



Running Contract Details	
Equipment Name	Cobalt Radiotherapy Machine
Running Contract Valid Till	12-02-2021
Tender Ref No	KMSCL/EP/T304/391/2018(R)
Tendered Quantity	10
Supplier Name	M/s Panacea Medical Technologies Pvt Ltd
GST No	
Installation & Delivery Period	12 Week(s)
Up-time / PM vist	95% & 4 Visits per year
Warranty period	3 Years

Supplier`s Details		
Address	Contact Details	
# No.119 - Envision Technology Centre Road No.3 - EPIP Area Phase 1 Whitefield Bangalore - 560 066	Contact Person	Purushothaman
	Phone	
	Mobile No	09590040588
	Email	finance@panaceamedical.com

Item-wise Price Details				
#	Item Details	Unit Rate (Incl.all taxes & charges)	Service Charges (Through KMSCL)	Grand Total
1	Cobalt Radiotherapy Machine <i>Model & Make : Bhabhatron-II TAW / Panacea</i>	13526748 Incl.GST :0%	1117309.38	14644057.38
2	Cobalt 60 source strength Greater than 170 RMM	7666800 Incl.GST :0%	633277.68	8300077.68
3	Computerised Treatment Planning System	1568000 Incl.GST :0%	129516.8	1697516.8
4	Rate for Software IMRT planning	1387008 Incl.GST :0%	114566.86	1501574.86
5	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared	35.4 Incl.GST :5%	2.48	37.88

Item-wise Price Details				
6	Cutting branches of trees overhanging above any structures of girth between 40cm to 60cm including stacking of serviceable materials and disposal of unserviceable material, cost of labour, hire charges of rope and pulley etc without making any damages to nearby structures etc complete	177 Incl.GST :27%	12.39	189.39
7	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.Â All kinds of soil	354 Incl.GST :54%	24.78	378.78
8	Excavation work by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50 m.Â Ordinary rock	354 Incl.GST :54%	24.78	378.78
9	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m	236 Incl.GST :36%	16.52	252.52
10	Supplying and filling in plinth with sand under floors, including watering, ramming, consolidating and dressing complete.	826 Incl.GST :126%	57.82	883.82
11	Supplying chemical emulsion in sealed containers including delivery as specified.Â Chlorpyriphos / Lindane emulsifiable concentrate of 20%	236 Incl.GST :36%	16.52	252.52
12	Diluting and injecting chemical emulsion for POST -CONSTRUCTIONAL anti-termite treatment (excluding the cost of chemical emulsion):Â 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:Â With Chlorpyriphos /Lindane E.C. 20% with 1% concentration	41.89 Incl.GST :6%	2.93	44.82

Item-wise Price Details				
13	PLAIN CEMENT CONCRETE : Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level: 1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 40 mm nominal size)	3540 Incl.GST :540%	247.8	3787.8
14	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level: 1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	3540 Incl.GST :540%	247.8	3787.8
15	"REINFORCED CEMENT CONCRETE : Providing and laying in position machine batched and machine mixed design mix M-25 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-in-charge. All works up to plinth level :"	3540 Incl.GST :540%	247.8	3787.8
16	"Providing and laying in position machine batched and machine mixed design mix M-25 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-in-charge. All works above plinth level up to floor V level :"	3540 Incl.GST :540%	247.8	3787.8
17	Centering and shuttering including strutting, propping etc. and removal of form work for : Foundations, footings, bases for columns.	295 Incl.GST :45%	20.65	315.65
18	Centering and shuttering including strutting, propping etc. and removal of form work for : Walls (any thickness) including attached pilasters, buttresses, plinth and string courses etc.	295 Incl.GST :45%	20.65	315.65
19	Centering and shuttering including strutting, propping etc. and removal of form work for : Lintels, beams, plinth beams, girders, bressumers and cantilevers.	295 Incl.GST :45%	20.65	315.65

Item-wise Price Details				
20	Centering and shuttering including strutting, propping etc. and removal of form work for : Columns, Pillars, Piers, Abutments, Posts and Struts.	295 Incl.GST :45%	20.65	315.65
21	REINFORCEMENT : Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete up to plinth level. Thermo-Mechanically Treated bars of grade Fe-500 D or more.	53.1 Incl.GST :8%	3.72	56.82
22	MASONRY : Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) up to plinth level with:Â Cement mortar 1:6 (1 cement : 6 coarse sand)Â	944 Incl.GST :144%	66.08	1010.08
23	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in:Â Cement mortar 1:6 (1 cement : 6 coarse sand)(from floor 2 level up to floor 5 level)	2360 Incl.GST :360%	165.2	2525.2
24	FLOORING: 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.Â Size of Tile 600 x 600 mm.	708 Incl.GST :108%	49.56	757.56
25	Providing and fixing Ist 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 : 3coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete	708 Incl.GST :108%	49.56	757.56

Item-wise Price Details				
26	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), jointing with grey cement slurry @ 3.3kg/sqm including pointing the joints with white cement and matching pigment etc.,, complete.	708 Incl.GST :108%	49.56	757.56
27	Providing and laying Vitrified tiles indifferent sizes (thickness to be specified by manufacturer), with water absorption less than 0.08 % and conforming to I.S. 15622, of approved make, in all colours & shade, in skirting, riser of steps, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand), including grouting the joint with white cement & matching pigments etc. complete. Size of Tile 600x600 mm (for walls)	708 Incl.GST :108%	49.56	757.56
28	PLASTERING : 12 mm cement plaster of mix : 1:6 (1 cement: 6 fine sand)	59 Incl.GST :9%	4.13	63.13
29	12 mm cement plaster finished with a floating coat of neat cement of mix: 1:3 (1 cement : 3 fine sand)	59 Incl.GST :9%	4.13	63.13
30	18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement: 5 coarse sand) finished with a top layer 6mm thick cement plaster 1:6 (1 cement: 6 fine sand).	118 Incl.GST :18%	8.26	126.26
31	FINISHING : Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade New work (Two or more coats applied @ 1.43 ltr/ 10 sqm. over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm).	236 Incl.GST :36%	16.52	252.52
32	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface : Water thinnable cement primer.	59 Incl.GST :9%	4.13	63.13
33	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade: Two or more coats on new work	118 Incl.GST :18%	8.26	126.26
34	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade : Two or more coats on new work.	295 Incl.GST :45%	20.65	315.65

Item-wise Price Details				
35	Polishing on wood work with ready mixed wax polish of approved brand and manufacture:Â New workÂ	708 Incl.GST :108%	49.56	757.56
36	JOINERIES : 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).Â Second class teak woodÂ	76700 Incl.GST :11700%	5369	82069
37	Providing 40x5 mm flat iron hold fast 40 cm long including fixing to frame with 10 mm diameter bolts, nuts and wooden plugs and embeddings in cement concrete block 30x10x15 cm 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	472 Incl.GST :72%	33.04	505.04
38	Providing and fixing panelled or panelled and glazed shutters for shutters for doors, windows and clerestory windows, 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 Engineer - in-charge.Â Second class teak woodÂ	1180 Incl.GST :180%	82.6	1262.6
39	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, Aluminium 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 portion Powder coated aluminium (minimum thickness of powder coating 50 micron)	236 Incl.GST :36%	16.52	252.52
40	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)	236 Incl.GST :36%	16.52	252.52

Item-wise Price Details				
41	Providing and fixing 12mm 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 one side and balancing lamination on other side.	590 Incl.GST :90%	41.3	631.3
42	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	1180 Incl.GST :180%	82.6	1262.6
43	Providing and fixing aluminium die cast body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 35 kg and door width upto 700 mm) with necessary accessories and screws etc. complete.	1416 Incl.GST :216%	99.12	1515.12
44	Providing and fixing aluminium tower bolts ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade with necessary screws etc. complete : 150x10 mm	236 Incl.GST :36%	16.52	252.52
45	Providing and fixing aluminium tower bolts ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade with necessary screws etc. complete : 250x10 mm	236 Incl.GST :36%	16.52	252.52
46	Providing and fixing 100mm brass locks (best make of approved quality) for aluminium doors including necessary cutting and making good etc. complete	885 Incl.GST :135%	61.95	946.95

Item-wise Price Details

47	<p>FALSE CEILING: 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 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5mm dia x 50mm long with 6mm 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 rate of 1200mm 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 20mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm 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 3.5 x 25 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 3layers covering upto 150 mm or both sides of joint and two coats of primer suitable for board, all as per manufacture'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 plain board conforming to IS: 2095- Part I.</p>	<p align="right">413 Incl.GST :63%</p>	<p align="right">28.91</p>	<p align="right">441.91</p>
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Item-wise Price Details

48	<p>"Providing and fixing tiled false ceiling of approved materials of size 595 x 595 mm in true horizontal level, suspended on inter locking metal grid of hot dipped galvanized steel sections (galvanized @ 120 grams per 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 1200mm center to center and cross ""T"" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced 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 for 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 12.5mm dia and 50 mm long dash fasteners, 4 mm GI adjustable rods with galvanised butterfly level clips of size 85x 30x 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. GI Metal Ceiling Lay in perforated Tegular global white color tiles of size 595x595 mm and 0.5mm thick with 8 mm drop; made of GI sheet having glavanizing of 100 gms/ sqm (both sides inclusive) and 20% perforation area with 1.8 mm dia holes and having NRC (Noise Reduction Coefficient) of 0.5, electro statically polyster powder coated of thickness 60 microns (minimum), including factory painted after bending and perforation, and backed with a black Glass fiber acoustical fleece."</p>	<p align="center">413 Incl.GST :63%</p>	<p align="center">28.91</p>	<p align="center">441.91</p>
49	<p>PLUMBING : Providing and fixing white vitreous china extended wall mounting water closet of size 780x370x690 mm of approved shape including providing& fixing white vitreous china cistern with dual flush fitting, of flushing capacity 3 litre/6 litre (adjustable to 4 litre/8 litres), including seat cover, and cistern fittings, nuts, bolts and gasket etc complete.</p>	<p align="center">1534 Incl.GST :234%</p>	<p align="center">107.38</p>	<p align="center">1641.38</p>
50	<p>Providing and fixing 600x450 mm beveled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.</p>	<p align="center">590 Incl.GST :90%</p>	<p align="center">41.3</p>	<p align="center">631.3</p>

Item-wise Price Details				
51	Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690gms. 15 mm nominal bore	767 Incl.GST :117%	53.69	820.69
52	Supplying and fixing Stainless steel soap dish including cost of materials and labour charges etc complete as per the direction of site Engineer-in-charge.	767 Incl.GST :117%	53.69	820.69
53	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.	4720 Incl.GST :720%	330.4	5050.4
54	Providing and fixing PTMT towel rail complete with brackets fixed to wooden cleats with CP brass screws with concealed fitting arrangement of approved quality and colour.600mm long towel rail with total length of 645mm, width 78mm and effective height of 88mm, weighing not less than190gms.	826 Incl.GST :126%	57.82	883.82
55	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. 20 mm pipe 10 Kgf/ cm²	27.14 Incl.GST :4%	1.9	29.04
56	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 chases and making good the wall etc. 75 mm pipe 6 Kgf/cm²	177 Incl.GST :27%	12.39	189.39
57	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	236 Incl.GST :36%	16.52	252.52
58	Constructing soak pit 1.20x1.20x1.20m filled with brickbats including S.W. drain pipe 100 mm diameter and 1.20 m long complete as per standard design.	7080 Incl.GST :1080%	495.6	7575.6

