iron strip, fixed to wall / under floor or in roof / ceiling, for loop earthing etc., complete all as specified and as directed.	itemEE14	210	Running Metre	0.00		0.00	INR Zero Only
96.0	S&F Synthetic rubber insulating Mat of size 2.0m x 1.0m x 2.5mm thick, for electrical purpose as per IS 15652-2006, suitable for voltage upto 11KV, complete all as specified and as directed.	itemEE15	2	Each	0.00		0.00	INR Zero Only

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97.0	Supply, laying, testing and commissioning of LT XLPE insulated, screened with extruded PVC inner sheathed, PVC bedded, galvanised steel strip armoured electric FR power cable [heavy duty] of size 4.0core x 6.0Sqmm, suitable for earthed system with stranded aluminium conductor, 1100 volts grade, with and including cable glands, ferrules and connected accessories, laid in trenches or ducts or through the pipe etc., complete all as specified and as directed.	itemEE16	1280	Running Metre	0.00		0.00	INR Zero Only
98.0	All as per Serial Item No. 16 here-in-before but for cable of size 2.0core x 6.0Sqmm	itemEE17	3200	Running Metre	0.00		0.00	INR Zero Only
99.0	All as per Serial Item No. 16 here-in-before but for cable of size 4.0core x 10.0Sqmm	itemEE18	3550	Running Metre	0.00		0.00	INR Zero Only
100.0	All as per Serial Item No. 16 here-in-before but for cable of size 4.0core x 16.0Sqmm	itemEE19	1355	Running Metre	0.00		0.00	INR Zero Only
101.0	All as per Serial Item No. 16 here-in-before but for cable of size 4.0core x 25.0Sqmm	itemEE20	730	Running Metre	0.00		0.00	INR Zero Only
102.0	All as per Serial Item No. 16 here-in-before but for cable of size 3.5core x 35.0Sqmm	itemEE21	590	Running Metre	0.00		0.00	INR Zero Only
103.0	All as per Serial Item No. 16 here-in-before but for cable of size 3.5core x 50.0Sqmm.	itemEE22	550	Running Metre	0.00		0.00	INR Zero Only
104.0	All as per Serial Item No. 16 here-in-before but for cable of size 3.5core x 70.0Sqmm.	itemEE23	1820	Running Metre	0.00		0.00	INR Zero Only
105.0	All as per Serial Item No. 16 here-in-before but for cable of size 3.5core x 95.0Sqmm	itemEE24	1405	Running Metre	0.00		0.00	INR Zero Only
106.0	All as per Serial Item No. 16 here-in-before but for cable of size 3.5core x 120.0Sqmm	itemEE25	130	Running Metre	0.00		0.00	INR Zero Only
107.0	All as per Serial Item No. 16 here-in-before but for cable of size 3.5core x 150.0Sqmm	itemEE26	750	Running Metre	0.00		0.00	INR Zero Only
108.0	All as per Serial Item No. 16 here-in-before but for cable of size 3.5core x 185.0Sqmm	itemEE27	900	Running Metre	0.00		0.00	INR Zero Only
109.0	All as per Serial Item No. 16 here-in-before but for cable of size 3.5core x 240.0Sqmm	itemEE28	1370	Running Metre	0.00		0.00	INR Zero Only
110.0	All as per Serial Item No. 16 here-in-before but for cable of size 3.5core x 300.0Sqmm	itemEE29	1200	Running Metre	0.00		0.00	INR Zero Only
111.0	All as per Serial Item No. 16 here-in-before but for cable of size 3.5core x 400.0Sqmm.	itemEE30	2400	Running Metre	0.00		0.00	INR Zero Only
112.0	All as per Serial Item No. 16 here-in-before but for cable of size 3.5core x 500.0Sqmm.	itemEE31	500	Running Metre	0.00		0.00	INR Zero Only
113.0	All as per Serial Item No. 16 here-in-before but for cable of size 3.5core x 630.0Sqmm.	itemEE32	900	Running Metre	0.00		0.00	INR Zero Only

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114.0	Supply, laying, testing and commissioning of HT XLPE insulated, screened with extruded PVC inner sheathed, PVC bedded, galvanised steel strip armoured electric FR power cable [heavy duty] of size 3.0core x 240.0Sqmm, with stranded aluminium conductor, 11000 volts grade, suitable for earthed system, laid in trenches or ducts or through the pipe etc., complete all as specified and as directed.	itemEE33	1200	Running Metre	0.00		0.00	INR Zero Only
115.0	S&F Cable jointing kit for 11 KV (Earthed) grade cable for outdoor termination cold shrink type joint complete with jointing material and accessories suitable for 3 core XLPE armoured aluminium conductor cable of size 120 sqmm to 400 sqmm, complete all as specified.	itemEE34	1	Each	0.00		0.00	INR Zero Only
116.0	S&F Cable jointing kit for 11 KV (Earthed) grade cable for indoor termination cold shrink type joint complete with jointing material and accessories suitable for 3 core XLPE armoured aluminium conductor cable of size 120 sqmm to 400 sqmm, complete all as specified.	itemEE35	4	Each	0.00		0.00	INR Zero Only
117.0	S&F Cable jointing kit for 11 KV (Earthed) grade cable for indoor straight through cold shrink type joint complete with jointing material and accessories suitable for 3 core XLPE armoured aluminium conductor cable of size 120 sqmm to 185 sqmm, complete all as specified.	itemEE36	1	Each	0.00		0.00	INR Zero Only
118.0	S&F Cable jointing kit for 11 KV (Earthed) grade cable for indoor straight through cold shrink type joint complete with jointing material and accessories suitable for 3 core XLPE armoured aluminium conductor cable of size 240 sqmm to 400 sqmm, complete all as specified.	itemEE37	1	Each	0.00		0.00	INR Zero Only
119.0	M&L for High galvanized mast light 16/15m height, suitable for 6 to 9 lantern symmetrically fitted along with their control gear and having two point suspension system with stainless steel wire rope of 6mm dia 97/19 guage and double drum winch with luminaire mounting arm, pulley assembly, aviation obstruction light, lightning arrester spike with and including all accessories and RCC M30 foundation as per OEM recommendations, complete all as specified and as directed. Note: Light fittings will be measured and paid for separately. Make: Cat No. HM-16A-LM-ACC of Crompton Greaves or Equivalent make as specified here-in-after.	itemEE38	22	Each	0.00		0.00	INR Zero Only

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120.0	S&F LED Flood light fitting 100Watts, 230 volts, >100lum/W, beam angle of ϕ 120°, AC outdoor type with high Pressure Die Cast aluminum Housing and heat resistant complete with LED lamp, driver, bracket with impact and corrosion resistant including thermal management in multiple optics complete with IP 65/66 protection with all accessories, complete all as specified and as directed. Make: Cat No. LHB11-100-CDL/60-M of Crompton Greaves or Equivalent make as specified herein-after.	itemEE39	80	Each	0.00		0.00	INR Zero Only
121.0	S&F LED Street light fitting 70/80Watts, 230 volts, >100lum/W, beam angle of ϕ 120°, AC outdoor type with high Pressure Die Cast aluminum Housing and heat resistant complete with LED lamp, driver, bracket with impact and corrosion resistant including thermal management in multiple optics complete with IP 65/66 protection with all accessories, complete all as specified and as directed. Make: Cat No. LHB11-80-CDL/60-M of Crompton Greaves or Equivalent make as specified here-in-after.	itemEE40	16	Each	0.00		0.00	INR Zero Only
122.0	S&F Automatic Voltage stabilizer of capacity 500KVA (SERVO CONTROLLED) for automatic operation, three phase naturally oil cooled indoor type & designed for input variation between 340 V to 460 V with output voltage stabilized at 415 with accuracy $\pm 2.5\%$ and speed of correction 8 Volts per second, complete all as specified and as directed.	itemEE41	4	Each	0.00		0.00	INR Zero Only
123.0	S&F Supply, Installation, testing & commissioning of copper wound step down Transformer, Outdoor / Indoor type complete with standard fittings, 3Phase, 1250KVA, 11/0.433KV OCTC (+7.5% to -7.5% @ 2.5%) Dyn11 Natural Ester Oil cooled Level 3 transformers, conforming to IS-1180, temp rise, Impedance and losses shall conform to IS 1180 Level III, radiators shall be Hot dip galvanized (HDG) to avoid corrosion, HV Cable Box and LV Cable Box as per Specifications. with and including Civil Foundation as per OEM recommendations, complete all as specified and as directed.	itemEE42	1	Each	0.00		0.00	INR Zero Only

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124.0	Supply, Installation, testing & commissioning of copper wound step down Transformer, Outdoor / Indoor type complete with standard fittings, 3Phase, 1500KVA, 11/0.433KV OCTC (+7.5% to -7.5% @ 2.5%) Dyn11 Natural Ester Oil cooled Level 3 transformers, conforming to IS-1180, temp rise, Impedance and losses shall conform to IS 1180 Level II, radiators shall be Hot dip galvanized (HDG) to avoid corrosion, HV Cable Box and LV Cable Box as per Specifications. with and including Civil Foundation as per OEM recommendations, complete all as specified and as directed.	itemEE43	1	Each	0.00		0.00	INR Zero Only
125.0	Supply, Installation, testing & commissioning of HT 11 KV, 3 phase, 50 cycles, outdoor type, totally enclosed metal clad switchgear, complete with Vacuum Circuit Breaker of rating upto 630Amp, having rupturing capacity upto 350 MVA, overload and earth fault protection, ammeter, voltmeter with and including Civil foundation as per OEM recommendations, complete all as specified and as directed.	itemEE44	1	Each	0.00		0.00	INR Zero Only
126.0	SCHEDULE "A" PART – XII [FIRE FIGHTING AND FIRE ALARM SYSTEM]							
127.0	Supply, installation, testing and commissioning of Analogue Addressable type 4 Loop panel Fire Alarm Control Panel along with Network Interface Card and Lead Acid Battery backup for 08 Hours normal operation and 15 minutes alarm operation, the control panel, battery charger, etc shall be UL listed and complying with BS EN 54 Four loop panel with 99 Detectors & 99 Modules & up to 200 Detectors and Modules per each loop, complete all as specified and as directed.	itemff1	15	Each Set	0.00		0.00	INR Zero Only
128.0	S&F Addressable manual call point resettable type, complete all as specified and as directed.	itemff2	290	Each	0.00		0.00	INR Zero Only
129.0	S&F Addressable type Loop powered sounders, for indoor / open area, complete all as specified and as directed.	itemff3	85	Each	0.00		0.00	INR Zero Only
130.0	S&F Addressable electronic sounder cum strobe rated at 82 dBA @ 3M for audible annunciation and 75 cd flashing at 1 Hz for visual indication complete all as specified.	itemff4	290	Each	0.00		0.00	INR Zero Only
131.0	Supply, fix and testing of Detectors Complying with and type certified to EN – 45 Analogue Addressable type multi sensor Heat and Smoke Detector combination type Photoelectric / Optical with base with self built intelligence as per IS – 11360 and shall be provided below and above false ceiling, complete all as specified.	itemff5	1333	Each	0.00		0.00	INR Zero Only

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132.0	Supply, fix and testing of Remote response indicators located above false ceiling, complete all as specified.	itemff6	79	Each	0.00		0.00	INR Zero Only
133.0	S&F Analogue addressable fault isolator module capable of monitoring shorted loop circuit and automatically restore communications when shorted conditions are corrected complete all as specified and as directed.	itemff7	290	Each	0.00		0.00	INR Zero Only
134.0	S&F Analogue addressable control module capable of providing DPDT contact rated at 24C, DC, 2A, complete all as specified and as directed.	itemff8	79	Each	0.00		0.00	INR Zero Only
135.0	S&F Electric motor siren horizontal two stage continous normal operation for atleast 50 minutes confirming to IS 1941 suitable for 3 phase 415V, supply with motor not exceeding 3.75KW power and able to deliver 65dB to 120dB noise level at 1.5m with sound output variation of +5dB 1000m range, including necessary contacts system to connect to Fire alarm panel. Siren will have an automatic equipment for producing a varbling note all as specified.	itemff9	79	Each	0.00		0.00	INR Zero Only
136.0	Supply, fix and testing MS ERW pipe including specials / flanges heavy duty grade nominal bore 150mm confirming to IS-3589:1991 of 5.4mm thickness, complete all as specified and as directed.	itemff10	880	Running Metre	0.00		0.00	INR Zero Only
137.0	Supply, fix and testing MS ERW pipe including specials / flanges heavy duty grade nominal bore 100mm confirming to IS-3589:1991 of 5.4mm thickness, complete all as specified and as directed.	itemff11	222	Running Metre	0.00		0.00	INR Zero Only
138.0	Supply, fix and testing MS ERW pipe including specials / flanges heavy duty grade nominal bore 80mm confirming to IS -3589:1991 of 5.4mm thickness, complete all as specified and as directed.	itemff12	60	Running Metre	0.00		0.00	INR Zero Only
139.0	S&F Galvanised steel water tubing 100mm bore, Heavy class, conforming to IS:1239 (Part I) including all fittings (such as bends, tees, short pieces connectors, elbows, reducers, unions, sockets etc), laid in trenches/drains, including testing, complete all as specified and as directed.	itemff13	28	Running Metre	0.00		0.00	INR Zero Only
140.0	S&F Galvanised steel water tubing 80mm bore, Heavy class, conforming to IS:1239 (Part I) including all fittings (such as bends, tees, short pieces connectors, elbows, reducers, unions, sockets etc), laid in trenches/drains, including testing, complete all as specified and as directed.	itemff14	280	Running Metre	0.00		0.00	INR Zero Only

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141.0	S&F Galvanised steel water tubing 50mm bore, Heavy class, conforming to IS:1239 (Part I) including all fittings (such as bends, tees, short pieces connectors, elbows, reducers, unions, sockets etc), laid in trenches/drains, including testing, complete all as specified and as directed.	itemff15	260	Running Metre	0.00		0.00	INR Zero Only
142.0	S&F Galvanised steel water tubing 25mm bore, Heavy class, conforming to IS:1239 (Part I) including all fittings (such as bends, tees, short pieces connectors, elbows, reducers, unions, sockets etc), laid in trenches/drains, including testing, complete all as specified and as directed.	itemff16	360	Running Metre	0.00		0.00	INR Zero Only
143.0	Supply and Intallation of Gate valve complete of size 50mm dia complete all as specified and as directed.	itemff17	13	Each	0.00		0.00	INR Zero Only
144.0	Supply and Intallation of Gate valve complete of size 25mm dia complete all as specified and as directed.	itemff18	25	Each	0.00		0.00	INR Zero Only
145.0	Supply, fix, testing of CI Butterfly valve conforming to IS 13095 complete of dia 150mm complete all as specified and as directed.	itemff19	9	Each	0.00		0.00	INR Zero Only
146.0	Supply, fix, testing of CI Butterfly valve conforming to IS 13095 complete of dia 100mm complete all as specified and as directed	itemff20	15	Each	0.00		0.00	INR Zero Only
147.0	Supply, fix, testing of CI Butterfly valve conforming to IS 13095 complete of dia 80mm complete all as specified and as directed.	itemff21	9	Each	0.00		0.00	INR Zero Only
148.0	Supply, fix, testing CI non return valve of 150mm dia, double flanged conforming to IS 5312 Part-I, PN 1.6 complete all as specified and as directed.	itemff22	3	Each	0.00		0.00	INR Zero Only
149.0	Supply, fix, testing CI non return valve of 100mm dia, double flanged conforming to IS 5312 Part-I, PN 1.6 complete all as specified and as directed	itemff23	3	Each	0.00		0.00	INR Zero Only
150.0	Supply, fix, testing CI non return valve of 80mm dia, double flanged conforming to IS 5312 Part-I, PN 1.6 complete all as specified and as directed.	itemff24	4	Each	0.00		0.00	INR Zero Only
151.0	Supply and fix Double headed type fire hydrant landing valve of type 'A' of size 63mm dia confirming to IS 5290, complete all as specified and as directed.	itemff25	96	Each	0.00		0.00	INR Zero Only
152.0	Supply and fix 63mm dia, 15mtr long RRL type 'A' hose confirming to IS 636, complete with male and female coupling confirming to IS 903, complete all as specified and as directed.	itemff26	216	Each	0.00		0.00	INR Zero Only
153.0	Supply and fix Branch pipe gun metal 63mm instantaneous inlet, made threaded outlet, 15mm bore nozzle short, complete all as specified and as directed.	itemff27	192	Each	0.00		0.00	INR Zero Only

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154.0	S&F Addressable type beam master detector with transmitter and receiver with rate of rise cum fixed temperature as per IS : 2175, complete all as specified and as directed.	itemff28	28	Each	0.00		0.00	INR Zero Only
155.0	Fire Hose Box / Cabinet made of 18 gauge MS Sheet 800mm X 600mm X 250mm with Double Door with 4 mm thick 600mm X 250mm with Double Door with 4 mm thick glasses and door frame made of 16 gauge MS sheet painted fire red outside and brilliant white inside fixed to wall and suitable for fixing Two Hose Reel of 15 m long complete all as specified.	itemff29	96	Each	0.00		0.00	INR Zero Only
156.0	Design, Supply, installation, testing and commissioning of Fire pump eclectically driven horizontal split case, centrifugal type confirming to IS- 12469 :1988 with CI Casing, bronze impeller and Stainless steel shaft mounted on heavy duty bearings Suitable for continuous operation with 'range of operation' 0 % to 150 % of rated capacity for 440V, 3 Phase, 50 Hz 70m Head, 1450RPM, 2280 LPM discharge, including PCC foundation, all necessary electric and water supply connections upto main header, with suitable foot valve with Y strainer with cored hole/slots, including LT panel accommodating with suitable soft starter and MCCB/ACB as per OEM recommendations, complete all as specified. Note: Contractor has to submit drawings for approval before manufacturing at factory and pump / motors shall be confirming to GRIHA 3 star rating.	itemff30	1	Each Set	0.00		0.00	INR Zero Only
157.0	Design, Supply, installation, testing and commissioning of Fire pump Diesel driven horizontal split case, centrifugal type confirming to IS- 12469 :1988 with CI Casing, bronze impeller and Stainless steel shaft mounted on heavy duty bearings Suitable for continuous operation with 'range of operation' 0 % to 150 % of rated capacity for 440V, 3 Phase, 50 Hz 70m Head, 1450RPM, 2280 LPM discharge, including PCC foundation, with suitable foot valve with Y strainer with cored hole/slots, including LT panel accommodating with suitable soft starter and MCCB/ACB as per OEM recommendations, complete all as specified. Note: Contractor has to submit drawings for approval before manufacturing at factory and pump / motors shall be confirming to GRIHA 3 star rating.	itemff31	1	Each Set	0.00		0.00	INR Zero Only

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158.0	Design, Supply, installation, testing and commissioning of Jockey pump horizontal split case, centrifugal type Confirming to IS-12469: 1988 with CI casing, bronze impeller and stainless steel shaft mounted on heavy duty bearings suitable for automatic operation with non over loading power characteristics for frequent start I stop operations for 440V, 3 phase, 50 Hz 70 m head 180 LPM discharge, with suitable foot valve with Y strainer with cored hole/slots, including LT panel accommodating with suitable soft starter and MCCB/ACB as per OEM recommendations, complete all as specified. Note: Contractor has to submit drawings for approval before manufacturing at factory and pump / motors shall be confirming to GRIHA 3 star rating.	itemff32	1	Each Set	0.00		0.00	INR Zero Only
159.0	Design, Supply, installation, testing and commissioning of Booster pumps for 440 V, 3 Phase, 50 Hz Confirming to IS-12469 :1988 With CI Casing bronze impeller and stainless steel shaft mounted on heavy duty bearings suitable for 440 volts, 3 phase, 50 Hz 30m head, 450 LPM discharge, with suitable foot valve with Y strainer with cored hole/slots, including LT panel accommodating with suitable soft starter and MCCB/ACB as per OEM recommendations, complete all as specified. Note: Contractor has to submit drawings for approval before manufacturing at factory and pump / motors shall be confirming to GRIHA 3 star rating.	itemff33	1	Each Set	0.00		0.00	INR Zero Only
160.0	Supply, fix and testing Electrically operated water pressure switch Universal type with necessary mounting/connection with control wiring with conductor and mechanical connection to operate at pressure range of 0 to 10 KG/Sqcm for automation complete all as specified.	itemff34	3	Each	0.00		0.00	INR Zero Only
161.0	Supply and fix water pressure guage 4" dial 0-14Kgs rating standard dia at the delevry side of pump set complete all as specified.	itemff35	6	Each	0.00		0.00	INR Zero Only
162.0	Spplly and fix Air Cushion tank 200mm dia with 25mm pressure relief valve, complete all as specified and all as directed.	itemff36	3	Each	0.00		0.00	INR Zero Only
163.0	Spplly and fix Air vessel of 250mm dia & 1m height at the delevry side complete tubing fitted with the stop cock etc, all as per standard practice all as specified and all as directed.	itemff37	3	Each	0.00		0.00	INR Zero Only

