



Running Contract Details	
Equipment Name	Digital Radiography and Fluroscopy System
Running Contract Valid Till	20-12-2020
Tender Ref No	KMSCL/EP/T296/1196/2018(R)
Tendered Quantity	10
Supplier Name	M/s Shimadzu Medical (India) Pvt Ltd
GST No	33AAFCS2439D1ZP
Installation & Delivery Period	8 Week(s)
Up-time / PM vist	95% & 4 Visits per year
Warranty period	3 Years

Supplier`s Details		
Address	Contact Details	
Polyhose Towers No.86 Mount Road - Guindy Chennai - 600032	Contact Person	Mr.Parameswaran
	Phone	04422300608
	Mobile No	9995611361
	Email	parameswaran.s@shimadzuindia.com

Item-wise Price Details				
#	Item Details	Unit Rate (Incl.all taxes & charges)	Service Charges (Through KMSCL)	Grand Total
1	Digital Radiography and Fluroscopy System <i>Model & Make : Sonialvision G4- with second tube option / Shimadzu Corporation</i>	19995000.48 Incl.GST :12%	1474631.29	21469631.77
2	Ceiling Suspended Tube head and assembly with all associated hardware and software	3109048.32 Incl.GST :333112%	229292.31	3338340.63
3	Vertical Detector stand with all associated hardware and software	4518351.04 Incl.GST :484109%	333228.39	4851579.43
4	Additional workstation	1298000 Incl.GST :18%	90860	1388860
5	Dry Imager	354000 Incl.GST :18%	24780	378780
6	UPS	2006000 Incl.GST :18%	140420	2146420

Item-wise Price Details				
7	Viewing station with UPS and table	1180000 Incl.GST :18%	82600	1262600
8	Light weight leadless aprons	59000 Incl.GST :18%	4130	63130
9	Thyroid Guard lead less	17700 Incl.GST :18%	1239	18939
10	Lead Googles	47200 Incl.GST :18%	3304	50504
11	Image Stitching hardware	1429120 Incl.GST :153120%	105397.6	1534517.6
12	LED View Box	11800 Incl.GST :18%	826	12626
13	Video Flurography with all associated hardware and software	560000 Incl.GST :60000%	41300	601300
14	DSA with all associated hardware and software	1651279.84 Incl.GST :176923%	121781.89	1773061.73
15	CIVIL WORKS : 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	300 Incl.GST :12%	22.13	322.13
16	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	300 Incl.GST :12%	22.13	322.13
17	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.	100 Incl.GST :12%	7.38	107.38
18	Dismantling old electrical points, wiring, lights and handing over the same to the hospital authorities	110 Incl.GST :12%	8.11	118.11
19	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	770 Incl.GST :12%	56.79	826.79

Item-wise Price Details				
20	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	100 Incl.GST :12%	7.38	107.38
21	Dismantling of toilet fittings including pipe lines , closets, washbasin etc to complete	550 Incl.GST :12%	40.56	590.56
22	Anti- Termite treatment : Supplying chemical emulsion in sealed containers including delivery as specified. Chlorpyriphos/ Lindane emulsifiable concentrate of 20%	165 Incl.GST :12%	12.17	177.17
23	Diluting and injecting chemical emulsion for POST-CONSTRUCTIONAL anti- termite treatment (excluding the cost of chemical emulsion) : Along external wall where the apron is not provided using chemical emulsion @ 7.5 litres / sqm of the vertical surface of the substructure to a depth of 300 mm including excavation channel along the wall & rodding etc. complete: With Chlorpyriphos/ Lindane E.C. 20% with 1% concentration	90 Incl.GST :12%	6.64	96.64
24	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 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	10000 Incl.GST :12%	737.5	10737.5
25	Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5 m in width as well as 10 sqm on plan including disposal of excavated earth upto 50 m and lift up to 1.5 m, disposed soil to be levelled and neatly dressed : All kinds of soil	400 Incl.GST :0%	33.04	433.04
26	Providing cable trench for system cables and wherever necessary with metal cover including finishing works and all allied works	2000 Incl.GST :12%	147.5	2147.5
27	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases up to floor five level excluding the cost of centering, shuttering, finishing and reinforcement with 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size).	10000 Incl.GST :12%	737.5	10737.5
28	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.	95 Incl.GST :12%	7.01	102.01