Item-wise Price Details				
59	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete. Flexible pipe 32 mm dia	177 Incl.GST :27%	12.39	189.39
60	Providing and fixing PVC Door Frame of size 50x47mm with a wall thickness of 5 mm ($\hat{A}\pm 0.2$ mm) made out of single piece extruded PVC profile, with mitred cut joints and joint with 2nos of PVC bracket of size 190 mm x 100 mm long arms of cross section size 35 x 15mm & self driven self tapping screws, the vertical door profiles to be reinforced with 40x20mm M.S. rectangular tube of 0.8 mm , including providing EPDM rubber gasket weather seal throughout the frame, including jointing 5mm PVC frame strip with PVC solvent cement on the back of the profile. The door frame to be fixed to the wall using 8x100mm long anchor fasteners complete, all as per manufacturer's specification and direction of Engineer -in- charge.	826 Incl.GST :126%	57.82	883.82
61	35 mm thick factory made Solid panel PVC Door shutter made out of single piece extruded solid PVC profiles, 5 mm ($\hat{A}\pm 0.2$mm) thick, having styles & rails (except lock rail) of size 95 mmx 35 mm x 5 mm, out of which 75 mm shall be flat and 20 mm shall be tapered (on both side), having one side thickness of 15 mm integrally extruded on the hinge side of the profile for better screw holding power, including reinforcing with MS tube of size 40 mmX 20 mm x 1 mm, joints of styles & rails to be mitered cut & joint with the help of PVC solvent cement, self driven self tapping screws & M.S. rectangular pipes bracket of size 190 mm X 100 mm of cross section size 35 mm x 17 mmx 1 mm at each corner. Single piece extruded 5mm thick solid PVC Lock rail of size 115 mm x 35 mm x 35 mm, out of which 95 mm to be flat and 20 mm to be tapered at both ends, having 15 mm solid core in middle of rail section integrally extruded, fixing the styles & rails with the help of solvent and self driven self tapping screws of 125 mm x 11 mm, including providing 5 mm Single piece solid PVC extruded sheet inserted in the door as panel, all complete as per manufacturer's specification and direction of Engineer-in-charge. Non decorative finish (matt finish).	2360 Incl.GST :360%	165.2	2525.2
62	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: Size 600x450x200 mm	4720 Incl.GST :720%	330.4	5050.4

Item-wise Price Details				
63	Supplying and fixing CP Health Faucet superior quality (Jagur or equivalent make) including cost of materials and labour charges etc complete as per the direction of site Engineer-in-charge..	1888 Incl.GST :288%	132.16	2020.16
64	MISCELLANEOUS : Providing and fixing M.S. Grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete.Â Fixed to openings/ wooden frames with rawl plugs screws etcÂ	123.9 Incl.GST :19%	8.67	132.57
65	Steel work in built up G I tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting,fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete	106.2 Incl.GST :16%	7.43	113.63
66	Providing and fixing Thomson Multi wood board or equivalent make, in shelves,shutter with screws and fittings wherever required, edges to be painted with polyurethane primerincluding all fittings as per the direction of site Engineer-in-charge.Â (Total area of the shutter only measured).	1062 Incl.GST :162%	74.34	1136.34
67	Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+0.05%), total coated thickness with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineer-in-charge. The sheet shall be fixed using self drilling/self tapping screws of size (5.5x55mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.Â	1180 Incl.GST :180%	82.6	1262.6
68	Providing and fixing Thomson Multi wood board or equivalent make, in workstation for treatment planning room, workstation cupboards, shutter with screws and fittings wherever required, edges to be painted with polyurethane primerincluding all fittings as per the direction of site Engineer-in-charge.Â	1180 Incl.GST :180%	82.6	1262.6

Item-wise Price Details				
69	Supplying and installation of Medium Back revolving Chairs for workstation, Conference hall and Training room (With Synchronized Tilt Mechanism, Zeropositiontiltlock, Pneumatic Height Adjustments, ABS Back Rest & Seat, PU Arm Rest, Nylon base with castors) (Godrej, Wipro or Bloster make or equivalent)	7080 Incl.GST :1080%	495.6	7575.6
70	Supplying and installation of High Back revolving Chair for Cabin (With Synchronized Tilt Mechanism, Zero position tilt lock, Pneumatic Height Adjustment, Dual ply Backrest, seat with ABS, contoured seat mold, Chromed Adjustable armrest, Chromed Base with castors) (Godrej, Wipro or Bloster make or equivalent).	7080 Incl.GST :1080%	495.6	7575.6
71	Supplying and installation of Visitors chair, PU Arm rest, Non revolving, back and seat with ABS, countoured seat mould, (Godrej,Wipro or Bloster make or equivalent)	2360 Incl.GST :360%	165.2	2525.2
72	Attached airport Type Stainless Steel Chair 4 Seated (Combi chair) : Should be airport model combi chair, Approximate dimension width 267 inches, Height 303 inches, Color : Silver, Seating capacity : 4, Non magnetic SS high quality steel perforated seat sheet and back rest, Rectangular pipe 75mm X 38mm cold rolled, 7. Should be 16 guage perforated sheet, Aluminum die-casted seat edges, Should be provided with metal chrome plated armrest, Legs and arm rest shall be cold rolled steel, Suitable for heavy public use	7080 Incl.GST :1080%	495.6	7575.6
73	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	590 Incl.GST :90%	41.3	631.3
74	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	590 Incl.GST :90%	41.3	631.3
75	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 meters lead as directed by Engineer-in-charge.	118 Incl.GST :18%	8.26	126.26
76	Dismantling old electrical points, wiring, lights and handing over the same to the hospital authorities	2360 Incl.GST :360%	165.2	2525.2

Item-wise Price Details				
77	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	483.8 Incl.GST :74%	33.87	517.67
78	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	94.4 Incl.GST :14%	6.61	101.01
79	Dismantling of toilet fittings including pipe lines , closets, washbasin etc to complete	2360 Incl.GST :360%	165.2	2525.2
80	Providing cable trench for system cables and wherever necessary with metal cover including finishing works and all allied works	11.8 Incl.GST :2%	0.83	12.63
81	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level. Cement mortar 1:4 (1 cement :4 coarse sand)	1947 Incl.GST :297%	136.29	2083.29
82	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.	649 Incl.GST :99%	45.43	694.43
83	Providing and fixing sun controlled film on glass surface for door/windows,after thoroughly cleaning and dust free the surface to get smooth finish,to get air tight clean surface, ect,complete as directed by Engineer-in -charge	944 Incl.GST :144%	66.08	1010.08
84	Providing and applying plaster of paris putty of 2 mm thickness over plastered surface to prepare the surface even and smooth complete.	118 Incl.GST :18%	8.26	126.26
85	Storage cabinet for accessories: Storage cabinet for accessories in 19 mm ply board construction having sides, top, front, openable panels laminate finish with internal horizontal shelf 19mm commercial plywood painted (enamel) as per approval. Front panels to have a locking arrangements with one panel having tower bolt on the inner side with handles , magnetic hinges and all complete.	2360 Incl.GST :360%	165.2	2525.2
86	Steel cupboard (Godrej) for storage 6ft tall 3 feet width, Door with glass transparent windows	11210 Incl.GST :1710%	784.7	11994.7

Item-wise Price Details				
87	Steel cupboard (Godrej) for storage 6ft tall 3 feet width, Ordinary door	10620 Incl.GST :1620%	743.4	11363.4
88	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	9440 Incl.GST :1440%	660.8	10100.8
89	Vaccum cleaner power atleast : 1300Watts, input 230Vac, eureka forbes or equivalent	9440 Incl.GST :1440%	660.8	10100.8
90	PVC Name plates - 24" (L) x 4" (H) color and matter will be given by the respective user institute	354 Incl.GST :18%	24.78	378.78
91	Suitable De- Humidifier units : Extraction at least 35 litres/day, compresor : rotary, Air flow : at least 220m3/hr, reputed brand, input 230Vac	11800 Incl.GST :18%	826	12626
92	Shoe Rack Three Shelves : Pretreated and powder coated, Three shelves, Made of cold rolled MS sheet of 16 guages, Six cold rolled MS tube frame levels as support for 6 pairs of shoes in one shelf, Abrasion resistant, non-discoloring, corrosion resistant	9440 Incl.GST :1440%	660.8	10100.8
93	"LT Panel Supply, Installation, Testing & Commissioning of LT Switch Board , cubicle type, made out of 2mm thick CRCA sheet,totally enclosed, IP 42, free standing, floor mounting, dust and vermin proof, indoor, compartmentalised, suitable for operation on 3 phase , 415 V, 50Hz AC system with busbars , including internal wiring with suitable size HFFR wires/cable, interconnection, duly powder coated with seven tank process etc., including all inter connections and following components as per drawing and technical specifications. INCOMER Suitable for the Air conditioners and equipment 4 pole, current limiting type MCCB with microprocessor based release with overoad setting of 50 - 100% having adjustable OL & SC.- 1 No BUSBARS Suitable Ampere TPN busbars of high conductivity electrolytic quality aluminium conductor INSTRUMENTS 4A, C curve SP MCB - 3 nos. RYB Indicating lamps LED type - 3 Nos. Voltmeter(0-500V) with selector switch - 1 No. Ammeter (0-125A) - 3 No. 200/5A 10 VA Class 1 CTs -3 Nos OUTGOINGS Suitable capacity, 4 pole, current limiting type MCCB with microprocessor based release with overoad setting of 50 - 100% having adjustable OL & SC - 1 nos. 25 / 63/ 100/ 125A, 35/36 kA (Ics= 100%Icu), 4 pole, current limiting type MCCB with microprocessor based release with overoad setting of 50 - 100% having adjustable OL & SC - 3 nos. "	47200 Incl.GST :7200%	3304	50504

Item-wise Price Details				
94	"WIRING AND ACCESSORIES : 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 C"	354 Incl.GST :54%	24.78	378.78
95	Wiring for twin control light point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, 2 way modular switch, modular plate,	354 Incl.GST :54%	24.78	378.78
96	"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 1.5 sq. mm + 1 X 1.5 sq. mm earth wire"	14.16 Incl.GST :2%	0.99	15.15
97	"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 2.5 sq. mm + 1 X 2.5 sq. mm earth wire"	37.76 Incl.GST :6%	2.64	40.4
98	"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"	37.76 Incl.GST :6%	2.64	40.4
99	"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 4 X 4 sq. mm + 2 X 4 sq. mm earth wire"	37.76 Incl.GST :6%	2.64	40.4
100	Supply, laying and fixing of 1.1 KV grade cable as per spec: 95 Sqmm Copper Cable Flexible (UPS incomer)	1180 Incl.GST :18%	82.6	1262.6
101	Supply, laying and fixing of 1.1 KV grade cable as per spec: 70 Sqmm Copper Cable Flexible (UPS outgoing)	944 Incl.GST :144%	66.08	1010.08
102	Supply, laying and fixing of 1.1 KV grade cable as per spec: 35 Sqmm Copper Cable Flexible (Earthing Cable)	708 Incl.GST :108%	49.56	757.56

