# **KERALA MEDICAL SERVICES CORPORATION LTD**

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CIN: U24233KL200TSGC021616, PAN: AADCK4029M, GSTIN: 32AADCK4029M1ZK

	Running Contract Details		
Equipment Name	MRI Scanner 1.5T (Wide Bore)		
Running Contract Valid Till	24-11-2024		
Tender Ref No	KMSCL/EP/T451/635/2022		
Tendered Quantity	3		
Supplier Name	M/s Philips India Limited		
GST No	33AABCP9487A1ZG		
Installation & Delivery Period	20 Week(s)		
Up-time / PM vist	95% & 4 Visits per year		
Warranty period	3 Years		

Supplier`s Details			
Address		Contact Details	
C/o Expeditors International India Pvt. Ltd.	Contact Person	Mr. K Ramesh, Mr.Nagaraj Kamt	
Survey No. 523/ 3E2 - 3F - 3G - 3M - 4A - 4B - 524/1B - 2BM - 3A2 Door No.116 Devaneri Village Road - Sholavaram Village Chennai - 600067	Phone		
	Mobile No	9845100119(Ramesh), 9619663999(Nagaraj)	
	Email	k.ramesh@philips.com,anoopkumar.r@phili ps.com	

	Item-	wise Price Details		
#	Item Details	Unit Rate (Incl.all taxes & charges)	Service Charges (Through KMSCL)	Grand Total
1	1.5T MRI Wide bore with 1 year Warranty  Model & Make: Philips Ambition X 1.5T MRI System / Philips  Medical	93861318.64 Incl.GST:12%	6922272.25	100783590.89
2	Workstation Option A	13030216.55 Incl.GST :18%	912115.16	13942331.71
3	Workstation Option B	6022720 Incl.GST :18%	421590.4	6444310.4
4	Dry Imager	13440 Incl.GST :12%	991.2	14431.2
5	Pressure injector dual head with syringes (MR compatible)	2183904 Incl.GST :12%	161062.92	2344966.92
6	IV stand (MR compatible)	31152 Incl.GST :18%	2180.64	33332.64

	Item-wise Price Details			
7	Patient trolley (MR compatible)	206736 Incl.GST :18%	14471.52	221207.52
8	Suitable chiller system with all connections	1253160 Incl.GST :18%	87721.2	1340881.2
9	RF Cage	2407200 Incl.GST :18%	168504	2575704
10	Music System with speakers	16213.2 Incl.GST :18%	1134.92	17348.12
11	Hand held metal detector	6938.4 Incl.GST :18%	485.69	7424.09
12	Metal detector door	147264 Incl.GST :18%	10308.48	157572.48
13	Wheel Chair (MR Compatible)	190876.8 Incl.GST :18%	13361.38	204238.18
14	Digital Patient weighing scale	5522.4 Incl.GST :18%	386.57	5908.97
15	UPS whole system of suitable capacity	1382016 Incl.GST :18%	96741.12	1478757.12
16	Fire extinguisher MR compatible	48639.6 Incl.GST :18%	3404.77	52044.37
17	Desktop computer with monochrome printer, UPS as per spec	165609.7 Incl.GST:18%	11592.68	177202.38
18	LED X-ray Lobby 3 film	38276.86 Incl.GST:18%	2679.38	40956.24
19	Crash cart (MR compatible)	43896 Incl.GST :18%	3072.72	46968.72
20	Instrument trolley (MR compatible)	20815.2 Incl.GST :18%	1457.06	22272.26
21	MR Compatible Stethoscope	48922.8 Incl.GST :18%	3424.6	52347.4
22	Anesthesia machine with integrated ventilator (MR Compatible)	3338496 Incl.GST :12%	246214.08	3584710.08
23	Multiparameter monitor (MR Compatible)	6244000 Incl.GST :12%	460495	6704495
24	Syringe pump (MR Compatible)	3360000 Incl.GST :12%	247800	3607800
25	Laryngoscope (MR Compatible)	125429.28 Incl.GST :18%	8780.05	134209.33
26	Magill Forceps (MR Compatible)	17700 Incl.GST :18%	1239	18939

	Item-wise Price Details				
27	Stylet for endotracheal tube (MR Compatible)	1118.64 Incl.GST :18%	78.3	1196.94	
28	Clamps (MR Compatible)	23788.8 Incl.GST :18%	1665.22	25454.02	
29	Anesthesia bed / trolley	59472 Incl.GST :18%	4163.04	63635.04	
30	15.3 : Demolishing R.C.C. work manually / by mechanical means including stacking of steel bars and disposal of unserviceable material with in 50 metres lead as per direction of Engineer -in-Charge.	3455.16 Incl.GST:12%	254.82	3709.98	
31	15.7.4: Demolishing brick work manually / by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-Charge.In cement mortar	2004.17 Incl.GST :12%	147.81	2151.98	
32	15.12.1 : Dismantling doors, windows and clerestory windows (steel or wood ) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead:Of area 3 sq. metres and below	357.19 Incl.GST:12%	26.34	383.53	
33	15.12.2 : Dismantling doors, windows and clerestory windows (steel or wood ) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead: Of area beyond 3 sq. metres	489.17 Incl.GST :12%	36.08	525.25	
34	15.23.1 : Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead.For thickness of tiles 10 mm to 25 mm	71.39 Incl.GST :12%	5.26	76.65	
35	15.57: Dismantling aluminium / Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable surplus material and stacking of serviceable material with in 50 metres lead as directed by Engineer - in-Charge	54.87 Incl.GST :12%	4.05	58.92	
36	2.34.1 : Supplying chemical emulsion in sealed containers including delivery as specified. Chlorpyriphos / Lindane emulsifiable concentrate of 20%	237.06 Incl.GST :12%	17.48	254.54	

	Item-v	wise Price Details		
37	2.35.1.1: Diluting and injecting chemical emulsion for POST -CONSTRUCTIONAL anti-termite treatment (excluding the cost of chemical emulsion): Along external wall where the apron is not provided using chemical emulsion @ 7.5 litres / sqm of the vertical surface of the substructure to a depth of 300mm including excavation channel along the wall & rodding etc. complete: With Chlorpyriphos /Lindane E.C. 20% with 1% concentration	38.11 Incl.GST :12%	2.81	40.92
38	50.2.25.1: Filling with contractor's own earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m as per direction of site Engineer-in-charge	457.61 Incl.GST :12%	33.75	491.36
39	50.4.1.1: Providing and laying in position cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 12.5 mm nominal size) up to floor five level excluding the cost of centering, shuttering, finishing for leveling coarse of floor and roof etc.	6918.7 Incl.GST :12%	510.25	7428.95
40	50.5.5: Reinforced cement concrete work in arches, archribs, domes, vaults, shells, folded plate and roof having slope more than 15 degree up to floor five level excluding the cost of centering, shuttering, finishing and reinforcement with 1:1.5:3 (1 cement: 1.5 coarse sand: 3 graded stone aggregate 20 mm nominal size).	10540.12 Incl.GST :12%	777.33	11317.45
41	5.22.1 : Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelMild steel and Medium Tensile steel bars	104.97 Incl.GST :12%	7.74	112.71
42	2.1.1: Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5m in width as well as 10 sqm on plan including disposal of excavated earth up to 50 m and lift up to 1.5 m, disposed soil to be levelled and neatly dressed:All Kinds of soil	126.26 Incl.GST :12%	9.31	135.57
43	6.26.2: Brick work with common burnt clay selected F.P.S (non modular) bricks of class designation 7.5 in exposed brick work including making horizontal and vertical grooves 10 mm wide 12 mm deep complete in cement mortar 1:6 (1 cement: 6 coarse sand)Above plinth level and upto floor V level	10107.82 Incl.GST :12%	745.45	10853.27

	Item-	wise Price Details		
44	50.6.1.2 : Solid block masonry using pre cast solid blocks (Factory made) of size 40x20x20cm or nearest available size confirming to IS 2185 part I of 1979 for super structure up to floor two level thickness 20cm and above in: CM 1:6 (1 cement: 6 coarse sand) etc complete.	6757.56 Incl.GST :12%	498.37	7255.93
45	50.6.1.8: Solid block masonry using pre cast solid blocks (Factory made) of size 40x20x15cm or nearest available size confirming to IS 2185 part I of 1979 for super structure up to floor two level with thickness 15cm in: CM 1:6 (1 cement: 6 coarse sand etc complete	7048.26 Incl.GST :12%	519.81	7568.07
46	50.5.33.2: Providing and laying in position machine batched and machine mixed design mix M-20 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-incharge.Note:- Cement content considered in this item is @ 330 kg/cum. Excess or less cement used as per design mix is payable or recoverable separately. All work above plinth level upto floor V level	9628.92 Incl.GST :12%	710.13	10339.05
47	13.1.1: 12 mm cement plaster of mix:1:4 (1 cement: 4 fine sand)	347.93 Incl.GST :12%	25.66	373.59
48	13.7.1:12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 (1 cement: 3 fine sand)	441.49 Incl.GST :12%	32.56	474.05
49	11.36: Providing and fixing I st quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer -in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement: 3 coarse sand) and jointing with grey cement slurry @ 3.3 kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	1104.01 Incl.GST :12%	81.42	1185.43

	Item-v	wise Price Details		
50	11.37: Providing and laying Ceramic glazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer), of 1st quality conforming to IS: 15622, of approved make, in colours such as White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement mortar 1:4 (1 Cement: 4 Coarse sand), including pointing the joints with white cement and matching pigment etc., complete.	1104.01 Incl.GST :12%	81.42	1185.43
51	11.41.2: Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS: 15622, of approved make, in all colours and shades, laid on 20 mm thick cement mortar 1:4(1 cement: 4 coarse sand), including grouting the joints with white cement and matching pigments etc., complete. Size of Tile 600 x 600 mm.	1671.64 Incl.GST :12%	123.28	1794.92
52	11.41.3: Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS: 15622, of approved make, in all colours and shades, laid on 20 mm thick cement mortar 1:4(1 cement: 4 coarse sand), including grouting the joints with white cement and matching pigments etc., complete. Size of Tile 800x 800 mm	2218.23 Incl.GST :12%	163.59	2381.82
53	od330704/2020_2021: Providing and fixing first quality Vitrified wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement: 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	1671.64 Incl.GST :12%	123.28	1794.92
54	11.48.2 : Grouting the joints of flooring tiles having joints of 3 mm width, using epoxy grout mix 0.70 kg of organic coated filler of desired shade (0.10 kg of hardener and 0.20 kg of resin per kg). including filling /grouting and finishing complete as per direction of Engineer-in-charge. Size of Tile 600x600 mm	305.21 Incl.GST :12%	22.51	327.72

	Item-wise Price Details			
55	11.48.3 : Grouting the joints of flooring tiles having joints of 3 mm width, using epoxy grout mix 0.70 kg of organic coated filler of desired shade (0.10 kg of hardener and 0.20 kg of resin per kg). including filling /grouting and finishing complete as per direction of Engineer-in-charge. Size of Tile 800x800mm	242.08 Incl.GST :12%	17.85	259.93
56	50.9.1.1: Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately), using good quality Anjili wood /jack wood	122191.96 Incl.GST :12%	9011.66	131203.62
57	50.9.2.1: Providing and fixing paneled and glazed shutters for doors, windows and clerestory windows, 35 mm thick shutters including ISI marked M.S. pressed butt hinges bright finished of required size with necessary screws, excluding panelling which will be paid for separately, all complete as per direction of Engineerin - charge.using Anjili/ Jack wood	3459.65 Incl.GST :12%	255.15	3714.8
58	21.1.2.2: For shutters of doors, windows & ventilators including providing and fixing hinges / pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber/ neoprene gasket required (Fittings shall be paid for separately)Powder coated aluminium (minimum thickness of powder coating 50 micron)	666.47 Incl.GST :12%	49.15	715.62
59	21.2.2 : Providing and fixing 12 mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS : 12823 Grade I Type II, in panelling fixed in aluminum doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of Engineer - in- Charge.Pre- laminated particle board with decorative lamination on both sides	1122.24 Incl.GST :12%	82.77	1205.01