Item-wise Price Details				
29	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 : Cement mortar 1:6 (1 cement : 6 coarse sand)	9500 Incl.GST :12%	700.62	10200.62
30	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)	1250 Incl.GST :0%	103.25	1353.25
31	12 mm cement plaster of mix : 1:4 (1 cement: 4 fine sand)	375 Incl.GST :12%	27.66	402.66
32	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 : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm including pointing in white cement mixed with pigment of matching shade complete.	1320 Incl.GST :12%	97.35	1417.35
33	Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption's less than 0.08%and conforming to IS : 15622 of approved make in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand) including grouting the joints with white cement and matching pigments etc., complete. Size of Tile 600x600 mm	1750 Incl.GST :12%	129.06	1879.06
34	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.	1500 Incl.GST :12%	110.63	1610.63

Item-wise Price Details				
35	<p>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)</p>	<p>3000 Incl.GST :0%</p>	247.8	3247.8
36	<p>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)</p>	<p>3000 Incl.GST :0%</p>	247.8	3247.8
37	<p>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 both sides.</p>	<p>1200 Incl.GST :12%</p>	88.5	1288.5
38	<p>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 5.50 mm thickness</p>	<p>3500 Incl.GST :0%</p>	289.1	3789.1
39	<p>Providing and fixing aluminium extruded section body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 36 kg to 80 kg and door width from 701 mm to 1000mm) with double speed adjustment with necessary accessories and screws etc. complete.</p>	<p>110 Incl.GST :12%</p>	8.11	118.11

Item-wise Price Details				
40	Providing and fixing 100mm brass locks (best make of approved quality) for aluminium doors including necessary cutting and making good etc. complete.	935 Incl.GST :12%	68.96	1003.96
41	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	385 Incl.GST :12%	28.39	413.39
42	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 necessary screws etc. complete : 125 mm	110 Incl.GST :12%	8.11	118.11
43	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	187 Incl.GST :12%	13.79	200.79
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	165 Incl.GST :12%	12.17	177.17
45	Providing and applying plaster of paris putty of 2 mm thickness over plastered surface to prepare the surface even and smooth complete.	165 Incl.GST :12%	12.17	177.17
46	Removing dry or oil bound distemper, water proofing cement paint and the like by scrapping, sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete.	250 Incl.GST :12%	18.44	268.44
47	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade : One or more coats on old work	220 Incl.GST :12%	16.23	236.23
48	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade : One or more coats on old work	220 Incl.GST :0%	18.17	238.17
49	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade Old work (Two or more coats applied @ 1.43 ltr/ 10 sqm) over existing cement paint surface.	220 Incl.GST :0%	18.17	238.17

Item-wise Price Details				
50	<p>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>4400 Incl.GST :12%</p>	324.5	4724.5
51	<p>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 of10.5 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 size3.5 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>286 Incl.GST :0%</p>	23.62	309.62

Item-wise Price Details

52	<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">352 Incl.GST :12%</p>	<p align="center">25.96</p>	<p align="center">377.96</p>
53	<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">550 Incl.GST :12%</p>	<p align="center">40.56</p>	<p align="center">590.56</p>
54	<p>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</p>	<p align="center">847 Incl.GST :12%</p>	<p align="center">62.47</p>	<p align="center">909.47</p>
55	<p>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.</p>	<p align="center">275 Incl.GST :12%</p>	<p align="center">20.28</p>	<p align="center">295.28</p>

Item-wise Price Details				
56	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.	3520 Incl.GST :12%	259.6	3779.6
57	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.	605 Incl.GST :12%	44.62	649.62
58	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	275 Incl.GST :12%	20.28	295.28
59	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	330 Incl.GST :12%	24.34	354.34
60	"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 "	440 Incl.GST :12%	32.45	472.45
61	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.	4950 Incl.GST :12%	365.06	5315.06
62	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	110 Incl.GST :12%	8.11	118.11