Item-wise Price Details				
103	Supply, laying and fixing of 1.1 KV grade cable as per spec: 25 Sqmm Copper Cable Flexible (AC units)	472 Incl.GST :72%	33.04	505.04
104	Supply, laying and fixing of 1.1 KV grade cable as per spec: 16 Sqmm Copper Cable Flexible (Earthing cable)	354 Incl.GST :54%	24.78	378.78
105	Supply, laying and fixing of 1.1 KV grade cable as per spec: 10 Sqmm Copper Cable Flexible (Earthing cable)	354 Incl.GST :54%	24.78	378.78
106	Supply and making end termination with brass as per spec: 5 x 95 Sqmm Conductor	2360 Incl.GST :360%	165.2	2525.2
107	Supply and making end termination with brass as per spec: 5 x 70 Sqmm Conductor	2360 Incl.GST :360%	165.2	2525.2
108	Supply and making end termination with brass as per spec: 5 x 35 Sqmm Conductor	2360 Incl.GST :360%	165.2	2525.2
109	Supply and making end termination with brass as per spec: 5 x 25 Sqmm Conductor	2360 Incl.GST :18%	165.2	2525.2
110	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 amps modular socket outlet and 5/6 amps modular switch, connection etc. as required. (For light plugs to be used in non residential buildings).	590 Incl.GST :18%	41.3	631.3

Item-wise Price Details

111	<p>Providing and fixing tiled false ceiling of approved materials of size 595 x 595 mm in true horizontal level, suspended on inter locking metal grid of hot dipped galvanized steel sections (galvanized @ 120 grams per 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 1200mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced 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 for 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 12.5mm dia and 50 mm long dash fasteners, 4 mm GI adjustable rods with galvanised butterfly level clips of size 85x 30x 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. 12.5 mm thick square edge PVC Laminated Gypsum Tile size 595x595 mm made of Gypsum plasterboard , manufactured from natural gypsum as per IS 2095 part I and laminated with white 0.16 mm thick fire retardant PVC film on the face side and 12 micron metalized polyster on the back side with all edges sealed with the face side PVC film which goes around and wraps the edges and is bonded to the edges and the back side metalized polyster film so as to make the tile a completely sealed unit</p>	<p align="center">413 Incl.GST :18%</p>	<p align="center">28.91</p>	<p align="center">441.91</p>
112	<p>Supply and making end termination with brass as per spec: 5 x 16 Sqmm Conductor</p>	<p align="center">2360 Incl.GST :18%</p>	<p align="center">165.2</p>	<p align="center">2525.2</p>
113	<p>Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 No's 5 pin 5/6 amps modular socket outlet and 1 No: 16 amps modular switch, connection etc. as required.</p>	<p align="center">590 Incl.GST :18%</p>	<p align="center">41.3</p>	<p align="center">631.3</p>
114	<p>Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 amps modular socket outlet and 15/16 amps modular switch, connection etc. as required.</p>	<p align="center">708 Incl.GST :18%</p>	<p align="center">49.56</p>	<p align="center">757.56</p>

Item-wise Price Details				
115	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	118 Incl.GST :18%	8.26	126.26
116	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. 15/6 amps switch	118 Incl.GST :18%	8.26	126.26
117	"UPS Panel Supply, Installation, Testing & Commissioning of LT Switch Board , cubicle type, made out of 2mm thick CRCA sheet,totally enclosed, IP 42, free standing, floor mounting, dust and vermin proof, indoor, compartmentalised, suitable for operation on 3 phase , 415 V, 50Hz AC system with busbars , including internal wiring with suitable size HFFR wires/cable, interconnection, duly powder coated with seven tank process etc., including all inter connections and following components as per drawing and technical specifications. INCOMER Suitable for the equipment, 4 pole, current limiting type MCCB with microprocessor based release with overoad setting of 50 - 100% having adjustable OL & SC.- 1 nos. BUSBARS Suitable TPN busbars of high conductivity electrolytic quality aluminium conductor INSTRUMENTS 4A, C curve SP MCB - 3 nos. RYB Indicating lamps LED type - 3 Nos. Voltmeter(0-500V) with selector switch - 1 No. Ammeter (0-125A) - 3 No. 200/5A 10 VA Class 1 CTs -3 Nos OUTGOINGS Suitable for the equipment, 4 pole, current limiting type MCCB with microprocessor based release with overoad setting of 50 - 100% having adjustable OL & SC- 1 nos. 25 /32/ 63/ 100/ 125A, 35/36 kA (Ics= 100%Icu), 4 pole, current limiting type MCCB with microprocessor based release with overoad setting of 50 - 100% having adjustable OL & SC- 3 nos. "	47200 Incl.GST :18%	3304	50504
118	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	118 Incl.GST :18%	8.26	126.26
119	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	118 Incl.GST :18%	8.26	126.26
120	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	118 Incl.GST :18%	8.26	126.26

Item-wise Price Details				
121	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	118 Incl.GST :18%	8.26	126.26
122	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	118 Incl.GST :18%	8.26	126.26
123	Supplying and fixing stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required.	118 Incl.GST :18%	8.26	126.26
124	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	118 Incl.GST :18%	8.26	126.26
125	Supplying and fixing mentioned size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc as required. 1 or 2 Module (75mm X 75mm)	118 Incl.GST :18%	8.26	126.26
126	Supplying and fixing mentioned size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc as required. 3 Module (100mm X 75mm)	118 Incl.GST :18%	8.26	126.26
127	Supplying and fixing mentioned size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc as required. 4 Module (125mm X 75mm)	118 Incl.GST :18%	8.26	126.26
128	Supplying and fixing mentioned size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc as required. 6 Module (200mm X 75mm)	118 Incl.GST :18%	8.26	126.26
129	Supplying and fixing mentioned size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc as required. 8 Module (125mm X 125mm)	118 Incl.GST :18%	8.26	126.26
130	Supplying and fixing mentioned size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc as required. 12 Module (200mm X 150mm)	118 Incl.GST :18%	8.26	126.26

Item-wise Price Details				
131	Supplying and fixing call bell/ buzzer suitable for single phase, 230 volts, complete as required.	118 Incl.GST :18%	8.26	126.26
132	Supplying and fixing brass batten/ angle holder including connection etc. as required.	708 Incl.GST :18%	49.56	757.56
133	"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. 20mm"	472 Incl.GST :18%	33.04	505.04
134	"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. 25mm"	472 Incl.GST :18%	33.04	505.04
135	"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. 32mm"	472 Incl.GST :18%	33.04	505.04
136	"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 6 sq. mm "	354 Incl.GST :18%	24.78	378.78
137	"Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel/ PVC conduit as required. 5 x 6 sq. mm "	472 Incl.GST :18%	33.04	505.04
138	"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. 3.5c 240sqmm"	354 Incl.GST :18%	24.78	378.78
139	"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. 3.5c 70sqmm"	944 Incl.GST :18%	66.08	1010.08

Item-wise Price Details				
140	"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. 3.5c 35 sqmm with factory made clamp"	944 Incl.GST :18%	66.08	1010.08
141	"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. 4c 10 sqmm with factory made clamp"	708 Incl.GST :18%	49.56	757.56
142	"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. 4c 25 sqmm with factory made clamp"	708 Incl.GST :18%	49.56	757.56
143	"Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. 3 1/2 X 240 sq. mm (62mm)"	944 Incl.GST :18%	66.08	1010.08
144	"Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. 3 1/2 X 70 sq. mm (57mm)"	944 Incl.GST :18%	66.08	1010.08
145	"Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. 3 1/2 X 35 sq. mm (32mm)"	944 Incl.GST :18%	66.08	1010.08
146	"Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. 4 X 25 sq. mm (28mm)"	944 Incl.GST :18%	66.08	1010.08
147	"Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. 4 X 10 sq. mm (25mm)"	944 Incl.GST :18%	66.08	1010.08

Item-wise Price Details				
148	"Supplying and providing earth clamps made out of copper strips of the following sizes including cutting and bending the flat exactly to the shape of the gland, drilling necessary holes for nut & bolt, tinning the points of contacts and giving connections to the main earthing system as required. 25 x 3 mm for earthing glands of size 240 sq mm to 300 sq mm"	944 Incl.GST :18%	66.08	1010.08
149	"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 sqmm - 95sq mm with 20 mm wide x 1.20 mm thick clip"	944 Incl.GST :18%	66.08	1010.08
150	"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"	944 Incl.GST :18%	66.08	1010.08
151	"MCBs AND MCB DISTRIBUTION BOARDS : Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 volts, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 amps tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCB's (but without MCB's and incomer) as required. (Note : Vertical type MCB TPDB is normally used where 3 phase outlets are required.) 8 way (4 + 24), Double door"	5900 Incl.GST :18%	413	6313
152	"Supplying and fixing following way, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 volts, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator) 6 way (4 + 18), Double door"	5900 Incl.GST :18%	413	6313
153	"Supplying and fixing following way, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 volts, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator) 8 way (4 + 24), Double door"	9440 Incl.GST :18%	660.8	10100.8

Item-wise Price Details				
154	"Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 volts, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator) 2 + 12 way / 14 way, Double door"	9440 Incl.GST :18%	660.8	10100.8
155	"Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required. 100 Amps "	23600 Incl.GST :18%	1652	25252
156	"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 "	23600 Incl.GST :18%	1652	25252
157	"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 "	23600 Incl.GST :18%	1652	25252
158	"Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 100 amps, 100mA"	23600 Incl.GST :18%	1652	25252
159	"Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 63 amps, 100mA"	23600 Incl.GST :18%	1652	25252
160	"Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 40 amps, 30mA"	23600 Incl.GST :18%	1652	25252
161	"Supplying and fixing following rating, double pole, 240 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required. 40 amps"	1770 Incl.GST :18%	123.9	1893.9

Item-wise Price Details				
162	"Supplying and fixing following rating, double pole, (single phase and neutral), 240 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing 40 amps"	2360 Incl.GST :18%	165.2	2525.2
163	"Supplying and fixing 5 amps to 32 amps rating, 240/415 volts,10 kA ""C"" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required. Single pole"	1770 Incl.GST :18%	123.9	1893.9
164	"Supplying and fixing 5 amps to 32 amps rating, 240/415 volts,10 kA ""C"" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required. Double pole"	1180 Incl.GST :18%	82.6	1262.6
165	"Supplying and fixing 5 amps to 32 amps rating, 240/415 volts,10 kA ""C"" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required. 40A to 63A, 10KA, TP MCB (D curve)"	1180 Incl.GST :18%	82.6	1262.6
166	Supplying and fixing 20 amps, 240 volts, SPN industrial type, socket outlet, with 2 pole and earth, metal enclosed plug top alongwith 20 amps "C" curve, SP, MCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required.	1180 Incl.GST :18%	82.6	1262.6
167	EARTHING AND SAFETY EQUIPMENTS : 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.	3540 Incl.GST :18%	247.8	3787.8
168	Providing and fixing 4.00 mm dia copper wire on surface or in recess for loop earthing along with existing surface/ recessed conduit/ submain wiring/ cable as required.	70.8 Incl.GST :18%	4.96	75.76
169	Providing and fixing 25 mm X 3 mm copper strip on surface or in recess for connections etc. as required.	236 Incl.GST :18%	16.52	252.52