	Item-v	wise Price Details		
60	21.1.1.2: Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminnium snap beading for glazing /paneling, C.P. brass/ stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge.(Glazing, paneling and dash fasteners to be paid for separately):For fixed portionPowder coated aluminium (minimum thickness of powder coating 50 micron)	550.23 Incl.GST :12%	40.58	590.81
61	od329872/2020_2021 : Supplying and fixing flush door shutter, shutter of required size, thickness 30mm thick, finished with 1 mm laminate of approved shade with clear glass vision panels as per design including necessary hinges  br>	3459.65 Incl.GST :12%	255.15	3714.8
62	od329873/2020_2021: Frosted film - Supply and installation of 3M make frosted film pattern throughout all the internal glass panels wherever required of approx. 1.5 m height as per the approved pattern. 	590 Incl.GST :12%	43.51	633.51
63	od329874/2020_2021: Providing and fixing extruded section body tubular type universal hydraulic door closer(having brand logo with IS: 3564, embossed on the body, door weight upto 36 kg to 80 kg and door width from 701 mm to 1000 mm), with double speed adjustment with necessary accessories and screws etc. complete	2300.59 Incl.GST :12%	169.67	2470.26
64	od329875/2020_2021 : Providing and fixing 4.00 mm thick ACP sheet for cupboard including all cost, conveyance, labour charges etc complete	472 Incl.GST :12%	34.81	506.81
65	21.3.1: Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer - in -Charge. (Cost of aluminium snap beading shall be paid in basic item): With float glass panes of 4.0 mm thickness	1203.36 Incl.GST :12%	88.75	1292.11

Item-wise Price Details			
12.58.1: Providing and fixing tiled false ceiling of approved materials of size 595x595 mm in true horizontal level, suspended on interlocking metal grid of hot dipped galvanized steel sections (galvanized @ 120 grams/ sqm, both side inclusive) consisting of main "T" runner with suitably spaced joints to get required length and of size 24x38 mm made from 0.30 mm thick (minimum) sheet, spaced at 1200 mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long space between main "T" at 600 mm center to center to form a grid of 1200x600 mm and secondary cross "T" of length 600 mm and size 24x25 mm made of 0.30 mm thick (minimum) sheet to be interlocked at middle of the 1200x600 mm panel to form grids of 600x600 mm and wall angle of size 24x24x0.3 mm and laying false ceiling tiles of approved texture in the grid including, required cutting/making, opening of services like diffusers, grills, light fittings, fixtures, smoke detectors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats of size 27 x 37 x 25 x 1.6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4 mm GI adjustable rods with galvanized butterfly level clips of size 85 x 30 x 0.8 mm spaced at 1200 mm center to center along main T, bottom exposed width of 24 mm of all T-sections shall be pre-painted with polyester paint, all complete for all heights as per specifications, drawings and as directed by Engineer-in-charge.8 mm thick fully perforated calcium silicate board made with Calcareous & Siliceous materials reinforced with cellulose fiber manufactured through autoclaving process to give stable crystalline structure with minimum compressive strength 225 Kg/ sq. cm, bending strength 100 Kg/sq. cm, of size 595x595 mm, having perforation of dia, 10 mm with minimum perforated area 18% with non woven tissue on the back side, having an NRC (Noise Reduction Coefficient) of 0.85, with 50 mm thick rockwool of 48 Kg/cum backing.	2184.77 Incl.GST:12%	161.13	2345.9
21.4.2: Providing and fixing double action hydraulic floor spring of approved brand and manufacture conforming to IS: 6315, having brand logo embossed on the body / plate with double spring mechanism and door weight upto 125 kg, for doors including cost of cutting floors, embeding in floors as required and making good the same matching to the existing floor finishing and cover plates with brass pivot and single piece M.S. sheet outer box with slide plate etc. complete as per the direction of Engineer -in- Charge.With brass cover plate minimum 1.25 mm thickness	3079.09 Incl.GST :12%	227.08	3306.17

	Item-	wise Price Details		
68	21.12.2: Providing and fixing aluminium tubular handle bar 32 mm outer dia, 3.0mm thick & 2100 mm long with S.S. screws etc. complete as per direction of Engineer -in-Charge.Powder coated minimum thickness 50 micron aluminium tubular handle bar	664.93 Incl.GST :12%	49.04	713.97
69	21.13: Providing and fixing 100 mm brass locks (best make of approved quality) for aluminium doors including necessary cutting and making good etc. complete	58.46 Incl.GST :12%	4.31	62.77
70	50.9.11.1: Providing and fixing Thomson Multi wood board or equivalent make paneling 12 mm thick, to frame, backing or studding with screws etc. complete (Frames, backing or studding to be paid separately) as per the direction of site Engineer-incharge.	2230.14 Incl.GST :12%	164.47	2394.61
71	50.9.12.1: Providing and fixing Thomson Multi wood board or equivalent make, in shelves with screws and fittings wherever required, edges to be painted with polyurethane primer (fittings to be paid separately) as per the direction of site Engineer-in-charge.	2851.53 Incl.GST :12%	210.3	3061.83
72	13.61.1 : Painting with synthetic enamel paint of approved brand and manufacture to give an even shade:Two or more coats on new work	155.11 Incl.GST :12%	11.44	166.55
73	13.69.1 : Polishing on wood work with ready mixed wax polish of approved brand and manufacture:New work	193.69 Incl.GST :12%	14.28	207.97
74	13.80: Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	146.14 Incl.GST :12%	10.78	156.92
75	13.83.2 : Wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile including applying additional coats wherever required to achieve even shade and colour.Two coats	143.43 Incl.GST :12%	10.58	154.01
76	10.16.3: Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete. Electric resistance or induction butt welded tubes	166.21 Incl.GST :12%	12.26	178.47

	Item-v	vise Price Details		
77	od329889/2020_2021: Roofing sheet with Sandwich PUF roof panel with 0.40 mm or nearest size pre painted Galvalume sheet at top & Bottom, 30 mm or nearest size PUF sheet at middle portion, necessary overlap at ends including self screws, cyclone washer etc. complete	2278.8 Incl.GST :12%	168.06	2446.86
78	17.2.2: Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever), conforming to IS: 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required:W.C. pan with ISI marked black solid plastic seat and lid	8026.17 Incl.GST :12%	591.93	8618.1
79	17.7.1: Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require: White Vitreous China Wash basin size 630x450 mm with a pair of 15 mm C.P. brass pillar taps	5530.56 Incl.GST :12%	407.88	5938.44
80	50.17.1.2: Supplying and fixing CP Towel rod 45cm or nearest available length including cost of materials and labour charges etc complete as per the direction of site Engineer-in-charge.	101.42 Incl.GST :12%	7.48	108.9
81	50.17.1.5: Supplying and fixing CP Health Faucet superior quality (Jagur or equvalent make) including cost of materials and labour charges etc complete as per the direction of site Engineer-incharge.	1510.34 Incl.GST :12%	111.39	1621.73
82	50.17.1.1: Supplying and fixing Stainless steel soap dish including cost of materials and labour charges etc complete as per the direction of site Engineer-incharge.	78.12 Incl.GST :12%	5.76	83.88
83	17.32.1 Providing and fixing mirror of superior glass ( of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing: Circular shape 450 mm dia	1473.35 Incl.GST:12%	108.66	1582.01

	Item-wise Price Details			
84	50.18.7.1.1: Providing and fixing PVC pipes, fittings including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step PVC solvent cement and testing of joints complete as per direction of Engineer-in-Charge 15mm dia 12kgf/cm2 -Internal work-Exposed on wall	220.77 Incl.GST :12%	16.28	237.05
85	50.18.7.4.1: Providing and fixing PVC pipes, fittings including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step PVC solvent cement and testing of joints complete as per direction of Engineer-in-Charge 32 mm dia 10Kgf/cm2- Internal work - Exposed on wall	303.14 Incl.GST :12%	22.36	325.5
86	50.18.8.1.1: Providing and fixing PVC pipes, fittings including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step PVC solvent cement and testing of joints complete as per direction of Engineer- in-Charge. Concealed work, including cutting chases and making good the wall etc. 15 mm pipe 12 Kgf/ cm2	370.88 Incl.GST :12%	27.35	398.23
87	50.18.8.4.1: Providing and fixing PVC pipes, fittings including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step PVC solvent cement and testing of joints complete as per direction of Engineer-in-Charge. Concealed work, including cutting chases and making good the wall etc. 32 mm pipe 10Kgf/cm2	418.96 Incl.GST :12%	30.9	449.86
88	50.18.8.9.1: Providing and fixing PVC pipes, fittings including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes with one step PVC solvent cement and testing of joints complete as per direction of Engineer-in-Charge. Concealed work, including cutting chased and making good the wall etc. 110 mm pipe 6kgf/cm2	708.83 Incl.GST :12%	52.28	761.11
89	50.18.9.8.2 : Providing and fixing PVC pipes includings of pipes with one step PVC solvent cement, trenching and refilling & testing of joints complete as per direction of Engineer in Charge. 75 mm dia 4 Kgf/cm2	374.18 Incl.GST :12%	27.6	401.78

	Item-v	wise Price Details		
90	od329825/2020_2021: Providing and fixing 24 mm thick factory made PVC door shutters made of styles and rails of a PVC hollow section of size 59 x 24 mm and wall thickness 2 mm with inbuilt edging on both sides. The styles and rails mitered and joint at the corners by means of M.S. galvanized/plastic brackets of size 75 x 220 mm having wall thickness 1.0 mm and stainless steel screws. The styles of the shutter reinforced by fixing galvanized M.S. tube of size 20 x 20 mm and 1 mm wall thickness. The lock rail made up of 'H' section, a PVC hollow section of size 100 x 24 mm and 2 mm wall thickness,fixed to the shutter styles by means of plastic/galvanized M.S. 'U' cleats. The shutter frame filled with a PVC multi-chambered single panel of size not less than 620 mm, having over all thickness of 20 mm and 1 mm wall thickness. The panels filled vertically and tie bar at two places by fixing horizontally 6 mm galvanized M.S. rod and fastened with nuts and washers, complete as per manufacturer's specification and direction of Engineer-in-charge( For W.C. and bathroom door shutter).	2569.44 Incl.GST:12%	189.5	2758.94
91	od327710/2020_2021: Supplying and fixing Name board of various sizes using foam sheet board including lettering as per the direction of departmental officers including cost, conveyance and fixing charges etc complete. 45x14cm size	712.94 Incl.GST :12%	52.58	765.52
92	od327711/2020_2021: Supplying and fixing the name board of size using ACP board with acrylic lettering including cost, conveyance and labour charges for lettering and fixing etc complete	23600 Incl.GST :12%	1740.5	25340.5
93	od327712/2020_2021: Supplying and fixing Inaugration board using granite slab including lettering as per direction of departmental officers including cost of granite, lettering and fixing charges etc complete. Size: 100x84cm	21352.52 Incl.GST:12%	1574.75	22927.27
94	od330747/2020_2021: Computer Chair;The Medium Back Adjustable Revolving chair made with Mesh back within Built Handle in the Nylon Finish, The Back is designed extra lumber support. The seat have provided Seat cover in PP made with 12mm hot pressed ply and PU Moylded foam. The tilting mechanism should be synchro-tilt mechanism as per international ergonomics standards any position locking. The base and pin wheels are made in the Nylon. 120mm H Gas lift should be provided with Tower Bellow	9874.93 Incl.GST :12%	728.28	10603.21