Item-wise Price Details				
63	<p>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.</p>	<p>3500 Incl.GST :0%</p>	289.1	3789.1
64	<p>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 mitred 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).</p>	<p>3500 Incl.GST :0%</p>	289.1	3789.1
65	<p>Providing and laying rectified Glazed Ceramic floor tiles 300x300 mm or more (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in colours White, Ivory, Rey, Fume Red Brown, laid on 20mm thick cement mortar 1:4 (1Cement : 4 Coarse sand) including grouting the joints with white cement and matching pigments etc., complete.</p>	<p>1700 Incl.GST :0%</p>	140.42	1840.42
66	<p>FURNITURE & OTHER WORKS : Lead lined door shutters: 2mm Lead lined door shutters with Solid cored(30mm) Lead(2mm) lined flush door side hung two rebated shutters with plywood(6mm) & laminated (1mm) on both sides and all accessories (SS hinges (4 no's), tower bolt , SS handles etc..) "</p>	<p>24000 Incl.GST :12%</p>	1770	25770

Item-wise Price Details				
67	Lead lined door frames: Lead(2mm) lined flush door side hung single shutter with plywood(6mm) & laminated (1mm) on both sides and all accessories (Lead sheet should overlap door frame & wall)including Providing wood work in frames of doors and fixed in position with hold fast lugs or with dash fasteners of required dia & length , using good quality Anjili wood /jack wood (frame size 12 cm x 8 cm)	26000 Incl.GST :12%	1917.5	27917.5
68	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	5000 Incl.GST :0%	413	5413
69	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	12000 Incl.GST :0%	991.2	12991.2
70	Wood frame for fixing Lead Glass (Lead sheet should overlap door frame & wall)	16000 Incl.GST :12%	1180	17180
71	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).	2000 Incl.GST :12%	147.5	2147.5
72	Steel cupboard (Godrej) for storage 6ft tall 3 feet width	25000 Incl.GST :12%	1843.75	26843.75
73	Cubicle curtain with hanger : Should be track and curtain type, 2. Track shall be made of high quality aluminum, 3. Should have stain free curtain material, 4. Manual operation, 5. Per meter rate for aluminum track and curtain material shall be offered	1500 Incl.GST :12%	110.63	1610.63
74	AC TRAP DOOR with multiwood panelling	2500 Incl.GST :0%	206.5	2706.5
75	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	35000 Incl.GST :12%	2581.25	37581.25

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76	Revolving chair - Pushback, PU arms, Pneutic height adjustment and nylon base. Reputed brand like godrej/featherlite/wipro	4000 Incl.GST :12%	295	4295
77	MISCELLANEOUS WORKS:- Suppling and fxing Name boards for all rooms and main entrance board	15000 Incl.GST :12%	1106.25	16106.25
78	Site cleaning	5000 Incl.GST :12%	368.75	5368.75
79	"Supply, Installation, Testing & Commissioning of LT Panel , 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 200 A FP 36kA MCCB with adjustable thermal magnetic release with OL & SC protection - 1 nos. BUSBARS 200 Ampere TPN busbars of Aluminum alloy high conductivity with heat shrinkable coloured sleeves INSTRUMENTS Digital type multifunction meter with CTs of suitable rating for measurement of voltage, current, frequency, power factor, KVA, KW, KWH. - 1 No ON/OFF indication lamps-1set RYB Indicating lamps LED type - 3 Nos. OUTGOINGS 160A FP. 36kA MCCB with adjustable thermal magnetic release with OL & SC protection - 1 nos. 100A/63A/ 32A FP 25kA MCCB with thermal magnetic release with OL & SC protection - 3 nos."	200000 Incl.GST :12%	14750	214750
80	"Supplying and fixing following way, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 V, 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) TPN, MCB DB, 4 way (4+12), double door, horizontal type"	10000 Incl.GST :12%	737.5	10737.5
81	"Supplying and fixing following way, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 V, 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) TPN, MCB DB, 4 way (8+12), double door, horizontal type"	10000 Incl.GST :12%	737.5	10737.5