Item-wise Price Details				
170	"Supplying , threading , laying and jointing of the following sizes of 'B' class GI pipe with all required accessories in ground in the existing trench as protective covering to earth leads. 40 mm dia"	590 Incl.GST :18%	41.3	631.3
171	Supply and installation of 36W LED 600X600 recess mounted indirect luminaire, with white powder coated CRCA housing with LEDs,seamless front frame with white high transmission acrylic cover complete with all accessories like electronic drive, lamp holder, 36W LEDlamp, mounting chajj, hook etc complete as required.(BAJAJ: BZRSQLW3 XE NW/ Philips/Havells)	2360 Incl.GST :18%	165.2	2525.2
172	Supply and installation of 15W LED downlight fixture, in die-cast aluminium powder coated white finish, with with heat sink, diffuser etc complete with all accessories like separate replacable HF electronic driver, LED lamp etc complete as required.(Havells LHEBJNP6IZ1W015/ PHILIPS/Bajaj)	1770 Incl.GST :18%	123.9	1893.9
173	"Supply and installation of following sweep five star rated ceiling fan, with double ball bearing, Aluminium pressure die cast body with aluminium blades, canopies, hanging shackle, 30 cm down rod and without speed regulator suitable for 230 V 50 HZ, AC supply confirms to IS 374/1979 as required complete. (Make Crompton-High breeze Plus or equivalent approved make). 1200 mm sweep"	1770 Incl.GST :18%	123.9	1893.9
174	Supply and installation of 250 mm sweep, light duty exhaust fan in plastic body with shutter working on 230 V AC supply complete with all accessories as required. (Make: Crompton Greaves Brisk Air or any other approved equivalent make)	1888 Incl.GST :18%	132.16	2020.16
175	Supply of 400 mm size wall mounting oscillating type fan having three speed control, oscillation control at bottom and suitable for operation on single phase 230 volt, 50Hz AC supply complete with continuous duty motor, chrome plated front and rear gaurds and all accessories as required complete.(Make crompton-SDX white or equivalent approved make).	3540 Incl.GST :18%	247.8	3787.8
176	Supply and fixing of 25mm PVC conduit along with accessories and MS boxes in recess / surface including cutting the wall and making good the same as required for telephone and LAN.	177 Incl.GST :18%	12.39	189.39

Item-wise Price Details				
177	Supply and drawing of 2 pair,0.61mm dia unarmoured PVC insulated and PVC sheathed annealed tinned copper conductor telephone cables in recessed/surface conduit and termination complete as required.	118 Incl.GST :18%	8.26	126.26
178	Supply and fixing in position twin RJ11 jack plate i/c wall recessed GI box for telephone. (Reputed brand)	236 Incl.GST :18%	16.52	252.52
179	Supply and drawing CAT 6 wiring in recessed/surface conduite including termination for Data	11.8 Incl.GST :18%	0.83	12.63
180	Supply and fixing in position twin RJ45 jack plate i/c wall recessed GI box for LAN. (Reputed brand)	236 Incl.GST :18%	16.52	252.52
181	24-Port Gigabit manageable smart Network Switch with 2 SFPs. Rack mountable	4720 Incl.GST :18%	330.4	5050.4
182	Patch panel - 24-Port patch panel with cable tray. Rack mountable	5900 Incl.GST :18%	413	6313
183	4U Rack- Wall Mountable including 4x 6Amp power distribution box	5900 Incl.GST :18%	413	6313
184	Supply of branded 1mtr patch cords with cat 6 cable.	177 Incl.GST :18%	12.39	189.39
185	Supply of branded 2mtr patch cords with cat 6 cable.	236 Incl.GST :18%	16.52	252.52
186	Supply of branded 3mtr patch cords with cat 6 cable.	708 Incl.GST :18%	49.56	757.56
187	Supply and providing 2.5 mm thick Elastomeric fire retardent insulating mat as per IS 15652/2006 to withstand 11 KV dielectric strength	1180 Incl.GST :18%	82.6	1262.6
188	Charges for obtaining electrical inspectorate's approval	47200 Incl.GST :18%	3304	50504
189	2 tonne Split air conditioner 3/4 star copper condensor coil with stablizer complete installation & commissioning (rate for 1 no)	102660 Incl.GST :18%	7186.2	109846.2

Item-wise Price Details				
190	Supply and installation of portable fire extinguisher (4 kg) with wall mounted for fire type ABC classification	1770 Incl.GST :18%	123.9	1893.9
191	"AC WORKS Ductable A/C units 11 TR x 2 no's Low side works for complete installation & commissioning of AC (quote rate for two numbers) Supply , installation ,testing & commissioning of 11 TR or higher capacity aircooled ductable split air conditioner with ceiling suspended IDU and all standard fitting,GSS sheet metal duct(insulation using resin bounded glass wool with 7 micron aluminium foil) for air distribution 22/24 G, IDU SS drain pan as per specification complete with suitable capacity drive motor , aircooled condensor with all accessories ,hermetically sealed scroll compressor, electronic microprocessor pendant controller with digital display, first charge refrigerant gas, vibration isolator pads, structural support for fixing IDU/ODU, safety devices including thermal protector, pressur releafe valve ,overload relay single phase preventer etc, power wiring and control cabling(indoor to outdoor), thermostat wiring, high-low pressure cut out suitable for 3 phase 440V supply etc complete as required ."	472000 Incl.GST :18%	33040	505040
192	"AC WORKS Ductable A/C units 8.5 TR Low side works for complete installation & commissioning of AC Supply , installation ,testing & commissioning of 8.5 TR or higher capacity aircooled ductable split air conditioner with ceiling suspended IDU and all standard fitting,GSS sheet metal duct(insulation using resin bounded glass wool with 7 micron aluminium foil) for air distribution 22/24 G, IDU SS drain pan as per specification complete with suitable capacity drive motor , aircooled condensor with all accessories ,hermetically sealed scroll compressor, electronic microprocessor pendant controller with digital display, first charge refrigerant gas, vibration isolator pads, structural support for fixing IDU/ODU, safety devices including thermal protector, pressur releafe valve ,overload relay single phase preventer etc, power wiring and control cabling(indoor to outdoor), thermostat wiring, high-low pressure cut out suitable for 3 phase 440V supply etc complete as required ."	200305 Incl.GST :18%	14021.35	214326.35
193	Fixing Window curtain - Blinds type with fixtures	1770 Incl.GST :18%	123.9	1893.9
194	Fixing Window Curtain - cloth with fixtures	1416 Incl.GST :18%	99.12	1515.12
195	Fixing Door Curtain - cloth with fixtures	1416 Incl.GST :18%	99.12	1515.12

Item-wise Price Details				
196	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	14160 Incl.GST :18%	991.2	15151.2
197	Providing and fixing paneling or paneling and glazing in paneled or paneled and glazed shutters for doors, windows and clerestory windows (Area of opening for panel inserts excluding portion inside grooves or rebates to be measured) paneling for paneled or paneled and glazed shutters 25 mm to 40 mm thick using good quality Anjili/ Jack wood	15576 Incl.GST :18%	1090.32	16666.32
198	Providing and fixing 4 mm thick coir veneer board, ISI marked IS : 14842, plain lining with necessary screws, priming coat on unexposed surface etc., complete	849.6 Incl.GST :18%	59.47	909.07
199	"Providing and fixing 35 mm thick factory made laminated veneer lumber door shutter conforming to IS: 14616 and TADS 15:2001 (Part B), including ISI marked M.S. pressed butt hinges bright finished of required size with necessary screws, all complete as per directions of Engineer-in-Charge and panelling with panels of: 12 mm thick pre-laminated particle board (decorative lamination on both sides) grade -1, medium density flat pressed, three layer particle board FPT - I or graded wood particle board FPT - I, conforming to IS : 3087, bonded with BWP type synthetic resin adhesive as per IS : 848 and prelaminated conforming to IS : 12823, Grade I, Type - II marked : "	3894 Incl.GST :18%	272.58	4166.58
200	Rodent Bait Station	354 Incl.GST :18%	24.78	378.78
201	"Supply & laying Aluminium power cable 1.1 KV grade in additional position without sand cushioning & protective covering in ordinary soil : Supply and laying of one number additional PVC insulated and PVC sheathed armoured aluminium power cable of 1.1KV grade of the following sizes in ground in the same trench in one tier horizontal formation including widening the trench by 20 cm, refilling the trench etc. as required but excluding sand cushioning and protective covering (in ordinary soil) 3.5c 185sqmm"	354 Incl.GST :18%	24.78	378.78

Item-wise Price Details				
202	"Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. 31/2 X 185 sq. mm (57mm)"	1180 Incl.GST :18%	82.6	1262.6
203	"Supplying and providing earth clamps made out of copper strips of the following sizes including cutting and bending the flat exactly to the shape of the gland, drilling necessary holes for nut & bolt, tinning the points of contacts and giving connections to the main earthing system as required. 20 x 3 mm for earthing glands of size 120 sq mm to 185 sq mm"	2360 Incl.GST :18%	165.2	2525.2
204	42" LED Television	35400 Incl.GST :18%	2478	37878
205	Site cleaning	23600 Incl.GST :18%	1652	25252
206	Water heater cooler dispensor with purifier	21240 Incl.GST :18%	1486.8	22726.8
207	Patient address system for the reception and patient waiting area	70800 Incl.GST :18%	4956	75756
208	Channel music system in the treatment room and control room	35400 Incl.GST :18%	2478	37878
209	File cabinet (4 cabinet type Godrej / equivalent)	23600 Incl.GST :18%	1652	25252
210	Providing installing, connecting, testing and commissioning Heat Detectors type with mounting base, blinking LED as required complete and integration	944 Incl.GST :18%	66.08	1010.08
211	Supplying, installation, testing and commissioning of Conventional Photoelectric Smoke detectors as required to connect with existing system	1062 Incl.GST :18%	74.34	1136.34
212	Providing and fixing of response indicator as required	3540 Incl.GST :18%	247.8	3787.8
213	Conventional Single -Zone Fire Panel with batteries, battery charger mimic diagram etc	10030 Incl.GST :18%	702.1	10732.1
214	Providing and fixing in position CO2 type fire extinguisher of 5kg Capacity	5310 Incl.GST :18%	371.7	5681.7

Item-wise Price Details				
215	"AC WORKS Ductable A/C units 5.5 TR Low side works for complete installation & commissioning of AC Supply , installation ,testing & commissioning of 5.5 TR or higher capacity aircooled ductable split air conditioner with ceiling suspended IDU and all standard fitting,GSS sheet metal duct(insulation using resin bounded glass wool with 7 micron aluminium foil) for air distribution 22/24 G, IDU SS drain pan as per specification complete with suitable capacity drive motor , aircooled condensor with all accessories ,hermetically sealed scroll compressor, electronic microprocessor pendant controller with digital display, first charge refrigerant gas, vibration isolator pads, structural support for fixing IDU/ODU, safety devices including thermal protector, pressur releafe valve ,overload relay single phase preventer etc, power wiring and control cabling(indoor to outdoor), thermostat wiring, high-low pressure cut out suitable for 3 phase 440V supply etc complete as required . "	282315 Incl.GST :18%	19762.05	302077.05
216	Supply and making end termination with brass as per spec: 5 x 25 Sqmm Conductor	2360 Incl.GST :18%	165.2	2525.2
		26116414.27	2132420.8	28248835.07

Annual / Comprehensive Maintenance Charges (Exl.Tax)							
Rate	4 th Year	5 th Year	6 th Year	7 th Year	8 th Year	9 th Year	10 th Year
Cobalt Radiotherapy Machine							
Labour	3,72,089.00	4,09,298.00	4,50,228.00	4,95,251.00	5,44,776.00	5,99,254.00	6,59,179.00
Comprehensive	3,72,089.00	4,09,298.00	4,50,228.00	4,95,251.00	5,44,776.00	5,99,254.00	6,59,179.00

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% 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 :Cobalt Radiotherapy Machine

- A. Isocentrically mounted Pendulum counterweight fully Rotational Cobalt 60 Teletherapy machine with Source and accessories.
- B. The machine should be manufactured by a well-established company/firm with a documented history of reliability.