	Item-wise Price Details			
95	od330748/2020_2021: High Back Chair Made with feather Foam Seat & Mesh Back with lumber; support., The Gas lift mechanism should be tested as per BIFMA;05.01.2002 Standards. The pedestal should be five legged injection moulded; in black 30% glass –filled nylon and fitted with 5 nos twin wheel castors. Theastors of the chairs should be glass filled, It should have synchro any angle br>locking arrangement	15256.36 Incl.GST :12%	1125.16	16381.52
96	od330749/2020_2021: Providing and fixing trap doors for access to the areas above false ceiling. The trap door shall have an external frame made of Powder coated aluminium channel on which the shutter is hinged. Shutter shall be made 3 mm thick ACP sheet shutter external frame of shutter made of Powder coated aluminium channel. Concealed heavy duty hinges shall be used to mount the shutters and locking shall be provided. The shutter shall be moulded in level with the false ceiling forming a groove all around. Sufficient number of hinges and locks shall be provided to avoid sagging of the shutter. Key also shall be supplied. No extra rate shall be provided for suspenders or frame works all round for linking the trap door to gyp board /any other false ceiling. The rate including all labour charges ,material charges ect complete.	8850 Incl.GST :12%	652.69	9502.69
97	FURNITURE & OTHER WORKS 2mm Lead lined doors: 2mm Lead lined doors: Solid cored(30mm) Lead(2mm) lined flush door side hung two rebated shutters with plywood(6mm) & laminated (1mm) on both sides and all accessories (SS hinges (4 no's), towerbolt, SS handles etc)	30800 Incl.GST :12%	2271.5	33071.5
98	"'2mm Lead lined door frames: Lead(2mm) lined flush door side hung single shutter with plywood(6mm) & laminated (1mm) on both sides and all accessories (Lead sheet should overlap door frame & wall ) Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately), using good quality Anjili wood /jack wood "	30800 Incl.GST :12%	2271.5	33071.5
99	Wood frame for fixing Lead Glass (Lead sheet should overlap door frame & wall )	24640 Incl.GST :12%	1817.2	26457.2
100	Steel cupboard (Godrej) for storage 6ft tall 3 feet width	29568 Incl.GST :12%	2180.64	31748.64

			Item-wise Price Details			
Computer table (long) with keyboard tray, CPU storage at base in a side and storage drawers at other side. (For workstation and reports) reputed brand godrej/featherlite/wipro	24640 Incl.GST :12%	1817.2	26457.2			
Vaccum cleaner power atleast : 1300Watts, input 230Vac, eureka forbes or equivalent	17530.32 Incl.GST :12%	1292.86	18823.18			
Suitable De- Humidifier units: Extraction at least 35 litres/day, compresor: rotary, Air flow: at least 220m3/hr, reputed brand, input 230Vac	54079.2 Incl.GST :12%	3988.34	58067.54			
Providing cable trench for system cables and wherever necessary with metal cover including finishing works and all allied works	2419.2 Incl.GST :12%	178.42	2597.62			
Providing and fixing 2.0mm th. Vinyl floor with rubber based adhesive over clean and smooth surface including finishing by rolling a light roller all complete.	2569.44 Incl.GST :12%	189.5	2758.94			
Fencing (PVC coated Chain link) for out side of Chiller plant including frame work, concreting, painiting, etc complete, also seperate gate with locking arrangement to be provided.	30094.4 Incl.GST :12%	2219.46	32313.86			
Fabricating casting and fixing in position of Scrub with super grade SS heavy type (180 x55x45) cm with boarder edges and joint free sides bottom and top buffing neat finished inside face etc complete	147500 Incl.GST :12%	10878.13	158378.13			
Providing and fixing white vitreous china laboratory sink with C.I brackets, C.P. brass chain with rubber plug 40 mm C.P brass waste and 40 mm C.P. brass trap with necessary C.P. brass unions complete, including painting of fittings and brackets, cutting and making good the wall wherever required: Ã, Size 600x450x200 mmÃ,Â	7477.23 Incl.GST :12%	551.45	8028.68			
"1.10.2: Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required.Group B"	1108.18 Incl.GST :12%	81.73	1189.91			
1.38 : Supplying and fixing call bell/ buzzer suitable for single phase, 230 volts, complete as required.	130.21 Incl.GST :12%	9.6	139.81			
	other side. (For workstation and reports) reputed brand godrej/featherlite/wipro  Vaccum cleaner power atleast: 1300Watts, input 230Vac, eureka forbes or equivalent  Suitable De- Humidifier units: Extraction at least 35 litres/day, compresor: rotary, Air flow: at least 220m3/hr, reputed brand, input 230Vac  Providing cable trench for system cables and wherever necessary with metal cover including finishing works and all allied works  Providing and fixing 2.0mm th. Vinyl floor with rubber based adhesive over clean and smooth surface including finishing by rolling a light roller all complete.  Fencing (PVC coated Chain link) for out side of Chiller plant including frame work, concreting, painiting, etc complete, also seperate gate with locking arrangement to be provided.  Fabricating casting and fixing in position of Scrub with super grade SS heavy type (180 x55x45) cm with boarder edges and joint free sides bottom and top buffing neat finished inside face etc complete  Providing and fixing white vitreous china laboratory sink with C.I brackets, C.P. brass chain with rubber plug 40 mm C.P brass waste and 40 mm C.P. brass trap with necessary C.P. brass unions complete, including painting of fittings and brackets, cutting and making good the wall wherever required:Ã, Size 600x450x200 mmÃ,Â  "1.10.2: Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required. Group B"	other side. (For workstation and reports) reputed brand godrej/featherlite/wipro  Vaccum cleaner power atleast: 1300Watts, input 230Vac, eureka forbes or equivalent  Suitable De- Humidifier units: Extraction at least 35 litres/day, compresor: rotary, Air flow: at least 220m3/hr, reputed brand, input 230Vac  Providing cable trench for system cables and wherever necessary with metal cover including finishing works and all allied works  Providing and fixing 2.0mm th. Vinyl floor with rubber based adhesive over clean and smooth surface including finishing by rolling a light roller all complete.  Fencing (PVC coated Chain link) for out side of Chiller plant including frame work, concreting, painiting, etc complete, also seperate gate with locking arrangement to be provided.  Fabricating casting and fixing in position of Scrub with super grade SS heavy type (180 x55x45) cm with boarder edges and joint free sides bottom and top buffing neat finished inside face etc complete  Providing and fixing white vitreous china laboratory sink with C.I brackets, C.P. brass chain with rubber plug 40 mm C.P. brass waste and 40 mm C.P. brass waste and waster trap with necessary C.P. brass unions complete, including painting of fittings and brackets, cutting and making good the wall wherever required: Ā, Ā Size 600x450x200 mmĀ, Ā  "1.10.2: Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required. Group B"  1.30.21	Vaccum cleaner power atleast: 1300Watts, input 230Vac, eureka forbes or equivalent  Suitable De- Humidifier units: Extraction at least 35 litres/day, compresor: rotary, Air flow: at least 220m3/hr, reputed brand, input 230Vac  Providing cable trench for system cables and wherever necessary with metal cover including finishing works and all allied works  Providing and fixing 2.0mm th. Vinyl floor with rubber based adhesive over clean and smooth surface including finishing by rolling a light roller all complete.  Fencing (PVC coated Chain link) for out side of Chiller plant including frame work, concreting, painliting, etc complete, also seperate gate with locking arrangement to be provided.  Fabricating casting and fixing in position of Scrub with super grade SS heavy type (180 x55x45) cm with boarder edges and joint free sides bottom and top buffing neat finished inside face etc complete  Providing and fixing white vitreous china laboratory sink with C.L brackets, C.P. brass chain with rubber plug 40 mm C.P. brass vaste and 40 mm C.P. brass trap with necessary C.P. brass unions complete, including painting of fittings and brackets, cutting and making good the wall wherever required:Â, Size 600x450x200 mmÃ,Â  "1.10.2: Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable Gl box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable Gl box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable Gl box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable its arequired. Group B"			

	Item-wise Price Details			
111	1.55.2 : Wiring for group controlled (looped) light point/fan point/exhaust fan point/ call bell point (without independent switch etc.) with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed PVC conduit, and earthing the point with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable etc. as required.Group B	718.97 Incl.GST :12%	53.02	771.99
112	1.14.1: Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface / recessed medium class PVC conduit as required 2x1.5 sq.mm + 1x1.5 sq.mm earth wire	206.63 Incl.GST :12%	15.24	221.87
113	1.14.2 : Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface / recessed medium class PVC conduit as required 2X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	236.35 Incl.GST :12%	17.43	253.78
114	1.14.3: Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface / recessed medium class PVC conduit as required 2 X 4 sq. mm + 1 X 4 sq. mm earth wire	283.06 Incl.GST :12%	20.88	303.94
115	1.17.31 : Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface / recessed steel/ PVC conduit as required.4 x 6 sq. mm	311.37 Incl.GST :12%	22.96	334.33
116	1.17.3 : Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface / recessed steel/ PVC conduit as required.3 X 1.5 sq.mm	76.43 Incl.GST :12%	5.64	82.07
117	1.17.12 : Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface / recessed steel/ PVC conduit as required.3 x 2.5 sq. mm	106.14 Incl.GST :12%	7.83	113.97
118	1.17.21: Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface / recessed steel/ PVC conduit as required.3 x 4 sq. mm	165.59 Incl.GST:12%	12.21	177.8

	Item-	wise Price Details		
119	1.18.2 : Supplying and drawing following pair 0.5 mm dia FRLS PVC insulated annealed copper conductor,unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required.2 Pair	28.3 Incl.GST :12%	2.09	30.39
120	1.19: Supplying and drawing co-axial TV cable RG-6 grade, 0.7 mm solid copper conductor PE insulated, shielded with fine tinned copper braid and protected with PVC sheath in the existing surface/recessed steel/ PVC conduit as required.	46.7 Incl.GST :12%	3.44	50.14
121	1.21.1 : Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/ recess including cutting the wall and making good the same in case of recessed conduit as required.20 mm	118.89 Incl.GST :12%	8.77	127.66
122	1.21.2 : Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/ recess including cutting the wall and making good the same in case of recessed conduit as required.25 mm	127.38 Incl.GST :12%	9.39	136.77
123	1.53.1 : Supplying and drawn of UTP 4 pair CAT 6 LAN cable in the existing surface/recessed steel/PVC conduit as required1 run of Cable	69.35 Incl.GST :12%	5.11	74.46
124	1.53.2 : Supplying and drawn of UTP 4 pair CAT 6 LAN cable in the existing surface/recessed steel/PVC conduit as required2 run of Cable	116.05 Incl.GST :12%	8.56	124.61
125	od329339/2020_2021 : CAT 6 RJ 45 Computer jack modular SOCKET OUTLET	236.71 Incl.GST :12%	17.46	254.17
126	1.24.1 : Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.5/6 amps switch	120.3 Incl.GST :12%	8.87	129.17
127	1.24.2 : Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.2 way 5/6 amps switch	174.08 Incl.GST :12%	12.84	186.92
128	1.24.3 : Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.15/16 amp switch	186.82 Incl.GST :12%	13.78	200.6

	Item-	wise Price Details		
129	1.24.4 : Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.3 pin 5/6 amp socket outlet	157.1 Incl.GST :12%	11.59	168.69
130	1.24.5 : Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.6 pin 15/16 amp socket outlet	247.68 Incl.GST :12%	18.27	265.95
131	1.24.6: Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. Telephone socket outlet	168.43 Incl.GST :12%	12.42	180.85
132	1.24.7 : Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.TV antenna socket outlet	168.43 Incl.GST :12%	12.42	180.85
133	1.24.8 : Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.Bell push	90.57 Incl.GST :12%	6.68	97.25
134	1.26: Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	45.29 Incl.GST :12%	3.34	48.63
135	1.27.1 : Supplying and fixing following size/modules, GI box alongwith modular base & cover plate for modular switches in recess etc as required.1 or 2 Module (75mmX75mm)	343.92 Incl.GST :12%	25.36	369.28
136	1.27.2 : Supplying and fixing following size/modules, GI box alongwith modular base & cover plate for modular switches in recess etc as required.3 Module (100mmX75mm)	377.89 Incl.GST:12%	27.87	405.76
137	1.27.4 : Supplying and fixing following size/modules, GI box alongwith modular base & cover plate for modular switches in recess etc as required.6 Module (200mmX75mm)	471.3 Incl.GST:12%	34.76	506.06