Item-wise Price Details				
82	"Supplying and fixing of following ways surface/recess mounting, vertical type, 415 V, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 A, tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs (but without MCBs and incomer) as required. (Note : Vertical type MCB TPDB is normally used where 3 phase outlets are required.) 4 way (4+12), TPN, vertical type, MCB DB, double door"	10000 Incl.GST :12%	737.5	10737.5
83	"Supplying and fixing 5 A to 32 A rating, 240/415 V, 10 kA, "B/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 6 A. to 32 A. ratings "B/c" curve"	1000 Incl.GST :12%	73.75	1073.75
84	"Supplying and fixing 5 A to 32 A rating, 240/415 V, 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. 6 A. to 32 A. ratings , DP MCB, "C" curve, 10 kA breaking capacity"	1000 Incl.GST :12%	73.75	1073.75
85	"Supplying and fixing Following rating 415 V, 10 kA, "B/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. 63A FP Isolator"	2000 Incl.GST :12%	147.5	2147.5
86	"Supplying and fixing Following rating 415 V, 10 kA, "B/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. 32A TP MCB, C-CURVE MCB"	2000 Incl.GST :12%	147.5	2147.5
87	"Supplying and fixing Following rating 415 V, 10 kA, "B/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. 63A FP Isolator"	2000 Incl.GST :0%	165.2	2165.2
88	"Supplying and fixing following rating, four pole, 415 V, RCBO having a sensitivity current 100 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required. 100 A 4 Pole"	9000 Incl.GST :12%	663.75	9663.75

Item-wise Price Details				
89	"Supplying and fixing Following rating 415 V, 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. 32A FP Isolator"	2000 Incl.GST :12%	147.5	2147.5
90	"Supplying and fixing following rating, four pole, 415 V, RCBO having a sensitivity current 100 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required. 63 A 4 Pole"	4000 Incl.GST :12%	295	4295
91	"Supplying and fixing following rating, four pole, 415 V, RCBO having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required. 40A "	4000 Incl.GST :12%	295	4295
92	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.	1000 Incl.GST :12%	73.75	1073.75
93	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.	1000 Incl.GST :12%	73.75	1073.75
94	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.	2000 Incl.GST :12%	147.5	2147.5
95	"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"	300 Incl.GST :12%	22.13	322.13
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. 4 X 1.5 sq. mm + 2 X 1.5 sq. mm earth wire"	700 Incl.GST :0%	57.82	757.82

Item-wise Price Details				
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"	700 Incl.GST :12%	51.63	751.63
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. 4 X 2.5 sq. mm + 2 X 2.5 sq. mm earth wire"	700 Incl.GST :0%	57.82	757.82
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. 2 X 4 sq. mm + 1 X 4 sq. mm earth wire"	700 Incl.GST :12%	51.63	751.63
100	"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"	700 Incl.GST :0%	57.82	757.82
101	"Supplying and drawing of UTP 4 pair CAT 6 LAN Cable in existing/recessed steel/ PVC conduit as required. 1 run of cable"	300 Incl.GST :12%	22.13	322.13
102	"Supplying and drawing of UTP 4 pair CAT 6 LAN Cable in existing/recessed steel/ PVC conduit as required. 2 run of cable"	100 Incl.GST :12%	7.38	107.38
103	"Supplying and drawing following pair 0.5 sq mm FRLS PVC insulated annealed copper conductor, unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required. 2 Pair Cable"	80 Incl.GST :12%	5.9	85.9
104	"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"	600 Incl.GST :12%	44.25	644.25

Item-wise Price Details				
105	"Group control Wiring for light point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface/ recessed PVC conduit, with modular switch& plate,suitable GI box and earthing the point with 1.5sq.mm FRLS PVC insulated copper conductor single core cable etc as required. 2 Light Controlled by a 6A Switch "	1000 Incl.GST :12%	73.75	1073.75
106	"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 RJ 11"	750 Incl.GST :12%	55.31	805.31
107	"Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. CAT 6 RJ 45 computer jack"	1000 Incl.GST :12%	73.75	1073.75
108	"Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc as required. 1 or 2 Module (75mmX75mm)"	250 Incl.GST :0%	20.65	270.65
109	"Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc as required. 3 Module (100mmX75mm)"	300 Incl.GST :0%	24.78	324.78
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 No's 5 pin 5/6 amps modular socket outlet and 1 No: 16 amps modular switch, connection etc. as required.	1200 Incl.GST :12%	88.5	1288.5
111	8 Module (single row)	460 Incl.GST :12%	33.92	493.92
112	Supplying and Fixing of Wall / Ceiling mounted type IP 65 circular LED fitting, 18 W along with LED lamp	2000 Incl.GST :12%	147.5	2147.5
113	Supplying and Fixing of Wall / Ceiling mounted type IP 65 LED fitting, 30W 2 Ft x 2Ft along with LED lamp	4500 Incl.GST :12%	331.88	4831.88
114	Supplying and Fixing of 6/7 W bayonet cap type LED bulb in the existing angle batton etc as required (Philips, Wipro or similar superior make)	175 Incl.GST :0%	14.46	189.46