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164.0	S&F Flanged Fire hydrants stand post CI of 80mm dia 1.5m height with provision of single outlet, confirming to IS, complete all as specified and as directed.	itemff38	96	Each	0.00		0.00	INR Zero Only
165.0	Spplly and fix Fire brigade inlet, inlet connection of 2 way with 4 Nos 63mm dia, built in Gun metal non return valves instantaneous coupling type arranged on 150mm dia pipe manifold and connected to wet riser main, complete all as specified and all as directed.	itemff39	18	Each	0.00		0.00	INR Zero Only
166.0	S&F Cast Iron Sluice valve suitable for 150mm bore pipe, flanged of class PN 1.6, ISI marked, confirming to IS:4846, including brass spindle and necessary fixing arrangement like rubber gasket etc., complete all as specified.	itemff40	21	Each	0.00		0.00	INR Zero Only
167.0	S&F Cast Iron Sluice valve suitable for 100mm bore pipe, flanged of class PN 1.6, ISI marked, confirming to IS:4846, including brass spindle and necessary fixing arrangement like rubber gasket etc., complete all as specified.	itemff41	96	Each	0.00		0.00	INR Zero Only
168.0	Supply and fix Hose reel drum 30m long as per IS-884:1985, swinging type, CP finish, complete all as specified and as directed.	itemff42	48	Each Set	0.00		0.00	INR Zero Only
169.0	S&F Fire Alarm sounders / Sirens electronic type horizontal two stage continuous normal operation for atleast 50 minutes with sound level 65 db to 120 db Measured at 1.5m with sound output Variation of + 5db, 3500m range, including necessary wiring, complete all as specified.	itemff43	3	Each	0.00		0.00	INR Zero Only
170.0	M&L for Mild steel Framed work brackets of angles or tees with web and flanges cut to shape, drilled and countersunk for screw, with and including bending and welding angles, as necessary, gusset plates, riveting, etc.. n exc 10 kg each brackets, conforming to conforming to Fe-290 Gde E-165, complete all as specified.	itemff44	2000	Kilogram	0.00		0.00	INR Zero Only
171.0	SCHEDULE "A" PART – XIII [LIGHTNING PROTECTION]							
172.0	Single Pointed Air Termination Aluminium Rod 12 mm dia and 300 mm long, with Aluminium Box of size of 125 X 125 X 10mm, Hylam Sheet Cover of size 175 X 175 X 10mm including necessary fasteners fixed for Lighting Protection with necessary connections to earthing etc complete all as specified and as directed.	itemLp1	144	Each	0.00		0.00	INR Zero Only

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173.0	Aluminium Strip of size 25 X 3.15mm, fixed to walls / columns / beams etc with Saddles or hylam sheet / porcelain blocks of 10mm thick spaced at 1.00m centre to centre including making grooves and fixing with brass screws etc. for roof conductors and down conductors above ground complete all as specified and as directed. Note: Hylam sheet block shall be in two pieces each 10mm thick, one fixed to base with brass screws and the other fixed over it with brass screws after fixing aluminium strip in the groove provided.	itemLp2	7576	Running Metre	0.00		0.00	INR Zero Only
174.0	Test Point Terminal Block made of Gun Metal or Phosphorus Bronze of size 75 X 75 X 25 mm drilled and screwed including 3 Nos 8 mm dia 25 mm long hexagonal head screw complete all as specified and as directed.	itemLp3	144	Each	0.00		0.00	INR Zero Only
175.0	Earth continuity conductor or main earthing lead made of GI Strip of size 32 X 6mm, fixed to wall on batten or recess or chases or burried in ground or fixed to poles or any other indicated situation including drawing through GI Pipe for earthing etc. complete all as specified and as directed.	itemLp4	430	Running Metre	0.00		0.00	INR Zero Only
176.0	M&L for GI Tubing, 40mm bore, Light Grade, conforming to IS - 1239 [Part - 1] including all fittings laid in trenches or in floors/Walls or under road/drain for protection of cable complete all as specified and as directed.	itemLp5	430	Running Metre	0.00		0.00	INR Zero Only
177.0	SCHEDULE "A" PART – XIV [HOT WATER / COOLING APPLIANCES/AIR CONDITIONING]							
178.0	Supply, installation, commissioning of electric water heater, storage type steel body with copper inner tank and heating element upto 2KW capacity 25 litre, BEE 5 Star rated complete with all accessories such as safety valve, thermostat, NRV, connection piece etc., complete all as specified and as directed.	itemair1	12.00	Each	0.00		0.00	INR Zero Only
179.0	Supply, installation, commissioning of Water cooler electric driven (Single phase), fully stainless steel body having approx storage capacity of 120 litres nominal cooling capacity of 60 Litres per hour, complete all as specified and as directed.	itemair2	4.00	Each	0.00		0.00	INR Zero Only
180.0	Supply, installation, commissioning of Water cooler electric driven (Single phase), fully stainless steel body having approx storage capacity of 40 litres nominal cooling capacity of 40 Litres per hour, complete all as specified and as directed.	itemair3	25.00	Each	0.00		0.00	INR Zero Only

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181.0	Supply, fixing and installation of Invertor type split AC [Indoor and Out door units] of capacity 2.0TR with in-built ioniser and plasma filter for better indoor air quality, with R-410A and minimum 5 star energy rating and EER 3.2, fixed with and including out door stand/brackets, copper condenser tubes, drain pipe, including drilling holes and making good the disturbed surface, with cordless remote control unit and testing on completion, complete all as specified and as directed.	itemair4	39.00	Each	0.00		0.00	INR Zero Only
182.0	Supply, fixing and installation of Invertor type split AC [Indoor and Out door units] of capacity 1.5TR with in-built ioniser and plasma filter for better indoor air quality, with R-410A and minimum 5 star energy rating and EER 3.2, fixed with and including out door stand/brackets, copper condenser tubes, drain pipe, including drilling holes and making good the disturbed surface, with cordless remote control unit and testing on completion, complete all as specified and as directed.	itemair5	42.00	Each	0.00		0.00	INR Zero Only
183.0	Supply, fixing and installation of Invertor type split AC [Indoor and Out door units] of capacity 1.0TR with in-built ioniser and plasma filter for better indoor air quality, with R-410A and minimum 5 star energy rating and EER 3.2, fixed with and including out door stand/brackets, copper condenser tubes, drain pipe, including drilling holes and making good the disturbed surface, with cordless remote control unit and testing on completion, complete all as specified and as directed.	itemair6	25.00	Each	0.00		0.00	INR Zero Only
184.0	Supply, install, commissioning and testing of Air Cooled Packaged Air Conditioner of nominal capacity 22TR, suitable for operation on R - 22/R - 407c/R - 410a refrigerants, comprising of Hermetic / Semi - Hermetically sealed Reciprocating or Hermetically sealed Scroll Compressors with microprocessor based control, with and including copper refrigerant piping, electrical interconnection between indoor and outdoor units, volume control dampers, fresh / fire dampers, canvas coupling, diffusers of any type, LT control panel for indoor/outdoor units, including drilling holes and making good the disturbed surface and testing on completion, complete all as specified and as directed. Note: Heat load calculation shall be submitted by the contractor for approval of GE	itemair7	3.00	Each Job	0.00		0.00	INR Zero Only

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185.0	Supply, install, commissioning and testing of Air Cooled Packaged Air Conditioner of nominal capacity 16.5TR, suitable for operation on R - 22/R - 407c/R - 410a refrigerants, comprising of Hermetic / Semi - Hermetically sealed Reciprocating or Hermetically sealed Scroll Compressors with microprocessor based control, with and including copper refrigerant piping, electrical interconnection between indoor and outdoor units, volume control dampers, fresh / fire dampers, canvas coupling, diffusers of any type, LT control panel for indoor/outdoor units, including drilling holes and making good the disturbed surface and testing on completion, complete all as specified and as directed. Note: Heat load calculation shall be submitted by the contractor for approval of GE	itemair8	6.00	Each Job	0.00		0.00	INR Zero Only
186.0	Supply, install, commissioning and testing of Air Cooled Packaged Air Conditioner of nominal capacity 5.5TR, suitable for operation on R - 22/R - 407c/R - 410a refrigerants, comprising of Hermetic / Semi - Hermetically sealed Reciprocating or Hermetically sealed Scroll Compressors with microprocessor based control, with and including copper refrigerant piping, electrical interconnection between indoor and outdoor units, volume control dampers, fresh / fire dampers, canvas coupling, diffusers of any type, LT control panel for indoor/outdoor units, including drilling holes and making good the disturbed surface and testing on completion, complete all as specified and as directed. Note: Heat load calculation shall be submitted by the contractor for approval of GE	itemair9	9.00	Each Job	0.00		0.00	INR Zero Only
187.0	General MEP items							
188.0	S&F Gun-metal, globe or gate valves, with iron wheel head, screwed both ends, suitable for iron pipe of 80mm bore, complete all as specified and as directed.	item22	9.00	each	0.00		0.00	INR Zero Only
189.0	S&F Gun-metal, globe or gate valves, with iron wheel head, screwed both ends, suitable for iron pipe of 100mm bore, complete all as specified and as directed.	item23	15.00	each	0.00		0.00	INR Zero Only
190.0	S&F Gun-metal, globe or gate valves, with iron wheel head, screwed both ends, suitable for iron pipe of 150mm bore, complete all as specified and as directed.	item24	9.00	each	0.00		0.00	INR Zero Only

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191.0	S&F Mandatory / Regulatory reflective sign board duly indicating Speed/width limits as directed, circular in shape of size 600mm in dia, made out of 16SWG MS sheet, painted with one coat of Zinc chromate stoving primer on both side of white back ground , red border and black symbol, reflective on front side and back side gray stove enameled as per IRC-67/2001, with and including angle post of standared pattern embeded in ground with PCC 1:3:6 type C1, including earth work excavation, complete all as specified and as directed.	item25	45.00	each	0.00		0.00	INR Zero Only
192.0	M&L for Point wiring with 1.5 Sq.mm FRLSH PVC insulated unsheathed copper conductor cable, single core multi stranded 1100Volt grade confirming to IS 694: 1977, drawn in and including rigid PVC conduit not less than 20mm bore, concealed type, medium grade as per IS 9537 (Part 1-1983) with conduit accessories, junction boxes, tees, terminal boxes with and including factory made MS boxes, modular cover plates with frame for mounting modular switches thickness not less than 2mm, including one run of 1.5 Sq.mm single core FRLS PVC unsheathed copper conductor cable as earth continuity conductor and connected to common earth dolly, for one light / fan point controlled by one way switch, complete all as specified and as directed. Note: Cutting chases and making good surfaces shall be included in the unit rate.	item26	8213.00	Each Point	0.00		0.00	INR Zero Only
193.0	Description all as per Serial Item No. 26 here in before but for light / fan point controlled by two twoway switches complete.	item27	49.00	Each Point	0.00		0.00	INR Zero Only
194.0	Description all as per Serial Item No. 26 here-in-before but with 2.5 Sqmm copper conductor cable and 2.5 Sqmm cable as earth continuity conductor for 3 pin 5Amp switch socket point, on independent board, complete all as specified.	item28	1518.00	Each Point	0.00		0.00	INR Zero Only
195.0	Description all as per Serial Item No. 26 here-in-before but for 3 pin 5Amp switch socket point, on Same board, complete all as specified.	item29	702.00	Each Point	0.00		0.00	INR Zero Only
196.0	Description all as per Serial Item No. 26 here-in-before but with 2.5Sqmm copper conductor cable and 2.5 Sqmm cable as earth continuity conductor for 3 pin 5/15Amp switch socket point, on independent board, complete all as specified.	item30	996.00	Each Point	0.00		0.00	INR Zero Only
197.0	Description all as per Serial Item No. 26 here in before but for Bell / Buzzer point controlled by bell push complete.	item31	73.00	Each Point	0.00		0.00	INR Zero Only

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198.0	M&L for Flame proof point wiring with 1.5 Sq.mm FRLSH PVC insulated unsheathed copper conductor cable, single core multi stranded 1100Volt grade confirming to IS 694: 1977, drawn in and including stove enamelled steel conduit not less than 20mm bore, concealed type, medium grade with conduit accessories, junction boxes, tees, terminal boxes with and including factory made MS boxes, modular cover plates with frame for mounting modular switches, including one run of 1.5 Sq.mm single core FRLS PVC unsheathed copper conductor cable as earth continuity conductor and connected to common earth dolly, for one light / fan point controlled by one way switch, complete all as specified and as directed. Note: Cutting chases and making good surfaces shall be included in the unit rate.	item32	11.00	Each Point	0.00		0.00	INR Zero Only
199.0	S&F Modular type Telephone jack with shutter glossy white RJ 11 port with suitable gang box, complete all as specified and directed.	item33	108.00	Each	0.00		0.00	INR Zero Only
200.0	S&F Modular type Data socket white glossy RJ 45 and RJ 11 Port with suitable gang box and face, complete all as specified and directed.	item34	171.00	Each	0.00		0.00	INR Zero Only
201.0	S&F Modular type TV socket outlet, delux with suitable gang box, complete all as specified and directed.	item35	105.00	Each	0.00		0.00	INR Zero Only
202.0	M&L for Earthing complete with galvanised steel earth plate electrode 60cm X 60cm X 6mm thick, buried directly in ground (earth pit not less than 2.25 metres deep below ground level) with top edge of the plate not less than 1.5 metres below normal ground level, connected to galvanised earth lead 4mm GI wire by means of bolts, nuts, check nuts and washers of galvanised iron or steel all as shown in electrical plate No.3 of SSR Part-I, including excavation / earth work in any strata, adequate quantity of charcoal and common salt, PCC chamber with with RCC 1:2:4 type B1 40mm thick cover slab with suitable handle and angle iron frame of suitable size to fix the cover, with 20mm bore GI pipe light grade for watering with funnel, wire mesh and 15mm bore GI pipe medium grade for GI wire protection and 4mm GI earth wire, including testing after completion, complete all as specified and directed. Note : Earth wire will be measured after 7.5mtr from the earth strip or earth testing terminal block whichever is lesser under relevant item.	item36	195.00	Each Set	0.00		0.00	INR Zero Only
203.0	All as per Serial Item No. 36 here in before but using galvanised iron strip 32 x 6mm earthing lead and 50mm bore GI pipe medium grade as protection pipe. .	item37	180.00	Each Set	0.00		0.00	INR Zero Only

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204.0	S&F LED Flood light fitting 140Watts, 230 volts, >100lum/W, beam angle of ϕ 120°, AC outdoor type with high Pressure Die Cast aluminum Housing and heat resistant complete with LED lamp, driver, bracket with impact and corrosion resistant including thermal management in multiple optics complete with IP 65/66 protection with all accessories, complete all as specified and as directed. Make: Cat No. LHB11-140-CDL/60-M of Crompton Greaves or Equivalent make as specified here-in-after.	item38	36.00	Each	0.00		0.00	INR Zero Only
205.0	S&F LED Building Security light fitting 40Watts, 230 volts, >100lum/W, with Suitable size GI bracket made out of 25/40mm GI pipe fixed with clamps, nuts&bolts etc., complete with IP 65/66 protection with LED lamp, driver, bracket with impact and corrosion resistant and all accessories, complete all as specified and as directed. Make Cat. CIS-300-40-57-SL-DP-NGR for batten and LT8-20-865(2) for tube of Crompton or equivalent in makes given here-in-after.	item39	68.00	Each	0.00		0.00	INR Zero Only
206.0	S&F AC Three Phase Static Energy Electronic meter, flame retardant & temper proof box with transparent hinge, backlit LCD display with polycarbonate cover, 230Volt, 10- 60Amp, accuracy class-I, 50Hz, conforming to IS 13779, IP-54, with parameters to show data, time, current reading, load, PF, voltage and KWH with special features like TOD, temper logging, optical communication port dispaly in absense of power, complete all as specified.	item40	6.00	Each	0.00		0.00	INR Zero Only
207.0	S&F AC Single Phase Static Energy Electronic meter, flame retardant & temper proof box with transparent hinge, backlit LCD display with polycarbonate cover, 230Volt, 10- 40Amp, accuracy class-I, 50Hz, conforming to IS 13779, IP-54, with parameters to show data, time, current reading, load, PF, voltage and KWH with special features like TOD, temper logging, optical communication port dispaly in absense of power, complete all as specified.	item41	3.00	Each	0.00		0.00	INR Zero Only
208.0	Supply, Installation and testing of Refrigerator, electric driven (Single Phase), capacity upto 195 liters, BEE 5 Star rated, complete all as specified and as directed.	item42	16.00	Each	0.00		0.00	INR Zero Only
209.0	S&F Voltage stabilizer of capacity 3KVA, for automatic operation, suitable for deep freezers / refrigerator / water cooler / AC, single phase naturally air cooled indoor type and designed for input variation 170V to 270V, output voltage stabilized at 230Volt with accuracy of \pm 2.50%, complete all as specified and as directed.	item43	25.00	Each	0.00		0.00	INR Zero Only
210.0	S&F Voltage stabilizer of capacity 4KVA, for automatic operation, suitable for deep freezers / refrigerator / water cooler / AC, single phase naturally air cooled indoor type and designed for input variation 170V to 270V, output voltage stabilized at 230Volt with accuracy of \pm 2.50%, complete all as specified and as directed.	item44	42.00	Each	0.00		0.00	INR Zero Only

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211.0	S&F Voltage stabilizer of capacity 5KVA, for automatic operation, suitable for deep freezers / refrigerator / water cooler / AC, single phase naturally air cooled indoor type and designed for input variation 170V to 270V, output voltage stabilized at 230Volt with accuracy of $\pm 2.50\%$, complete all as specified and as directed.	item45	39.00	Each	0.00		0.00	INR Zero Only
212.0	S&F Voltage stabilizer of capacity 1KVA, for automatic operation, suitable for deep freezers / refrigerator / water cooler / AC, single phase naturally air cooled indoor type and designed for input variation 170V to 270V, output voltage stabilized at 230Volt with accuracy of $\pm 2.50\%$, complete all as specified and as directed.	item46	46.00	Each	0.00		0.00	INR Zero Only
213.0	Design, Supply, Installation, testing and commissioning of Monoblock pumping set, electrically driven, horizontal split case, centrifugal type conforming to IS and as per CPHEE manual with CI casing, bronze impeller and stainless steel shaft mounted on heavy duty bearings, suitable for continuous operation with range of operation 0% to 150% of rated capacity for 440V, 3 phase, 50Hz, 50m head, 270 LPM discharge, with and including DOL starter, single phase preventer, control switch gear MFM meter, with suitable foot valve with Y strainer with cored hole/slots and LT panel necessary MS frame and PCC foundation as per OEM Specification, GI sheet shed for weather protection, complete all as specified and as directed. Note: Contractor has to submit drawings for approval before manufacturing at factory and pump / motors shall be confirming to GRIHA 3 rating.	item51	6.00	Each	0.00		0.00	INR Zero Only
214.0	Design, Supply, Installation, testing and commissioning of Terrace pumping set, electrically driven, horizontal split case, centrifugal type conforming to IS and as per CPHEE manual with CI casing, bronze impeller and stainless steel shaft mounted on heavy duty bearings, suitable for continuous operation with range of operation 0% to 150% of rated capacity for 440V, 3 phase, 50Hz, 30m head, 900 LPM discharge, with and including DOL starter, single phase preventer, control switch gear MFM meter, with suitable foot valve with Y strainer with cored hole/slots and LT panel necessary MS frame and PCC foundation as per OEM Specification, GI sheet shed for weather protection, complete all as specified and as directed. Note: Contractor has to submit drawings for approval before manufacturing at factory and pump / motors shall be confirming to GRIHA 3 rating.	item52	6.00	Each	0.00		0.00	INR Zero Only
215.0	Supply, laying, testing and commissioning of repeater alarm for fire detection and alarm system at security office through GSM/GPRS complete with necessary wiring, data transmission through RS485, communication through cloud, complete all as specified and as directed.	item53	13.00	Each	0.00		0.00	INR Zero Only

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216.0	S&F GSM/PSTN auto dialler along with activated SIM, complete all as specified and as directed.	item54	6.00	Each	0.00		0.00	INR Zero Only
217.0	Supply, Installation, testing and commissioning of 79 degree centigrade QBD, complete with required fittings, fire water sprinkler, Pendent type, temperature quick response, 3mm glass bulb coverage K-factor 5.6US (80 metric), material of construction high tensile brass forging, Test Pressure : 7PSI (0.50Bar), Working pressure : 175PSI (12Bar), Factory pressure: 500PSI (35 Bar), Bulb temp range and colour : 79 deg C /175 F orange, Brass / Nickel & Chrome plated finish, complete all as specified and as directed by Engineer-in-Charge.	item55	379.00	Each	0.00		0.00	INR Zero Only
218.0	S&F Addressable type loop Open-Area Sounder Visual Indicator with IP65 rating, sound output of 102dB(A) at 1 metre (Typical tone 3 - RoLP) and has been designed for use in indoor and open areas, complete all as specified.	item56	6.00	Each	0.00		0.00	INR Zero Only
219.0	S&F Fire fighting flexible joints of SS material, suitable for 150mm bore dia pipe, complete as all as specified and as directed.	item57	3.00	Each	0.00		0.00	INR Zero Only
220.0	S&F Strainer suitable for 65mm bore dia for suction, conform to IS, and necessary fixing arrangement, complete all as specified and as directed.	item58	2.00	Each	0.00		0.00	INR Zero Only
221.0	S&F Cast Iron Foot valve ball type suitable for 25mm bore, shall conform to IS:4038-1986, fitted with and including 'Y' strainer which will have cored holes / slotsand, including necessary fixing arrangement, complete all as specified and as directed.	item59	6.00	Each	0.00		0.00	INR Zero Only
222.0	S&F Cast Iron Foot valve ball type suitable for 65mm bore, shall conform to IS:4038-1986, fitted with and including 'Y' strainer which will have cored holes / slotsand, including necessary fixing arrangement, complete all as specified and as directed.	item60	2.00	Each	0.00		0.00	INR Zero Only
223.0	Supply, Installation, Retrofitting, test and commissioning of Flow switch for maximum service pressure 450PSI, 4-10GPM flow sensitivity, contact rating of Two Sets of SPDT (Form C) , NEMA 4 / IP 54 protection, 40 F - 120 F temperature range, non- corrosive sleeve factory Installed in saddle, UL listed and FM approved, complete all as specified and as directed.	item61	20.00	Each	0.00		0.00	INR Zero Only