	Item-v	wise Price Details		
138	1.27.5 : Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc as required.8 Module (125mmX125mm)	542.06 Incl.GST :12%	39.98	582.04
139	1.51 : Extra for fixing the louvers/ shutters complete with frame for a exhaust fan of all sizes	237.78 Incl.GST :12%	17.54	255.32
140	90.4.8: Charges for cutting holes suitable for accommodating exhaust fans up to 305mm sweep including plastering colour washing etc. as required.	403 Incl.GST :12%	29.72	432.72
141	1.50.1 : Installation of exhaust fan in the existing opening, including making good the damage connection testing, commissioning etc. as required.Upto 450 mm sweep	363 Incl.GST :12%	26.77	389.77
142	od329345/2020_2021 : Supply of exhaust fan of 380 mm sweep,heavy duty with metallic vanes and housing with louvers and shutters	4822.27 Incl.GST :12%	355.64	5177.91
143	od329349/2020_2021 : Supply of 300/305 mm sweep Light Duty Exhaust fan in metal frame working on230 V A/C	2654.31 Incl.GST:12%	195.76	2850.07
144	90.11.1.10: Supply and installation of sheet steel, phosphatised and painted, dust and vermin proof enclosure of MCB DB including copper /brass bus bar, neutral link, earth bus and DIN rail suitable for fixing MCB/ isolator etc. fixed on wall using suitable anchor bolts or fixed in recess including cutting hole on the wall, making good the damages, colour washing etc. as required 4 way (8+12) - three phase double cover (IP 42/43), LDB and PDB	3921.33 Incl.GST :12%	289.2	4210.53
145	"90.11.1.11Supply and installation of sheet steel, phosphatised and painted, dust and vermin proof enclosure of MCB DB including copper /brass bus bar, neutral link, earth bus and DIN rail suitable for fixing MCB/ isolator etc. fixed on wall using suitable anchor bolts or fixed in recess including cutting hole on the wall, making good the damages, colour washing etc. as required 6 way (8+18) - three phase double cover (IP 42/43) UPS DB"	6274.03 Incl.GST :12%	462.71	6736.74

	Item-v	wise Price Details		
146	od329335/2020_2021: Supplying and fixing following rating, four pole, (three phaseand neutral), 415 V, residual current circuit breaker (RCCB),having a sensitivity current 30 mA in the existing MCB DBcomplete with connections, testing and commissioning etc. asrequired. 63 A rating, 4 pole, 30 mA RCCB	3736.39 Incl.GST :12%	275.56	4011.95
147	od329340/2020_2021: Supplying and fixing following rating, four pole, (three phaseand neutral), 415 V, residual current circuit breaker (RCCB),having a sensitivity current 30 mA in the existing MCB DBcomplete with connections, testing and commissioning etc. asrequired.40 A rating, 4 pole, 30 mA RCCB	2965.05 Incl.GST :12%	218.67	3183.72
148	2.13.1: Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required. 40 amps	1177.53 Incl.GST :12%	86.84	1264.37
149	2.13.2 : Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required. 63 amps	1187.44 Incl.GST :12%	87.57	1275.01
150	2.10.1: Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required. Single pole	281.65 Incl.GST :12%	20.77	302.42
151	od329357/2020_2021 : Supplying and fixing following rating, three pole, MCB 63 A rating, 3 pole, MCB	544.89 Incl.GST :12%	40.19	585.08
152	od329359/2020_2021 : Supplying and fixing following rating, three pole, MCB 40 A rating, 3 pole, MCB	479.79 Incl.GST :12%	35.38	515.17
153	"90.11.1.19: Supply and installation of sheet steel, phosphatised and painted, dust and vermin proof enclosure of MCB DB including copper /brass bus bar, neutral link, earth bus and DIN rail suitable for fixing MCB/ isolator etc. fixed on wall using suitable anchor bolts or fixed in recess including cutting hole on the wall, making good the damages, colour washing etc. as required 6 way (8 + 18) - double cover TPN vertical DB with provision for fixing MCCB as incomer and SP/ TP MCB as outgoing (IP 42/43)"	12824.03 Incl.GST :12%	945.77	13769.8

	Item-w	ise Price Details		
154	"90.11.1.19: Supply and installation of sheet steel, phosphatised and painted, dust and vermin proof enclosure of MCB DB including copper /brass bus bar, neutral link, earth bus and DIN rail suitable for fixing MCB/ isolator etc. fixed on wall using suitable anchor bolts or fixed in recess including cutting hole on the wall, making good the damages, colour washing etc. as required 4 way (8+12) - double cover TPN vertical DB with provision for fixing MCCB as incomer and SP/ TP MCB as outgoing (IP 42/43) "	9176.81 Incl.GST :12%	676.79	9853.6
155	2.2.13: Providing and fixing following rating and breaking capacity and pole MCCB in existing cubicle panel board including drilling holes in cubicle panel, making connections, etc. as required. 100 Amp, 16/10 KA 4 Pole	10440.67 Incl.GST :12%	770	11210.67
156	2.2.14: Providing and fixing following rating and breaking capacity and pole MCCB in existing cubicle panel board including drilling holes in cubicle panel, making connections, etc. as required.125 Amp, 16/10 KA	10620.41 Incl.GST :12%	783.26	11403.67
157	90.14.10.10: Supply, conveyance and fixing the following types & current rated control gears & switchgears conforming to IS 13947 suitable for 440 V, 50 Hz, AC supply in the existing panel assembly as required.16A -100A, 16/10 kA (Ics=100%Icu), 4 pole, current limiting type MCCB with microprocessor based release with overload setting of 50 - 100% having adjustable OL & SC	29715.84 Incl.GST :12%	2191.54	31907.38
158	"7.8.2 : Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on cable tray as required. Above 35 sq. mm and upto 95 sq. mm (clamped with 25x3mm MS flat clamp)"	104.73 Incl.GST:12%	7.72	112.45
159	90.12.41.20: Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured copper power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages, colour washing etc. as required.3.5 core 25 sq mm with factory made clamp	1759.22 Incl.GST :12%	129.74	1888.96
160	90.12.41.21: Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured copper power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages, colour washing etc. as required.3.5 core 35 sq mm with factory made clamp	2285.71 Incl.GST :12%	168.57	2454.28

	Item-	wise Price Details		
161	90.12.41.22: Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured copper power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages, colour washing etc. as required.3.5 core 50 sq mm with factory made clamp	2702.92 Incl.GST :12%	199.34	2902.26
162	90.12.41.33: Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured copper power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages, colour washing etc. as required.4 core 10 sq mm with factory made clamp	810.69 Incl.GST :12%	59.79	870.48
163	90.12.41.34: Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured copper power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages, colour washing etc. as required.4 core 16 sq mm with factory made clamp	1061.56 Incl.GST :12%	78.29	1139.85
164	"90.12.41.24 Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured copper power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages, colour washing etc. as required. 3.5 core 95 sq mm "	5317.04 Incl.GST:12%	392.13	5709.17
165	"90.12.41.4 Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured copper power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages, colour washing etc. as required. 2 core 16 sq mm with factory made clamp"	724.63 Incl.GST :12%	53.44	778.07
166	"4.1.3: Supplying and installing following size of perforated pre-painted M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required.225 mm width X 50 mm depth X 1.6 mm thickness"	844.94 Incl.GST :12%	62.31	907.25

	Item-wise Price Details			
167	"4.2.3: Supplying and installing following size of perforated pre-painted M.S. cable trays bends with perforation not more than 17.5%,, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required.225 mm width X 50 mm depth X 1.6 mm thickness"	1617.68 Incl.GST:12%	119.3	1736.98
168	"90.12.41.4 Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed unarmoured flexible copper power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages, colour washing etc. as required. Single core 35 sq mm with factory made clamp"	701 Incl.GST :12%	51.7	752.7
169	"90.12.41.4 Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed unarmoured flexible copper power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages, colour washing etc. as required. Single core 50 sq mm with factory made clamp"	994 Incl.GST :12%	73.31	1067.31
170	"Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed unarmoured flexible copper power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages, colour washing etc. as required. Single core 70 sq mm with factory made clamp"	1395 Incl.GST :12%	102.88	1497.88
171	"Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed unarmoured flexible copper power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages, colour washing etc. as required. Single core 95 sq mm with factory made clamp"	1903 Incl.GST :12%	140.35	2043.35
172	"Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed unarmoured flexible copper power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages, colour washing etc. as required. Single core 10 sq mm with factory made clamp"	206 Incl.GST :12%	15.19	221.19

	Item-	wise Price Details		
173	"Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed unarmoured flexible copper power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages, colour washing etc. as required. Single core 16 sq mm with factory made clamp"	323 Incl.GST :12%	23.82	346.82
174	od329321/2020_2021: Supplying siemens / tropodur type nickel plated Double compression brass cable gland for PVC insulated and PVC sheathed armoured aluminium/ copper conductor cable 1.1 KV grade, and making end termination suitable for 4 core cable of the following sizes as required. 50 Sqmm	512 Incl.GST :12%	37.76	549.76
175	od329326/2020_2021: Supplying siemens / tropodur type nickel plated Double compression brass cable gland for PVC insulated and PVC sheathed armoured aluminium/ copper conductor cable 1.1 KV grade, and making end termination suitable for 4 core cable of the following sizes as required.16 Sqmm	199 Incl.GST :12%	14.68	213.68
176	od329329/2020_2021: Supplying siemens / tropodur type nickel plated Double compression brass cable gland for PVC insulated and PVC sheathed armoured aluminium/ copper conductor cable 1.1 KV grade, and making end termination suitable for 4 core cable of the following sizes as required.25 Sqmm	392.25 Incl.GST :12%	28.93	421.18
177	od329332/2020_2021 : Supplying siemens / tropodur type nickel plated Double compression brass cable gland for PVC insulated and PVC sheathed armoured aluminium/ copper conductor cable 1.1 KV grade, and making end termination suitable for 4 core cable of the following sizes as required.10 Sqmm	140.32 Incl.GST :12%	10.35	150.67
178	od329336/2020_2021: Supplying siemens / tropodur type nickel plated Double compression brass cable gland for PVC insulated and PVC sheathed armoured aluminium/ copper conductor cable 1.1 KV grade, and making end termination suitable for 4 core cable of the following sizes as required. 35 Sqmm	426 Incl.GST :12%	31.42	457.42
179	od329341/2020_2021 : Supply of superior quality copper tubular cable socket and making core termination of cables of the following sizes including crimping etc. as required. 50 Sqmm	116.74 Incl.GST :12%	8.61	125.35

	Item-	wise Price Details		
180	od329346/2020_2021 : Supply of superior quality copper tubular cable socket and making core termination of cables of the following sizes including crimping etc. as required. 35 Sqmm	110.89 Incl.GST :12%	8.18	119.07
181	od329350/2020_2021: Supply of superior quality copper tubular cable socket and making core termination of cables of the following sizes including crimping etc. as required. 25 Sqmm	105.41 Incl.GST :12%	7.77	113.18
182	od329352/2020_2021 : Supply of superior quality copper tubular cable socket and making core termination of cables of the following sizes including crimping etc. as required.16 Sqmm	99.36 Incl.GST :12%	7.33	106.69
183	od329353/2020_2021 : Supply of superior quality copper tubular cable socket and making core termination of cables of the following sizes including crimping etc. as required.10 Sqmm	88.7 Incl.GST :12%	6.54	95.24
184	od329354/2020_2021: Supplying and providing earth clamps for siemens/ tropodur type cable glands of suitable length and other dimensions noted along with each size of glands for the following sizes of cables as required.25 sq - 95sq mm with 20 mm wide x 1.20 mm thick clip	28.03 Incl.GST :12%	2.07	30.1
185	od329355/2020_2021 : Supplying and providing earth clamps for siemens/ tropodur type cable glands of suitable length and other dimensions noted along with each size of glands for the following sizes of cables as required.4sqmm-16 sq mm with 12 mm wide x 1 mm thick clip	18.68 Incl.GST :12%	1.38	20.06
186	90.16.1.2 : Supply and drawing bare earthing conductors of the following sizes along with wiring/cables and giving connection as required2.65 mm copper conductor (12 SWG)	52.48 Incl.GST :12%	3.87	56.35
187	90.16.1.3 : Supply and drawing bare earthing conductors of the following sizes along with wiring/cables and giving connection as required3.15 mm copper conductor ( 10 SWG)	75 Incl.GST :12%	5.53	80.53
188	90.16.1.4 : Supply and drawing bare earthing conductors of the following sizes along with wiring/cables and giving connection as required4.00 mm copper conductor ( 8 SWG)	118.36 Incl.GST :12%	8.73	127.09