Item-wise Price Details				
115	"Supplying, laying and fixing of one number PVC insulated and PVC sheathed/XLPE 2, Armoured, Copper power cable of 1.1KV grade of 4C x 120 sq.mm in following ways including all necessary accessories as required. the existing masonry open duct "	4500 Incl.GST :0%	371.7	4871.7
116	"Supplying, laying and fixing of one number PVC insulated and PVC sheathed/XLPE 2, Armoured, Copper power cable of 1.1KV grade of 4C x 120 sq.mm in following ways including all necessary accessories as required. on wall surface ((clamped with 1mm thick saddle)) "	4000 Incl.GST :0%	330.4	4330.4
117	"Supplying, laying and fixing of one number PVC insulated and PVC sheathed/XLPE 2, Armoured, Copper power cable of 1.1KV grade of 4C x 95 sq.mm in following ways including all necessary accessories as required. the existing masonry open duct "	3600 Incl.GST :0%	297.36	3897.36
118	"Supplying, laying and fixing of one number PVC insulated and PVC sheathed/XLPE 2, Armoured, Copper power cable of 1.1KV grade of 4C x 95 sq.mm in following ways including all necessary accessories as required. on wall surface ((clamped with 1mm thick saddle)) "	3200 Incl.GST :12%	236	3436
119	"Supplying, laying and fixing of one number PVC insulated and PVC sheathed/XLPE 2, Armoured, Copper power cable of 1.1KV grade of 4C x 70 sq.mm in following ways including all necessary accessories as required. the existing masonry open duct "	3000 Incl.GST :0%	247.8	3247.8
120	"Supplying, laying and fixing of one number PVC insulated and PVC sheathed/XLPE 2, Armoured, Copper power cable of 1.1KV grade of 4C x 70 sq.mm in following ways including all necessary accessories as required. on wall surface ((clamped with 1mm thick saddle)) "	2800 Incl.GST :12%	206.5	3006.5
121	"Supplying, laying and fixing of one number PVC insulated and PVC sheathed/XLPE 2, Armoured, Copper power cable of 1.1KV grade of 4C x 50 sq.mm in following ways including all necessary accessories as required. the existing masonry open duct "	1900 Incl.GST :0%	156.94	2056.94

Item-wise Price Details				
122	"Supplying, laying and fixing of one number PVC insulated and PVC sheathed/XLPE 2, Armoured, Copper power cable of 1.1KV grade of 4C x 50 sq.mm in following ways including all necessary accessories as required. on wall surface(clamped with 1mm thick saddle)"	1500 Incl.GST :12%	110.63	1610.63
123	"Supplying, laying and fixing of one number PVC insulated and PVC sheathed/XLPE 2, Armoured, Copper power cable of 1.1KV grade of 4C x 25 sq.mm in following ways including all necessary accessories as required. the existing masonry open duct "	1500 Incl.GST :0%	123.9	1623.9
124	"Supplying, laying and fixing of one number PVC insulated and PVC sheathed/XLPE 2, Armoured, Copper power cable of 1.1KV grade of 4C x 25 sq.mm in following ways including all necessary accessories as required. on wall surface ((clamped with 1mm thick saddle)) "	1300 Incl.GST :12%	95.87	1395.87
125	"Supplying, laying and fixing of one number PVC insulated and PVC sheathed/XLPE 2, Armoured, Copper power cable of 1.1KV grade of 4C x 16 sq.mm in following ways including all necessary accessories as required. the existing masonry open duct "	800 Incl.GST :0%	66.08	866.08
126	"Supplying, laying and fixing of one number PVC insulated and PVC sheathed/XLPE 2, Armoured, Copper power cable of 1.1KV grade of 4C x 16 sq.mm in following ways including all necessary accessories as required. on wall surface (clamped with 1mm thick saddle)"	800 Incl.GST :12%	59	859
127	"Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed/XLPE 2, Armoured, Copper power cable of 1.1KV grade as required. 4C x 120 sq.mm"	800 Incl.GST :0%	66.08	866.08
128	"Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed/XLPE 2, Armoured, Copper power cable of 1.1KV grade as required. 4C x 95 sq.mm"	1000 Incl.GST :12%	73.75	1073.75
129	"Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed/XLPE 2, Armoured, Copper power cable of 1.1KV grade as required. 4C x 70 sq.mm"	1000 Incl.GST :0%	82.6	1082.6