I. Gantry

- a. Motorized with Isocentric Design
- b. Fully Rotational both CW and CCW (360): Variable speed control is provided for gantry rotation to facilitate treatment
- c. Counterweight – Pendulum type.
- d. Control : Console Keypad/Hand Pendant and or Control –Console.
- e. Source –Axis Distance :SAD 80 cm or more.
- f. Display of gantry angle on the in –room monitor (s) and control console simultaneously. Readout : Digital/Mechanical
- g. Source Head Capacity :?250 RMM, with only Tungsten shielding, no depleted Uranium.
- h. A mechanical indicator is retracted in the head when the source is in the fully shielded position and protrudes from head when the source is in or near the fully unshielded position. The motion of mechanical Indicator rod is independent from operation of the radiation monitors.

II. Source

- a. Source and Strength : Source to be supplied along with the unit and Cobalt-60 source strength should be > 170RMM

III. Source drawer mechanism

The pneumatically driven linear source drawer on the moves the source between the fully shielded and the fully exposed positions. A large air reservoir tank to be provided which allows the source to cycle from the fully shielded position to the fully exposed positions and back at least five (5) times in 30 seconds. If the air pressure drops below a preset limit, the source is automatically returned to, or retained in the fully shielded position. In the event of a power failure, the source automatically returns to its fully shielded position.

IV. Isocentric Accuracy

The unit should be isocentric which is defined as the point where the couch, collimator and gantry rotational axes intersect. This point should lie within a sphere of 2mm dia as the gantry rotates through 360° angle.

V. Collimator

- a. Motorized Motorized asymmetrical collimator assembly defining the X and Y axes relative to the collimator axes. The X and Y leaf positions to be displayed on the in-room display monitors(s)
- b. Motorized Rotation (Clockwise & Anticlockwise). Specify angle and minimum and maximum speed of collimator.
- c. Display : Digital/Mechanical
- d. ODI: 70 cm to 100 cm ODI projects a scale on the patient's skin surface and provide exceptional contrast against skin surface and minimize the diffusion on the skin and on any immobilization devices. (Treatment distance indicators should attach magnetically to collimator accessory pads and indicate 80 cm SSD or 100 cm SSD accordingly)

e. Inbuilt Trimmers.

f. Attachment for Shadow Tray.

g. Should have both Symmetric and Asymmetric motorized collimation facility.

h. The collimator jaws should automatically move to midline (closed collimator) and the motorized wedge (if installed) automatically moves to the "In" position, in case of any malfunctioning of source drawer minimizing exposure to patient and personnel.

i. Anti collision device should be available please specify CDD (Collision Detecting Devices), detects a possibility of collision between the head of the unit and the table, patient, operator or any standard accessory attached to either the patient or the table.

VI. Treatment Mode-Normal

Normal – SSD/SAD, ARC-CW/CCW

VII. Field Size

Maximum Field size 35*35 cm² and Minimum field size 0* 0 cm²

VIII. Penumbra

Should be ?1cm achievable at mid plane, either with trimmers or blocks.

IX. Initial Output

? 2.0 Gy/min at Isocentre.

X. Optical and Radiation Field Congruence

Should be ?2mm

XI. Source Diameter

Should be ?2cm

XII. Control Console

Control should be provide following:

a. Standard/Computerized Remote Control Console, with Monitor, Keyboard, Mouse & Processor Cabinet with 21- inch LED Monitor displaying information, such as: treatment start up information, Set and actual unit and table parameters , Gantry angle , field size etc. With printer

b. Power ON / OFF Switch , Push button interface for treatment Enable, Pause, Termination, Auto set-up (gantry motion)and Confirm Parameters.

c. A motion enable button for remote unit motions

- d. Treatment timer.
- e. Backup timer.
- f. Mode selection.

Technical Specification

- g. Treatment start button.
- h. Emergency Switch.
- i. Interlock Indicators.
- j. Beam position indicator lamps.
- k. Mouse and Keyboard to perform all functions on the Control Console.
- l. Audio and visual indicators inside the treatment room and the control console reflect the position of the source and unit status.
- m. The monitor should displays:
 - i. Arc/Fixed treatment
 - ii. Symmetric or Asymmetric Field size
 - iii. Gantry Angle
 - iv. Collimator angle
 - v. Wedge code
 - vi. Table lateral
 - vii. Table vertical position
 - viii. Table angle

XIII. Keypad Control

- a. Keypad for controlling all the movements of Gantry , Collimator, Field Defining Jaws and couch and all other necessary movements of the unit on either side of treatment couch
- b. The auto set –up feature allows the operator to move the gantry, field size and collimator rotation at the touch of a button from keypad . The treatment parameters are entered at the control console and the operator is able to move the unit from inside the treatment room to position the field size and the collimator rotation to the entered value.
- c. The gantry can be moved remotely from outside the treatment room at the control console.

XIV. Treatment Couch

- a. Table top should be preferably radiolucent Carbon fiber without any metallic part to facilitate ARC and non –coplanar beam treatments
- b. Table top sagging should be as per AERB norms. Specify

- c. All movements of the couch should be motorized: specify ranges
 - i Longitudinal with digital display
 - ii Lateral with digital display
 - iii Vertical
- d. Besides motorized movements for the couch, additional manual movement is preferable
- e. Preferably both with locking mechanism – Mechanical/Electronic or both

XV. Safety System

a. Interlocks

- i. Door(series interlock for 2 doors)

Technical Specification

ii. Off-Shield

iii. Air Pressure

iv. Mode Selection

v. Reset/Pause

vi. Wedge Filter/Tray

vii. Unexpected Motion

- viii. Treatment Verification (verify actual gantry and collimator positions are moved to the set treatment parameters)

b. Emergency Switches.

XVI. The following additional features should be there:

- i. R&V facility and interface: Should be capable of R & V communication.
- ii. Automatic Collimator Closure: closure in case of Emergency.
- iii. MLC upgrade option
- iv. Password Protections: Should have a password to access menus related to unit configuration, calibration and interlock menus
- v. Networking : Unit system should be ready for networking with Simulator & TPS available at the time of installation.

XVII. Exposure Rate or Kerma Rate at Different position of with source head specify it –

- i. Measured at a distance 1 meter from the source in beam OFF – Position : As per latest International /national specifications (IEC/ICRP/AERB).
- ii. Measured at an any other position distances 5 cm from the surface of the housing in beam Off Position: As per latest International

/national specifications (IEC/ICRP/AERB).

iii. Measured at distance 1 meter from the source in beam ON – Position : As per latest International /national specifications (IEC/ICRP/AERB).

iv. Last man out switch should be provided

XVIII. Collimator Exposure

As per latest international / National Specifications (IEC/ICRP/AERB) with full detail of the same

XIX. COMPUTERIZED TREATMENT PLANNING SYSTEM

Latest 3D Treatment Planning System (TPS) for External Beam Radiotherapy planning with treatment planning accessories must be supplied

I Description of the system .

3D Treatment Planning System capable of radiotherapy treatment planning for teletherapy (Photon). This system should have capability of integration with Simulators, CT scanner of any vendor. The TPS should be capable of 3D treatment planning. The TPS should have latest state of art hardware & software with following features

Technical Specifications

II Software

1. Patient registration, record and file management should be user friendly.
2. Patient Data Acquisition through film scanners, digitizer, latest DICOM import facility from CT Scanners/ MRI & Simulator of any vendor.
3. Advanced Contouring tools with patient identity information should be available. Auto segmentation/contouring based on electron density values for different organs should be included & follow ICRU-50 Volume definitions.
4. System should also be capable of showing the combined dose distribution to the target volume resulting from whole treatment received by teletherapy
5. System must have facility of treatment planning for Photon of all energies in the therapeutic range.
6. System must have facility of machine data acquisition through RFA/scanner, etc.
7. The system must support regular & irregular fields for all types of beam modifiers such as Bolus, Blocks, MLCs, tissue compensator, wedges, dynamic wedge, asymmetric beams, etc.
8. System must be capable of conformal radiotherapy planning and multiple isocentre calculations.
9. System should be capable of making tissue inhomogeneity correction (as per electron density), irregular point dose calculations and auto-contouring as per CT data. Accuracy of dose calculations must be as per TG-23 Bench Mark Tests.
10. Facility of advanced comprehensive plan and display tools, drawing and margining tools, multiplan comparison and summation.
11. Provision of 3-D display of entire anatomical volume with sources, dose points, different body organs, isodose distribution with different color coding.
12. Display of dose to any defined point or volume. Isodose display in percentage as well as in cGy
13. System should be able to store all unit and source data separately.

14. Facility of creating user's defined templates for various situations.
15. It should have capability of Virtual Simulation feature and multiplanar reconstruction in sagittal, coronal and oblique planes from CT data set.
16. TPS should show DVH, Beam's Eye View at any depth, shielding area, etc.
17. It should have capability of importing image from CT, via networking (DICOM compatible)
18. Specify the algorithm used for calculations in the TPS.
19. System should have image registration and fusion facility for the images acquired from different imaging modalities.
20. Optional Software IMRT planning Price must be quoted separately

III. Hardware

1. Latest high end PC available at the time of supply with DVD Writer of latest technology, Hard Disk, USB Pen Drive, external hard disk, A3 size Flat Bed Color Film Scanner for CT / MRI and X-Ray Radiographs, software for optical density analysis of QA films
2. 19"/21" LCD Color Display Unit, Laser Printer A4 size and Color Inkjet Printer of A3 size.
3. The model, dpi and the make of scanner should be mentioned.
4. Appropriate port Hub W/BNC connector and necessary hardware for network connection should be provided.
5. Reputed brand supporting furniture, storage for hardware must be supplied with the system.
6. Complete installation of the system to the user's satisfaction. .