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224.0	M&L for Valve chamber of size 1500mm x 1500mm x 1200mm internal dimensions, with and including excavation in any type of soil, spreading, levelling and refilling etc. PCC (1:4:8) type D2 for foundation, Fly ash brick work of one brick thick wall in CM (1:4) including internal plaster 15mm thick in CM (1:4) external plaster 15mm thick(1:4) upto 150mm below GL and providing coping in PCC (1;2:4) type B1, angular iron frame of size 50x50x6mm with 6mm thick MS plate cover complete including locking arrangements and having FRP coating of 2mm thick on both inside and outside surfaces, complete all as specified and shown in TD drawing.	item62	102.00	Each Job	0.00		0.00	INR Zero Only
225.0	M&L for Valve chamber of size 450mm x 450mm x 700mm internal dimensions, with and including excavation in any type of soil, spreading, levelling and refilling etc. PCC (1:4:8) type D2 for foundation, Fly ash brick work of one brick thick wall in CM (1:4) including internal plaster 15mm thick in CM (1:4) external plaster 15mm thick(1:4) upto 150mm below GL and providing coping in PCC (1;2:4) type B1, angular iron frame of size 50x50x6mm with 6mm thick MS plate cover complete including locking arrangements and having FRP coating of 2mm thick on both inside and outside surfaces, complete all as specified and shown in TD drawing.	item63	26.00	Each Job	0.00		0.00	INR Zero Only
226.0	Supply, Installation, test and commissioning of Deluge valve of size 100 NB, auto resetting type, model-A, for vertical inlet to horizontal outlet mounting, cast iron material flanged end to ANSI B16.1, Class 125, with trim 24Volt, solenoid valve, pressure gauges, pressure switch and 2Nos 100mm dia bore sluice valves, UL listed and FM approved, complete all as specified and as directed.	item64	43.00	Each	0.00		0.00	INR Zero Only
227.0	Supply, Installation, Testing & Commissioning of Wall mount signage with 20M viewing distance built in LED, High efficiency L80 LED with 50000 Hr life, Usage: Exit signage cum emergency light with function use either as an emergency luminaire or exit sign, with stand alone Testing system, Housing or polycarbonate, Glow wire test: 850 degree C, RA19003, with set of 3 exit legends (L,R,D), degree of protection IP42, Lum in case of emergency: 100, Operation Mode Non-Maintained or Maintained mode selectable, connection voltage 230V +/-5% [220V-240V] 50-60Hz, Permissible ambient: temperature +5 degree C to +40 degree C, compliant with EN standards, with IEC CB test certificate LED, Built in Battery: Ni-Cd, Duration 3 hours, Viewing distance 20m, Dimensions in mm: 270X119X49, with and including necessary accessories with DEKRA certification, complete all as specified and as directed.	item65	107.00	Each	0.00		0.00	INR Zero Only
228.0	S&F Fire fighting flexible joints of SS material, suitable for 100mm bore dia pipe, complete as all as specified and as directed.	item66	3.00	Each	0.00		0.00	INR Zero Only

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229.0	Supply, laying, testing and commissioning of Ductile Iron pressure pipe of 200mm bore with socket and spigot ends with blast furnace sludge cement with Portland cement properties suitable for push -on-jointing with inside cement mortar lining with internal metallic zinc coating and external black bitumen coating duly ISI marked, confirming to IS-8329:2000, class K-9, PN-10 rating, laid in trenches / floor, complete all as specified and as directed. Note: 1. Necessary earth work will be measured and paid separately. 2. Necessary fittings will be measured and paid separately.	item67	450.00	Running Me	0.00		0.00	INR Zero Only
230.0	Supply, laying, testing and commissioning of Ductile Iron pressure pipe of 100mm bore with socket and spigot ends with blast furnace sludge cement with Portland cement properties suitable for push -on-jointing with inside cement mortar lining with internal metallic zinc coating and external black bitumen coating duly ISI marked, confirming to IS-8329:2000, class K-9, PN-10 rating, laid in trenches / floor, complete all as specified and as directed. Note: 1. Necessary earth work will be measured and paid separately. 2. Necessary fittings will be measured and paid separately.	item68	915.00	Running Me	0.00		0.00	INR Zero Only
231.0	M&L for DI Specials such as Bends , tapers any type, Tee pieces, single branch, "Y" junction, double branch, cross, collars, caps and plugs for connecting up to DI Pipe of any type and size, all as per IS:9523, complete all as specified and as directed. Note: Fittings shall be conforming to IS 9523:2000.	item69	1450.00	Kilogram	0.00		0.00	INR Zero Only
232.0	Supply, laying, testing and commissioning of Ductile Iron pressure pipe of 150mm bore with flanged type ends jointed with rubber or fibre board gasket and confirming to IS-8329:2000, class K-9, PN-10 rating, with pipe lining inside with cement mortar (CML) outside with bituminous coating all as per Annx 'C' of IS-8329, laid in trenches / floor, complete all as specified and as directed. Note: 1. Necessary earth work will be measured and paid separately. 2. Necessary fittings will be measured and paid separately	item70	2900.00	Running Me	0.00		0.00	INR Zero Only
233.0	M&L for MS ERW pipe Specials such as flanges, Bends , tapers any type, Tee pieces, single branch, "Y" junction, double branch, cross (for all flanged pipe) collars, caps and plugs for connecting up to 150mm bore, including necessary welding works, gasket/rubber sheet as required, complete all as specified and as directed. Note: Fittings shall be of same grade and class as per main pipe.	item71	450.00	Kilogram	0.00		0.00	INR Zero Only
234.0	S&F Hot dip Galvanised perforated cable tray with cover for fixing XLPE cables at various places to accommodate the cables for MCBs, Panel etc of size not less than 150X50mm, 3mm thick with necessary bends, angles, supports for fixing etc., complete all as specified and as directed.	item72	130.00	Running Me	0.00		0.00	INR Zero Only

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235.0	Supply, fix and testing of Loop in Loop Out box of size 4"x 8" of FRP made with IP 65 protection of thermoplastic circuit breaker boxes with metric knockouts for cable entry and exit, comb climate Cable Glands of IP66/IP67 for cable entry and Grommets IP 65 for conduit for cable exit with MCB 6 Amps, 10KA, C Curve overload and short Circuit protection, with 4 way connector, terminals as bus terminals for cable with necessary fixing arrangements and with cable glands etc all as specified and directed.	item73	4.00	Each	0.00		0.00	INR Zero Only
236.0	M&L for RCC (M25) Cable route indicator of size 800mm x 400mm x 75mm thick, minimum 500mm height above GL, duly painted with two coats of super enamel yellow colour over a coat of primer, duly marked with red colour words such as HT 11KV / LT Cable 1.1KV cables as directed with and including grouting in PCC 1:2:4 (Type B1), necessary earthwork, complete all as specified and directed.	item74	1500.00	Each	0.00		0.00	INR Zero Only
237.0	M&L for Cutting 200mm bore DI pipes and inserting the pipe of any size / accessories (tee/reducer), with and including necessary earth work & excavation, complete all as specified and as directed.	item75	1.00	Each Job	0.00		0.00	INR Zero Only
238.0	M&L for Engaugement LED light fitting 2x15Watt, with and including LED light driver holder connecting with three core flexible copper conductor cable of suitable size, complete all as specified and as directed.	item76	68.00	Each	0.00		0.00	INR Zero Only
239.0	M&L for Patient token LED light fitting 15Watt, with and including LED light driver holder connecting of with three core flexible copper conductor cable of suitable size, complete all as specified and as directed	item77	38.00	Each	0.00		0.00	INR Zero Only
240.0	M&L Integral LED 100 Watts aviation obstruction light new generation, PF>0.95, with aluminium housing and polycarbonate enclosure and IP 66 protection, with suitable GI pipe bracket with clamps, all accessories and internally pre wired and connecting up with three core twisted flexible copper conductor cable with suitable size, complete all as specified and as directed.	item78	11.00	Each	0.00		0.00	INR Zero Only
241.0	M&L for Row indicator LED light fitting 05Watt, with and including LED light driver holder connecting of with three core flexible copper conductor cable of suitable size, complete all as directed by Engr-in-charge.	item79	100.00	Each	0.00		0.00	INR Zero Only
242.0	M&L for Foot LED light fitting 05Watt, with and including LED light driver holder connecting of with three core flexible copper conductor cable of suitable size, complete all as directed by Engr-in-charge.	item80	100.00	Each	0.00		0.00	INR Zero Only

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243.0	M&L for Entry / Exist LED light fitting 05Watt, with and including LED light driver holder connecting of with three core flexible copper conductor cable of suitable size, complete all as directed by Engr-in-charge.	item81	10.00	Each	0.00		0.00	INR Zero Only
244.0	Supply, Installationing, testing and commissioning of LT panel Indoor type, OEM factory made totally type tested panel confirming to IEC 61439 Part-1 & 2, confirming to IP 54 Protection, free standing mounted on PCC pedestal, dust and vermin proof, fabricated with 2.00mm thick CRCA sheet painted with seven tank process and shall be powder coated with RAL7035 coat with matt finish, high conductivity aluminium alloy bus bar TPN of rating 1.5 times the incoming switchgear Amps capacity with colour coded heat shrinkable sleeves mounted on porcelain insulator supports with separate hinge door for each compartment with operating handle & locking arrangement with back door common openable (screwed/Lockable) including interlocking with switch gears and suitable for 1100 volts Grade, 3 phase 4 wire with rated operational voltage 433V,50Hz, AC supply and to with stand short circuit fault level of not less than 100KA, rated insulation voltage of 1000V and Impulse withstand of 12kV and minimum internal Arc with-stand of 65kA, 500mSec as per IEC 61641, weather proof, fixed with angle iron frame 50x50x6mm at corners and ISMC at base, fixing with PCC 1:2:4 type B1, all as per the OEM recommendation and connecting of incoming/outgoing cable etc., complete with and including M&L for following accessories:- Note: All Incoming MCCBs are of Microprocessor based and out going MCCBs are of Adjustable type. Incoming: (a) MCCB 80Amps, 4Pole, 25kA with O/L, S/C & E/F protection - 01 Nos (b) Digital Ammeter with selector switch-1 Nos (c) Digital Voltmeter with selector switch - 1 No (d) LED indication lamp (RYB) -01 Set Outgoing: (a) MCCB 16-40Amps, 4Pole, 16kA with O/L, S/C & E/F protection - 03 Nos (b) Space for 01No of 40Amp MCCB 4P.	item82	1.00	Each Job	0.00		0.00	INR Zero Only
245.0	All as per Serial Item No. 82 here in before but with following accessories:- Incoming: (a) MCCB 100Amps, 4Pole, 25kA with O/L, S/C & E/F protection - 01 Nos (b) Digital Ammeter with selector switch-1 Nos (c) Digital Voltmeter with selector switch - 1 No (d) LED indication lamp (RYB) -01 Set Outgoing: (a) MCCB 16-63Amps, 4Pole, 16kA with O/L, S/C & E/F protection - 04 Nos (b) Space for 01No of 40Amp MCCB 4P.	item83	1.00	Each Job	0.00		0.00	INR Zero Only

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246.0	All as per Serial Item No. 82 here in before but with following accessories:- Incoming: (a) MCCB 500Amps, 4Pole, 36kA with O/L, S/C & E/F protection - 01 Nos (b) Digital Ammeter with selector switch-1 Nos (c) Digital Voltmeter with selector switch - 1 No (d) LED indication lamp (RYB) -01 Set Outgoing: (a) MCCB 320Amps, 4Pole, 36kA with O/L, S/C & E/F protection - 01 Nos (b) MCCB 100Amps, 4Pole, 16kA with O/L, S/C & E/F protection - 02 Nos (c) MCCB 25Amps, 4Pole, 16kA with O/L, S/C & E/F protection - 02 Nos (d) Space for 01No of 40Amp MCCB 4P & 01No 100Amp MCCB 4P.	item84	1.00	Each Job	0.00		0.00	INR Zero Only
247.0	All as per Serial Item No. 82 here in before but with following accessories:- Incoming: (a) MCCB 320Amps, 4Pole, 36kA with O/L, S/C & E/F protection - 01 Nos (b) Digital Ammeter with selector switch-1 Nos (c) Digital Voltmeter with selector switch - 1 No (d) LED indication lamp (RYB) -01 Set Outgoing: (a) MCCB 100Amps, 4Pole, 16kA with O/L, S/C & E/F protection - 03 Nos (b) MCCB 25Amps, 4Pole, 16kA with O/L, S/C & E/F protection - 02 Nos (c) Space for 01No of 40Amp MCCB 4P.	item85	1.00	Each Job	0.00		0.00	INR Zero Only
248.0	All as per Serial Item No. 82 here in before but with following accessories:- Incoming: (a) MCCB 25Amps, 4Pole, 16kA with O/L, S/C & E/F protection - 01 Nos (b) Digital Ammeter with selector switch-1 Nos (c) Digital Voltmeter with selector switch - 1 No (d) LED indication lamp (RYB) -01 Set Outgoing: (a) MCB 10Amps, TPN, 10kA, B series - 02 Nos (b) DOL Starter suitable for 5HP - 02 Nos (c) Single Phase Preventor - 02Nos.	item86	1.00	Each Job	0.00		0.00	INR Zero Only
249.0	All as per Serial Item No. 82 here in before but with following accessories:- Incoming: (a) MCCB 200Amps, 4Pole, 36kA with O/L, S/C & E/F protection - 01 Nos (b) Digital Ammeter with selector switch-1 Nos (c) Digital Voltmeter with selector switch - 1 No (d) LED indication lamp (RYB) -01 Set Outgoing: (a) MCCB 100Amps, 4Pole, 16kA with O/L, S/C & E/F protection - 02 Nos (b) MCCB 16-25Amps, 4Pole, 16kA with O/L, S/C & E/F protection - 02 Nos (c) Space for 01No of 25Amp MCCB 4P. (d) Space for 01No of 100Amp MCCB 4P.	item87	1.00	Each Job	0.00		0.00	INR Zero Only
250.0	All as per Serial Item No. 82 here in before but with following accessories:- Incoming: (a) MCCB 25Amps, 4Pole, 16kA with O/L, S/C & E/F protection - 01 Nos (b) Digital Ammeter with selector switch-1 Nos (c) Digital Voltmeter with selector switch - 1 No (d) LED indication lamp (RYB) -01 Set Outgoing: (a) MCB 10Amps, TPN, 10kA, B series - 02 Nos (b) DOL Starter suitable for 5HP - 02 Nos (c) Single Phase Preventor - 02Nos.	item88	1.00	Each Job	0.00		0.00	INR Zero Only

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251.0	All as per Serial Item No. 82 here in before but with following accessories: Incoming: (a) MCCB 63Amps, 4Pole, 16kA with O/L, S/C & E/F protection - 01 Nos (b) Digital Ammeter with selector switch-1 Nos (c) Digital Voltmeter with selector switch - 1 No (d) LED indication lamp (RYB) -01 Set Outgoing: (a) MCCB 25Amps, 4Pole, 16kA with O/L, S/C & E/F protection - 01 Nos (b) MCB 16-32Amps, TPN, 10kA, B series - 02 Nos (c) MCB 20Amps, SPN, 10kA, B series - 02 Nos	item89	1.00	Each Job	0.00		0.00	INR Zero Only
252.0	All as per Serial Item No. 82 here in before but with following accessories: Incoming: (a) MCCB 250Amps, 4Pole, 36kA with O/L, S/C & E/F protection - 01 Nos (b) Digital Ammeter with selector switch-1 Nos (c) Digital Voltmeter with selector switch - 1 No (d) LED indication lamp (RYB) -01 Set Outgoing: (a) MCCB 63Amps, 4Pole, 25kA with O/L, S/C & E/F protection - 01Nos (b) MCCB 20Amps, 3Pole, 25kA with O/L, S/C & E/F protection - 05Nos (c) MCB 6-40Amps, TPN, 10kA, B series - 03 Nos (d) DOL Starter suitable for 0.25HP - 05 Nos (e) DOL Starter suitable for 3HP - 01 Nos (f) Auto Star delta starter suitable for 12.5HP - 05 Nos (g) Single Phase Preventor -05Nos.	item90	1.00	Each Job	0.00		0.00	INR Zero Only
253.0	All as per Serial Item No. 82 here in before but with following accessories: Incoming: (a) MCCB 63Amps, 4Pole, 25kA with O/L, S/C & E/F protection - 01 Nos (b) Digital Ammeter with selector switch-1 Nos (c) Digital Voltmeter with selector switch - 1 No (d) LED indication lamp (RYB) -01 Set Outgoing: (a) MCCB 20Amps, 3Pole, 25kA with O/L, S/C & E/F protection - 03Nos (b) MCB 6Amps, TP, 10kA, B series - 01 Nos (c) MCB 6Amps, SP, 10kA, B series - 04 Nos (d) Auto Star delta starter suitable for 12.5HP - 03 Nos (e) DOL Starter suitable for 0.25HP - 04 Nos (f) DOL Starter suitable for 3HP - 01 Nos (g) Single Phase Preventor - 03Nos.	item91	1.00	Each Job	0.00		0.00	INR Zero Only
254.0	All as per Serial Item No. 82 here in before but with following accessories: Incoming: (a) MCCB 63Amps, 4Pole, 25kA with O/L, S/C & E/F protection - 01 Nos (b) Digital Ammeter with selector switch-1 Nos (c) Digital Voltmeter with selector switch - 1 No (d) LED indication lamp (RYB) -01 Set Outgoing: (a) MCCB 40Amps, 3Pole, 25kA with O/L, S/C & E/F protection - 01Nos (b) MCB 10Amps, 4Pole, 10kA, B series - 01 Nos	item92	1.00	Each Job	0.00		0.00	INR Zero Only

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255.0	All as per Serial Item No. 82 here in before but with following accessories:- Incoming: (a) MCCB 400Amps, 4Pole, 36kA with O/L, S/C & E/F protection - 01 Nos (b) Digital Ammeter with selector switch-1 Nos (c) Digital Voltmeter with selector switch - 1 No (d) LED indication lamp (RYB) -01 Set Outgoing: (a) MCCB 125Amps, 4Pole, 16kA with O/L, S/C & E/F protection - 01 Nos (b) MCCB 63Amps, 4Pole, 16kA with O/L, S/C & E/F protection - 01 Nos (c) MCB 40Amps, TPN, 10kA, B series - 08 Nos	item93	1.00	Each Job	0.00		0.00	INR Zero Only
256.0	All as per Serial Item No. 82 here in before but with following accessories:- Incoming: (a) ACB 1600A, 4pole, 50kA, 415V, EDO with ZSI function & LCD display for Current & Voltage metering with O/L, S/C & E/F protection -01 Nos (b) Digital Ammeter with selector switch-1 Nos (c) Digital Voltmeter with selector switch - 1 No (d) LED indication lamp (RYB) -01 Set Outgoing: (a) MCCB 400Amps, 4Pole, 35kA with O/L, S/C & E/F protection - 01 Nos (b) MCCB 320Amps, 4Pole, 35kA with O/L, S/C & E/F protection - 01 Nos (c) MCCB 16-63Amps, 4Pole, 16kA with O/L, S/C & E/F protection - 15 Nos (d) MCCB 80Amps, 4Pole, 16kA with O/L, S/C & E/F protection - 01 Nos (e) MCB 6-32Amps, TPN, 10kA, B series - 05 Nos (f) MCB 6-32Amps, DP, 10kA, B series - 18 Nos.	item94	1.00	Each Job	0.00		0.00	INR Zero Only
257.0	All as per Serial Item No. 82 here in before but with following accessories:- Incoming: (a) MCCB 320Amps, 4Pole, 36kA with O/L, S/C & E/F protection - 01 Nos (b) Digital Ammeter with selector switch-1 Nos (c) Digital Voltmeter with selector switch - 1 No (d) LED indication lamp (RYB) -01 Set Outgoing: (a) MCCB 200Amps, 4Pole, 16kA with O/L, S/C & E/F protection - 01 Nos (b) MCCB 100Amps, 4Pole, 16kA with O/L, S/C & E/F protection - 01 Nos (c) MCB 40Amps, FP, 10kA, B series-01 Nos (d) Space for 01No of 100Amp MCCB 4P.	item95	1.00	Each Job	0.00		0.00	INR Zero Only
258.0	All as per Serial Item No. 82 here in before but with following accessories:- Incoming: (a) MCCB 160Amps, 4Pole, 25kA with O/L, S/C & E/F protection - 01 Nos (b) Digital Ammeter with selector switch-1 Nos (c) Digital Voltmeter with selector switch - 1 No (d) LED indication lamp (RYB) -01 Set Outgoing: (a) MCCB 16-63Amps, 4Pole, 16kA with O/L, S/C & E/F protection - 3 Nos (b) MCB 20Amps, SPN, 10kA, B series-02 Nos	item96	2.00	Each Job	0.00		0.00	INR Zero Only
259.0	All as per Serial Item No. 82 here in before but with following accessories:- Incoming: (a) MCCB 250Amps, 4Pole, 25kA with O/L, S/C & E/F protection - 01 Nos (b) Digital Ammeter with selector switch-1 Nos (c) Digital Voltmeter with selector switch - 1 No (d) LED indication lamp (RYB) -01 Set Outgoing: (a) MCCB 16-63Amps, 4Pole, 16kA with O/L, S/C & E/F protection - 05 Nos (b) MCB 20Amps, SPN, 10kA, B series-02 Nos	item97	2.00	Each Job	0.00		0.00	INR Zero Only