Item-wise Price Details				
130	"Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed/XLPE 2, Armoured, Copper power cable of 1.1KV grade as required. 4C x 50 sq.mm"	850 Incl.GST :12%	62.69	912.69
131	"Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed/XLPE 2, Armoured, Copper power cable of 1.1KV grade as required. 4C x 25 sq.mm"	700 Incl.GST :12%	51.63	751.63
132	"Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed/XLPE 2, Armoured, Copper power cable of 1.1KV grade as required. 4C x 16 sq.mm"	650 Incl.GST :12%	47.94	697.94
133	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.	15000 Incl.GST :12%	1106.25	16106.25
134	Providing and fixing earth bus of 50 mm X 5 mm copper strip on surface for connections etc. as required. copper strip at 0.50 metre below ground as strip earth electrode, including connection/ terminating with nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of brass nut bolt & spring washer spaced at 50mm)	1000 Incl.GST :12%	73.75	1073.75
135	"Providing and fixing earth bus of 25 mm X 3 mm copper strip on surface for connections etc. as required. 1C 35 Sqmm Cu Cable for Earthing Conductor"	500 Incl.GST :12%	36.88	536.88
136	Providing and Fixing 4mm dia copper wire on surface or in recess for loop earthing as required	250 Incl.GST :12%	18.44	268.44
137	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing along with existing surface/ recessed conduit/ submain wiring/ cable as required.	350 Incl.GST :12%	25.81	375.81

Item-wise Price Details				
138	Supplying ,Installation, testing and commissioning of 1200 mm ceiling fans with BEE 5 star rating for energy efficiency, including wiring the down rods of standard length (upto 30cm) with 1.5sq mm FR PVC insulated, copper conductor single core cable etc as required.	2500 Incl.GST :0%	206.5	2706.5
139	Supplying and fixing 2 module stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required.	750 Incl.GST :0%	61.95	811.95
140	Supply, Installation, testing and comissioning of residential type light duty exhaust fan 900-1350 rpm, 250 mm, in plastic housing light duty in the existing opening, including louver shutter, making the hole to suit the size of the above fan, making good the damage, connection, testing commissioning etc as required	2000 Incl.GST :12%	147.5	2147.5
141	24-Port Gigabit manageable smart Network Switch with 2 SFPs. Rack mountable	25000 Incl.GST :12%	1843.75	26843.75
142	Patch panel - 24-Port patch panel with cable tray. Rack mountable	4000 Incl.GST :12%	295	4295
143	4U Rack- Wall Mountable including 4x 6Amp power distribution box	5000 Incl.GST :12%	368.75	5368.75
144	Supply of branded 1mtr patch cords with cat 6 cable.	200 Incl.GST :12%	14.75	214.75
145	Supply of branded 2mtr patch cords with cat 6 cable.	200 Incl.GST :12%	14.75	214.75
146	Supply of branded 2mtr patch cords with cat 6 cable.	300 Incl.GST :0%	24.78	324.78

Item-wise Price Details				
147	"Ductable A/C units 5.5 TR x 2 No's (2 outdoor unit of 5.5TR and 2 AHU) 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. The two units shall work alternatively. Should have provision to change automatically in prefixed time. Should also have provision to control both unit manually. Quote rate for two 5.5TR outdoor and indoor unit with ducting and other accesories. "	425000 Incl.GST :0%	35105	460105
148	Suitable De- Humidifier units : Extraction at least 35 litres/day, compresor : rotary, Air flow : at least 220m3/hr, reputed brand, input 230Vac	30000 Incl.GST :12%	2212.5	32212.5
149	Charges for obtaining electrical inspectorate's approval and regularizing with KSEB	30000 Incl.GST :12%	2212.5	32212.5
150	Supply and installation of portable fire extingwisher (2 kg) with wall mounted for fire type ABC classification	3000 Incl.GST :12%	221.25	3221.25
151	2 tonne Split air conditioner with copper condensor / evaporator coil 3 star or above with stabilizer complete installation and commissioning (rate for 1 no) with copper pipes and drain	70000 Incl.GST :12%	5162.5	75162.5
152	Dismantling of old Equipment	100000 Incl.GST :12%	7375	107375
153	Supply, installation, testing and commissioning of residential type light duty exhaust fan 900-1350 rpm, 250 mm in plastic housing light duty in the existing opening, including louver shutter, making the hole to suit the size of the above fan, making good the damage, connection, testing commissioning ete as required.	1999.2 Incl.GST :12%	147.44	2146.64