	Item-	wise Price Details		
189	90.16.5.2 : Supply of superior quality copper earth socket for the following size of earth conductor including crimping etc. as required.2.65 mm (12 SWG)	28.3 Incl.GST :12%	2.09	30.39
190	90.16.5.3 : Supply of superior quality copper earth socket for the following size of earth conductor including crimping etc. as required.3.15 mm (10 SWG)	31.14 Incl.GST :12%	2.3	33.44
191	90.16.5.4 : Supply of superior quality copper earth socket for the following size of earth conductor including crimping etc. as required.4.00 mm (8 SWG)	32.55 Incl.GST :12%	2.4	34.95
192	5.6: Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	23600 Incl.GST :12%	1740.5	25340.5
193	od329356/2020_2021: Supplying, threading, laying and jointing of the following sizes of 'B' class GI pipe with all required accessories in ground in trench as protective covering to earth leads.40 mm Dia	396.7 Incl.GST :12%	29.26	425.96
194	od329358/2020_2021: Supply and providing test joint for the earthing system using 2 Nos of the following sizes of strips including cutting and bending to shape, drilling necessary holes and fixed to the watering pipe etc as required. 2 x 25 x 3 mm tinned copper strip	1058 Incl.GST :12%	78.03	1136.03
195	90.16.1.1 : Supply and drawing bare earthing conductors of the following sizes along with wiring/cables and giving connection as required2.00 mm copper conductor (14 SWG)	35.31 Incl.GST :12%	2.6	37.91
196	Supply and clamping the following size of strips on surface of wall/ parapet/ existing cable tray using clamps fabricated from 20 X 3 mm GI flat duly painted or heavy duty GI spacer saddles spacing of clamps not exceeding 1 m, making good the damages, colour washing etc. as required ( for horizontal run)	785.93 Incl.GST :12%	57.96	843.89

	Item-v	wise Price Details		
197	90.3.19.3: Supply conveyance, installation, testing and commissioning the light fittings of following types made from CRCA sheet 0.5mm thickness with all accessories and lamps directly on wall and giving connections with 16/0.20 mm 3 core PVC insulated and sheathed round copper conductor flex wire or extending the original wiring and giving connections as required1200 mm 1X20W LED Lamp with box type fixture	1187 Incl.GST :12%	87.54	1274.54
198	"90.3.20.3: Supply & installation of light fittings on TW round block Supply, conveyance installation testing and commissioning the light fittings of following types made of CRCA with 0.5mm thickness complete with all accessories and lamps etc. directly on wall or ceiling with PVC round block neatly painted to suit the fitting and giving connection with required length of 16/0.20mm 3 core copper conductor flex wire conforming to relevant ISS and giving connections as required.1200 mm 1X20W LED Lamp with box type fixture"	1219 Incl.GST :12%	89.9	1308.9
199	od329330/2020_2021: Recess mounted LED luminaire with full diffuser type upto 36 W (max), 2x2 LED, Cool White, 5700k, White powder coated CRCA housing, WIPRO CRCO10R038HP57GL1 or Bajaj BZRSQL 36W GZi CW or Equivalent	4468.81 Incl.GST :12%	329.57	4798.38
200	od329333/2020_2021 : Frame for Fixing Recess mounted LED 2x2 ft luminaire 608 mm x 608 mm	428.86 Incl.GST :12%	31.63	460.49
201	od329337/2020_2021 : Recess mounted circular LED retrofit downlighter, 15W, powder coated white finish, BPSLR 15W WH Bajaj or Equivalent	1731.37 Incl.GST :12%	127.69	1859.06
202	od329342/2020_2021 : Supplying and Fixxing of 6 / 7 W pin type LED bulb in the existing angle batton etc as required (Philips, Wipro or similar superior make)	264.88 Incl.GST :12%	19.53	284.41
203	od329322/2020_2021 : SITC of 400mm sweep meduim duty wall fans with metallic vanes (Make: M/s Almonard/ Crompton/Bajaj or Equivalent)	2800 Incl.GST :12%	206.5	3006.5
204	od329323/2020_2021 : 4 kg ABC Powder Type Fire Extinguisher With NABL Approval, Fights Class A, B, C and Electrically started fires.	3073.82 Incl.GST :12%	226.69	3300.51
205	od329327/2020_2021 : 4.5 kg Fire Extinguisher Carbon Di-oxide Type With NABL Approval	5503.56 Incl.GST :12%	405.89	5909.45

	Item-wise Price Details			
206	od329324/2020_2021: Charges for dismantling the existing Electrical Installations complete making good the damages of the wall and conveying the dismantled materials to store etc as required.	189.83 Incl.GST :12%	14	203.83
207	1.49 : Numbering of ceiling fan / exhaust fan/ fluorescent fittings as required.	50 Incl.GST :12%	3.69	53.69
208	Supplying, installing, testing and commissioning of Conventional Single action Manual call point	995.79 Incl.GST :12%	73.44	1069.23
209	Supplying, installing, testing and commissioning of Conventional Hooter with builtin Flasher light with base UL/EN listed.	1528.28 Incl.GST :12%	112.71	1640.99
210	Supplying, installing, testing and commissioning of 2 core x 1.5 Sqmm FR PVC,multistrand Copper Cu Ar cable confirming to IS standards and specifications. Make: Polycab / Century	190.96 Incl.GST :12%	14.08	205.04
211	Providing installating, connecting, testing and commissioning Heat Detectors type with mounting base, blinking LED as required complete and integration	1579.65 Incl.GST :12%	116.5	1696.15
212	Supplying, installation, testing and commissioning of Conventional Photoelectric Smoke detectors as required to connect with existing system	1405.71 Incl.GST:12%	103.67	1509.38

Item-	wise Price Details		
of 2 mm thick CRCA sheet, totally enclosed, IP42, free standing, wall/floor mounting, dust and vermin proof, powder coated, indoor, compartmentalized, suitable for operation on 3 phase and neutral, 415 V, 50Hz AC system with bus-bars extendable on both sides, including all the necessary internal wiring, suitable spreader etc. The panel shall be fabricated from a firm having CPRI certification with test certificates for similar panel(required for short circuit rating, temperature rise and IP classification) and with following switchgears, metering instruments and accessories etc. complete as required as per drawing & specification. RYB Indicating lamps LED type, 4A SP MCB, Digital Multi-function Meter to read V,A,Hz,PF,Kwh, Surge Protection Device, EFR, 400/5 A 5 VA Class .SS CTs, ON/OFF INDICATION LAMP, Incomer 400A FP Moulded Case Circuit Breaker with Micro Processor based release with OL and SC protection neutral link (Ics =100%Icu= 25kA) -1 Nos 400A Copper TPN busbar chamber with Copper busbar. Outgoing 250 A FP Moulded Case Circuit Breaker with Micro Processor based release with OL and SC protection neutral link (Ics =100%Icu= 26kA) -1 Nos, 125 A FP Moulded Case Circuit Breaker with thermal release with OL and SC protection neutral link (Ics =100%Icu= 16kA) - 2 Nos, 100 A FP Moulded Case Circuit Breaker with thermal release with OL and SC protection neutral link (Ics =100%Icu= 16kA) - 2 Nos, 63 A FP Moulded Case Circuit Breaker with thermal release with OL and SC protection neutral link (Ics =100%Icu= 16kA) - 2 Nos, 63 A FP Moulded Case Circuit Breaker with thermal release with OL and SC protection neutral link (Ics =100%Icu= 16kA) - 2 Nos, 63 A FP Moulded Case Circuit Breaker with thermal release with OL and SC protection neutral link (Ics =100%Icu= 16kA) - 2 Nos, 63 A FP Moulded Case Circuit Breaker with thermal release with OL and SC protection neutral link (Ics =100%Icu= 16kA) - 2 Nos, 63 A FP Moulded Case Circuit Breaker with OL and SC protection neutral link (Ics =100%Icu= 16kA) - 2 Nos, 100 A FP Moul	230100 Incl.GST :12%	16969.88	247069.88

	Item-v	wise Price Details		
214	Supply of LT Switch board cubicle type, made out of 2 mm thick CRCA sheet, totally enclosed, IP42, free standing, wall/floor mounting, dust and vermin proof, powder coated, indoor, compartmentalized, suitable for operation on 3 phase and neutral, 415 V, 50Hz AC system with bus-bars extendable on both sides, including all the necessary internal wiring, suitable spreader etc. The panel shall be fabricated from a firm having CPRI certification with test certificates for similar panel(required for short circuit rating, temperature rise and IP classification) and with following switchgears, metering instruments and accessories etc. complete as required as per drawing & specification. RYB Indicating lamps LED type, 4A SP MCB, Digital Multi-function Meter to read V,A,Hz,PF,Kwh, Surge Protection Device, EFR, 400/5 A 5 VA Class .5S CTs, ON/OFF INDICATION LAMP, Incomer 250A FP Moulded Case Circuit Breaker with Micro Processor based release with OL and SC protection neutral link (Ics =100%Icu= 25kA) -1 Nos 200A Copper TPN busbar chamber with Copper busbar. Outgoing 200 A FP Moulded Case Circuit Breaker with Micro Processor based release with OL and SC protection neutral link (Ics =100%Icu= 25kA) -1 Nos, 100 A FP Moulded Case Circuit Breaker with thermal release with OL and SC protection neutral link (Ics =100%Icu= 16kA) - 2 Nos, 63 A FP Moulded Case Circuit Breaker with thermal release with OL and SC protection neutral link (Ics =100%Icu= 16kA) - 2 Nos, 64 A FP Moulded Case Circuit Breaker with thermal release with OL and SC protection neutral link (Ics =100%Icu= 16kA) - 2 Nos, 40 A FP Moulded Case Circuit Breaker with thermal release with OL and SC protection neutral link (Ics =100%Icu= 16kA) - 2 Nos, 40 A FP Moulded Case Circuit Breaker with thermal release with OL and SC protection neutral link (Ics =100%Icu= 16kA) - 2 Nos, 40 A FP Moulded Case Circuit Breaker with thermal release with OL and SC protection neutral link (Ics =100%Icu= 16kA) - 2 Nos, 40 A FP Moulded Case Circuit Breaker with thermal release with OL and S	159300 Incl.GST :12%	11748.37	171048.37
215	Providing and fixing of response indicator as required	285.06 Incl.GST :12%	21.02	306.08
216	Conventional Single -Zone Fire Panel with batteries, battery charger mimic diagram etc	20650 Incl.GST :12%	1522.94	22172.94
217	Installation, testing and commissioning of air conditioners Including Gas Charging, Pressure testing witht suffcient Gas as per CPCB/CPWD Guidelines. Gas charging the system after necessary leak testing with 300 PSI dry nitrogen, and vacuumhold testing (for a period of 12 hrs) (with Freon 22 or superior refrigerant gas)	22584.8 Incl.GST :12%	1665.63	24250.43