IV USER MANUALS AND CERTIFICATES

1. User/Technical/Maintenance manuals to be supplied in English. Operators, physics, configuration and utility programme manuals. Certificate of calibration and inspection.
2. License for Operating system and software must be supplied along with the system to the Hospital.
3. List of important spare parts and accessories with their part number and costing quarterly maintenance checklist.
4. The job description of the hospital technician and company service engineer should be clearly spelt out
5. Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number of original catalogue/data sheet. Any point, if not substantiated with authenticated catalogue/manual, will not be considered.

V ENVIRONMENTAL FACTORS

1. The unit shall be capable of being stored continuously in ambient temperature of 0-50deg C and relative humidity of 15-90%
2. The unit shall be capable of operating continuously in ambient temperature of 10 – 40 deg C and relative humidity of 15-90%.
3. Power Supply 5.1 Power input to be 220-240VAC, 50Hz fitted with Indian plug

4. Reputed brand online UPS of suitable rating with voltage regulation and spike protection for 30 minutes back up for the system and room. 6. Quality Certificate & training

5. TPS should support all the recommendations made by AAPM, ESTRO, ICRU, etc.

6. Comprehensive training for designated professional staff and support services till familiarity with the system.

XX. Accessories

i. Physical Wedge should be available with at least four angles 15,30,45 and 60, and specify field sizes.

ii. Additionally a pneumatically driven wedge (analogous to motorized wedge) with an ability to create wedge profile from 1 degree to 60 degree at a step of 1 degree

iii. The field light system should have consists on an external parabolic mirror projector assembly which is designed to allow for quick and easy replacement of the quartz halogen lamp and also provision for an automatic timer turns off the light field at the start of the treatment and may be configured for preset time and extending the usage of the light field.

iv. Different size of Beam shaping blocks should be available.

v. Accessory mount – Shadow block Tray/ Rail should be available

vi. Front pointer – Mechanical

vii. CCTV (LED/LCD Monitor/Camera)

viii. Intercom System (TWO WAY)

Technical Specification

ix. Laser System axial, coronal and sagittal to locate the isocenter and treatment plan axis with an accuracy of ± 1 mm Manuals (Operators/Service) should be available.

x. Full Isodose Charts.

xi. Calibrated Secondary Standard dosimetry system with reference class electrometer with 0.6cc waterproof ion chamber with appropriate length of triaxial cable to perform clinical dosimetry with suitable BCN/TNC connectors according the Length of Cobalt Room.

xii. One water Phantom- Absolute dosimetry water Phantom of size 24.5 cm x 30 cm with 06 mm wall thickness.

xiii. One Gamma Zone Monitor.

xiv. Patient calling system with at least 2 wall mounted speaker and one table milk

xv. Reputed brand on- Line UPS with Maintenance Free Batteries (with rack) of suitable rating with voltage regulation and spike protection for 1 hour back up for the machine and control console room including power cable approx.

xvi. Suitable power cable from the Transformer to the electrical room of the equipment.

XXI. Regulatory Requirement:

i. Machine should comply: Unit should have approvals of AERB certification, ISO Certification and other international regulatory authorities.

XXII. Essential Requirement:

Provide information on:

- i. No. of quoted units installed by bidder in India in last 5 years (at least 1 No. of unit of the same model should have been installed in India).
- ii. No. Of AERB certified engineers in India. Please provide name and address of your engineers and office.
- iii. The bidder should have an inventory of spare parts in India. Enclose an auditor certified certificate that the firm is maintaining spare parts inventory in India, and the list of spare parts in the inventory.

XXIII. Unit Installation:

- i. Commissioning Approval: The supplier must do necessary arrangement for obtaining commissioning approval for the unit with necessary support from the user department.
- ii. Onsite training of RT staff

XXIV. The following are the additional features:

DOCUMENTATION

- i. Two hard copies of complete set of operational and service manual (including circuit diagram) to be supplied with the system.
- ii. User/Technical / Maintenance manuals to be supplied in English .
- iii. Certificate of calibration and inspection.
- iv. List of equipment available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual.

General

Only the latest model should be offered. Also, please mention if the equipment is designed in a way so that it can be field-upgraded at any future date to the model that is current at that point in time- please mention if this has already been done in the field with your Telecobalt machine. The model offered should be featured in the web site. Upgradation of Hardware and software during the warranty and CMC period without any additional cost is the responsibility of the vendor. Specify the number of units installed in the sub-continent of the model offered. Anti –collision system should be included in the offer (specify).

The committee reserves the right to take into consideration better features as per the specifications in the final selection of the equipment. Customs Duty should also be included in the quoted price. Turnkey taxes should also be borne by the vendor. Rates of optional items should be quoted separately.

XXV. Turnkey room project

a. Civil work – The bidder should visit the proposed site of the department. The head of the department in consultation with the head of the institution will provide the requirements of building to be constructed in compliance with the AERB rules. Bidder must prepare a site plan; building lay out as per the requirements of the concerned department and in compliance with AERB stipulations. The bidder must take into account the site of building, area to be constructed as per the requirement of the departments and various other aspects of construction while they quote. The bidder has to bear all the charges right from the development of the plot, piling works etc; as advised by the local administration till an AERB approved building is constructed. All the works must be strictly in compliance with the existing AERB rule and any radiation leak or related uneventful happening will be responsibility of vendor. However the administrative assistance in this regard will be provided by the corresponding Medical college administration.

- b. Flooring – All the flooring and wall tiles must be high density mat finished vitrified ceramic tiles and with ISI trade mark.
- c. Doors – Aluminum with glazed door of the thickness 10 gauge with 20 micron anodizing and with 5.5mm thick wired glass/12mm thick pre-laminated board wherever specified by the Radiotherapy department. After Neutron does survey adequate shielding arrangements should be done on the door and frames if required.
- d. Walls – Walls must be painted with washable Emulsion paint of reputed company. Requirement of antifungal painting will be specified by the Department of Radiotherapy.
- e. False ceiling to be provided of good quality. False ceiling in all the areas will comprise of metal suspension system, perforated fireproof aluminium panels with integrated acoustic lining. All fluorescent lights and smoke detectors to be accommodated/integrated in the false ceiling.
- f. In toilets – glazed tiles to be used for Dado up to the ceiling. The sanitary fixtures/fittings should be of superior quality. The toilet seats should be of porcelain material.
- g. Rooms for UPS should be separately constructed in addition to the other rooms specified by department.
- h. Patients waiting hall with seating arrangement, provision of LCD 42 colour TV, water cooler with purifier, ceiling fans, exhaust fans and patients address system etc. The requirements will be specified by each departments separately.
- i. Channel music system should be installed in the treatment room and control room.
- j. Essential furniture, filing cabinets, shelves computer chair, tables and air conditioning should be done in consultation with the department.
- k. Arrangement of water supply lines for drinking and general use including hot water to be made. Quality of water supply GI pipes should be of high quality.
- l. The washing units and drainage lines should be resistant to chemicals.
- m. All the internal wiring including that of telephone, LAN, DICOM & PACS etc will be of concealed variety. Modular Cabinets should be provided.
- n. Fire Safety measures: A fire alarm system of reputed make with smoke/heat detectors, indicator panels, call boxes, electronic sirens and wiring will be installed. Audio call bell system, with intercom and remote locking/unlocking facility, to be provided at the main door of the complex.
- o. The entire turnkey work must have a colour scheme so that it provide a homogenous aesthetically pleasant and patient friendly appearance.
- p. Any addition or alteration in turnkey work if any, as and when required during the work will be done only after mutual discussion between the supplier and the department technical committee.

Plumbing work

Plumbing work has to be carried out as per the requirement. All water pipes and fittings shall be of good quality with ISI trade mark and of accepted brands in the market. The gratings shall be brass chrome plated.

Electrical Work

The firms shall be required to specify the total load requirements for the entire equipment, the air conditioning units, room, lighting and for all accessories if any. The load will be provided by the institute up to the distribution panel. The distribution panel should have switch gear of good quality.

Electrical Switchgear (MCCB/MCB.DB/Bus bar) should be used from reputed company only. All wires must be fire retardant with low smoke type. The Cabling work from the distribution panel to the machine should be done by the vendor. Double earthing with copper plate is to be provided for the machine. Necessary Electrical points for the unit and its accessories and room lighting controlled by the

unit and Dimmer controlled spot lights to be provided. The electrical work will include wiring, different lights and main switch fittings. The special roof light will be required particularly in the machine room which should have long life and should not be affected by frequent on and off 5kV UPS for entire system should be provided.

On line UPS for the entire system (having spike protection) with at least thirty minutes back up supply. In addition to the main UPS, additional UPS systems should be supplied along with all other computer terminals/work stations/accessories, wherever applicable. The batteries for the UPS systems shall be maintenance free and shall be looked after/replaced (whenever required) by the supplier during the warranty period.

AIR CONDITIONER

1. Air conditioner in general should be provided for the Telecobalt room, patient waiting area, control console, TPS, work stations and other areas as required by the institution. Ductable Central A.C for the Telecobalt and console, Split A.C of reputable company for other rooms.
2. The maintenance of these will be to vendors account and included in the 3 year warranty and CAMC period.
3. Backup Air – conditioning should be provided.
4. Power backup for Air conditioning should be provided.
5. 10 ton AC with minimum 6 air changes per hour and 5 ton back up for the machine room should be provided.
6. Local clearance for the construction of the building including water connection and electricity will be provided by the institution. The cost of electricity and water for construction purpose must be met by the vendor.

FURNITURE

1. All areas which require tables including computer table should be provided. Numbers will be specified by department
2. Chairs including executive chairs to be provided. Numbers will be specified by department.
3. Number of filing cabinets and cupboards will be specified by the Departments.
4. Chairs for patients, Lecture room etc:(design and numbers will be provided by the department)
5. All internet cabling for networking including switch concealed.
6. Room door lights/interlocks
7. All the furniture must be durable and time tested.

Warranty

The supplier shall give a comprehensive warranty for 3 year after acceptance of the machine on the entire Telecobalt system and accessories supplied along with the unit. Areas wherever more warranty period is requested in this specification, it must be provided accordingly. During the warranty period the vendor shall give an uptime guarantee of 95% based on 24 hrs a day, 365 days a year basis. The warranty will begin with effect from the date of Approval from AERB.

i. SCOPE FOR TURNKEY WORK

1. Installation, commissioning of the machine with all accessories mentioned.
2. Minor civil works and finishing works to remodel the existing room and the adjacent rooms for reporting.
3. Minor demolitions of existing wall.
4. Fixing of the lead glass on the wall.
5. Tile flooring on the gantry and console room.
6. Interior finishing works with false ceiling.
7. Dadoing work till false ceiling in the console and gantry room
8. Supply and Installation of the Air Conditioning units of suitable tonnage on the gantry and console room.
9. Necessary cabling work, lightings, switches and various sockets and electrical distribution paneling works.
10. The required power at one point in the proposed room shall be provided by the respective user institution.
11. Obtaining electrical inspectorates approval (necessary drawing by the supplier) by liasioning with hospital authorities.
12. The CMC rate offered shall be inclusive of all items supplied along with the machine including Air conditioner etc.
13. The bill of items with specifications of turnkey is provided in the price bid. Unit rate shall be offered and lumpsum shall be offered wherever requested. The actual requirement of each site and the bill of quantities of each site can be finalized after the award of work.
14. The rate offered for turnkey shall be taken for L1 evaluation. The split-up items and the quantity taken for evaluation is shown below. However actual quantity may vary depend upon site.
15. The rates offered shall be inclusive of labour charges, clearing of debris, storage of materials, loading, Unloading, etc.

ii. OTHERS

1. There shall be no separate licensing fee for the use of software (software by the bidder or third party) supplied by the bidder.
2. All equipment provided shall be of current production, new and of first rate quality.
3. Remote diagnostic capabilities must include the ability to remotely connect the system on a regular basis to retrieve information about the system and to correct any software problems.
4. It is the responsibility of the bidder to provide all items required but erroneously mentioned or omitted above for the full commissioning of the equipment.
5. Specify the manufacturer's and country of origin (Certificate from chamber of commerce of country of origin should be produced).
6. All spares should be available for minimum 10 yrs.
7. Pre-installation requirements should be specified.