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260.0	All as per Serial Item No. 82 here in before but with following accessories:- Incoming: (a) MCCB 125Amps, 4Pole, 25kA with O/L, S/C & E/F protection - 01 Nos (b) Digital Ammeter with selector switch-1 Nos (c) Digital Voltmeter with selector switch - 1 No (d) LED indication lamp (RYB) -01 Set Outgoing: (a) MCB 16-32Amps, TP, 10kA, B series-08 Nos	item98	1.00	Each Job	0.00		0.00	INR Zero Only
261.0	All as per Serial Item No. 82 here in before but with following accessories:- Incoming: (a) ACB 800Amps, 4pole, 50kA, 415V, EDO with ZSI function & LCD display for Current & Voltage metering with O/L, S/C & E/F protection with thermal magnitic release -01 Nos (b) Digital Ammeter with selector switch-1 Nos (c) Digital Voltmeter with selector switch - 1 No (d) LED indication lamp (RYB) -01 Set Outgoing: (a) MCCB 400Amps, 4Pole, 35kA with O/L, S/C & E/F protection - 01 Nos (b) MCCB 250Amps, 4Pole, 35kA with O/L, S/C & E/F protection - 01 Nos (c) MCCB 125Amps, 4Pole, 25kA with O/L, S/C & E/F protection - 01Nos (d) MCCB 63Amps, 4Pole, 16kA with O/L, S/C & E/F protection - 03 Nos (e) Space for 4P MCCB 630Amp -01Nos	item99	1.00	Each Job	0.00		0.00	INR Zero Only
262.0	All as per Serial Item No. 82 here in before but with following accessories:- Incoming: (a) ACB 800Amps, 4pole, 50kA, 415V, EDO with ZSI function & LCD display for Current & Voltage metering with O/L, S/C & E/F protection with thermal magnitic release -01 Nos (b) Digital Ammeter with selector switch-1 Nos (c) Digital Voltmeter with selector switch - 1 No (d) LED indication lamp (RYB) -01 Set Outgoing: (a) MCCB 250Amps, 4Pole, 35kA with O/L, S/C & E/F protection - 01 Nos (b) MCCB 125Amps, 4Pole, 25kA with O/L, S/C & E/F protection - 01 Nos (c) MCCB 63Amps, 4Pole, 16kA with O/L, S/C & E/F protection - 03Nos (d) Space for 4P MCCB 630Amp -01Nos	item100	1.00	Each Job	0.00		0.00	INR Zero Only
263.0	All as per Serial Item No. 82 here in before but with following accessories:- Incoming: (a) ACB 800Amps, 4pole, 50kA, 415V, EDO with ZSI function & LCD display for Current & Voltage metering with O/L, S/C & E/F protection with thermal magnitic release -01 Nos (b) Digital Ammeter with selector switch-1 Nos (c) Digital Voltmeter with selector switch - 1 No (d) LED indication lamp (RYB) -01 Set Outgoing: (a) MCCB 200Amps, 4Pole, 35kA with O/L, S/C & E/F protection - 01 Nos (b) MCCB 100Amps, 4Pole, 25kA with O/L, S/C & E/F protection - 04 Nos (c) MCCB 63Amps, 4Pole, 16kA with O/L, S/C & E/F protection - 02Nos (d) Space for 4P MCCB 630Amp -01Nos	item101	1.00	Each Job	0.00		0.00	INR Zero Only

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264.0	All as per Serial Item No. 82 here in before but with following accessories:- Incoming: (a) MCCB 630Amps, 4Pole, 25kA with O/L, S/C & E/F protection with thermal magnitic release - 01 Nos (b) Digital Ammeter with selector switch-1 Nos (c) Digital Voltmeter with selector switch - 1 No (d) LED indication lamp (RYB) -01 Set Outgoing: (a) MCCB 200Amps, 4Pole, 35kA with O/L, S/C & E/F protection - 01 Nos (b) MCCB 125Amps, 4Pole, 25kA with O/L, S/C & E/F protection - 01 Nos (c) MCCB 100Amps, 4Pole, 25kA with O/L, S/C & E/F protection - 01 Nos (d) MCCB 63Amps, 4Pole, 16kA with O/L, S/C & E/F protection - 05Nos (d) Space for 4P MCCB 630Amp -01Nos	item102	1.00	Each Job	0.00		0.00	INR Zero Only
265.0	Supply, Installationing, testing and commissioning of LT panel Outdoor type, OEM factory made totally type tested panel confirming to IEC 61439 Part-1 & 2, confirming to IP 55 Protection, floor mounted, dust and vermin proof, fabricated with 3.15mm thick CRCA sheet painted with seven tank process and shall be powder coated with RAL7035 coat with matt finish, high conductivity aluminium alloy bus bar TPN of rating 1.5 times the incoming switchgear Amps capacity with colour coded heat shrinkable sleeves mounted on porcelain insulator supports with separate hinge door for each compartment with operating handle & locking arrangement with back door common openable (screwed/Lockable) including interlocking with switch gears and suitable for 1100 volts Grade, 3 phase 4 wire with rated operational voltage 433V,50Hz, AC supply and to with stand short circuit fault level of not less than 100KA, rated insulation voltage of 1000V and Impulse withstand of 12kV and minimum internal Arc withstand of 65kA, 500mSec as per IEC 61641, weather proof, fixed with angle iron frame 50x50x6mm at corners and ISMC at base, fixing with PCC 1:2:4 type B1, all as per the OEM recommendation and connecting of incoming/outgoing cable etc., complete with and including M&L for following accessories:- Note: All Incoming MCCBs are of Microprocessor based and out going MCCBs are of Adjustable type. Incoming: (a) ACB 2000Amp, 4pole, 50kA, 415V, EDO with ZSI function & LCD display for Current & Voltage metering with O/L, S/C & E/F protection -01 Nos (b) Digital Ammeter with selector switch-1 Nos (c) Digital Voltmeter with selector switch - 1 No (d) LED indication lamp (RYB) -01 Set Outgoing: (a) ACB 1600Amp, 4pole, 50kA, 415V, EDO with ZSI function & LCD display for Current & Voltage metering with O/L, S/C & E/F protection -01 Nos (b) MCCB 400Amps, 4Pole, 35kA with O/L, S/C & E/F protection - 01 Nos (c) Space for 1600Amp ACB -01Nos (d) Space for MCCB 400Amp	item103	1.00	Each Job	0.00		0.00	INR Zero Only

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266.0	All as per Serial Item No. 103 here in before but with following accessories:- Incoming: (a) ACB 2000Amp, 4pole, 50kA, 415V, EDO with ZSI function & LCD display for Current & Voltage metering with O/L, S/C & E/F protection -01 Nos (b) Digital Ammeter with selector switch-1 Nos (c) Digital Voltmeter with selector switch - 1 No (d) LED indication lamp (RYB) -01 Set Outgoing: (a) ACB 800Amp, 4pole, 50kA, 415V, EDO with ZSI function & LCD display for Current & Voltage metering with O/L, S/C & E/F protection -03 Nos (b) MCCB 100Amps, 4Pole, 35kA with O/L, S/C & E/F protection -02 Nos (c) Space for 800Amp ACB -01Nos, 1 No MCCB 100Amp 4P & 1No MCCB 630Amp 4P.	item104	1.00	Each Job	0.00		0.00	INR Zero Only
267.0	All as per Serial Item No. 103 here in before but with following accessories:- Incoming: (a) ACB 800Amp, 4pole, 50kA, 415V, EDO with ZSI function & LCD display for Current & Voltage metering with O/L, S/C & E/F protection -01 Nos (b) Digital Ammeter with selector switch-1 Nos (c) Digital Voltmeter with selector switch - 1 No (d) LED indication lamp (RYB) -01 Set Outgoing: (a) MCCB 500Amps, 4Pole, 50kA with O/L, S/C & E/F protection -02 Nos (b) MCCB 100Amps, 4Pole, 35kA with O/L, S/C & E/F protection -01 Nos (c) Space for 800Amp ACB -01Nos	item105	1.00	Each Job	0.00		0.00	INR Zero Only
268.0	M&L for PVC insulated, Unsheathed, multistranded copper conductor cable of size 3 core x 1.5 sqmm, 1100 Volts, FRLS Grade, ISI marked, drawing through and including heavy duty PVC conduit of suitable size with all accessories concealed for CCTV, AC, including with all fittings, complete all as specified.	item106	3884.00	Running Me	0.00		0.00	INR Zero Only
269.0	M&L for PVC insulated, Unsheathed, multistranded copper conductor cable of size 2 core x 1.5 sqmm, 1100 Volts, FRLS Grade, ISI marked, drawing through and including heavy duty PVC conduit of suitable size with all accessories concealed, including with all fittings, complete all as specified.	item107	10000.00	Running Me	0.00		0.00	INR Zero Only
270.0	S&F Fully automatic transfer Change over switch with RJ 45 ethernet connect port along with cable integrated with SCADA for source change, cubical type with arc chute of capacity 630Amps, range 63A to 630A, AC 23A, 4P conforms to latest IS/IEC codes with inter chargeable dual shaft position with site convertibility and flip-able handle able 630A capacity in LT panel, including necessary interconnections of cables and control wiring, complete all as specified and as directed.	item108	3.00	Each	0.00		0.00	INR Zero Only

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271.0	M&L for Design, Manufacture, supply, testing and commissioning of electrically operated, double girder EOT crane as per IS -807 & IS -3177 with span 13.5m (Apx) having 15/2Ton capacity (Main hook of 15Ton Capacity & Auxiliary hook of 2 Ton Capacity) and lifting ht 9.0mtrs from floor level, long travel of length 50m with and including required crane track rail, Speed of main hoist - 3mtr/min, Main Creep Speed - 0.3m/min, Long Creep Speed - 1m/min, Speed of long travel - 10mtr/min, All micro speed will be 1/10 of main speed by all motions, DSL system with PVC sheated copper bus bar for 3 Phase & neutral with earth bus system with locking system & VVF Drive system, push button system, radio remote controlling systems, all safety provisions and audio visual alarm system to all motions, single phase preventer, over load relay, safety siren/over load alarm with and including connection upto DB with suitable cable from panel board to crane and conduit as per site requirement, additional push button system with interlocking wiring with and including all connected accessories like rope drum, steel wire rope, sheaves, pulleys, hydraulic brake, single phase preventer, overload relay, SFU, air brake contactor, main hoist motor, micro hoist motor, long & cross travel motor, lift hook, service platform, walkway with railing, safety latch, load indicator, catwalk along length of crane, ladders, buffers, hooks & clamps on wall etc., complete all as specified and as directed. Note: Span and Long travel may vary slightly as per site condition.	item109	3.00	Each Job	0.00		0.00	INR Zero Only

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272.0	M&L for Design, Manufacture, supply, testing and commissioning of electrically operated, double girder EOT crane as per IS -807 & IS -3177 with span 7.80m (Apx) having 5/1Ton capacity (Main hook of 5Ton Capacity & Auxiliary hook of 1 Ton Capacity) and lifting ht 5.0mtrs from floor level, long travel of length 9.20m with and including required crane track rail, Speed of main hoist - 3mtr/min, Main Creep Speed - 0.3m/min, Long Creep Speed - 1m/min, Speed of long travel - 10mtr/min, All micro speed will be 1/10 of main speed by all motions, DSL system with PVC sheated copper bus bar for 3 Phase & neutral with earth bus system with locking system & VVF Drive system, push button system, radio remote controlling systems, all safety provisions and audio visual alarm system to all motions, single phase preventer, over load relay, safety siren/over load alarm with and including connection upto DB with suitable cable from panel board to crane and conduit as per site requirement, additional push button system with interlocking wiring with and including all connected accessories like rope drum, steel wire rope, sheaves, pulleys, hydraulic brake, single phase preventer, overload relay, SFU, air brake contactor, main hoist motor, micro hoist motor, long & cross travel motor, lift hook, service platform, walkway with railing, safety latch, load indicator, catwalk along length of crane, ladders, buffers, hooks & clamps on wall etc., complete all as specified and as directed. Note: Span and Long travel may vary slightly as per site condition.	item110	1.00	Each Job	0.00		0.00	INR Zero Only

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273.0	M&L for Design, Manufacture, supply, testing and commissioning of electrically operated, double girder EOT crane as per IS -807 & IS -3177 with span 13.50m (Apx) having 5/1Ton capacity (Main hook of 5Ton Capacity & Auxiliary hook of 1 Ton Capacity) and lifting hook ht 8.0mtrs from floor level, long travel of length 50.0m with and including required crane track rail, Speed of main hoist - 3mtr/min, Main Creep Speed - 0.3m/min, Long Creep Speed - 1m/min, Speed of long travel - 10mtr/min, All micro speed will be 1/10 of main speed by all motions, DSL system with PVC sheated copper bus bar for 3 Phase & neutral with earth bus system with locking system & VVF Drive system, push button system, radio remote controlling systems, all safety provisions and audio visual alarm system to all motions, single phase preventer, over load relay, safety siren/over load alarm with and including connection upto DB with suitable cable from panel board to crane and conduit as per site requirement, additional push button system with interlocking wiring with and including all connected accessories like rope drum, steel wire rope, sheaves, pulleys, hydraulic brake, single phase preventer, overload relay, SFU, air brake contactor, main hoist motor, micro hoist motor, long & cross travel motor, lift hook, service platform, walkway with railing, safety latch, load indicator, catwalk along length of crane, ladders, buffers, hooks & clamps on wall etc., complete all as specified and as directed. Note: Span and Long travel may vary slightly as per site condition.	item111	1.00	Each	0.00		0.00	INR Zero Only

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274.0	M&L for Design, Manufacture, supply, testing and commissioning of electrically operated, double girder EOT crane as per IS -807 & IS -3177 with span 29.50m (Apx) having 5/1Ton capacity (Main hook of 5Ton Capacity & Auxiliary hook of 1 Ton Capacity) and lifting hook ht 9.0mtrs from floor level, long travel of length 40.0m with and including required crane track rail, Speed of main hoist - 3mtr/min, Main Creep Speed - 0.3m/min, Long Creep Speed - 1m/min, Speed of long travel - 10mtr/min, All micro speed will be 1/10 of main speed by all motions, DSL system with PVC sheated copper bus bar for 3 Phase & neutral with earth bus system with locking system & VVF Drive system, push button system, radio remote controlling systems, all safety provisions and audio visual alarm system to all motions, single phase preventer, over load relay, safety siren/over load alarm with and including connection upto DB with suitable cable from panel board to crane and conduit as per site requirement, additional push button system with interlocking wiring with and including all connected accessories like rope drum, steel wire rope, sheaves, pulleys, hydraulic brake, single phase preventer, overload relay, SFU, air brake contactor, main hoist motor, micro hoist motor, long & cross travel motor, lift hook, service platform, walkway with railing, safety latch, load indicator, catwalk along length of crane, ladders, buffers, hooks & clamps on wall etc., complete all as specified and as directed. Note: Span and Long travel may vary slightly as per site condition.	item112	1.00	Running Me	0.00		0.00	INR Zero Only
275.0	Supply, laying, testing and commissioning of FRLSH PVC insulated unsheathed flat copper conductor cable of size 3.0 core x 6.0Sqmm, 1100 volts grade and including cable glands, ferrules and connected accessories, multi stranded 1100 Volt grade confirming to IS 694: 1977, complete all as specified and as directed.	item113	120.00	Each	0.00		0.00	INR Zero Only
276.0	S&F Flame proof exhaust fan, steel body, AC single phase, 230Volt, 380mm sweep, heavy duty with blades, frame, louvers, wiremesh with all accessories and necessary PCC work, complete all as specified and as directed.	item114	4.00	Each	0.00		0.00	INR Zero Only
277.0	S&F Air Circulator fan 450mm sweep oscillation type of approved colour and model, with complete accessories (Energy Efficient) including provision of suitable clamp, flexible cable suitable for 230volt, AC 50 HZ, complete all as specified and as directed.	item115	396.00	Each	0.00		0.00	INR Zero Only
278.0	S&F Air Circulator fan 600mm sweep oscillation type of approved colour and model, with complete accessories (Energy Efficient) including provision of suitable clamp, flexible cable suitable for 230volt, AC 50 HZ, complete all as specified and as directed.	item116	177.00	Each	0.00		0.00	INR Zero Only

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279.0	S&F Energy saving, environmentally friendly & robust High bay light LED 80 Watt energy efficient, P.F>0.95, >100 lum/watt, with and including LED light driver holder connecting with three core flexible copper conductor cable of suitable size, complete all as directed by Engr-in-charge. Make: Cat No. LHELAAU7PG7S080 of Havells or Equivalent in makes given here-in-after.	item117	250.00	Each	0.00		0.00	INR Zero Only
280.0	S&F Energy saving, environmentally friendly & robust High bay light LED 50 Watt energy efficient, P.F>0.95, >100 lum/watt, with and including LED light driver holder connecting of with three core flexible copper conductor cable of suitable size, complete all as directed by Engr-in-charge. Make: Cat No. LHELAAU7PG7S050 of Havells or Equivalent in makes given here-in-after.	item118	208.00	Each	0.00		0.00	INR Zero Only
281.0	S&F Cast Iron Air release valve suitable for 150mm bore, flanged of class PN 1.6, rubber lined, including brass spindle and necessary fixing arrangement like rubber gasket etc., complete all as specified and as directed.	item119	6.00	Each	0.00		0.00	INR Zero Only
282.0	S&F Cast Iron Air release valve suitable for 50mm bore, flanged of class PN 1.6, rubber lined, including brass spindle and necessary fixing arrangement like rubber gasket etc., complete all as specified and as directed.	item120	2.00	Each	0.00		0.00	INR Zero Only
283.0	Supply, Installation, Testing & Commissioning of Imported Variable Refrigerant Flow air cooled Outdoor Unit of rated capacity 20HP at AHRI conditions and work even at 50 Deg C ambient temperature without tripping, 400 V+/-10% 3 phase, 50 Hz AC power supply, suitable for cooling and heating, having all hermetically sealed inverter type Scroll / Twin rotary compressor(s), minimum 2 compressors, microprocessor based controller, top discharge type condensing units with R410A refrigerant, vibration isolators with suitable foundation and fixed with suitable MS fabricated heavy duty frame etc., with powerful BLDC fan motor that allows to extend the external static pressure 110 Pa of Outdoor unit, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Carrier/Toshiba/Mitsubishi Electric	item121	23.00	Each	0.00		0.00	INR Zero Only
284.0	Supply, Installation, testing & commissioning of Wall mounted type indoor unit of 0.80HP capacity complete with coil, filter, air conditioner with evaporating unit comprising of cooling coil, blower with motor, Corded/ Cordless Remote Control, 230 Volt, Single Phase, 50 Hz AC supply with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Carrier / Toshiba / Mitsubishi Electric	item122	15.00	Each	0.00		0.00	INR Zero Only
285.0	Description all as per Serial Item No. 122 here in before but for 1.0HP capacity, complete all as specified.	item123	64.00	Each	0.00		0.00	INR Zero Only

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286.0	Description all as per Serial Item No. 122 here in before but for 1.3HP capacity, complete all as specified.	item124	65.00	Each	0.00		0.00	INR Zero Only
287.0	Description all as per Serial Item No. 122 here in before but for 1.6HP capacity, complete all as specified.	item125	38.00	Each	0.00		0.00	INR Zero Only
288.0	Description all as per Serial Item No. 122 here in before but for 2.0HP capacity, complete all as specified.	item126	27.00	Each	0.00		0.00	INR Zero Only
289.0	Description all as per Serial Item No. 122 here in before but for 2.5HP capacity, complete all as specified.	item127	11.00	Each	0.00		0.00	INR Zero Only
290.0	Supply, Installation, testing & commissioning of 4-way flow VRV/VRF Cassette type Indoor ceiling mounted unit of capacity 2.0HP with synthetic washable media pre-filter, fan section with low noise fan/dynamically balanced blower, multispeed motor, coil section with DX copper coil, electronic expansion valve, outer cabinet, drain pump grill, necessary supports, vibration isolation, corded/Cordless remote control, suitable for operation on 230Volt, 50Hz AC supply, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Carrier / Toshiba / Mitsubishi Electric	item128	1.00	Each	0.00		0.00	INR Zero Only
291.0	Description all as per Serial Item No. 128 here in before but for 2.5HP capacity, complete all as specified.	item129	1.00	Each	0.00		0.00	INR Zero Only
292.0	Description all as per Serial Item No. 128 here in before but for 3.2HP capacity, complete all as specified.	item130	4.00	Each	0.00		0.00	INR Zero Only
293.0	Description all as per Serial Item No. 128 here in before but for 4.0HP capacity, complete all as specified.	item131	5.00	Each	0.00		0.00	INR Zero Only
294.0	Description all as per Serial Item No. 128 here in before but for 5.0HP capacity, complete all as specified.	item132	15.00	Each	0.00		0.00	INR Zero Only
295.0	Supply, Installation, testing & commissioning of 8 TR capacity TFA Type Indoor Floor mounted or Ceiling Suspended type unit with synthetic washable media pre-filter, fan section with low noise fan / dynamically balanced blower, multi speed motor, coil section with DX copper coil, electronic expansion valve, outer cabinet, drain pump grill, necessary supports, vibration isolation, corded/Cordless remote control, suitable for operation on 230Volt, 50Hz AC supply, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Carrier / Toshiba / Mitsubishi Electric	item133	2.00	Each	0.00		0.00	INR Zero Only
296.0	S&F refrigerant 'Y' joint / Branch distributors with nitrile rubber insulation, necessary supports etc., with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Carrier / Toshiba / Mitsubishi Electric	item134	245.00	Each	0.00		0.00	INR Zero Only