Item-wise Price Details				
154	Demolishing existing RCC slab and carting away the debris (0.21 Cm)	10000 Incl.GST :12%	737.5	10737.5
155	Chipping the existing cement plastering upto 1500mm from FFL for fixing wall tiles	275 Incl.GST :12%	20.28	295.28
156	UPS OUTPUT PANEL : Incomer: 160 A FP MCCB 25 KA with shunt trip – 1SET Bus: 160A AL FP Bus ELR WITH CBCT Metering: Multi Display Meter (3 parameter display at a time-V,I -1 nos ,Indicating lamps , CTs, etc complete with all required accessories outgoing: 125A FP CONTACOR FOR FOLLOWING ; 40 A FB MCB -02 SET (UPSDB) complete with all required accessories	150000 Incl.GST :12%	11062.5	161062.5
157	Supplying , laying and fixing of one number PVC insulated and PVC sheated / XLPE 2, Armoured, Aluminium power cable of 1.1 KV grade of 3.5C x 240 sq mm in following ways including all necessary accessories as required. On Wall surface (clamped with 1 mm thick saddle)	1525 Incl.GST :12%	112.47	1637.47
158	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed /XLPE 2, Armoured, Copper power cable of 1.1 KV grad as required. 3.5C x 240 Sq.mm	475 Incl.GST :12%	35.03	510.03
159	Supplying , laying and fixing of one number PVC insulated and PVC sheathed / XLPE, Armoured, Aluminium power cable of 1.1 KV grad of 3.5 C x 240 sq mm in following size on cable tray as required (Clamped with 40x3mm MS flat Clamp)	120 Incl.GST :12%	8.85	128.85
160	Supplying and installing following size of perforated painted with powder coating M.S cable trays with perforated not more than 17.5%,in convenient sections, Joined with connectors, suspended from the ceiling with M.S suspenders including bolts & nuts, painting suspenders etc. as required.150 mm width x 50mm depth x1.6 mm thickness.	500 Incl.GST :12%	36.88	536.88
161	Supplying and installing following size of perforated painted with powder coating M.S cable trays bends with perforated not more than 17.5%, in convenient sections, Joined with connectors, suspended from the ceiling with M.S suspenders including bolts& nuts , painting suspenders etc. as required. 150mm width x 50 mm depth x 1.6 mm thickness	950 Incl.GST :12%	70.06	1020.06

Item-wise Price Details				
162	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 as required. 3.5 C x 240 Sq.mm	1250 Incl.GST :12%	92.19	1342.19
163	Supply and fixing following rating 415 v., 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. 63 A TP MCB , C-CURVE MCB	2000 Incl.GST :12%	147.5	2147.5
		37685040.88	2764997.17	40450038.05

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
Digital Radiography and Fluroscopy System							
Labour	3,00,000.00	3,00,000.00	3,00,000.00	3,00,000.00	3,00,000.00	3,00,000.00	3,00,000.00
Comprehensive	12,50,000.00	12,50,000.00	12,50,000.00	12,50,000.00	12,50,000.00	12,50,000.00	12,50,000.00

Other terms & conditions

- The supplier shall execute an agreement with the purchaser as per tender conditions (agreement format is given in the tender document).
- The supplier shall submit performance security amounting to 5% of the value of the supply order.
- The labour & comprehensive charges of equipment after the completion of warranty period is finalized by KMSCL as mentioned above.
- 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).
- 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 :Digital Radiography and Fluroscopy System

I. Should be a completely integrated system with digital Radiography system with two flat panel detectors and fluoroscopy system, capable to take digital images in horizontal, vertical and oblique positions of all skeletal body including spine and chest and should be capable for various fluoroscopic applications.