ITEMWISE TURNKEY

S.No. Description Qty. Unit

1.0 CIVIL WORKS

1.1 Dismantling existing doors, windows, partition (Aluminium & wood) handing over the same to the hospital authorities

Doors 1 No

Windows 1 No

Aluminium / wood partitions 10 Sqm

1.2 Dismantling old electrical points, wiring, lights and handing over the same to the hospital authorities LS L.S

1.3 Demolishing existing brick walls and carting away the debries 1.5 Sqm

1.4 Demolishing existing floor & wall tile including top layer i/c mortar etc. and carting away the debries 50 Sqm

1.5 Anti- Termite treatment, providing & injecting chemical emulsion for pre constructional anti termite treatment and creating chemical barrier at junction of wall & floor, wall conduits etc., (Chloropyrophos - 20%)perimeter of building expansion joints, surroundings of pipestrenches, along the external 500 Sqft

1.6 Earth work - Digging & removal of excavated soil for preparing foundation for MR 2 Cum

1.7 Filling with river sand including watering , ramming consolidating & dressing complete. 2 Cum

1.8 Providing & laying cement concrete excluding the cement cost of centering & shuttering. 1:4:8 (1 cement 4 coarsesand : 8 graded stone aggregate 40mm nominal size) 2 Cum

1.9 Providing & laying cement concrete excluding the cement cost of centering & shuttering. 1:3:6 (1 cement 3 coarsesand : 6 graded stone aggregate 20mm nominal size) 2 Cum

1.10 40 mm thick cement concrete flooring 1:2:4 (1 cement : 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) and top layer 10mm th. Consisting of 2 cement : 1 stone dust) finishing with a floating coat of neat cement including cement slurry, rounding off edges and glass strips etc. 2 Cum

1.11 Providing cable trench for system cables and wherever necessary with metal cover including finishing work 10 Rmt

1.12 Lintel work for placing door frames and windows, Lintel concrete, Centering and shuttering including strutting, propping etc. and removal of form work including all leads and heights. 1:2:4 (1 cement: 2 coarse sand : 4 graded stone aggregate 20mm nominal size) 1 Cum

1.13 Reinforcement for reinforced cement concrete works including straightening, cutting, bending, binding and placing in position all complete:-

Thermo Mechanically Treated bars 100 Kg

1.14 Brick work : Construction of 9" Brick wall with common burnt clay F.P.S (non-modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in cement mortar 1:6 (1 cement : 6 coarse sand) 2.5 Cum

1.15 Brick work : Construction of 4 1/2" Brick wall with common burnt clay F.P.S (non-modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in cement mortar 1:4 (1 cement : 4 coarse sand) 2 Cum

1.16 Plastering work : 15 mm cement plaster of mix 1:4 (1 cement: 4 fine sand) 50 Sqm

1.17 Providing ceramic glazed tiles on wall. Coloured glazed tiles 200x300 or bigger in dado on 12 mm th. cement plaster 1:3 (1 cement :3 coarse sand) and jointed with white slurry using pigment (Basic cost of tiles = >40 to <50 / Sqft) cement. JOHNSON, NITCO, ORIENT, KAJARIA or approved make 75 Sqm

1.18 Providing and fixing Vitrified floor 600x600x8.5 mm th. Polished vitrified tile flooring of approved shade laid on a bed of 20mm th. cement mortar 1:3 finished with flush in all respects (Basic cost tiles =60.00 / Sqft) pointing matching with tile colour & pigment complete. JOHNSON, NITCO, ORIENT, KAJARIA or approved make 50 Sqm

1.19 Providing and fixing 2.0mm th. Vinyl floor/ skirting tiles with rubber based adhesive over clean and smooth surface including

finishing by rolling a light roller all complete. 50 Sqm

1.20 Powder coated Aluminium door : Bottom particle board and top 5 mm plain glass with one side view and all accessories (open area shall be measure) including all accessories with related to this door. 2 Sqm

1.21 Hydraulic door closer: Providing and fixing matt finished aluminum exposed type hydraulic door closer of specified make with necessary accessories and screws etc. complete. 3 Nos

1.22 Providing and fixing 100mm brass locks (best make of approved quality) for aluminium doors including necessary cutting and making good etc. complete.. 3 Nos

1.23 Providing and fixing frosted/mat film of thickness 25 microns self adhesive of approved colour, shade and quality with cutting as per approved design and pattern including cleaning of glass and making surface smooth for fixing of film all complete as per direction of Engineer in charge to glazed window/doors 5 sq m

1.23 Providing and fixing aluminium handles ISI marked anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour or shade with nuts and screws etc. complete- 125mm 6 Nos

1.24 Providing and fixing aluminium tower bolts ISI marked anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour or shade with nuts and screws etc. complete-

250 X 10 mm 3 Nos

150x10mm 3 Nos

1.25 Providing & fixing Armstrong False ceiling with 2 ft x 2 ft 30 Sqm

1.26 Providing & fixing Gypsum false ceiling including painting 15 Sqm

1.27 Internal wall painting with acrylic emulsion paint of approved shade including base preparation using putty and fillers as specified and directed all complete. (Primer + 3 coats) 100 Sqm

1.28 External wall painting with cement based water proof external paint of approved manufacture in white shade. (2 coats) 100 Sqm

1.29 Painting with synthetic enamel paint of approved brand and manufacture to give an even shade (matt) in two or more coats in approved shades over an under coat of with ordinary paint of approved brand and manufacture.suitable shade: Windows & grills 10 Sqm

SANITARY INSTALLATIONS& WATER SUPPLY

1.3 Providing and fixing white vitreous china pedestal type water closet (European type) with seat and lid, 10 litre low level white vitreous china flushing cistern & C.P. flush bend with fittings & C.I.brackets, 40 mm flush bend, overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required : W.C. pan with ISI marked white solid plastic seat and lid
Make:Hindware,Cera,Jaquar etc., 1 no

1.31 Providing and fixing 600 x 450mm bevelled edge mirror of superior glass (of approved quality) complete with 6mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete. 1 no

1.32 Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690 gms. 15mm nominal bore 2 no

1.33 Supplying and fixing in position white glazed soap tray concealed recessed type of size 200 mm x 150mm , including cost of all materials and labour charges etc. complete. 2 no

1.34 Providing and fixing wash basin with C.I./M.S brackets painted white ,15 mm C.P brass pillar taps, Kingston / Gem / Techno / Parko, 32 mm C.P brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever required :-
Wash basin size 550x400mm with single 15mm C.P.brass pillar tap 1 no

1.35 Providing and fixing stainless steel towel rail complete with brackets fixed to wooden cleats with CP brass screws with concealed

fitting arrangement of approved quality colour and make (Prayag or equivalent).600 mm long towel rail with total length of 645 mm 1 no

1.36 Providing and fixing PVC trap of self cleansing design withPVC screwed down or hinged grating with or without vent arm complete including cutting and making good the walls andfloors. 100mm inlet and 75mm outlet. 2 no

1.37 Providing and jointing PVC pipes of (pressure10 K g/cm²) for water supply including testing of joints, concealing the pipes , & trenching & refilling wherever required etc complete. 20mm pvc pipe 10 m

1.38 Providing and fixing unplasticised rigid pvc pipe(pressure 6kg/cm²) in drainage line including cutting, trenching, filling but excluding the cost of fittings and fixtures ect. Complete

75mm 5 m

110mm 5 m

1.39 Constructing soak pit 1.2X1.2X1.2 m filled with brick bats including S.W drain pipe 100mm diameter and 1.2 m long complete as per standard design. 1 no

1.4 Providing and fixing P.V.C waste pipe for sink or wash basin, including P.V.C waste fittings complete :- Flexible pipe :-32 mm dia. 1 no

PVC WORKS

1.41 Providing and fixing factory made PVC door frame made of PVC extruded section having over all dimensions of 48x40mm (tolerance +1mm) with wall thickness 2.0mm+0.2mm, corners of the door frame to be mitred and joined by means of plastic/MS galvanized brackets and stainless steel screws. The hinge side vertical of the frames reinforced by galvanized MS tube of size 19x19mm and 1mm+0.1mm wall thickness and 3nos stainless steel hinges fixed to the frame complete charge. (Sintex,Plasopan or duroplast or Rajshri)

48x40x2.0mm thick PVC door frame 5 m

1.42 Providing and fixing to existing door frames 24mm thick factory made PVC door shutters made of styles and rails of UPVC hollow section of size 59x24mm and wall thickness 2mm+0.2mm with inbuilt edging on both sides. The styles and rails mitred and joined at the corners by means of MS galvanized/plastic brackets of size 75x220mm having wall thickness 1.0mm and stainless steel screws. The styles of the shutter reinforced by inserting galvanized MS tube of size 20x20mm and 1mm +0.1mm wall thickness. The lock rail made up of 'H' section, a UPVC hollow section of size 100x24mm and 2mm+0.2mm wall thickness fixed to the shutter styles by means of plastic/galvanized MS 'U' cleats. The shutter frame filled with a UPVC multi chambered single panel of size not less than 620mm, having over all thickness of 20mm and 1mm +0.1mm wall thickness. 1.5 sq m

FLOORING TILES FOR TOILET

1.43 Providing and laying anti skid ceramic floor tiles of required size for toilets (7.5mm thickness or nearest size) of 1st quality conforming to IS 15622 of approved make in all colours, shades, except white, ivory, grey, fume red brown laid on 20mm thick bed of cement mortar 1:4 (1 cement : 4 coarse sand) including pointing the joints with white cement and matching pigments etc complete. 2 sq m

1.44 RF Interior work inside MR room. Providing and fixing wooden paneling consisting of 25x50mm soft wood framing to wall / vertical surface @ 600mm c/c both ways and finishing with 600 mm wide full height prelaminate MDF board 12.5mm th. Panels with 100x15mm TW skirting & 40x40 vertical T.W. members at vertical joints of Novapan board fixed to the framing below all complete as directed including fixing with brass screws and other nonmagnetic accessories only MRI inside and Console side 50 sq m

1.45 Providing & fixing Armstrong False ceiling with Aluminum grids inside MR room. 15 sq m

2 ELECTRICAL WORKS

2.1 L.T.PANEL & UPS Panel : Supply, installation, testing & commissioning of cubical pattern floor mounted L.T. Panel & UPS panel made out of 14 SWG CRCA sheet, powder incoming/outgoing cable, suitable entry from top/bottom coated having separate alley for with busbars, ammeter (0-600A), selector switch with CTs voltmeter (0-500V) with protection fuses & selector switch, set of RYB

phase indicating lamps, contactors, terminal blocks, interconnections, incoming & outgoing. 1 No

2.2 DISTRIBUTION BOARDS : 8 Way TPN DB for Raw power 1 No.

2.3 DISTRIBUTION BOARDS : 8 Way TPN DB for UPS power 1 No.

2.4 40A breaker with enclosures for Ductable split AC units (2) (rate to be offered for 2 units) 1 No.