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297.0	Supply, Installation, testing & commissioning of Touch type centralized controller, suitable for controlling all indoor units, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Carrier / Toshiba / Mitsubishi Electric	item135	2.00	Each Set	0.00		0.00	INR Zero Only
298.0	Supply, Installation, testing & commissioning of soft/hard drawn copper refrigerant pipe 6.5mm outer dia with 13mm thick insulation for F/VRV system with all fittings, adjustable ring type hanger supports, ng/brazing, accessories insulated with XLPE Class 'O' tubular insulation/with Class O closed cell elastomeric nitrile rubber tubular sleeves sections of specified thickness for Suction and Liquid lines, including vaccumiazation and Nitrogen testing with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Totaline/Met Tube/Rajco	item136	720.00	Running Me	0.00		0.00	INR Zero Only
299.0	Description all as per Serial Item No. 136 here in before but for 9.5mm outer dia pipe with 13mm thick insulation, complete all as specified.	item137	140.00	Running Me	0.00		0.00	INR Zero Only
300.0	Description all as per Serial Item No. 136 here in before but for 12.7mm outer dia pipe with 13mm thick insulation, complete all as specified.	item138	980.00	Running Me	0.00		0.00	INR Zero Only
301.0	Description all as per Serial Item No. 136 here in before but for 15.86mm outer dia pipe with 13mm thick insulation, complete all as specified.	item139	700.00	Running Me	0.00		0.00	INR Zero Only
302.0	Description all as per Serial Item No. 136 here in before but for 19.0mm outer dia pipe with 13mm/19mm thick insulation, complete all as specified.	item140	120.00	Running Me	0.00		0.00	INR Zero Only
303.0	Description all as per Serial Item No. 136 here in before but for 22.20mm outer dia hard drawn pipe with 19mm thick insulation, complete all as specified.	item141	720.00	Running Me	0.00		0.00	INR Zero Only
304.0	Description all as per Serial Item No. 136 here in before but for 28.58mm outer dia hard drawn pipe with 19mm thick insulation, complete all as specified.	item142	230.00	Running Me	0.00		0.00	INR Zero Only
305.0	Description all as per Serial Item No. 136 here in before but for 31.80mm outer dia hard drawn pipe with 19mm thick insulation, complete all as specified.	item143	25.00	Running Me	0.00		0.00	INR Zero Only
306.0	Supply, Installation, testing & commissioning of rigid uPVC drain pipe 25mm dia with 6mm thick closed cell nitrile rubber insulation with all fittings, supports and all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item144	2094.00	Running Me	0.00		0.00	INR Zero Only

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307.0	S&F rigid uPVC pipe 32mm dia with 6mm thick closed cell nitrile rubber insulation with all fittings, supports and all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item145	1000.00	Running Me	0.00		0.00	INR Zero Only
308.0	S&F rigid uPVC pipe 150mm dia with 6mm thick closed cell nitrile rubber insulation with all fittings, supports and all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item146	120.00	Running Me	0.00		0.00	INR Zero Only
309.0	Supply, Installation, testing & commissioning of Site fabricated GSS sheet 0.63mm thick rectangular ducting with neoprene rubber gaskets, elbows, splitter dampers, vanes, hangers with all fittings, supports and all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Tata/Jindal/Sail	item147	220.00	Square Metr	0.00		0.00	INR Zero Only
310.0	Supply, Installation, testing & commissioning of 13mm thick duct insulation with factory laminated aluminium foil finish closed cell Nitrile rubber (Class O) insulation on duct with and including applying suitable adhesive for Nitrile rubber, sealing the joints of size 50mm wide & 3mm thick with self adhesive nitrile rubber insulation, with all fittings, supports and all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Supreme/A Flex/K FLEX	item148	220.00	Square Metr	0.00		0.00	INR Zero Only
311.0	Supply, Installation, testing & commissioning of acoustic lining 25mm thick of duct with bonded fiber glass wool of density 24Kg/Cum covered with RP tissue paper, fixed with roofing nut&bolt, thermal conductivity of the insulation material shall not exceed 0.047 W/moK at an average temperature of 20 Deg C, complete with all fittings, supports and all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item149	60.00	Square Metr	0.00		0.00	INR Zero Only
312.0	S&F Aluminium Grilles / Diffuser with powder coated extruded aluminium sections, complete all as specified and as directed by Engineer-in-Charge. Make: Tristar/Airflow/Ravistar	item150	90.00	Each	0.00		0.00	INR Zero Only
313.0	S&F Hot dip Galvanised Perforated cable tray of size 150mm x 50mm x 1.60mm with cover with bends, tees, cross members and other all accessories for fixing refrigerant pipes at various places with necessary bends, angles, supports for fixing including painting etc., complete all as specified and as directed.	item151	100.00	Running Me	0.00		0.00	INR Zero Only
314.0	S&F Hot dip Galvanised Perforated cable tray of size 300mm x 50mm x 1.60mm with cover with bends, tees, cross members and other all accessories for fixing refrigerant pipes at various places with necessary bends, angles, supports for fixing including painting etc., complete all as specified and as directed.	item152	60.00	Running Me	0.00		0.00	INR Zero Only

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315.0	S&F Exhaust / Fresh air fan 100CFM, 10mm Sp Inline with necessary fittings & supports for fixing, complete all as specified and as directed. Make: Kruger / System Air	item153	19.00	Each	0.00		0.00	INR Zero Only
316.0	S&F Exhaust / Fresh air fan 200CFM, 10mm Sp Inline with necessary fittings & supports for fixing, complete all as specified and as directed.	item154	4.00	Each	0.00		0.00	INR Zero Only
317.0	S&F Exhaust / Fresh air fan 300CFM, 10mm Sp Inline with necessary fittings & supports for fixing, complete all as specified and as directed.	item155	6.00	Each	0.00		0.00	INR Zero Only
318.0	S&F Exhaust / Fresh air fan 400CFM, 10mm Sp Inline with necessary fittings & supports for fixing, complete all as specified and as directed.	item156	3.00	Each	0.00		0.00	INR Zero Only
319.0	S&F Exhaust / Fresh air fan 500CFM, 10mm Sp Inline with necessary fittings & supports for fixing, complete all as specified and as directed.	item157	1.00	Each	0.00		0.00	INR Zero Only
320.0	Supply and filling Refrigerant gas R-410 for top up as per site requirement, complete all as specified and as directed.	item158	374.00	Kilogram	0.00		0.00	INR Zero Only
321.0	Supply, Installation, testing & commissioning of 2MP Turret camera with 1/2.8-inch CMOS, Effective pixels 1920 (H) x 1080 (V), 30fps, Sensitivity (Measured according to IEC 62676 Part 5 (1/30, F1.6 or F2.2) - 0.1 lx (color), 0.02 lx (mono), 120 dB Wide Dynamic range, Electronic Day/Night, Automatic Electronic Shutter (AES), H.265, H.264, M-JPEG Video compression, Rule based alarms and tracking, Line crossing, Enter / leave field, Follow route, Loitering, Idle / removed object, People counting, Crowd density estimation, 3D tracking based on Duration, Size, Aspect ratio v/h, Speed, Direction, Color, Object classes (Upright persons, Bikes, Cars, Trucks), White balance, Backlight Compensation, Privacy Mask, Motion detection, 2.3 mm fixed lens, Built-in mic, MicroSD card slot for edge recording, Motion, tamper and audio detection, FTP, Dropbox and e-mail applications, IP42, IK42, 15m IR range, ONVIF Profile S, G & T, PoE, CE, FCC, WEEE, RCM, UL certified. SD card support up to 2TB, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item159	12.00	Each	0.00		0.00	INR Zero Only

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322.0	Supply, Installation, testing & commissioning of 1080p Outdoor Dome camera with 1/2.8-inch CMOS, Effective pixels 1920 x 1080 (2MP), 30fps, Sensitivity – (Measured according to IEC 62676 Part 5 (1/30, F1.6) Color 0.06 lx Mono 0.02 lx With IR 0.0 lx, 120 dB Dynamic range, Electronic Day/Night, Automatic Electronic Shutter (AES), H.265, H.264 MP (Main Profile); M-JPEG Video compression, White balance, Backlight Compensation, Privacy Mask, Rule based alarms and tracking, Line crossing, Enter /leave field, Follow route, Loitering, Idle / removed object, People counting, Crowd density estimation, 3D tracking based on Duration, Size, Aspect ratio v/h, Speed, Direction, Color, Object classes (Upright persons, Bikes, Cars, Trucks), 3.2 to 10 mm Automatic Varifocal (AVF) lens, MicroSD card slot for edge recording, Motion, tamper and audio detection, FTP, IR range upto 30mtrs Dropbox and e-mail applications, 3 axis adjustment, ONVIF Profile S & G & T, PoE, IP66, IK10, CE, FCC, UL certified. SD card support up to 2TB, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item160	47.00	Each	0.00		0.00	INR Zero Only
323.0	Supply, Installation, testing & commissioning of Recording Server with 32 channels, IP Camera Input -NVR 32 cameras simultaneous live, record, playback extraction and remote access front, mouse or remotely operated, video compression format-H.265, H.264 and MJPEG, Resolution IP Camera: -12MP, 8MP, 6MP, 5MP, 3MP, 1.3MP, 1080p, 720p. Internal Storage -32 Channel : with 4 SATA slots supporting upto 24 TB Storage , RAID 1,5, Bit Rates : -32- channel NVRs: from 16 kbps to 24 Mbps per channel or better. Interface Ports:-1 USB Ports port for mouse & 1 USB for Memory device and 1 RS232 and 2 RJ- 45. Monitor output: -1VGA and 2HDMI (maximum resolution : 1080P), with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item161	9.00	Each	0.00		0.00	INR Zero Only
324.0	Supply, Installation, testing & commissioning of 6TB capacity HDD hard disk, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item162	6.00	Each	0.00		0.00	INR Zero Only
325.0	Supply, Installation, testing & commissioning of 9U rack for switch Mounting with Fan and power Strip, PDU, Hardware Mounting Kit, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item163	1.00	Each	0.00		0.00	INR Zero Only

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326.0	Supply, Installation, testing & commissioning of 24 ports Giga managed switch with 10/100/1000 with 4X1G SFP port, switch should support Priority queues Eight hardware-based queues per port for flexible QoS management and Traffic prioritization: Flow-based QoS with internal and external (remarking) prioritization. Switch should support VLAN Up to 1000 multicast groups, IP Multicast VLAN (IPMVLAN) supported 386. The switch should be POE+ with minimum power budget of 370W or higher. Switch should support protocols like SNMP 1, RMON 1, RMON 2, RMON 3, RMON 9, Telnet, SNMP 3, SNMP 2c, HTTP, HTTPS, TFTP, SSH, CLI. Switch should capable to advanced layer-2+ features with basic layer-3 routing for both IPv4 and IPv6. The Switch should provide Non-Blocking switch fabric capacity of 56 Gbps or more, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item164	1.00	Each	0.00		0.00	INR Zero Only
327.0	Supply, Installation, testing & commissioning of 12U rack for switch Mounting with Fan and power Strip, PDU, Hardware Mounting Kit, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item165	8.00	Each	0.00		0.00	INR Zero Only
328.0	Supply, Installation, testing & commissioning of 55" LCD panel with 3840 X 2160 resolution or better, USB playback, 2 X HDMI 2.0, 350 nits or better, should have 178 degrees viewing angle complete with mounting, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item166	5.00	Each	0.00		0.00	INR Zero Only
329.0	Supply, Installation, testing & commissioning of UTP Cat 6 cable, compliance with Cat 6 requirements of ISO/IEC 11801, EN 50173, EN 50168 and EIA/TIA 568.C.2, stranded bare copper, unshielded, with mounting, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item167	4.00	Running Me	0.00		0.00	INR Zero Only
330.0	Supply, Installation, testing & commissioning of 24-port 19" 1 U jack panel made of sheet steel 1.5mm thick, straight Patch Panel, 24-port, integral cable management Metal shelf, shielded as well as unshielded jacks with rear cable management shelf metallic powder coated, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item168	1.00	Each	0.00		0.00	INR Zero Only

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331.0	Supply, Installation, testing & commissioning of UTP Cat 6 cable, transmission frequency 250MHz, 4 pair, jacket FR PVC cable Lbp 69% required with certification report with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item169	2.00	Running Me	0.00		0.00	INR Zero Only
332.0	Supply, Installation, testing & commissioning of UTP field termination connector IP20 connection type, toolless insulation, UL listed, complete all as specified and as directed by Engineer-in-Charge.	item170	5.00	Each	0.00		0.00	INR Zero Only
333.0	Supply, Installation, testing & commissioning of Hygienic Barrier, High Spin Free Standing Washer Extractor of 28 Kg Capacity, Electric Heated with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Model FBW 28 of Fabcare or Equivalent as specified here in after.	item171	2.00	Each	0.00		0.00	INR Zero Only
334.0	Supply, Installation, testing & commissioning of Hygienic Barrier, High Spin Free Standing Washer Extractor of 18 Kg Capacity, Electric Heated with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Model FBW 18 of Fabcare or Equivalent as specified here in after.	item172	1.00	Each	0.00		0.00	INR Zero Only
335.0	Supply, Installation, testing & commissioning of Drying tumbler machine of 30 Kg Capacity per charge, Electric Heated, front loading type, stainless steel inner basket, fully die pressed door with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Model HSN Code 8451 of Fabcare or Equivalent as specified here in after.	item173	2.00	Each	0.00		0.00	INR Zero Only
336.0	Supply, Installation, testing & commissioning of Flat Work Ironer Machine of single Roller of size 14" dia X 72" length, Chest Heated, Electric heated with air suspended ironing chest, without air compressor with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Model HSN Code 8451 of Fabcare or Equivalent as specified here in after.	item174	1.00	Each	0.00		0.00	INR Zero Only
337.0	Supply, Installation, testing & commissioning of Vacuum Steam Ironing Machine of size 4' X 2.5' with steam iron and fittings, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Model HSN Code 8451 of Fabcare or Equivalent as specified here in after.	item175	2.00	Each	0.00		0.00	INR Zero Only

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338.0	Supply, Installation, testing & commissioning of Electric Boiler of capacity 08Kw, fully automatic, with and including water analysis report for water softener with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Model HSN Code 8402 of Fabcare or Equivalent as specified here in after.	item176	1.00	Each	0.00		0.00	INR Zero Only
339.0	Supply, Installation, testing & commissioning of Air Compressor of capacity 3HP with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Model HSN Code 8414 of Fabcare or Equivalent as specified here in after.	item177	1.00	Each	0.00		0.00	INR Zero Only
340.0	Supply, Installation, testing & commissioning of General Utility press, Electric heated, pneumatic operated without air compressor with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Model HSN Code 8451 of Fabcare or Equivalent as specified here in after.	item178	1.00	Each	0.00		0.00	INR Zero Only
341.0	Supply, Installation, testing & commissioning of Wet Linen Trolley SS body of 50Kg capacity with stainless steel handles and revolving wheels with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Model WRT 50 of Fabcare or Equivalent as specified here in after.	item179	2.00	Each	0.00		0.00	INR Zero Only
342.0	Supply, Installation, testing & commissioning of Dry Linen Trolley Plastic body of 50Kg capacity with stainless steel handles and revolving wheels with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Model TRW 50 of Fabcare or Equivalent as specified here in after.	item180	2.00	Each	0.00		0.00	INR Zero Only
343.0	Supply, Installation, testing & commissioning of Shelf Trolley with shelves and revolving wheels with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: SRT 100 of Fabcare or Equivalent as specified here in after.	item181	2.00	Each	0.00		0.00	INR Zero Only
344.0	Supply, Installation, testing & commissioning of Mobile Table of size 2.50' x 10' with SS top & Shelf and revolving wheels with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Model MT230 of Fabcare or Equivalent as specified here in after.	item182	1.00	Each	0.00		0.00	INR Zero Only

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345.0	Supply, Installation, testing & commissioning of Single Sink stainless steel with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Model FSS of Fabcare or Equivalent as specified here in after.	item183	1.00	Each	0.00		0.00	INR Zero Only
346.0	Supply, Installation, testing & commissioning of Medical Air Compressor unit of 4 Nos (in quadraplex system as per HTM/NFPA) non lubricated reciprocating air cooled air compressors with 60 CFM refrigerant type air drier with Prefilter, After filter, 15HP TEFC cage motors, drive package, suction air filters, starter, mounting base frame complete with Air cooled after cooler, Pressure Reducing Station, with auto cutoff system according to the preset pressures for the lower and upper limit with and including necessary controls like pressure switches, relief valves and air receiver for the above compressors with a storage volume of 3000 ltrs at NTP conditions, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Ingersoll Rand / Anestiwata / Hitachi / Kirloskar	item184	1.00	Each Set	0.00		0.00	INR Zero Only
347.0	Supply, Installation, testing & commissioning of Duplex three stage breathing air filtration system with by pass pipe line system & isolation valves, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item185	1.00	Each Set	0.00		0.00	INR Zero Only
348.0	Supply, Installation, testing & commissioning of Triplex MEDICAL VACUUM SYSTEM, consist of Reciprocating Vacuum pumps of suitable capacity with and including civil foundation & electrical wiring from Pump to electrical panel and non return valve complete, vacuum pump, motor and associated accessories as required shall be supplied as a package by the manufacturer, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item186	1.00	Each Set	0.00		0.00	INR Zero Only
349.0	Supply, Installation, testing & commissioning of Duplex Bacterial filter vacuum system with by pass pipe line system & isolation valves, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item187	1.00	Each Set	0.00		0.00	INR Zero Only
350.0	Supply, Installation, testing & commissioning of Oxygen Manifold comprising of 2x10 oxygen cylinders in the main manifold and 2x4 cylinders in the emergency manifold with piston type heavy duty high flow oxygen regulator, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item188	1.00	Each Set	0.00		0.00	INR Zero Only

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351.0	Supply, Installation, testing & commissioning of Imported CE Marked compliance with HTM or NFPA Oxygen Change-Over Reduction Box (Automatic Control Panel) of Digital fully Automatic type, capable of switching from "Bank in Use" to "Reserve Bank" without fluctuation in delivery line pressure and without the need for external electrical power, rated for min. 175 QMH at 400 kPA, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item189	1.00	Each	0.00		0.00	INR Zero Only
352.0	Supply, Installation, testing & commissioning of Nitrous Oxide Manifold comprising of 2 x 3 N2O cylinder in the main manifold with 2 cylinders in the Emergency manifold, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item190	1.00	Each Set	0.00		0.00	INR Zero Only
353.0	Supply, Installation, testing & commissioning of Imported CE marked Nitrous Oxide Change-Over Reduction Box (Automatic Control Panel conforming to HTM/ NFPA) of Digital fully Automatic type, capable of switching from "Bank in Use" to "Reserve Bank" without fluctuation in delivery line pressure and without the need for external electrical power, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item191	1.00	Each	0.00		0.00	INR Zero Only
354.0	Supply, Installation, testing & commissioning of AGSS System consisting of Duplex, Skid Mounted AGSS Pumps with Remote Switches - AGSS Simplex Start Switch, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item192	1.00	Each Set	0.00		0.00	INR Zero Only
355.0	Supply, Installation, testing & commissioning of Plant / Master Gas Alarm system, Imported, CE marked (with CE Number) Master Gas Alarm for 4-gases conforming to HTM/NFPA, panel shall be able to test Short Circuit Fault, Open Circuit Fault, Source Equipment Fault and include the a) Duall Circuit LED Indicators. b) Test facility to check LED c) Test facility to check LED Integrity, equipped with Micro-procesor based alarm, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item193	1.00	Each	0.00		0.00	INR Zero Only
356.0	Supply, Installation, testing & commissioning of Solid drawn copper pipe of 12mm outer dia x 0.60mm thick, manufactured as per BS 2871-EN 13348 / ASTM B819 duly certified by third party inspection agency, including necessary fittings, pipe supports, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item194	430.00	Running Me	0.00		0.00	INR Zero Only