	Item-v	wise Price Details		
218	Supply, installation, testing and commissioning of Aluminium ducting for Air distribution network from indoor unit as per ducting specifications in Machine Room complete with angle flanges ,supports, GI rods , anchor bolts ,GI nuts and bolts, PVC/ rubber gaskets complete with all fittings , bends, transformations , vanes , splitter dampers ,inspection doors , plenums, channels, rods, anchor bolts, etc to roof /truss as per IS 655 . The job includes entire air distribution network and sizing of ducts also. The materials used shall be paramagnetic.: Thickness 24 G	1409.55 Incl.GST :12%	103.95	1513.5
219	Supply, installation, testing and commissioning of Aluminium ducting for Air distribution network from indoor unit as per ducting specifications in Machine Room complete with angle flanges ,supports, GI rods , anchor bolts ,GI nuts and bolts, PVC/ rubber gaskets complete with all fittings , bends, transformations , vanes , splitter dampers ,inspection doors , plenums, channels, rods, anchor bolts, etc to roof /truss as per IS 655 . The job includes entire air distribution network and sizing of ducts also. The materials used shall be paramagnetic.: Thickness 22 G	1467.93 Incl.GST :12%	108.26	1576.19
220	Supply, installation, testing and commissioning (SITC) of 2 No's 11 TR or higher capacity aircooled ductable split air conditioner with ceiling suspended IDU and all standard fittings, IDU SS drain pan, as per specifications complete with suitable capacity drive motor, air cooled condenser with all accessories, hermetically sealed scroll twin compressor, Evaporator coil have integrally finned copper tubes. The compressor should have independent refrigerent circuits, expansion devices, HP/LP cut off, electronic microprocessor pendant controller with digital display, first charge refrigerent gas, vibration isolator pads, structural supports for fixing IDU/ ODU as shown in the drawing, safety devices including thermal protector, pressure relief valve, over load relays single phase preventor, wired remote control etc, power wiring(max 3m from isolator) and control cabling(indoor to outdoor),thermostat wiring, highlow pressure cut out, suitable for three phase 440V supply etc complete as required.	700465.92 Incl.GST:12%	51659.36	752125.28
221	Supply, installation, testing and commissioning of suitable sized hard drawn 18 SWG copper refrigerant piping(both suction and liquid piping) including 25mm thick closed cell elastomeric insulation as per specification for 11/8.75/5.5 TR machine between indoor & outdoor units as per site conditions all complete.	1221.3 Incl.GST :12%	90.07	1311.37

	Item-v	vise Price Details		
222	Supply, installation, testing and commissioning of volume control duct damper made of extruded aluminium for ducts/collars to be provided with suitable links, lebers and quadrants for manual control of volume of air flow and for proper balancing of the air distribution in the main duct complete with neoprene rubber gaskets, nuts, bolts, screws linkages, flanges etc., as per specifications. The materials used shall be paramagnetic.	15104 Incl.GST :12%	1113.92	16217.92
223	Supplying, fixing testing commissioning of Return air Diffusers of powder coated aluminium without volume control dampers with anti smudge ring & removable core.	9312.69 Incl.GST :12%	686.81	9999.5
224	Supplying, fixing testing commissioning of supply air diffusers of powder coated aluminium with aluminium volume control dampers with anti smudge ring & removable core.	13998.88 Incl.GST :12%	1032.42	15031.3
225	"Supply, installation, testing and commissioning of Powder coated extruded aluminimum Continuous grilles 150 mm high for supply air with aluminium damper as per spec "	8826.44 Incl.GST :12%	650.95	9477.39
226	Supply, installation, testing and commissioning of Powder coated extruded aluminimum Continuous grilles 150mm high for return air as per spec	10271.8 Incl.GST :12%	757.55	11029.35
227	Providing and fixing of Acoustic Duct lining with 10mm thick nitrile rubber open cell type inside the ducts	854.62 Incl.GST :12%	63.03	917.65
228	Providing and fixing of Thermal insulation lining with 10mm thick fiberglass rigid board with adhesive, on supply duct using 9mm thick nitrile rubber closed cell type.	605.34 Incl.GST :12%	44.64	649.98
229	Supply and Fixing of Canvas connection and ribbed rubber pads as vibration isolators	6136 Incl.GST :12%	452.53	6588.53
230	Supply and Fixing of Heater Package with Humidistat and contactor for humidity control	184521.32 Incl.GST :12%	13608.45	198129.77
231	Motorized volume control damper for individual operation of ductable split air conditioners	6136 Incl.GST :12%	452.53	6588.53

	Item-	wise Price Details		
232	Supply, installation, testing and commissioning UPVC drain pipe 6kg/sq.cmof suitable dia connecting the drain pan of the indoor units to nearest drain point, with 12mm thick closed cell elastomeric insulation as per specification	416.71 Incl.GST :12%	30.73	447.44
233	Electrical Cabling between indoor and outdoor units, with required size cables/wires(Havells/RR Kabel/V-guard FRLS wires)	353.58 Incl.GST :12%	26.08	379.66
234	Outdoor unit stand with ribbed rubber pads for Ductable Split AC units	5310 Incl.GST :12%	391.61	5701.61
235	Charges for wall openings for accommodating the supply ducts including plastering, colour washing etc. as required.	1232 Incl.GST :12%	90.86	1322.86
236	SITC of 19 mm thick nitrile rubber for under deck insulation	828.36 Incl.GST :12%	61.09	889.45
237	od329347/2020_2021: 4 KVA Voltage Stabilizer Wall mount type with Time delay, High& low voltage& Thermal overload protection, Input voltage: 170-220V, Output Voltage: 200-240V, High Voltage Cut Off: 240V, Efficiency: 95%, Frequency: 50Hz, V guard VG 500 or Equivalent	3449.26 Incl.GST :12%	254.38	3703.64
238	od329351/2020_2021: Supply, Conveyance testing and commissioning of 2 Ton 5 Star Inverter Type, split AC unit with Copper Tube cooling coils, 5 star rating Bluestar/LG(Dual Inverter Type)/Voltas/Mitsubishi or Superior Superior brands, Cooling Capacity 6000 KW/hr with rotary/scroll type compressors. with microprocessor controlled code less remote, CFM above 500/450, LED/LCD Display	70000 Incl.GST :12%	5162.5	75162.5
239	od330999/2020_2021: Supply, Conveyance testing and commissioning of 1.5 Ton 5 Star Inverter Type, split AC unit with Copper Tube cooling coils, 5 star rating Bluestar/LG(Dual Inverter Type)/Voltas/Mitsubishi or Superior brands, Cooling Capacity 3000 KW/hr with rotary/scroll type compressors. with microprocessor controlled code less remote, CFM above 500/450, LED/LCD Display	52500 Incl.GST :12%	3871.88	56371.88
240	Supporting Stand for Fixing Outdoor Unit(Powder coated) suitable for 1/1.5/2 TR Split AC units	1691.46 Incl.GST :12%	124.74	1816.2

	Item-wise Price Details			
241	Additional Copper Pipe with Superlon Insulation for Suction and Discharge suitable for 1/1.5/2 TR Split AC units(Qy shall be measured for exceeding the 3 mtr supplied along with AC Units)	1241.36 Incl.GST :12%	91.55	1332.91
242	AC Drain Pump suitable for 1/1.5/2 TR Split AC units	5310 Incl.GST :12%	391.61	5701.61
243	24-Port Gigabit manageable smart Network Switch with 2 SFPs. Rack mountable	19351.92 Incl.GST :12%	1427.2	20779.12
244	Patch panel - 24-Port patch panel with cable tray. Rack mountable	4248 Incl.GST :12%	313.29	4561.29
245	4U Rack- Wall Mountable including 4x 6Amp power distribution box	6844 Incl.GST :12%	504.74	7348.74
246	Supply of branded 1mtr patch cords with cat 6 cable.	295 Incl.GST :12%	21.76	316.76
247	Supply of branded 2mtr patch cords with cat 6 cable.	392 Incl.GST :12%	28.91	420.91
248	Supply of branded 3mtr patch cords with cat 6 cable.	504 Incl.GST :12%	37.17	541.17
249	Preparation of Schematic drawings and submission of the same through an A Class Electrical Contractor having valid license of Kerala State Electrical Inspectorate, Obtaining Final Energisation Sanction including all statutory fees payable to the statutory bodies. NB:- All the electrfication works shall be carried out only after getting the scheme approval from Kerala State Electrical Inspectorate and the works shall be carried out through a Class A/B Electrical Contractor.	123200 Incl.GST :12%	9086	132286
250	Shed for Chiller - 0.5mm thick Aluminium sheet including truss work, post to be provided for the chiller area. Painting to be done for structures	29500 Incl.GST :12%	2175.63	31675.63
251	Supply & laying of one number PVC insulated and PVC sheathed armoured aluminium power cable of 1.1KV grade of the following sizes in ground including excavation of trench of size 35 x 75 cm, refilling the trench etc. as required but excluding sand cushioning and protective covering (in ordinary soil). 3.5 core 300 sq mm	2706.35 Incl.GST :12%	199.59	2905.94

	Item-wise Price Details						
252	Supply & laying of one number PVC insulated and PVC sheathed armoured aluminium power cable of 1.1KV grade of the following sizes in the existing RCC/ HUME / STONE WARE/ GI/ DWC pipe as required. 3.5 core 300 sq mm	2257.16 Incl.GST :12%	166.47	2423.63			
253	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages, colour washing etc. as required. 3.5 core 300 sq mm	2517.64 Incl.GST :12%	185.68	2703.32			
254	2 Year Extended Warranty for MRI Machine wide bore	6608000 Incl.GST :18%	462560	7070560			
255	Battery bank for UPS for UPS Whole system with suitable capacity	1158347.52 Incl.GST:28%	74749.61	1233097.13			
256	Supply, installation, testing and commissioning (SITC) of 2 No's 8.75 TR or higher capacity aircooled ductable split air conditioner with ceiling suspended IDU and all standard fittings, IDU SS drain pan, as per specifications complete with suitable capacity drive motor, air cooled condenser with all accessories, hermetically sealed scroll twin compressor, Evaporator coil have integrally finned copper tubes. The compressor should have independent refrigerent circuits, expansion devices, HP/LP cut off, electronic microprocessor pendant controller with digital display, first charge refrigerent gas, vibration isolator pads, structural supports for fixing IDU/ ODU as shown in the drawing, safety devices including thermal protector, pressure relief valve, over load relays single phase preventor, wired remote control etc, power wiring(max 3m from isolator) and control cabling(indoor to outdoor),thermostat wiring, highlow pressure cut out, suitable for three phase 440V supply etc complete as required. (not taken for evaluation)	598314.64 Incl.GST :12%	44125.7	642440.34			

	Item-v	wise Price Details		
257	Supply, installation, testing and commissioning (SITC) of 2 No's 5.5 TR or higher capacity aircooled ductable split air conditioner with ceiling suspended IDU and all standard fittings, IDU SS drain pan, as per specifications complete with suitable capacity drive motor, air cooled condenser with all accessories, hermetically sealed scroll twin compressor, Evaporator coil have integrally finned copper tubes. The compressor should have independent refrigerent circuits, expansion devices , HP/LP cut off, electronic microprocessor pendant controller with digital display, first charge refrigerent gas, vibration isolator pads, structural supports for fixing IDU/ ODU as shown in the drawing, safety devices including thermal protector, pressure relief valve, over load relays single phase preventor, wired remote control etc, power wiring(max 3m from isolator) and control cabling(indoor to outdoor),thermostat wiring, highlow pressure cut out, suitable for three phase 440V supply etc complete as required. (not taken for evaluation)	350232.96 Incl.GST :12%	25829.68	376062.64
258	Providing and fixing GI Clip in Metal Ceiling System of 600x600 mm module which includes providing and fixing 'C' wall angle of size 20x30x20 mm made of 0.5 mm thick pre painted steel along the perimeter of the room with help of nylon sleeves and wooden screws at 300 mm center to centre, suspending the main C carrier of size 10x38x10 mm made of G.I steel 0.7 mm thick from the soffit with help of soffit cleat 37x27x25x1.6 mm, rawl plugs of sixe38x12 mm and C carrier suspension clip and main carrier bracket at 1000 mm c/c. Inverted triangle shaped Spring Tee having height of 24 mm and width of 34 mm made of GI steel 0.45 mm thick is then fixed to the main C carrier and in direction perpendicular to it at 600 mm centers with help of suspension brackets. Wherever the main C carrier and spring T have to join, C carrier and spring T connectors have to be used. All sections to be galvanized @ 120 gms/sqm (both side inclusive), fixing with clip in tiles into spring 'T' with :GI Metal Ceiling Clip in plain Beveled edge global white color tiles of size 600x600 and 0.5mm thick with 25 mm height, ,made of G.I sheet having galvanizing of 100 gms/ sqm (both sides inclusive) and electro statically polyester powder coated of thickness 60 microns (minimum), including factory painted after bending .	2208.73 Incl.GST :12%	162.89	2371.62