2.5 Breaker switch with socket complete box for 2 tonne A/C 4 No.

2.6 Supply, laying and fixing of the following sizes of PVC insulated and PVC sheathed armoured conductor cable of 1.1kv grade as per IS 1554 (part 1) 1976, in trenches, on surface of wall or the ceiling complete with saddles, ties etc. as required. Make Poly Cab Cable and Routing the cable in flexible hose/pvc pipes including termination with suitable copper lugs.

a 95 Sqmm Copper Cable Flexible (UPS incomer) 50 RM

b 70 Sqmm Copper Cable Flexible (UPS outgoing) 50 RM

c 35 Sqmm Copper Cable Flexible (Earthing cable) 50 RM

d 25 Sqmm Copper Cable Flexible (AC units) 50 RM

e 16 Sqmm Copper Cable Flexible (Earthing cable) 50 RM

f 10 Sqmm Copper Cable Flexible (Earthing cable) 50 RM

2.7 Submains wiring with 4 x 4.0 + 1 x 2.5 sqmm. PVC insulated stranded copper wires in recessed /surface MS conduit complete with circuit wiring , earth wires etc.. Complete as required. 50 RM

2.8 Supply and making end termination with brass compression glands for PVC insulated and PVC sheathed armoured aluminum conductor cable of 1.1kv grade complete with lugs for following cables

5 x 95 Sqmm Conductor 10 Set

5 x 70 Sqmm Conductor 10 Set

5 x 35 Sqmm Conductor 10 Set

5 x 25 Sqmm Conductor 10 Set

2.9 Wiring for light points with 1.5 sq mm. PVC insulated stranded copper wires in recessed /surface MS conduit complete with circuit wiring , earth wires etc.. Complete as required.

One light controlled by 6A switch 15.00 No's

Two light controlled by 6A switch 15.00 No's

5 Pin socket with 6A switch outlet wiring 15.00 No's

3 no's 5 pin socket with one 16A switch outlet wiring 15.00 No's

2.1 Wiring for plug points with 4 sq mm. PVC insulated stranded copper wires in recessed /surface MS conduit complete with circuit wiring , earth wires 6 pin, 6/16A socket , 16A modular switches required. No's

2.11 CFL lights (2 ft x 2 ft) 36 x 2 no's Wipro/Crompton/Philips/ equivalent 10 Nos

2.1 CFL Round fittings 36 Watts Wipro/Crompton/Philips/ equivalent 10 Nos

2.13 Ceiling mounted Fans Wipro/Crompton/Philips/ equivalent 1 Nos

2.14 Exhaust fans in Toilets Wipro/Crompton/Philips/ equivalent 1 Nos

2.15 Earthing with copper plate 600 x 600 x 3mm th. including accessories and 25 x 3mm th. Copper strip from the base plate to the ground level and providing masonry enclosure with CI cover and with GI watering pipes with funnel including charcol and salt as required upto a depth of 3.5m from the existing ground level all complete. 1 set

2.16 Supply and fixing of 25mm PVC conduit along with accessories and MS boxes in recess / surface including cutting the wall and making good the same as required for telephone and LAN. 20 Mt.

2.17 Supply and drawing of 2 pair,0.61mm dia unarmoured PVC insulated and PVC sheathed annealed tinned copper conductor telephone cables in recessed/surface conduit and termination complete as required. 20 Mt.

2.18 Supply and fixing in position twin RJ11 jack plate i/c wall recessed GI box for telephone 2 No.

2.19 Supply and drawing CAT 6 wiring in existing conduite including termination. 20 Mt.

2.20 Supply and fixing in position twin RJ45 jack plate i/c wall recessed GI box for LAN 2 No.

2.21 24 port network switch with rack and accessories 1 No.

2.22 Patch cords for networking. 1 No

2.23 Broadband Internet connection (3 years) 1

2.24 24 port network switch with rack and accessories complete 1 No

3 FURNITURE & OTHER WORKS

3.1 Storage cabinet for accessories in 19 mm ply board construction having sides,top,front,openable panels laminate finish with internal horizontal shelf 19mm commercial plywood painted (enamel) as per approval. Front panels to have a locking arrangements with one panel having tower bolt on the inner side with handles , magnetic hinges and all complete. 150 Sq ft

3.2 Steel cupboard (Godrej) for storage 6ft tall 3 feet width 1 No.

3.3 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/etc 1 No

3.4 Office chair - Pushback, PU arms, Pneutic height adjustment and nylon base. Reputed brand like godrej/featherlite/etc 3 No.

3.5 Vaccum cleaner (Basic model) reputed brand 1 No.

3.6 Supply and installation of portable fire extingwisher (2 kg) with wall mounted for fire type ABC classification 1 No.

3.7 Suitable De- Humidifier units 1 No.

4 AC WORKS

4.1 Ductable A/C units 11 TR x 2 no's Low side works for complete installation & commissioning of AC (rate to be offered for 2 units) 1 No.

4.2 2 tonne Split air conditioner 5 star with stablizer complete installation & commissioning (rate to be offerd for 1 no) 4 No.

5 MISCELLANEOUS WORKS:-

5.1 PVC Name plates - 24" (L) x 4" (H) LS LS

5.2 Charges for obtaining electrical inspectorate's approval LS LS

5.3 Others : Rate for any item which are mentioned in the scope of turnkey of the tender but left above splitup or any other item which are not mentioned in the scope or split up rate but essential for the installation of the equipment shall be offered in lumpsum. Splitup details shall be provided by the succesful tenderer before award of work. LS LS

5.4 Site cleaning LS LS

5.5 Fenching (Chain link) for Chiller LS LS

5.6 Shed for Chiller(GI sheet) LS LS

5.7 Additional Iron shielding if any LS LS

5.8 Copper pipe for O2, N2O, suction & air 50 sqm

5.9 Copper connectors 20 No

5.1 Outlets for O2, N2O, suction & air 3 No

5.11 Flowmeter with humidifier 1 No

5.12 Suction jar 1 No

LIST OF MATERIALS OF APPROVED BRAND AND/OR MANUFACTURED AS PER IS SPECIFICATION

Civil

Sl. no Item Makes

1. Vitrified Tiles RAK, Johnson, Khajaria, Somani
2. Ceramic Floor Tiles RAK, Johnson, Khajaria, Somani
3. Ceramic Wall Tiles RAK, Johnson, Somani, Khajaria
4. HD Digital wall tiles Somani/ Grestek Nxt
5. PVC Pipes (10 kg/cm²) Supreme/ Finolex
6. PVC pipes (6kg/cm²) Supreme, Phenolex
7. Valves Zoloto/Wiking
8. Exterior Emulsion Jotun, Asian
9. Plastic emulsion ICI, Asian, Nerolac
10. Wall putty Altech, Asian, JK, Birla
11. Cement paint Surfaced, Snowcem, Nerocem
12. Plywood Green Ply, Century

13. Patch fittings/ Door locks

& Door closers Godrej, 'Dorma', Merit

14. Laminate Decolam, Formica, Greenlam, Green Ply, Anchor

15. False ceiling Armstrong, AMF, Comceil, India gypsum/Saint

Gobain, Vansgypsum

16. Glass (all types) Saint Gobain, Modiguard, Hindustan, Asahi, Triveni

17. Hardware (locks) Godrej, Merit, Dorma

18. Cement Malabar/ Sankar/Ultratech/Ambuja, ACC, RAMCO

19. Exterior paint Jotun / Asian/ Nerolac

20. Gypsum or Calcium Silicate Gypboard, Hilux

Ceiling

21. Sanitary fittings Jaguar, Marc, Roca

22. Sanitary ware RAK, Toto, American Standard, Parryware, CERA, Hindware

23. Aluminium Powder coating Bhoruka, Hindalco, Metacoats

24. Aluminium Extrusion Bhoruka, Hindalco, Jindal/Indal

Sl.No Item Make of Materials/Equipment

1 1.1 kV grade XLPE insulated PVC sheathed Al/ Cu. Cable CCI, NICCO, Torrent, Universal, Havells, Gloster, Finolex, KEI

2

MCCB Siemens, Schneider, GE, L&T, C & S, Legrand,

3 Capacitor L&T, Saha Sprague, GE, Shreem, Epcos, Schneider

4 Starters, Timer & Contactors Siemens, L&T, Schneider, C&S, BCH, GE.

5 SDFU, Isolator, SFCOS L&T, Siemens, Schnieder, GE.

6 Push Buttons Teknic, Schneider, Siemens, BCH, C&S, L & T

7 Indicating lamps (LED type) Teknic, Schneider, Siemens, BCH, C&S, L & T

8 Fuses/Fuse carriers Siemens, L & T, Schneider, GE

10 Integrating meters SIMCO, L&T, Siemens, AE, Schneider, Secure, Socomec

11 Instrument Transformer AE, Intrans, Kappa, Intech, PGR, Powertech, Resitech

12 Selector switches Reco, Essen, Kaycee, L&T, C & S, Siemens, Schnieder, BCH, Teknic

13 660/1100 volt grade stranded unsheathed wire with copper conductor Finolex, RR Kabel, L&T, Lapp Kabel, V-Guard, Polycab

14 PVC Conduit Konseal,Balco,Precision,Clipsal

15 TOD meter L&T, Schnieder, Secure

16 Exhaust Fans Almonard, Crompton, polar, Khaitan, Baliga

17 Light Fittings Philips, Wipro, K- lite, Crompton Greaves,

18 LED light fixtures Philips, Crompton greaves, wipro

19 LED Chip CREE, Philips, Nichia

20

Modular type switches, sockets, bell push, fan regulator etc. Crab Tree(Athena), MK India (Blenz), Legrand(mosaic), Wipro (Northwest), Kolors (krest), Anchor(woods)

21 Ceiling fan Crompton Greaves, Polar, Usha, Khaithan

22 Metalclad plug/socket/Decontactor Legrand, C & S, Schnieder, Hagger,

23 Thermoplastic industrial type plug/ socket / decontactor Hensel, MK

24 MCB, RCBO,RCCB Legrand, Siemes, L&T, Hagger, Schnieder,Indoasian (gold plus)

25 MCB Distribution Boards Legrand, Siemes, L&T, Hagger, Schnieder,Indoasian (gold plus)

26 Nitrile rubber insulation Armaflex/K-flex/Totaline