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357.0	Description all as per Serial Item No. 194 here in before but for 15mm outer dia x 0.90mm thick, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item195	880.00	Running Me	0.00		0.00	INR Zero Only
358.0	Description all as per Serial Item No. 194 here in before but for 22mm outer dia x 0.90mm thick, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item196	1000.00	Running Me	0.00		0.00	INR Zero Only
359.0	Description all as per Serial Item No. 194 here in before but for 28mm outer dia x 0.90mm thick, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item197	540.00	Running Me	0.00		0.00	INR Zero Only
360.0	Description all as per Serial Item No. 194 here in before but for 42mm outer dia x 1.20mm thick, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item198	80.00	Running Me	0.00		0.00	INR Zero Only
361.0	Description all as per Serial Item No. 194 here in before but for 54mm outer dia x 1.20mm thick, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item199	60.00	Running Me	0.00		0.00	INR Zero Only
362.0	Description all as per Serial Item No. 194 here in before but for 76mm outer dia x 2.01mm thick, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item200	60.00	Running Me	0.00		0.00	INR Zero Only
363.0	Supply, Installation, testing & commissioning of Imported type 5 Gas Service unit, lockable Area Valve type with integrated alarm system, pressure alarm facility, LED digital display, audio visual feature, emergency feed facility in case of shutdown for intrepred supply, SS sheet construction, CE certified/UL Listed with relevant notified no. on it as required, entry/ exist of gases from upward direction, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item201	7.00	Each	0.00		0.00	INR Zero Only
364.0	Description all as per Serial Item No. 201 here in before but for 4 Gas Service Unit, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item202	1.00	Each	0.00		0.00	INR Zero Only
365.0	Description all as per Serial Item No. 201 here in before but for 3 Gas Service Unit, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item203	3.00	Each	0.00		0.00	INR Zero Only

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366.0	Description all as per Serial Item No. 201 here in before but for 2 Gas Service Unit, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item204	9.00	Each	0.00		0.00	INR Zero Only
367.0	Supply, Installation, testing & commissioning of Isolation Ball Valve suitable for 12mm dia pipe, complete with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item205	32.00	Each	0.00		0.00	INR Zero Only
368.0	Description all as per Serial Item No. 205 here in before but for 15mm dia, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item206	11.00	Each	0.00		0.00	INR Zero Only
369.0	Description all as per Serial Item No. 205 here in before but for 22mm dia, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item207	9.00	Each	0.00		0.00	INR Zero Only
370.0	Description all as per Serial Item No. 205 here in before but for 28mm dia, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item208	12.00	Each	0.00		0.00	INR Zero Only
371.0	Description all as per Serial Item No. 205 here in before but for 42mm dia, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item209	12.00	Each	0.00		0.00	INR Zero Only
372.0	Description all as per Serial Item No. 205 here in before but for 54mm dia, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item210	4.00	Each	0.00		0.00	INR Zero Only
373.0	Description all as per Serial Item No. 205 here in before but for 76mm dia, with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item211	2.00	Each	0.00		0.00	INR Zero Only
374.0	Supply, Installation, testing & commissioning of Oxygen Gas Outlet (Imported) as per latest standards with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item212	120.00	Each	0.00		0.00	INR Zero Only
375.0	Supply, Installation, testing & commissioning of Nitrous Gas Outlet (Imported) as per latest standards with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item213	20.00	Each	0.00		0.00	INR Zero Only
376.0	Supply, Installation, testing & commissioning of Compressed Air Outlet (4 Bar) (Imported) as per latest standards with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item214	20.00	Each	0.00		0.00	INR Zero Only
377.0	Supply, Installation, testing & commissioning of Compressed Air Outlet (7 Bar) (Imported) as per latest standards with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item215	7.00	Each	0.00		0.00	INR Zero Only

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378.0	Supply, Installation, testing & commissioning of Vacuum Outlet (Imported) as per latest standards with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item216	30.00	Each	0.00		0.00	INR Zero Only
379.0	Supply, Installation, testing & commissioning of AGSS Outlet (Imported) as per latest standards with all accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item217	7.00	Each	0.00		0.00	INR Zero Only
380.0	Supply, Installation, testing & commissioning of Electrical Control panel equipped with duplex & cascade system for air compressor and vacuum pump system, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item218	1.00	Each Job	0.00		0.00	INR Zero Only
381.0	Supply, Installation, testing & commissioning of Back pressure Compensated Oxygen flowmeters with a range of 0 - 15 LPM, brass body, chromium plated, clear & impact resistant polycarbonate flow tube, humidifiers bottles of breakable polycarbonate and autoclavable at 121 Deg C with suitable outlets, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item219	40.00	Each	0.00		0.00	INR Zero Only
382.0	Supply, Installation, testing & commissioning of Ward Vacuum Units with unbreakable collection jars of capacity 600 ml made of unbreakable polycarbonate, autoclavable at 121 Deg C, with regulators, vacuum gauge to indicate the suction supplied to the unit, bracket for wall mounting, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item220	40.00	Each	0.00		0.00	INR Zero Only
383.0	Supply, Installation, testing & commissioning of Theatre Vacuum Units on mobile trolleys with twin 2000ml unbreakable bottles made of polycarbonate, autoclavable at 121 Deg C with a regulator with instant ON/OFF switch and three way selection to use the left, right or both the bottles with trolley with castor wheels, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item221	8.00	Each	0.00		0.00	INR Zero Only
384.0	S&F antistatic HP tubing (min 5m) for oxygen conversion kit, of approved color coding with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item222	7.00	Each	0.00		0.00	INR Zero Only
385.0	S&F antistatic HP tubing (min 5m) for Nitrous oxide conversion kit, of approved color coding with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item223	7.00	Each	0.00		0.00	INR Zero Only

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386.0	S&F antistatic HP tubing (min 5m) for Medical Air conversion kit, of approved color coding with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item224	7.00	Each	0.00		0.00	INR Zero Only
387.0	S&F antistatic HP tubing (min 5m) for Vacuum conversion kit, of approved color coding with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item225	8.00	Each	0.00		0.00	INR Zero Only
388.0	Supply, Installation, testing & commissioning of Bed Head Wall Panel with wiring & piping connections, fabricated out of high strength extruded powder coated aluminum sections with inbuilt single railing, with facility to accommodate Max 5Nos of Gas outlets, 5/15Amp multi pin switch & socket outlet - 4 Nos, 1 No Nurse call switch panel with wired remote, 1No arm lamp 60W with adaptor, 1no Infusion pump rail mount pole with adaptor, 1No IV tree rail mount with adaptor and holder for vacuum collection jar, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item226	40.00	Each	0.00		0.00	INR Zero Only
389.0	Supply, Installation, testing & commissioning of Pre Fabricated Modular Operation Theatre Wall Panel & Ceiling panel with 1.5mm thick Stainless steel sheet of SS304 grade, backed with 12mm thick gypsum board, fixed with proper supports, with and including filling of all joints & cavities with epoxy filler, sanded flush for seamless finish and applying three coats of antibacterial & antifungal paint over a coat of primer to equivalent to a dry film thickness of 300 microns, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item227	187.00	Square Metr	0.00		0.00	INR Zero Only
390.0	Supply, Installation, testing & commissioning of automatically Operated hermetically sealed sliding door of size 1500mm x 2100mm with glass vision window of 300mm x 300mm along with all required accessories of approved colour, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item228	2.00	Each	0.00		0.00	INR Zero Only

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391.0	Supply, Installation, testing & commissioning of Laminar airflow ceiling system of size 2400mm x 2400mm with unidirectional airflow with "S" class HEPA filter with an efficiency 99.97% down to 0.3 micron, holding structure & top plenum are made up of Aluminum sheet of 1.6mm thick, sealed with gasket conforming to DIN 4799 standards for the air distribution system, 2 layer diffuser with monofilament precision woven polyester of uniform porosity with an open area of sufficient resistance to create laminar from diffusers face and integral lighting provides an illumination level in excess of 15000 Lux in operating area and 10000 Lux other with flicker less digitally controlled step less dimming down to 5%, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item229	2.00	Each	0.00		0.00	INR Zero Only
392.0	Supply, Installation, testing & commissioning of Electrical wiring within the OT Area, conduit pipes and electrical switch & Socket with Electrical Distribution board for Operating room with MCB's and Relay cards, with ISI marked copper wire of suitable size, complete all as specified.	item230	2.00	Each Lot	0.00		0.00	INR Zero Only
393.0	S&F Peripheral LED light fitting 2x36Watts, 230 volts, >100lum/W, with recess mounted complete with IP 54 protection with LED lamp, driver, bracket with digitally controlled ballast, complete all as specified.	item231	16.00	Each	0.00		0.00	INR Zero Only
394.0	S&F Scrub sink 2-Bay, made out of SS 304 graded brushed finished stainless steel, with photo electric sensors, 1 No. Mixture valve, 2 Nos. solenoid valves with Foot operated switch, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item232	2.00	Each	0.00		0.00	INR Zero Only
395.0	S&F Scrub sink 1-Bay, made out of SS 304 graded brushed finished stainless steel, with photo electric sensors, 1 No. Mixture valve, 2 Nos. solenoid valves with Foot operated switch, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item233	2.00	Each	0.00		0.00	INR Zero Only
396.0	Supply, Installation, testing & commissioning of writing board of size 940mm x 600mm of 1.50mm thick, flush mounted with a sterile jointing system, white ceramic board bonded to 2mm steel sheet for additional rigidity, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item234	2.00	Each	0.00		0.00	INR Zero Only

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397.0	Supply, Installation, testing & commissioning of X-ray view box, Twin Plate X-Ray viewing screen with flicker free dimming light range from 15 to 100% with complete accessories as required to view the X-ray film, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item235	2.00	Each	0.00		0.00	INR Zero Only
398.0	Supply, Installation, testing & commissioning of Membrane type Operation Theatre Control Panel (6 service Tiles) mounted, flushed in the theatre wall with complete distribution board with all accessories. Following controls / display shall be available:- * 1 no Day Time Digital Clock. * 1 no Elapsed Time Digital Clock. * 1 no Hands Free Telephone system. * Peripheral Light Control * Medical Gas Alarm for 4 gases. *Temperature & Humidity Indicator. * Alaram for Vacum.	item236	2.00	Each	0.00		0.00	INR Zero Only
399.0	Supply, Installation, testing & commissioning of Dirty Hatch box made up of stainless steel sheet of grade 304, having two doors on both side, one door will be opened at one time, indicator on both sides in case of door is open, hatch will be designed in such a way that only one door will be opened at one time, UV light will glow when both the doors are in closed position, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item237	2.00	Each	0.00		0.00	INR Zero Only
400.0	Supply, Installation, testing & commissioning of Imported LED Operating light, ceiling mounted operating room dual Dome Light with 160000 Lux + 110000 Lux and O Colour rendering index CRI > 95 and R9 ≥ 91 to 97, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item238	2.00	Each	0.00		0.00	INR Zero Only
401.0	Supply, Installation, testing & commissioning of Imported single arm ceiling pendent with weight carrying capacity of 100Kg with electrical sockets, one monitor shelf and instrument drawer IV Pole and infusion Pump Rod mount on it, Gas outlets, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item239	4.00	Each	0.00		0.00	INR Zero Only
402.0	Supply, Installation, testing & commissioning of Pressure relief damper made out of 304 graded stainless steel blades with all required accessories, to maintain balanced positive pressure inside OT and prevent air contamination from outside, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item240	2.00	Each	0.00		0.00	INR Zero Only

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403.0	S&F Equipment Storage Unit of size 860mm width x 1660mm height x 350mm depth, made with 1.5mm thick Stainless steel sheet of SS304 grade, fixed with suitable screws in operating theatre, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item241	2.00	Each	0.00		0.00	INR Zero Only
404.0	M&L for Imported 2mm thick Anti static flooring, conductive dissipative, laid on a semi conductive adhesive base resistant to mechanical stress and dynamic load and washable, with and include all required flooring & leveling work for proper sloping of OT floors, finished and sealed with wall to prevent water leakage in flooring at time of wash, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item242	56.00	Square Metr	0.00		0.00	INR Zero Only
405.0	M&L for Curtain Track V RAIL 4100-(including all accessories) strong functional and fully reversible profile confirming to HTM66, synthetic wall and ceiling brackets complying with the European NEN 1010 standards, made of aluminum 606035- T6 –F2. Shape and size tolerance in accordance with DIN 17615. White powder coating color RAL 9010, in accordance with Quali coat standard. Runner/Glider hooks made of nylon 6.6 with SS 304 grade hooks. Profile weight must be 394 g/m. The system is such that if required can be mounted with ANTI-LIGATURE load release components, to provide a controlled system collapse as per NHS guidelines, this can be Installationed by suspension hanger / wall support / ceiling support, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item243	250.00	Running Me	0.00		0.00	INR Zero Only
406.0	M&L for Curtains fabric to comply with many safety protocols it must be stain retardant and has a coating of antimicrobial and fire retardancy effect, must be certified according to international standards, must be certified by Indian Govt approved laboratories. it has to contributes to the reduction of transferring bacteria, help in increasing/improvement of hygienic standards provide greater safety against infection. No need of sterilization after wash. The antibacterial component facilitates in reducing the growth of fungi, moulds and mildew that can develop in any type of an indoor environment. Effective after 100 washes and, it must be Oeko Tex certified, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item244	600.00	Square Metr	0.00		0.00	INR Zero Only

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407.0	M&L for Bag Holder suspend from EZE lock I.V Carriage, Made from Stainless Steel for hygiene, Use with Ultra Cube Track OR with Optitrac to suspend track from hard ceiling for support. Size Open length 41.5" Closed length 27", with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item245	40.00	Each Set	0.00		0.00	INR Zero Only
408.0	M&L for Wall Guards, fixed to brick wall at 900mm center high from finished floor level comprising continuous aluminum rail retainer, 2 impact absorbing strips, end cap and high impact vinyl acrylic snap-on textured surface cover. The wall guard must be 152 mm wide, as specified by the client, must have 2mm thick aluminum retainer, must have 2 mm thick scratch and stain resistance rigid vinyl cover, should be coated with antifungal and antibacterial chemical. the system shall be designed to withstand impact and provides a cushioned surface with its integrated rubberized absorber, making it ideal for areas like high traffic corridors, loading bays and light cargo lifts, the vinyl cover should be fire retardant according to the norms and should have test certificates according to IEC-62321-2008, it must be according to ROHS compliances. The material should bear the ROHS certification from govt approved lab. It must not be having any toxic metals and it should have testing certificate according to IEC-62321-2008. Texture to provide an anti-slip surface, it should have adjustable end cap, corner joint and adaptor plate. aluminum retainer should be in mill finish and fabricated from 6063-T5 alloy, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item246	400.00	Running Me	0.00		0.00	INR Zero Only

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409.0	M&L for Corner Guards, fixed to brick wall at the corner from finished floor level. Adjustable end cap. High impact vinyl acrylic snap-on matt finished, "50mm wide x 10mm thickness x 900mm length. The corner guard must be 50 mm x 50 mm in size with aluminum retainer and rigid vinyl, must have 2mm thick aluminum retainer, must have 2 mm thick scratch and stain resistance rigid vinyl cover, should be coated with antifungal and antibacterial chemical. the system shall be designed to withstand impact. making it ideal for areas like high traffic corridors and corners. the vinyl cover should be fire retardant according to the norms and should have test certificates of that, it must be according to ROHS compliances. The material should be ROHS certification from govt approved lab, texture to provide an anti-slip surface, it should have adjustable end cap, aluminum retainer should be in mill finish and fabricated from 6063-T5 alloy, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item247	150.00	Running Me	0.00		0.00	INR Zero Only
410.0	Supply, Installation, testing & commissioning of Multi- zone paging system, multi-zone matrix audio system should support at least 8 zone announcement/paging, with at least two microphone inputs with phantom power, 4 stereo line level input, control by means of additional control panels for every zone, control on LAN Network and third party control processors, LED indication for every zone, with built-in loudspeaker to listen to audio in any zone, to support 24Volt power connection for emergency powering, with ext mute connection to mute any background PA/BGM in case of fire/emergency, with certification IEC 60065 etc, and all connected accessories as per manufacturers instructions, complete all as specified and as directed. Make: Audac /symetrix / QSC	item248	116.00	Each	0.00		0.00	INR Zero Only
411.0	Supply, Installation, testing & commissioning of Multi- zone paging Microphone, should support at least 8 zone paging, should come with capacitive touch button with LED indication, should have chime tone, should be from the same OEM as multi-zone matrix audio system, should have built-in capability to cascade multiple paging station or by external hardware, should have connection over cat 5 cable, with all accessories as per manufacturers instructions, complete all as specified. Make: Audac /symetrix / QSC	item249	320.00	Each	0.00		0.00	INR Zero Only
412.0	Supply, Installation, testing & commissioning of Music source input with USB, bluetooth and AUX, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Bosch/ Audac/ Ahuja	item250	5.00	Each	0.00		0.00	INR Zero Only

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413.0	S&F 37U equipment rack, with all connected accessories as per manufacturers instructions, complete all as specified and as directed. Make: Comrack/ Valrack/ Netrack	item251	1.00	Each	0.00		0.00	INR Zero Only
414.0	Supply, Installation, testing & commissioning of High Power 3-Way Loudspeaker with 1 x 15" LF & Rotatable Horn, Coverage Pattern: 90° x 50° or better, rotatable waveguide, Frequency Response (±3 dB): 50 Hz – 18k Hz or better, Maximum SPL: 130 dB Peak or better (LF), 139 dB peak or better (MF/HF), Crossover Frequency: 300 Hz and 2.2k Hz, Sensitivity: 96 dB SPL or better (LF); 108 dB SPL or better (MF/HF), Power: 3000 W peak or better (LF); 800 W peak or better (MF/HF); Should have Tri-amp/Bi-amp switchable, High Frequency Driver: 1.5" or better, Mid Frequency Driver: 8" or better. Speaker should have M10 suspension point for mounting, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Martin Audio / Harman / D&B Audio / Bose	item252	2.00	Each	0.00		0.00	INR Zero Only
415.0	Supply, Installation, testing & commissioning of High Power 3-Way Loudspeaker with 1 x 15" LF & Rotatable Horn, Coverage Pattern: 60° x 40° or better, rotatable waveguide, Frequency Response (±3 dB): 50 Hz – 18k Hz or better, Maximum SPL: 130 dB Peak or better (LF), 139 dB peak or better (MF/HF), Crossover Frequency: 300 Hz and 2.3k Hz, Sensitivity: 96 dB SPL or better (LF); 108 dB SPL or better (MF/HF), Power: 3000 W peak or better (LF); 800 W peak or better (MF/HF); Should have Tri-amp/Bi-amp switchable, High Frequency Driver: 1.5" or better, Mid Frequency Driver: 8" or better. Speaker should have M10 suspension point for mounting, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Martin Audio / Harman / D&B Audio / Bose	item253	2.00	Each	0.00		0.00	INR Zero Only
416.0	Supply, Installation, testing & commissioning of High Power Dual 18" Subwoofer, Frequency Response (± 3 dB) : 30 Hz - 1000 Hz or better, Power Rating: 9600 W peak or better, Maximum SPL (1m): 140 dB peak or better, Input Modes: Parallel / Discrete, Nominal Impedance: 4 ohms, Driver : 18" with 4" Voice coil, Grille: Powder coated 14 gauge perforated steel, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Martin Audio / Harman / D&B Audio / Bose	item254	2.00	Each	0.00		0.00	INR Zero Only

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417.0	Supply, Installation, testing & commissioning of 2-Way Loudspeaker with 2 X 6.5" LF Driver, system having Frequency Response: 70 Hz – 18k Hz (±3 dB) or better , Coverage Pattern: 90° x 90° or better, System Sensitivity (1W @ 1m): 92 dB-SPL or better, Maximum SPL: 117 dB or better, Nominal Impedance: 8 Ohms, Power Handling: 700W (peak) or better; with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Martin Audio / Harman / D&B Audio / Bose	item255	8.00	Each	0.00		0.00	INR Zero Only
418.0	S&F Wall monted brackets of OEM, for above loudspeakers, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Martin Audio / Harman / D&B Audio / Bose	item256	8.00	Each	0.00		0.00	INR Zero Only
419.0	Supply, Installation, testing & commissioning of 12" Two-Way Self-Powered Stage Monitor Loudspeaker System, Frequency Range= 46 Hz – 19 kHz Class- D 1500W amplification, SPL = 134 dB peak, Coverage Pattern 90° x 50° nominal, Wi-Fi IOS app control to select the user preset, Crossover Frequency: 1.85 KHZ, User selectable presets for Main or Monitor position, Powder coated Grill, 100V - 240V ~ 50/60 Hz Operation, 2 x Balanced XLR and 2 x unbalanced RCA input, 8-band parametric EQ and up to 50ms of speaker delay, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Martin Audio / Harman / D&B Audio / Bose	item257	4.00	Each	0.00		0.00	INR Zero Only
420.0	Supply, Installation, testing & commissioning of Advanced Feedback Suppression, Stereo or Dual Independent Channel Processing, Max input line level = +20 dBu, A/D Conversion =24-bit, THD+Noise 0.003% , Should have Wizard Setup Function, Should have Full LCD Display, 24 Programmable Filters per Channel, Live and Fixed Filter Modes, 24 LED per Channel Filter Metering, Input Impedance: Balanced 50kΩ, Unbalanced 25kΩ, Frequency Response: 20Hz – 20kHz, +/- 0.5dB, Cross talk input to output: >80 dB, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: JBL / dbx/Behringer	item258	2.00	Each	0.00		0.00	INR Zero Only
421.0	Supply, Installation, testing & commissioning of Stereo Powered Monitor with Studio quality transducers, Frequency Range: 80 Hz - 20 kHz, Amplifier Power : 35 Watts per channel, Maximum SPL Per Pair: 115 dB, Crossover Frequency :4.2 kHz, Transducers : 1 x LF: 135 mm and 1 x HF: 19 mm with wall mount kit (OEM), with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: JBL/Yamaha/Genelec	item259	1.00	Each	0.00		0.00	INR Zero Only