	Item-v	vise Price Details		
259	Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/ sqm (both side inclusive) as per IS: 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37 mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50 mm long with 6 mm dia bolts, other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the spacing of 1200 mm centre to centre, to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long G.I. wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25 mm long dry wall screws @ 230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5x25 mm at 230 mm c/c, including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound, jointing tapes, finishing with jointing compound in 3 layers covering upto 150 mm on both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in Charge but excluding the cost of painting with:12.5 mm thick tapered edge gypsum fire resis	1518.01 Incl.GST :12%	111.95	1629.96
260	Dedicated coil for perpheral angiography	5040000 Incl.GST :12%	371700	5411700
261	Bilateral Breast coil compatible with spectroscopy	5040000 Incl.GST :12%	371700	5411700
262	High end Functional MRI with paradigm generator and other related harware and software (not taken for evaluation)	10080000 Incl.GST :12%	743400	10823400
263	Low end Functional MRI with laptop, projector and other related harware and software (not taken for evaluation)	3360000 Incl.GST:12%	247800	3607800
		169168814.1	12345890.21	181514704.31

Annual / Comprehensive Maintenance Charges (Exl.Tax)							
Rate	4 <sup>th</sup> Year	5 <sup>th</sup> Year	6 <sup>th</sup> Year	7 <sup>th</sup> Year	8 <sup>th</sup> Year	9 <sup>th</sup> Year	10 <sup>th</sup> Year
1.5T MRI Wide bore with 1 year Warranty							
Labour	11,50,000.00	12,07,500.00	12,67,875.00	13,31,268.75	13,97,832.19	14,67,723.80	15,41,109.99
Comprehensi ve	44,96,958.24	46,54,946.49	48,20,834.66	49,95,015.83	51,77,907.56	53,69,942.87	55,71,580.30

# Other terms & conditions

- 1. The supplier shall execute an agreement with the purchaser as per tender conditions (agreement format is given in the tender document).
- 2. The supplier shall submit performance security amounting to 5.00% of the value of the supply order.
- 3. The labour & comprehensive charges of equipment after the completion of warranty period is finalized by KMSCL as mentioned above.
- 4. Since discount rate is not applicable for equipment under Running Contract of KMSCL, purchase/supply order can be issued directly to supplier at the given rate with tax & other charges (exclusive of KMSCL service charges).
- 5. If purchase/supply order is issued directly to the supplier, KMSCL service charge need not be paid. But the copy of the said order may be forwarded to KMSCL for information.

# **Technical Specification**

## **Equipment :1.5T MRI Wide bore with 1 year Warranty**

- I. Magnetic Resonance Imaging system 1.5 Tesla
- a. Minimum Technical specification:
- i. Installation of advanced state of art whole body 1.5 Tesla Magnetic Resonance imaging system. The essential features should be verifiable from catalogue/technical brochure of equipment and vendor must specify page, paragraph and line number in technical literature that indicates compliance. For all other points of QR, the vendor must clearly state willingness to supply the item/comply with the given requirement by mentioning Yes or No.
- i. Bids with incompletely filled compliance statements may be summarily rejected. Latest version of quoted equipment and accessories available in the market at the time of issue of supply order is to be supplied by the firm. The quoted equipment should be top of the line in the portfolio. It should not be a software extension / special configuration/ modification of previous versions. System should be FDA and CE Approved during the bid submission. Should submit the date/ year of launch of the quoted model.

# 1. Magnet :

a) The system needs to offer platform with minimum number of 32 or more independent

RF receiver channels with requisite ADC's with each having a minimum bandwidth of 1 MHZ or more with necessary hardware to support quadrature ICP Array / Matrix coils possible on the system/ channel independent system. Higher channel is preferred. The bidder should offer GEM Suite, 4G TIM, d-stream standard or other latest RSNA 2016 or after technology as standard.

- b) Whole Body 1.5 Tesla Magnetic Resonance Imaging System optimized for higher performance in Whole Body and Vascular examinations with superconducting magnet, high performance gradients and digital Radio Frequency System.
- c) 1.5T active shielded super conductive magnet should be short and non-claustrophobic
- d) It should have at least 70 cm patient bore with flared opening.
- e) Magnet length should be less than 200 cm or less. Lesser the better.

- f) It should have short bore length and non-claustrophobic.
- g) Guaranteed homogeneity of magnet should be 0.75 or less over 40 cm DSV
- h) The magnet should be well ventilated and illuminated with built in 2-way intercom for communication with patient.
- It should have a built in cryo-cooler such that helium consumption does not exceed 0.01 lit/hour.
- j) The largest FOV should not be less than 50 x 50 x 45 cm in all 3 axis. Specify guaranteed value
- k) Magnet should be manufactured from Europe/USA/Japan
- Magnet should have display large single or dual with controls on both sides which are capable of providing guidance and insights on the details of patient information, protocol information, coil information recommended patient positioning.
- m) Contrast agent type and dose display, VCG & Respiration signal display. By using this screen, operator should be able to perform automatic patient transfer to isocentre, change the patient position and to start the exam upon closure of the examination room door.
- n) It should also have latest real time respiratory sensing technology/ equivalent for

better breath hold imaging with display of respiratory wave pattern. Specify best available

product with your company...

# 2.Shim system:

- a) High performance, highly stable shim system with global and localized automated shimming for high homogeneity magnetic field for imaging and spectroscopy.
- b) Auto shim should be available to shim the magnet with patient in position.

# 3.Gradient system:

- a) Actively shielded Gradient system
- b) The gradient should be actively shielded with each axis having independently a slew rate of at least 200T/m/s and peak amplitude of at least 44mT/m at max field of view offered by the scanner in each of the axis, with a rise time value not more than 225 ms. Digital gradient controller is a must. Mention the performance of gradient in terms of linearity within 50 cm DSV .mention the duty cycle value (maximum duty cycle performance should be close to 100% for full FOV)
- c) The system should have efficient and adequate Eddy current compensation
- d) Effective cooling system for gradient coil and power supply

# 4.RF system:

- a) A fully digital RF system capable of transmitting power of at least 15kw or more
- b) It should also have at least minimum 32 or more independent RF receiver channels with each having bandwidth of 1MHz or more along with necessary hardware to support quadrature CP array/Matrix Coils. Higher channel is preferred.
- c) It should support Parallel acquisition techniques with a factor of up to 4 or more in 2D with latest time reduction techniques .higher IPAT factor is preferred.
- d) Should allow remote selection of coils and / or coil elements.

## 5.Patient table:

- a) The table should be fully motorized computer-controlled table movements in vertical and horizontal directions.
- b) Moving table angiography should be possible. Horizontal table movement maximum speed should be at least 20cm/second.
- c) There should be handheld alarm for patients.
- d) The table movement should have at least 140 cm or better imaging coverage.

# 6.Computer system / image processor / operator console

a) The main Host computer should have 19 inches or more high-resolution LCD TFT color monitor with 1024 x 1024 matrix display

- b) The system should have image storage capacity of 1 TB for at least 2,50,000 images in 256x256 matrix or suitable SSD to store the specified number of images.
- c) The reconstruction speed should be at least 32,000 recons per second or more for full FOV 256matrix.
- d) The main console should have facility for music system for patient in the magnet room. The system should have DVD / CD archiving facility.
- e) Two-way intercom system for patient communication.
- f) MRI System should be enabled and networked to RIS/HIS

## 7.Measurement system

- a) Largest Field of View should be at least 50 x 50 x 45 cm in all 3 axis. guaranteed homogeneity to be mentioned
- b) The measurement matrix should be from 128x128 to 1024x1024.
- c) Minimum 2D Slice thickness mm should be equal to or less than 0.5
- d) Minimum 3D Slice thickness mm should be equal to or less than 0.1

## 8.Coil system

- a) The main body coil integrated to the magnet must be Quadrature / CP. In addition to this following coil should be quoted.
- b) Neuro-vascular Coil with 20 or more channels for Head / Neck Coil combined, capable of high-resolution neuro-vascular imaging
- c) Spine Array/Matrix Coils for thoracic and lumbar spine imaging at least 24 or more channels.
- d) Body Array/Matrix coil with at least 32 channel or more with at least 50 cm FOV & 50 cm in zaxis coverage for imaging of abdomen angiograms and heart. Otherwise the vendor

should provide any combination of coils for meeting the channel requirement of the

# specifications

- e) Dedicated rigid 16 or more channel knee coil
- f) Dedicated 16 channel or more shoulder coil
- g) Flex coils Large and Medium general-purpose coil with at least 16 or more Flexible channels
- h) The system should continuously monitor the RF coils used during scanning to detect failure modes. RF coils should not require either set up time or coil tuning. The coil connector should be table itself. System should have at least 3 or more active connectors connecting 4 coils and capable of connecting 4 coils simultaneously at a point of time.

# OPTIONAL COILS PRICE TO BE QUOTED IN THE REMARKS COLUMN WITH SEPERATE PRICE

- a) Dedicated coil or equivalent coil combination for peripheral angiography application with variable resolution techniques at least 20 channels or more.
- b) Bilateral Breast Coil compatible with spectroscopy (imaging coil only) with at least 16 or more channels

# APPLICATION SEQUENCES:

- a) The system should have basic sequences package with Spin Echo, Inversion Recovery, Turbo Spin Echo with high turbo factor of 256 or more, Gradient Echo with ETL of 255 or more FLAIR.
- b) Single Slice, multiple single Slice, multiple Slice, multiple stacks, radial stacks and 3D acquisitions for all applications.
- c) Single and Multi-shot EPI imaging techniques with ETL factor of 255 or more
- d) Fat suppression for high quality images both STIR and SPIR.
- e) The system should acquire motion artifact free images in T2 studies of brain in restless patients (Propeller, Multivane, Blade etc.)

- f) Dynamic study for pre and post contrast scans and time intensity studies
- g) MR angio Imaging: Should have 2D/3D TOF, 2D/3D PC, MTS and TONE, CeMRA, Facilities for Accelerated time resolved vascular imaging with applications like Treats/Tricks sequences.
- h) Fat and water excitation package. Diffusion Weighted Imaging with at least to value 5000 or more
- Bolus chasing with automatic and manual triggering from Fluro mode to 3D acquisition mode with moving table facility.
- j) Non contrast enhanced peripheral angiography for arterial flow with Native/Trance/Inhance sequences
- k) Whole body screening imaging studies for metastasis
- Whole body diffusion weighted imaging with background suppression
- m) High resolution Abdominal and Liver imaging in breath hold and free breathing modes with respirator triggered volume acquisitions
- n) The system should have basic and advanced MRCP packages including free breathing and 3Dtechniques.
- a. The system should have facility for flow quantification of CSF, vessel flow and hepatobiliary system. processing of 2D/3D CSI data, with color metabolite mapping, advanced diffusion and DTI - diffusion tensor imaging.
- o) Most Advance breast package as Optional: including diffusion spectroscopy perfusion with time intensity curves.MR breast imaging with simultaneous view of both breasts fat

suppression SPAIR & visualization of rapid contrast uptake: 4D BLISS / VIEWS / VIBRANT XVp. The rate for the same shall be offered along with the Bilateral Breast Coil-

- p) The system should have the Hydrogen, Single Voxel spectroscopy, Multivoxel MultiSlice &Multiangle 2D, 3D Spectroscopy and Chemical shift imaging in 2D/3D. The complete processing/post-processing software including color metabolite maps should be available on main console. Complete prostate spectroscopy hardware and applications should be provided. Spectroscopy for breast, Liver and prostate also to be offered.
- q) Advanced Cardiac Applications as standard: ECG gating, Morphology/wall motion; Cine perfusion imaging; Myocardial viability imaging; Arrhythmia rejection techniques, Advanced Cardiac Ventricular Measurement Analysis; Cine Cardiac Tagging Techniques; Coronary artery techniques; real time interactive imaging, 2D/3D fast field echo/balanced/steady state technique on workstation.
- r) Perfusion imaging of brain with software for analysis.
- s) Susceptibility weighted imaging/venous BOLD imaging with phase information & magnitude SWI / SWIP /E SWAN 2.0
- t) Multi direction DWI and DTI with minimum 128 or more directions (Complete package including quantification and tractography software) Prospective motion correction enable software preferred Multi direction DWI and DTI with capability to perform DTI in maximum number of permissible directions (Complete package including quantification and tractography software) Prospective motion correction enable software preferred .please specify maximum number of directions with suitable post processing software & hardware. Higher number is preferred
- u) Fat and water suppression in phase and out phase capability
- w) The offered MR system should be regularly maintained with the latest version of computing software, including software platform updates released for the respective system which shall be able to update to the future enhancement, irrespective of the contract status.
- v) Metal artifact reduction technique advanced technique.