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422.0	Supply, Installation, testing & commissioning of Ultra-Compact Indoor/Outdoor Background/Foreground Speaker Two Way 3" Speaker, 1/2" diaphragm tweeter with fluid cooling, Coverage Angle: (100° to 120°) x (100° to 120°), Frequency Range: 70 Hz to 20 kHz, Nominal Impedance : 8 ohms, Power Rating : 200W Peak, Maximum SPL:109 peak, Should have /70100V Transformer Taps, Enclosure Material : High Impact Polystyrene, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Martin Audio / Harman / D&B Audio / Bose	item260	2.00	Each	0.00		0.00	INR Zero Only
423.0	Supply, Installation, testing & commissioning of Dual Channel Power Amplifier 120W @ 4 ohm/ 8 ohm per channel, "Audio Amplifier with Power Output : 2x120W at 100V/70V and 8/4 ohm", Input Sensitivity: 1.4Vrms for 8-ohms, Input Impedance 20K ohms with RJ45 port, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Martin Audio / Harman / D&B Audio / Bose	item261	1.00	Each	0.00		0.00	INR Zero Only
424.0	Supply, Installation, testing & commissioning of Multichannel Digital Network Based Power Amplifier with Four-channel Audio amplifier, 4 x 1250W at 4 and 8 Ohm, 70Vrms and 100Vrms output on all channels, THD (at full rated power, 20Hz - 20kHz) =0.35%, Cooling Continuously variable speed forced air, Voltage Gain Max level= 34dB, Audio Digital channel bus compatibility up to 8 channel, bridgeable channels, 2 digital audio bus RJ 45 port, 1 Ethernet R 45 port for monitoring and configuration, Should have Limiters , Input/output EQ , Delay ,Matrix Mixer ,Speaker Line impedance Monitoring, Damping Factor (20 Hz to 100 Hz) : >1500, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Martin Audio / Harman / D&B Audio / Bose	item262	2.00	Each	0.00		0.00	INR Zero Only

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425.0	Supply, Installation, testing & commissioning of Multichannel Digital Network Based Power Amplifier with Four-channel Audio amplifier, 4x 600W at 4 and 8 Ohm, 70Vrms and 100Vrms output on all channels, THD (at full rated power, 20Hz - 20kHz) =0.35%, Cooling Continuously variable speed forced air, Voltage Gain Max level= 34dB, Audio Digital channel bus compatibility up to 8 channel, bridgeable channels - even in 100Vrms mode, 2 digital audio bus RJ 45 port, 1 Ethernet R 45 port for monitoring and configuration, Should have Limiters , Input/output EQ , Delay ,Matrix Mixer ,Speaker Line Monitoring, Damping Factor (20 Hz to 100 Hz) : >1000, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Martin Audio / Harman / D&B Audio / Bose	item263	2.00	Each	0.00		0.00	INR Zero Only
426.0	Supply, Installation, testing & commissioning of Multi channel Digital Network Based Power Amplifier with Power output 4 x 2400W @ 4 Ohms / 8 Ohms, 70Vrms and 100Vrms output on all channels, THD (at full rated power, 20Hz - 20kHz) =0.35%, Cooling Continuously variable speed forced air, Voltage Gain Max level= 34dB, Audio Digital channel bus compatibility up to 8 channel, bridgeable channels - even in 100Vrms mode, 2 digital audio bus RJ 45 port, 1 Ethernet R 45 port for monitoring and configuration, Should have Limiters, Input/output EQ, Delay, Matrix Mixer, Speaker Line Monitoring, Damping Factor (20 Hz to 100 Hz) : >5000, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Martin Audio / Harman / D&B Audio / Bose	item264	1.00	Each	0.00		0.00	INR Zero Only
427.0	Supply, Installation, testing & commissioning of 10 x 8 Networked Digital Signal Processor, DSP with 10 inputs and 8 outputs, 12 Control Inputs and 6 Logic Outputs for GPIO Integration, 48V phantom power on all analog inputs, THD: <0.01% 20Hz to 20KHz, +10dBu output, Crosstalk: <-75dB, Open architecture software configurable, Separate logic processing power, 2 digital audio bus RJ 45 Port ,1 Ethernet port for Monitoring and configuration ,Capable to handle +5V unloaded logic output voltage , at-least 6 ,Should have speech sense engine ,Capable to control 3rd party devices with TCP IP and RS 232 ,Should have 1nos of RS 232 port for integration with control System,Should have Bi-Directional Locate Functionality, Should have 48 or more digital audio Channel Bus, Should have monitoring LED for COM, STAT, ERR and PWR, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Bose / Biamp / BSS	item265	1.00	Each	0.00		0.00	INR Zero Only

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428.0	Supply, Installation, testing & commissioning of Wired Dynamic Vocal Microphone with on/off switch, Super cardioid vocal microphone, Audio frequency bandwidth :70 - 20000 Hz, Sensitivity 2.6 mV/Pa, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item266	4.00	Each	0.00		0.00	INR Zero Only
429.0	Supply, Installation, testing & commissioning of Wired Dynamic Instrument Microphone, Cardioid Dynamic Instrument Microphone, Audio frequency bandwidth =40 - 20000 Hz, Sensitivity at 1000 Hz 2.5 mV/Pa (-52 dBV re 1 V/Pa), Max. SPL for 1 % THD = 47 dB SPL, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: AKG/Shure/Sennhieser	item267	4.00	Each	0.00		0.00	INR Zero Only
430.0	Supply, Installation, testing & commissioning of Wired Goose neck Microphone with Desktop base unit and on/off switch for Podium, Desktop gooseneck Mic, Audio frequency bandwidth =70 - 18000 Hz, Signal to Noise:64 dB-A, Length =500 mm, Voltage =9 to 52 V Power Interface, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: AKG/Shure/Sennhieser	item268	2.00	Each	0.00		0.00	INR Zero Only
431.0	Supply, Installation, testing & commissioning of Digital Wireless Handheld Microphone System, License-free 2.4GHz operation, 24-bit/48 kHz uncompressed audio, AES 256-bit encryption, Simultaneous operation: up to 8 coexisting systems, Working Range: 30m, Frequency Response:70 Hz-20 KHz, Signal-to-noise>90 dBA, Dynamic Range: 116 dB @ 1 KHz, Battery Life12 Hours, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: AKG/Shure/Sennhieser	item269	2.00	Each	0.00		0.00	INR Zero Only
432.0	Supply, Installation, testing & commissioning of Digital Wireless Handheld Microphone System, License-free 2.4GHz operation, 24-bit/48 kHz uncompressed audio, AES 256-bit encryption, Simultaneous operation: up to 8 coexisting systems, Working Range: 30m, Frequency Response:70 Hz-20 KHz, Signal-to-noise>90 dBA, Dynamic Range: 116 dB @ 1 KHz, Battery Life12 Hours, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: AKG/Shure/Sennhieser	item270	2.00	Each	0.00		0.00	INR Zero Only

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433.0	Supply, Installation, testing & commissioning of Condensar Lavalier Microphone, Audio frequency bandwidth: 150 - 18000 Hz, Equivalent noise level: 34 dB-A, Sensitivity 8.8 mV/Pa, Signal to Noise 60 dB-A, Electrical impedance 200 Ohms, Recommended load impedance 2000 Ohms, Polar Pattern Cardioid, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: AKG/Shure/Sennhieser	item271	2.00	Each	0.00		0.00	INR Zero Only
434.0	Supply, Installation, testing & commissioning of Active Direct Box with 1 instrument/line/speaker level input, Frequency Response 20Hz to 20kHz, +/-2.5dB, input connector 1/4" jack, input type unbalanced, RF filtered, Impedance 150k Ohm typical, Max Input +20dBu (0dB pad); +40dBu (20dB pad); +60dBu (40dB pad), Output (Thru) 1 parallel from input jack, 1/4" Unbalanced, RF filtered, Noise <-105dB unweighted, 22kHz BW, THD <0.01%, 20Hz to 20kHz BW; <0.005%, 1kHz, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: dbx/Behringer/Sennhieser	item272	2.00	Each	0.00		0.00	INR Zero Only
435.0	Supply, Installation, testing & commissioning of 32 Channel Digital mixing console, 32-in/32-out USB Interface, iPad Control, 40-input Mic/Line, 31 Output busses, 8 VCAs + 8 Mute groups, 26 motorized faders (24 input + LR/Mono), 5" touchscreen display, Should Support MADI/Dante/cobranet Cards, 20 sub-group / aux busses, Multi-Color LCD Channel Displays on each input fader, 4 studio-grade Effects engines and dedicated FX busses, 4 mono/stereo matrix busses Up to 80 channels to mix, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Allen Heath / Digico / Sound craft	item273	1.00	Each	0.00		0.00	INR Zero Only
436.0	Supply, Installation, testing & commissioning of Stage box 32 analogue inputs and 8 line outputs making a 32 x 8 matrix, with MADI output compatible with main mixer to run all the signals over CAT5, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Allen Heath / Digico / Sound craft	item274	1.00	Each	0.00		0.00	INR Zero Only

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437.0	Supply, Installation, testing & commissioning of 21000 Center lumens 3 chip DLP laser phosphorus orijector, Resolution WUXGA, Center to corner uniformity is 90%. Dynamic Contrast 20000:1, Inputs: 3G-SDI, RGB, DVI, HDMI. Operating Temperature: 0-50C. Power consumption not more than 1510W. Features: HDBaseT, Backup input, mechanical shutter, art-met DMX compatible, 360 degree projection, filterless system, along with suitable lens, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Panasonic/ NEC/ Barco	item275	1.00	Each	0.00		0.00	INR Zero Only
438.0	Supply, Installation, testing & commissioning of 10m x 6m size cyclorama screen with structure, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item276	1.00	Each	0.00		0.00	INR Zero Only
439.0	Supply, Installation, testing & commissioning of Digital podium complete with HDMI inputs, USB inputs, 21.5 inch touch screen, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Vectra/ Briotouch / Raptor	item277	1.00	Each	0.00		0.00	INR Zero Only
440.0	Supply, Installation, testing & commissioning of 4K 55 LED Displays for VIP Lounge/Control Room/Confidence Monitor, Brightness: 350nits; Response Time: 8ms with suitable wall mounting arrangement as per manufacturer's standard, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: LG/Samsung/Panasonic	item278	3.00	Each	0.00		0.00	INR Zero Only
441.0	Supply, Installation, testing & commissioning of Wireless Presentation Gateway supports wireless sharing (includes all required Installation accessories) Should support one-click Skype for Business and Zoom meeting launch Share content wirelessly from a mobile device or PC using Airplay or Google Cast View documents from the web, cloud storage, network drive, or a USB thumb drive, Built-in document viewers allow for side-by-side view of two documents, and 4K support for dual monitors provides an optimal collaboration experience, CONNECTORS : 4x USB 3.0 , 2x USB 2.0, 2x HDMI, Ethernet 2x RJ-45 connector for gigabit Ethernet , Analog Stereo Input 1/8" mini-stereo jack and Analog Stereo Output 1/8" mini-stereo jack, HDMI Resolution Up to 4K30, WIRELESS: Wi-Fi 802.11 a/b/g/n/ac, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Barco / AMX / Extron	item279	1.00	Each	0.00		0.00	INR Zero Only

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442.0	Supply, Installation, testing & commissioning of 1/2.8 Exmor CMOS P/T/Z Color Video Camera, effective pixels approx.2 Megapixels, 20x Optical Zoom Lens, 1080p HD Video, Pan Angle/Speed Angle: +/- 170 degrees Speed: 100 degrees /sec.& Tilt Angle/Speed Angle: +90 degrees / - 20 degrees, Speed: 90 degrees/sec, Minimum Illumination 1.6 lux (50 IRE, F2/F1.6, 30 fps), S/N Ratio 50 dB or more, Video Output: HDMI, VISCA Control (RS-232C/RS-422), with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Lumens/Aver/Sony	item280	3.00	Each	0.00		0.00	INR Zero Only
443.0	Supply, Installation, testing & commissioning of Web casting Hardware, Recording, Streaming and Web casting simultaneously, Built-in 3 Inputs (HDMI/IP/3G-SDI/DVI) HDMI / VGA Out, Can record upto any three inputs simultaneously in a single frame, different recording and projection preview, etc. Should have minimum 1TB inbuilt storage, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Lumens/Aver/Sony	item281	1.00	Each	0.00		0.00	INR Zero Only
444.0	Supply, Installation, testing & commissioning of 8x8 4K60 HDMI Matrix Switcher, shall have 4K60 4:4:4 Support and pixel-for-pixel video reproduction of 4K60 source video with full 4:4:4 color space, HDCP 2.2 Support- Support the latest source devices, Mirrored HDBaseT Outputs directly to a display or projector that supports standard HDBaseT, Audio De-embed capabilities , Shall support Twisted Pair Cable Length Up to 262 ft. (80 m) for full 4K signal support and Up to 328 ft. (100 m) for 1080p , Shall have HDMI Input (8) HDMI Type A Female Connector, HDMI Output (8) HDMI Type A Female Connector , 1x LAN10/100 Ethernet Port RJ-45 Connector, TCP/IP Port , HDBaseT Output (4) RJ-45 Connector , IR RX (4) 3.5mm Mini-Stereo Jack , Analog Stereo Output (8) 3 Position 3.5mm pluggable Phoenix Terminal Block, RS-232 Pass-through (4) 3 Position 3.5 mm pluggable Phoenix Terminal Blocks ,RS-232 Matrix (1) DB-9 Connector, Control (1) DB-9 Connector,IR Ext. , (1) 3.5 Mini-Stereo Jack, Compatible Formats HDMI , HDCP, Signal Type Support HDMI, DisplayPort++ (input only with HDMI cable adapter, Input Video Level: .5 - 1.2 V p-p, Data Rate (Max) 18 Gbp ,Pixel Clock (Max) Up to 600 Mhz, Audio Format Support: 2 CH L-PCM, HDCP Support Yes HDCP 1.4, 2., CEC Support Yes Automatic, Supported Signal Styles Digital video, audio, bidirectional control ,Transport Layer Throughput (Max) 10.2 Gbps, with all connected accessories as per manufacturers instructions, complete all as specified and as directed. Make: AMX/Crestron/Extron	item282	1.00	Each	0.00		0.00	INR Zero Only

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445.0	Supply, Installation, testing & commissioning of HD Base T Receiver and Scaler, 4K60 Support with Built-in Scaling – Experience pixel-for-pixel video reproduction of 4K60 source video , Scaling :Automatically converts signals up or down to match the resolution of the display , HDBaseT Support – Uses the global standard for transmission of ultra-HD A/V, Ethernet,controls, USB and up to 100W of power over a single, long-distance cable , Twisted Pair Cable: Length Up to 262 ft. (80 m) for full 4K signal support, Up to 328 ft. (100 m) for 1080p and below, HDBaseT Layer Throughput (Max) :10.2 Gbps , 1x LAN10/100 Ethernet Port, HDBaseT Input (1) RJ-45 , 1x IR RX 3.5mm Mini-Stereo Jack, 1x IR TX 3.5mm Pluggable Phoenix Terminal Block ,1x HDMI Output HDMI Type A Female, 1x Analog Stereo Output 3 Position 3.5mm pluggable Phoenix Terminal Block , S/PDIF Digital Audio Output RCA Jack , Serial 3 Position 3.5mm Pluggable Phoenix Terminal Block ,Bidirectional RS-232, Compatible Formats HDMI , HDCP , Signal Type Support HDMI, DisplayPort++ (input only with HDMI cable adapter , Output Signal Type : HDMI , Output Scaling Auto or Manual, Data Rate (Max) :18 Gbp (Output) , Pixel Clock (Max) Up to 600 Mhz (Output) 300 Mhz (Input Signals), Audio Format Support 2 CH L-PCM, HDCP Support :Yes HDCP 1.4, 2.2 ,CEC Support: Yes Automatic, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: AMX/Crestron/Extron	item283	3.00	Each	0.00		0.00	INR Zero Only

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446.0	Supply, Installation, testing & commissioning of 4K60 Twisted Pair Transmitter, Shall have 4K60 4:4:4 transmitter which supports up to four sources via traditional HDBaseT , Shall have onboard USB 2.0 available on the HDBT allows for easy distribution of USB signals between the transmitter and receiver. A USB device, such as conferencing soundbar, can be mounted at the display and connected to a receiver. A laptop can then connect to the transmitter at the table, with USB and video distributed over category cable, 4K60 4:4:4 and HDCP 2.2 Support over HDBaseT with Display Stream Compression (DSC)– Visually lossless compression and future-proof support , Power over HDBaseT – Can be powered from HDBase T inputs which means there is no need for an additional power source at the table ,Twisted Pair Cable Type Shielded Cat6, Cat6A and Cat7 / Shielded Cat6A and Cat7, Twisted Pair Cable Length Up to 328 ft. (100 m) ,HDBaseT Layer Throughput (Max) 10.2 Gbps, Shall have 1xHDMI , 1x HDBT Output , Shall serial port , Shall have IR TX and RX ports , Input Signal Type HDMI, HDCP DVI , Data Rate (Max) :18 Gbp ,Pixel Clock (Max) Up to 600 MHz, Regulatory Compliance CE, FCC, NRTL, RoHS, WEEE, with all connected accessories as per manufacturers instructions, complete all as specified and as directed. Make: AMX/Crestron/Extron	item284	3.00	Each	0.00		0.00	INR Zero Only
447.0	Supply, Installation, testing & commissioning of 4K twisted pair receiver , shall be capable to receive Ultra High Definition (UHD) and 4K60 4:4:4 signal without modifying the color space or reducing the frame rate ,HDMI 2.0 and HDCP 2.2 Support , USB 2.0 – Utilize for a convenient way to connect USB 2.0 devices such as HID compliant , keyboard and mouse, monitors, and projectors, as well as web cameras, microphones and storage devices, shall support Standard Twisted Pair Cable ,Transport Layer Throughput (Max) :10.2 Gbps ,Twisted Pair Cable Length:Up to 262 ft. (80 m) for full 4K format support and Up to 328 ft. (100 m) for 1080p and below format support , shall have Bidirectional RS-232 serial port to control the devices , Compatible Formats : HDMI , HDCP, DVI, Output Re-clocking : Yes , Propagation Delay (Typical) : 5 microseconds , Video Data Rate (max) : 18 Gbps (Max) , Video Pixel Clock (max): Up to 600 Mhz , Output Format Matched to incoming video resolution up to 4K60 4:4:4 HDMI 2.0, HDCP 2.2 ,HDCP Support: Yes, including HDCP 1.x and HDCP 2.2, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: AMX/Crestron/Extron	item285	3.00	Each	0.00		0.00	INR Zero Only

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448.0	Supply, Installation, testing & commissioning of Integrated Control System with Ultra-Fast 1600 MIPS processor, 1 x 512 MB Onboard RAM, 1 M Non-Volatile Memory, 8 GB SDHC FLASH Memory, 2 AXLink Interface, 10/100 LAN Interface, 8 Digital I/O Ports, 2 RS232/422/485 Ports, 6 RS232-Only Ports, 8 IR/Serial Output Ports and 8 Relay Ports, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: AMX/Crestron/Extron	item286	1.00	Each	0.00		0.00	INR Zero Only
449.0	Supply, Installation, testing & commissioning of 12 VDC, 5.4Amp Power Supply with 3.5 mm Phoenix Connector with Retention Screws, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: AMX / Crestron / Extron	item287	1.00	Each	0.00		0.00	INR Zero Only
450.0	Supply, Installation, testing & commissioning of 10.1" Table Top Touch Panel with Graphics Engine and Quad Core Processing, Built-in Web Browser and Content Viewers, Display Type: TFT Active Matrix Color LCD, Display Size (WH) Landscape: 9.9" x 6.7", Resolution :1280x800, Aspect Ratio (WH) Landscape: 16:9+C246,Brightness 400 cd/m2 , Contrast Ratio 700:1, Color Depth 16.7M colors, Illumination LED, Touch Overlay Projected Capacitive, multi-touch support, 3 simultaneous max, Viewing Angle Vertical ± 89°, Horizontal ± 89°, SDRAM 2 GB, Flash 16 GB, Maximum Project Size 12 GB flash, available for apps and touch panel files, "Ethernet 10/100 Auto MDI-X port, RJ-45 connector., USB (1) for Firmware upgrade, touch panel file transfer, document and image viewing, HID peripherals, Bluetooth Mouse/Keyboard: HID Profile v1.1 (requires external USB-BT adapter), Shall Support Video Conferencing : Skype, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: AMX/Crestron/Extron	item288	1.00	Each	0.00		0.00	INR Zero Only

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451.0	Supply, Installation, testing & commissioning of 24 ports Giga managed switch with 10/100/1000 with 4X1G SFP port. Switch should support Priority queues Eight hardware-based queues per port for flexible QoS management and Traffic prioritization: Flow-based QoS with internal and external (remarking) prioritization. Switch should support VLAN Up to 1000 multicast groups, IP Multicast VLAN (IPMVLAN) supported 386. The switch should be POE+ with minimum power budget of 370W or higher. Switch should support protocols like SNMP 1, RMON 1, RMON 2, RMON 3, RMON 9, Telnet, SNMP 3, SNMP 2c, HTTP, HTTPS, TFTP, SSH, CLI. Switch should capable to advanced layer-2+ features with basic layer-3 routing for both IPv4 and IPv6. The Switch should provide Non-Blocking switch fabric capacity of 56 Gbps or more. Switch will be required with 3 year warranty, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Cisco/ Alcatel/ HP	item289	2.00	Each	0.00		0.00	INR Zero Only
452.0	Supply, Installation, testing & commissioning of Professional 37U 19" Equipment Rack for housing AV devices, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Valrack/ Netrack/ Comrack	item290	2.00	Each	0.00		0.00	INR Zero Only
453.0	Supply, Installation, testing & commissioning of AV Cables & Connectors, suitable for above system, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item291	1.00	Each Lot	0.00		0.00	INR Zero Only
454.0	Supply, Installation, testing & commissioning of TOTALLY ANTI-CORROSIVE Bobbin Wound filter, 2000mm diameter, fitted with pressure gauge panel, manual air bleeder, water drain and emptying plug, fitted with collector arms and diffuser made from plasticized, PVC and polypropylene, for Maximum filtration velocity 40m³/hr/m², EN ISO 9001 :2000 Standard, working pressure : 2.5 kg/cm², Flow rate = 125m³/hr, filters shall be designated official products of FINA with certificate, complete all as per manufacturers instructions. Make: Praga Model of Astral or Equivalent in Haywards / Leisure Pool / TechPool	item292	5.00	Each	0.00		0.00	INR Zero Only
455.0	M&L for Active clear glass filter media of grade 1 (size 0.50mm -1.0mm), for more efficient and environmentally friendly filtration, greater filtration capacity, water and energy savings, cleaner filter bed as bacteria does not remain trapped and fewer chemical products are needed, complete all as per manufacturers instructions. Make: Astral / Haywards / Leisure Pool / TechPool	item293	505.00	Per 25Kg Bag	0.00		0.00	INR Zero Only

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456.0	M&L for Active clear glass filter media of grade 2(size 1.0mm -3.0mm), for more efficient and environmentally friendly filtration, greater filtration capacity, water and energy savings, cleaner filter bed as bacteria does not remain trapped and fewer chemical products are needed, complete all as per manufacturers instructions. Make: Astral / Haywards / Leisure Pool / TechPool	item294	165.00	Per 25Kg Bag	0.00		0.00	INR Zero Only
457.0	M&L for Active clear glass filter media of grade 3 (size 3.0mm -7.0mm), for more efficient and environmentally friendly filtration, greater filtration capacity, water and energy savings, cleaner filter bed as bacteria does not remain trapped and fewer chemical products are needed, complete all as per manufacturers instructions. Make: Astral / Haywards / Leisure Pool / TechPool	item295	185.00	Per 25Kg Bag	0.00		0.00	INR Zero Only
458.0	S&F Valve Battery Manifold of size 140mm made in PVC with flanges for connecting to filters as per DIN 2501 standards, with set of 5 No. of butterfly valves for carrying out filtration, back-washing, rinsing and shut down of the filters, complete all as per manufacturers instructions. Make: Astral / Haywards / Leisure Pool / TechPool	item296	5.00	Each Set	0.00		0.00	INR Zero Only
459.0	S&F Cast Iron re-circulating pump 10.00HP capacity, 3000RPM, 3 phase, 415Volt, flowrate 125m³/hr, 12m water head with IP-54 protection - class F continuous rating motors, mechanical seal in stainless steel, SS AISI -420 shaft, SS AISI-316 stainer basket, designed according to DIN 2501 with FINA certificate, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Astral / Haywards / Leisure Pool / TechPool	item297	6.00	Each	0.00		0.00	INR Zero Only
460.0	S&F Bottom Inlet - 2" threaded connection fixed with concrete surface with SS screws, ABS plastic body, Flow rate 9000Lit/hour, with FINA certificate, with all connected accessories as per manufacturers instructions, complete all as specified and as directed. Make: Astral / Haywards / Leisure Pool / TechPool	item298	100.00	Each	0.00		0.00	INR Zero Only
461.0	S&F Stainless steel Pool drain frame & grill of size 500mm x 500mm of SS304, flow rate 136m³/h with top surface to match with tile floor, with FINA certificate, with all connected accessories as per manufacturers instructions, complete all as specified and as directed. Make: Astral / Haywards / Leisure Pool / TechPool	item299	4.00	Each	0.00		0.00	INR Zero Only
462.0	S&F Saction Inlet (Vacuum Point) in ABS with cap internal thread 1 1/2" dia and external thread 2" dia with suitable PVC wall conduit of minimum 300mm long with fittings, with all connected accessories as per manufacturers instructions, complete all as specified and as directed. Make: Astral / Haywards / Leisure Pool / TechPool	item300	18.00	Each	0.00		0.00	INR Zero Only

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463.0	S&F Over flow gutter drain fitting with body & grill of 200mm dia in ABS body, fixed with SS screws, with all connected accessories as per manufacturers instructions, complete all as specified and as directed. Make: Astral / Haywards / Leisure Pool / TechPool	item301	30.00	Each	0.00		0.00	INR Zero Only
464.0	S&F UV stabilized PP grating 295mm width, inter locking type, single span, with all connected accessories as per manufacturers instructions, complete all as specified and as directed. Make: Astral / Haywards / Leisure Pool / TechPool	item302	210.00	Running Me	0.00		0.00	INR Zero Only
465.0	S&F Grating support profile suitable for grating heights of 30mm, made of weather resistant plastic, with all connected accessories as per manufacturers instructions, complete all as specified and as directed. Make: Astral / Haywards / Leisure Pool / TechPool	item303	210.00	Running Me	0.00		0.00	INR Zero Only
466.0	S&F Underwater light fitting of IP-68 Protection, spot light 32WX12V, LED drivers, lamp, 4320lm, with white faceplate & niche and including 1m length copper cable with conduit, ABS junction box of 3 entries, PG-16 coupling with water proofing jointing, connection and testing with all connected accessories as per manufacturers instructions, complete all as specified and as directed. Make: Astral / Haywards / Leisure Pool / TechPool	item304	36.00	Each	0.00		0.00	INR Zero Only
467.0	Supply & installation of SMPS LED driver 300W/12V, complete all as specified. Make: Astral / Haywards / Leisure Pool / TechPool	item305	6.00	Each	0.00		0.00	INR Zero Only
468.0	S&F SS Ladder 5 steps, overflow type, SS - 304 ladder, width 500mm, SS hand rails 43mm dia with non slip surface and anchoring, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Make: Astral / Haywards / Leisure Pool / TechPool	item306	6.00	Each	0.00		0.00	INR Zero Only
469.0	S&F SS Ladder 3 steps, overflow type, SS - 304 ladder, width 500mm, SS hand rails 43mm dia with non slip surface and anchoring, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge. Make: Make: Astral / Haywards / Leisure Pool / TechPool	item307	6.00	Each	0.00		0.00	INR Zero Only
470.0	S&F Manual chlorine dosing plant 20LPH @5BAR, with pH controller , necessary pumps, 500 ltr Sintex mixing tanks and 900mm manual agitators, with all connected accessories as per manufacturers instructions, complete all as specified and as directed. Make: Astral / Haywards / Leisure Pool / TechPool	item308	8.00	Each	0.00		0.00	INR Zero Only

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471.0	S&F Robotic cleaner designed for a heavy duty intensive use in medium pools, Infrared sensor to detect walls and obstacles, Gyroscope and compass smart navigation system, Heavy-duty traction system with tracks for intensive use, Ultra-powerful suction, Remote control for manual use, designed for a professional use in medium and big public swimming pools, complete all as specified and as directed by Engineer-in-Charge. Make: Astral / Haywards / Leisure Pool / TechPool	item309	2.00	Each	0.00		0.00	INR Zero Only
472.0	S&F Deep bag leaf rake with suitable aluminum handle, to remove floating materials with one set of straight and curved brushes and side wall brush, manual vacuum head, extendable handle, complete with all accessories for pool cleaning, complete all as specified and as directed.	item310	2.00	Each Set	0.00		0.00	INR Zero Only
473.0	Supply only Test Kit for manual measuring of residual chlorine and pH value of Swimming pool, complete all as specified.	item311	4.00	Each	0.00		0.00	INR Zero Only
474.0	S&F Starting Block 500 mm x 500 mm, designed for competition events, with adjustable foot rest to facilitate entry into the water, design in high quality materials, manufactured in AISI-316 stainless steel, polished surface finish, with adjustable support (6 positions), complete all as specified and as directed. Make: Astral / Haywards / Leisure Pool / TechPool	item312	8.00	Each	0.00		0.00	INR Zero Only
475.0	S&F 300mm dia SS 304 minimum 4mm thick header, 10mtr long with 150mm nipple, connected with complete flanges 10 Nos, nipples as required, complete all as specified and as directed. Make: Astral / Haywards / Leisure Pool / TechPool	item313	1.00	Each	0.00		0.00	INR Zero Only
476.0	S&F 300mm dia SS 304 minimum 4mm thick header 8 mtr long with 150mm nipple connected with complete flanges 09 Nos and 100mm nipple connected with complete flanges 07 Nos, complete flange, nipples as required, complete all as specified and as directed. Make: Astral / Haywards / Leisure Pool / TechPool	item314	1.00	Each	0.00		0.00	INR Zero Only
477.0	S&F 300mm dia SS 304 minimum 4mm thick header 6mtr long with 150mm nipple connected with complete flanges 05 Nos and 100mm nipple connected with complete flanges 06 Nos, complete flange, nipples as required, complete all as specified and as directed. Make: Astral / Haywards / Leisure Pool / TechPool	item315	1.00	Each	0.00		0.00	INR Zero Only
478.0	S&F Float Lines supplied with floats and nylon rope of length 50m, including anchor arrangements, complete all as specified. Make: Astral / Haywards / Leisure Pool / TechPool	item316	9.00	Each Set	0.00		0.00	INR Zero Only
479.0	S&F Metallic vacuum head 800mm with 2" connection with suitable trailing cable, complete all as specified. Make: Astral / Haywards / Leisure Pool / TechPool	item317	2.00	Each	0.00		0.00	INR Zero Only

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480.0	S&F Transparent blue plastic vacuum hose 2" dia 30mtrs long, including hose cuffs for connection to suction inlets, complete all as specified and as directed. Make: Astral / Haywards / Leisure Pool / TechPool	item318	2.00	Each	0.00		0.00	INR Zero Only
481.0	S&F Deep bag net made in polypropelene and white polyester netting, complete all as specified and as directed. Make: Astral / Haywards / Leisure Pool / TechPool	item319	2.00	Each	0.00		0.00	INR Zero Only
482.0	S&F 30" lifebuoy- deluxe (Orange), complete all as specified. Make: Astral / Haywards / Leisure Pool / TechPool	item320	2.00	Each	0.00		0.00	INR Zero Only
483.0	S&F Life hook, complete all as specified. Make: Astral / Haywards / Leisure Pool / TechPool	item321	2.00	Each	0.00		0.00	INR Zero Only
484.0	S&F Life Guard Chair, made with AISI-304, with dismountable base plate, steps, platform, chair, including parasol holder made of PP fiber glass, complete all as specified. Make: Astral / Haywards / Leisure Pool / TechPool	item322	2.00	Each	0.00		0.00	INR Zero Only
485.0	S&F Control panel for controlling pumps, lights, chemical dosing pumps, with steel sheet cabinet for indoor Installation, powder coated, Floor / wall mounted, dust proof and shall be hinged doors with rubber gasket, cables shall be sized by applying de rating factor, all control wiring shall be carried out by using PVC insulated copper conductor wires in conduits, minimum size of control wiring shall be 1.5 sq.mm, with and including necessary instruments, indicating lamps, control contactors and MCBs, volt meters & indicating lamps, selector switches, with all connected accessories as per manufacturers instructions, complete all as specified and as directed by Engineer-in-Charge.	item323	1.00	Each Job	0.00		0.00	INR Zero Only
486.0	S&F Unplasticised PVC (uPVC) pipe of 25mm dia bore, pressure rating 10 kgf/cm2 with and including all fittings (such as bends, tees, short pieces connectors, elbows, reducers, unions, sockets etc) and fixed to walls/ceilings/ laid on floors, including testing, for Swimming Pool Inlet & Drain & Suction piping, Swimming Pool filtration plant piping, drain pipe along the pipe periphery including all fittings, fixtures and Ceiling/ Wall Support System, complete all as specified and as directed.	item324	36.00	Running Me	0.00		0.00	INR Zero Only
487.0	Description all as per Serial Item No. 324 here in before but for 63mm dia bore pipe, complete all as specified and as directed.	item325	120.00	Running Me	0.00		0.00	INR Zero Only
488.0	Description all as per Serial Item No. 324 here in before but for 110mm dia bore of pipe, complete all as specified and as directed.	item326	240.00	Running Me	0.00		0.00	INR Zero Only
489.0	Description all as per Serial Item No. 324 here in before but for 160mm dia bore pipe, complete all as specified and as directed.	item327	540.00	Running Me	0.00		0.00	INR Zero Only

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490.0	Description all as per Serial Item No. 324 here in before but for 200mm dia bore pipe, pressure rating 6 kgf/cm2, complete all as specified and as directed.	item328	420.00	Running Me	0.00		0.00	INR Zero Only
491.0	S&F Surface net made in polypropelene and white polyester netting, complete all as specified. Make: Astral / Haywards / Leisure Pool / TechPool	item329	2.00	Each	0.00		0.00	INR Zero Only
492.0	S&F Curved brushes made in polypropelene for pool basins and scum liners, complete all as specified. Make: Astral / Haywards / Leisure Pool / TechPool	item330	2.00	Each	0.00		0.00	INR Zero Only
493.0	S&F Straight brushes made in polypropelene for pool basins and scum liners, complete all as specified. Make: Astral / Haywards / Leisure Pool / TechPool	item331	2.00	Each	0.00		0.00	INR Zero Only
494.0	S&F Algae brushes with stainless steel bristles, complete all as specified. Make: Astral / Haywards / Leisure Pool / TechPool	item332	2.00	Each	0.00		0.00	INR Zero Only
495.0	Supply, installation, testing & commissioning of reinforced neoprene rubber vibration eliminators / expansion joints (to provide relief from stresses at pipe flanges) suitable for upto 20 kg/cm2 pressure, complete all as per manufacturers instructions. Make: Astral / Haywards / Leisure Pool / TechPool	item333	6.00	Each	0.00		0.00	INR Zero Only
496.0	S&F Valve battery supports made in zinc plated steel of height 2.30m with two support brackets with anti - vortex clamps, fixed with screws, complete, complete all as specified and as directed. Make: Astral / Haywards / Leisure Pool / TechPool	item334	10.00	Each	0.00		0.00	INR Zero Only
497.0	S&F uPVC butterfly valve 160mm dia Butterfly Valve With Flange adaptors, standard lever, Confirming to BS Standards with necessary flanges, nuts and bolts etc., complete, complete all as specified and as directed.	item335	16.00	Each	0.00		0.00	INR Zero Only
498.0	S&F uPVC butterfly valve 110mm dia Butterfly Valve With Flange adaptors, standard lever, Confirming to BS Standards with necessary flanges, nuts and bolts etc., complete, complete all as specified and as directed.	item336	15.00	Each	0.00		0.00	INR Zero Only
499.0	S&F uPVC Non return valve 110mm dia Flap check Valve with flange adaptors, standard lever, Confirming to BS Standards with necessary flanges, nuts and bolts etc., complete, complete all as specified and as directed.	item337	6.00	Each	0.00		0.00	INR Zero Only
500.0	S&F uPVC foot valve 160mm dia Flap check Valve with flange adaptors, standard lever, Confirming to BS Standards with necessary flanges, nuts and bolts etc., complete, complete all as specified and as directed.	item338	5.00	Each	0.00		0.00	INR Zero Only

Sl. No.	Item Description	Item Code / Make	Quantity	Units	Estimated Rate in Rs. P	RATE including all taxes with GST In Figures To be entered by the Bidder in Rs. P	TOTAL AMOUNT With Taxes col (14) = sum (8) to (13) in Rs. P	TOTAL AMOUNT In Words
501.0	S&F Supply of Platform - Light blue polyester and fibre glass board with non-slip surface, with anchoring fixtures, width 0.46m x Length 3.2m, diving board brackets aade of polished AISI-304 stainless steel, with platform fixing bolts, complete all as specified and as directed. Make: Make: Astral / Haywards / Leisure Pool / TechPool	item339	2.00	Each	0.00		0.00	INR Zero Only
502.0	S&F Neolysis System for auto chlorine and UV system of neolysis standard salinity of 6 g/l (Neo S), ultimate in chloramine reduction capacity (UV LP + Electrolysis), LP HO UV lamp (13,000 hours), patented process, AP NEO/S 300 Gr/h + UV 4 x 90W with pH/ORP, minimum flow rate 50m3/hr, 04 Nos lamps, complete all as specified and as directed. Make: Make: Astral / Haywards / Leisure Pool / TechPool	item340	4.00	Each	0.00		0.00	INR Zero Only
503.0	S&F Extensible handles for cleaning attachments in anodized aluminium which can be adapted to the entire range of cleaning equipment, brushes, leaf skimmers and scoops ,10.0m long with handle adapter, complete all as specified and as directed. Make: Make: Astral / Haywards / Leisure Pool / TechPool	item341	2.00	Each	0.00		0.00	INR Zero Only
504.0	M&L for Round flexible electric cable, 2core x 2.5 sqmm, PVC insulated, Unsheathed, multistranded copper conductor cable, 1100 Volts, FRLS Grade, ISI marked, drawing through and including heavy duty PVC conduit of suitable size with all accessories concealed for pool light system, including with all fittings, Junction box, complete all as specified.	item342	2500.00	Running Me	0.00		0.00	INR Zero Only
505.0	M&L for Round flexible electric cable, 3core x 4.0 sqmm, PVC insulated, Unsheathed, multistranded copper conductor cable, 1100 Volts, FRLS Grade, ISI marked, drawing through and including heavy duty PVC conduit of suitable size with all accessories concealed for pool light system, including with all fittings, junction box, complete all as specified.	item343	200.00	Running Me	0.00		0.00	INR Zero Only
506.0	Supply, laying, testing and commissioning of FRLSH PVC insulated unsheathed copper conductor cable of size Single core 1.5Sqmm, 1100 volts grade and including cable glands, ferrules and connected accessories, multi stranded 1100 Volt grade confirming to IS 694: 1977, complete all as specified and as directed.	item344	160.00	Running Me	0.00		0.00	INR Zero Only
507.0	M&L for PVC insulated, sheathed, multistranded, screened flexible copper conductor cable of size 2 core x 1.5 sqmm, 1100 Volts, FRLS Grade, ISI marked, drawing through and including heavy duty PVC conduit of suitable size with all accessories concealed, including with all fittings, complete all as specified.	item345	20964.00	Running Me	0.00		0.00	INR Zero Only

Sl. No.	Item Description	Item Code / Make	Quantity	Units	Estimated Rate in Rs. P	RATE including all taxes with GST In Figures To be entered by the Bidder in Rs. P	TOTAL AMOUNT With Taxes col (14) = sum (8) to (13) in Rs. P	TOTAL AMOUNT In Words
508.0	S&F Flame proof DB double door, single pole and neutral 04 Way sheet steel phosphetised power coated with 200 Amps rated bus bar 240 Volts nutral link, IP-20 protection, fixed in concealed position, complete all as specified and as directed.	item346	3.00	Each	0.00		0.00	INR Zero Only
509.0	M&L for Pool chemicals Algaecide 1 Lit can with 12Lit / box, complete all as specified and as directed. Make: Make: Astral / Haywards / Leisure Pool / TechPool	item347	2.00	Each Box	0.00		0.00	INR Zero Only
510.0	M&L for Pool chemicals pH minus 8kg bucket, complete all as specified and as directed. Make: Make: Astral / Haywards / Leisure Pool / TechPool	item348	2.00	Each Bucke	0.00		0.00	INR Zero Only
511.0	M&L for Pool chemicals pH plus 6kg bucket, complete all as specified and as directed. Make: Make: Astral / Haywards / Leisure Pool / TechPool	item349	2.00	Each Bucke	0.00		0.00	INR Zero Only
512.0	M&L for Pool chemicals Flocculant 1 kg can with 9kg/box, complete all as specified and as directed. Make: Make: Astral / Haywards / Leisure Pool / TechPool	item350	2.00	Each Box	0.00		0.00	INR Zero Only
513.0	M&L for Pool chemicals TCCA granules 50kg drum, complete all as specified and as directed. Make: Make: Astral / Haywards / Leisure Pool / TechPool	item351	2.00	Each drum	0.00		0.00	INR Zero Only
514.0	M&L for Hardcore of gauge 40mm, broken stone, deposited, spread, surface formed and rolled & consolidated to compacted thickness of 100mm using 8 to 10 Ton mechanical roller, for sports ground, complete all as specified and as directed.	item352	1080.00	10 Square M	0.00		0.00	INR Zero Only
515.0	M&L for Hardcore of gauge 20mm, broken stone, deposited, spread, surface formed and rolled & consolidated to compacted thickness of 100mm using 8 to 10 Ton mechanical roller, for sports ground, complete all as specified and as directed.	item353	1080.00	10 Square M	0.00		0.00	INR Zero Only
516.0	M&L for Hardcore of gauge 6mm to 10mm, broken stone, deposited, spread, surface formed and rolled & consolidated to compacted thickness of 100mm using 8 to 10 Ton mechanical roller, for sports ground, complete all as specified and as directed.	item354	1080.00	10 Square M	0.00		0.00	INR Zero Only
Total in Figures							0.00	INR Zero Only
Quoted Rate in Words						INR Zero Only		