## OPTIONAL SOFT WARE APPLICATION:

- a) fMRI software should be quoted as optional
- b) Parametric Maping of cartilage should be quoted as optional

# 9.Workstation:

[OPTION A]. A independent standalone workstation with hardware & software preferably

of same interface as of main console is required with the availability of all necessary post

processing software as offered in acquisition console it should have atleast 21 inch LCD /

TFT colour monitor with hard disc of atleast 120GB for atleast 2,50,000 image storage in

256 matrix & 32 GB RAM capacity or more with self playing dvd/cd archiving facility the workstation should enable printing in laser films & colour printers. Client post processing & viewing licenses - quantity to be offered -05 nos (with following mentioned below lienses from 4-15)

or

[OPTION B]. Workstation of IMAC platform with minimum 3.1 GHz 6-core 10th Generation with OSIRIX MD post processing application software.

The rate for the Option A and option B shall be offered in the BOQ and both rates shall be taken for evaluation.

Apart from main console and stand alone work station the below mentioned items need to be offered.

# Description:

- 1) Connectivity to DICOM Modalities like CT, MRI, X Ray & Mammo should be possible
- 2) Remote viewing facility Licenses Qty 02No's [In case of OPTION A]
- 3) Client Post Processing & Viewing Licenses Qty to be offered 05No's [In case of OPTION A]
- 4) 3D Licenses
- 5) Should work on Windows/ MAC OS
- 6) Multiplanar Reformat (MPR)
- 7) MIP/AveIP/MinIP
- 8) Curved Planar Reformat (CPR)
- 9) Medial Axial Reformat
- 10) Oblique/Double Oblique
- 11) SSD
- 12) Volume Rendering (VR)
- 13) 3D Cursor 05
- 14) Annual Study Volume Licenses Unlimited [In case of OPTION A]
- 15) Image library & CME module Licenses- Unlimited [In case of OPTION A]

# Technical Specification of Clients: [In case of OPTION A]

- 1) 1 x Intel Xeon E-2124G,
- 2) 16GB (2x8GB) 2666MHz DDR4 UDIMM Non-ECC
- 3) 1 x 3.5" 1TB 7200rpm SATA Hard Disk Drive
- 4) 1 x Windows 10 Pro for Workstations
- 5) DVDRW /
- 6) NVIDIA® Quadro® P600, 2 GB/ mDP Port/
- 7) 1 x 19" Monitor
- 8) 300W,2.2Mega Pixel Color Medical Monitor with Medical QA(BARCO or equivalent)- Qty 05
- 9) MS SQL 2016 Std Ed Qty 01

# Technical Specification of Additional Workstation (04 Nos): [In case of OPTION B]

- 1) 1 x 3.1 GHz 6- core 10th Generation Intel Core i5 Processor
- 2) 1 x 8 GB 2666 MHz DDR4 RAM
- 3) 1 x 256 GB SSD Storage
- 4) 1 x Radeon Pro 5300 with 4 GB of DDR6 memory
- 5) 1 x USB External Drive
- 6) 1 x IMAC OS with OSRIX M D
- 7) 1 X 27 inch Retina 5K display

# Networking:

- 1) 24 Port 1 G Switch Qty 01
- 2) Cat 6 cable along with required accessories and installation Per meter price should be quoted
- 3) Servers Technical Details Qty 1 No (in case of server offered)
- 4) 2 x Intel Xeon Silver 4208 2.1G, 8C/16T, 9.6GT/s, 11M Cache, Turbo, HT (85W) DDR4-2400 (incase of server offered)
- 5) 2 x 32GB RDIMM 2666MT/s Dual Rank (in case of server offered)
- 6) 2 x 600GB 10K RPM SAS 12Gbps 512n 2.5in Hot-plug Hard Drive, 3.5in HYB CARR (incase of server offered)
- 7) 3 x 2 TB 7.2K RPM NLSAS 12Gbps 512n 3.5in Hot-plug Hard Drive (in case of server offered)
- 8) Windows Server 2016/2019 01 (in case of server offered)

# Accessories:

- 1) Suitable UPS reputed make with 30 minutes backup should be offered.
- 2) Chiller
- 3) RF cage: The system should be supplied with the Imported RF cabin / RF cabin of reputed make with RF room shielding RF doors screen and interiors for the same should be carried out suitable.
- 4) Hand held Metal detector 2Nos and Metal detector door 1No to be installed at the entrance point as will be intimated.
- Music system
- 6) MR compatible trolley to shift the patients 1Nos.
- 7) MR compatible wheel chair (with cushion, back-rest and arm-rest) 1 no.
- 8) Desktop computer with monochrome printer (cartridge refillable) and UPS for reporting purpose 03 Nos
- 9) Computer tables 3 No. chairs 6 Nos. of reputed make.
- 10) Air 4 Bar, N2O, Suction and O2 pipeline with MR Compatable outlets and manifold to be provided inside the RF enclosure.
- 11) MR compatible IV stand -2nos
- 12) LED X-Ray film viewer with adjustable brightness capable of holding three films of 14"X 17" films 06 nos
- 13) Tables of good quality for all the work stations & for all the monitors with 2 executive chairs each.

# Standard MRI Accessories:

- 1) MR Compatible Fire Extinguisher 01 No
- 2) Two quantity: Digital Patient Weighing Scale (in the range between 0 to 200 kg)
- 3) MR compatible storage carts and wall mounted cabinets.
- 4) Coil cabinets to be provided inside RF cabinet

- 5) Network cable and other required materials for the complete installation to be provided by the supplier
- 6) MR compatible Crash Cart 1 no. The price bid item shall also be changed accordingly.
- 7) MR compatible instrument-trolley 1 no.

#### Anaesthesia Accessories :

- 1) MRI Compatible Dual head Syringe Pressure injector: Independent dual-head Syringe Pressure injector with following Features; Non-ferrous, automatic syringe size detection, performs single and dual phase contrast injections, provides Saline flush delivery and allows timed contrast delivery Must be compatible with 5, 7.5 &10ml pre-filled contrast syringes and 50 ml syringes for both saline & contrast (20 Nos of 50 ml Syringes with 100 nos. of tube connectors should be provided) Must be able to observe progress of injection and view injection result.
- 2) MRI Compatible ECG leads (with 100 nos. Disposable Electrodes for MRI Image gating)
- 3) MRI Compatible Anaesthesia Machine with integrated Ventilator, 2 vaporiser, circle absorber
- a) Capable of ventilating adult, pediatric and neonates.
- b) Software for ventilation should support Volume control, Pressure control and Pressure support modes
- c) Should have oxygen, nitrous oxide and air flow meters
- d) Isoflurane and sevoflurane vaporisers
- e) All safety alarms
- f) All consumables required for Adult-10Set, Pediatrics-3Set, Neonates -02Set
- 4) One MRI compatible Multiparmeter Vital Signs Patient Monitor of 5000 gauss 1.5 m compliance in MRI Room and One Slave monitor in console room for neonates/ infants and adults (with all accessories for five years) (In-vivo/ Iradimed/equivalent models with following modules provision to monitor the following:
- a) Heart rate
- b) ECG
- c) NIBP Size of Cuffs (adult, pediatric & neonatal)
- d) Respiration (Capnography)
- e) Two IBP Pressure transducer with the MRI compatible stand
- f) Oxygen saturation Pulse oximeter with adult, pediatric probe, and neonatal probes 2 sets (with the spare probes), Should have plethysmograph perfusion factor.
- g) ETCO2 and ETAA (end tidal anesthetic agents)
- h) Temperature (adult and pediatric)
- All consumables required for Adult-10Set, Pediatrics-3Set, Neonates -02Set
- 5) MRI compatible syringe pump with 5000 gauss compliance 2 Nos.
- Arrangement of Gas lines in recovery room and magnet room MRI compatible high pressure gas outlet for : a. Oxygen
- b. Air c. Nitrous Oxide with MRI compatible indexed system. d. Vacuum suction
- 7) MRI Compatible 1 set of Laryngoscope: 4 sizes blades- Neonatal, pediatrics, adult, extra
- 8) MRI compatible Magill forceps: Adult & paediatric size- Two each.
- 9) Stylet for endotracheal tube: Adult, pediatric size- Three each
- 10) MRI compatible Clamps 2 Nos: Either towel clip or artery forceps.
- 11) MRI Compatible two IV stands. (if not provided already)
- 12) Two Anesthesia bed/trolley for recovery room
- 13) Phantoms to be provided for regular QA studies.

This entire project is on turnkey basis for 1800 Sft area includes civil works, electrical works and HVAC works. The scope to be included is listed as below:

- 1. The supplier to include the internal modification works within the identified space on Ground floor (Diagnostic Block) of the Hospital.
- 2. The space to include the MR Gantry room, the Console room, the UPS & Technical room with necessary battery backup & Chiller area.
- 3. Supplier to ensure necessary preparation of platform for smooth unloading and movement of the MRI unit to the destination.

- 4. Civil works will comprise of construction of necessary internal walls, plastering and painting; Granite flooring for all the rooms except MRI Gantry room where Vinyl flooring to be considered; mineral fiber grid false ceiling with Sky lighting in MRI Magnet room. Necessary demolition of existing tiles/stones/walls should be considered
- 5. Supplier to consider necessary PCC bed for the area identified for the MRI machine.
- 6. Wall paneling with laminate finish inside the MRI gantry room to be considered.
- 7. The walls which must be demolished for the movement of MRI unit will have to be reconstructed by the supplier only.
- 8. Cable trays, trench works & channels as required.
- 9. Supplier to make arrangements and supply ductable HVAC system of minimum 11TR x2 (22TR) or adequate capacity for ensuring the temperature and humidity is maintained within the MR Gantry room, equipments room UPS room and console room.
- 10. Necessary electrical panels to be fabricated and installed by the supplier.
- 11. All electrical works including the lighting, the conduiting, wiring and earthing for the 1800 sqft space to be considered by the supplier.
- 12. MRI compatible light fixtures to be considered within the MRI Gantry Room.
- 13. Networking for MRI facilities to be provided by the supplier, however integration with the hospital network will be done by hospital authorities.
- 14. Intercom connection for MRI facility of 6No's to be considered.
- 15. Input power cable from hospital substation to the MRI facility to be provided by the supplier. Required approval for laying the power cable shall be taken up by hospital authorities.
- 16. Standard warranty of all the items supplied along with the main equipment and work should be of three (03) years. Comprehensive Annual Maintenance Contract (CAMC) charge for the subsequent years for a period of seven (07) [Total 10 Years] years from the date of expiry of warranty period should be quoted. The CAMC charge quoted shall be considered in the total value for selecting the Lowest Bidder.