II. Generator

- Generator should be of high frequency inverter technology for constant output

2. Should have at least 80KW power
3. The KV range from 40 to 125KV
4. Should have 800mA or more at 100KV for radiography and 0.5 to 5 mA for fluroscopy.
5. Should have automatic exposure control device in both detectors
6. Should have anatomical programming for radiography
7. Should have over load protection feature and self diagnosis.
8. Should have a digital display for KV and mAs and mA for fluoroscopy.
9. Should have pulsed fluoroscopy
10. Should have minimum exposure time of at least 1ms.

III. X-Ray tube and collimator

1. Should have two X-ray tubes.
2. Should be a high speed rotating anode dual focus tube compatible with the generator
3. Should have focal spot sizes of 0.6mm (small) and 1.2mm (Large) or less
4. The small focal spot power should be at least 30KW
5. The large focal spot power should be at least 60KW.
6. Should have a multi leaf collimator having halogen/bright light source with auto shut provision for the light, auto collimation and remote controlled.
7. Should have an anode heat capacity of 600 KHU or more for the main X-ray tube fixed on the vertical column for fluoroscopy and radiography and 400 KHU or more for the second tube in the ceiling suspended assembly
8. Should have integrated computer controlled automatic X-ray beam filtering.

IV. Tube mounting

1. One X-ray tube should be vertical column mounted and another should be ceiling suspended type with all electromagnetic locks and should have collision protection sensors. The rate for ceiling suspended tube and associated hardware and software to be quoted separately which will be taken for evaluation.
2. The ceiling suspended tube should have movements in all directions i.e.3D 140cm or more
3. All movements should have electromagnetic brakes with fully counter balanced mechanism
4. It should have facility to display FFD/SID
5. Tube rotation at vertical axis and horizontal axis +/- 135 degree

V. X-Ray Table with detector

1. Should be a carbon fibre/equivalent motorized table having a weight carrying capacity of 150kgs.
2. Should be motor driven height adjustable with horizontal table top movements.
3. The table height adjustment should be from 70 to 90 cms (± 5 cms tolerance)
4. The table should have angulations from longitudinal to head down positions (vertical +90o to trendelenburg -20o)
5. The detector for the table should be movable to the entire length of the table
6. The detector should have auto tracking and auto centering with the vertical column X-ray tube.
7. Should have integrated bucky unit for flat panel general radiography with a grid ratio of at least 8:1 or 40 lines/cm.
8. All the table control keys shall be available at the table and in the console.
9. Should have head to toe coverage without repositioning the patient in fluoroscopy.

VI. Digital Fluoroscopy

- a. Should have direct digital imaging system for fluoroscopy.
- b. Field of view should be at least 40 cms x 40 cms or 35 x 43cms with rotating facility.
- c. Collimator should be automatic and remote controlled.
- d. Should have real-time optimization techniques to maintain constant brightness at the lowest allowable dose to the patient.
- e. Should have cine loop facility and last image hold facility during fluoroscopy.
- f. Acquisition matrix should be of at least 1024 x 1024 at 10 bit rate.
- g. The standard continuous fluoroscopic operating mode should have from single image display to serial exposures with varying frame rates up to 15 fps.
- h. The pulsed fluoroscopy should have at least 15 frames per second.
- i. Should have integrated dose measuring devise with display on the monitor / control panel.
- j. Foot switch for fluoroscopy and acquisition.

VII. Vertical detector stand

1. Should have an in-built detector capable to take digital images in horizontal, vertical and oblique positions with suitable movements for all skeletal body including spine and chest.
2. It should have provision to do chest radiography without grid
3. It should have automatic exposure control with at least 3 fields
4. Should be supplied with grids suitable for horizontal and vertical imaging
5. The detector should be capable of rotating on its axis across +90 to -15 degrees.
6. The detector should have auto tracking and auto centering with the ceiling suspended X-ray tube.

VIII. Digital detector

1. The detector should be a flat panel detector of latest direct digital technology / Amorphous silicon with Cesium Iodide Scintillator.
2. The size of the detector should be 40cm x 40cm or 35 x 43 cms with rotating facility.
3. Should have spatial resolution of 3 lines pair / millimeter or better
4. Detector Quantum Efficiency (DQE) should be 60% or more @ Zero lines pairs.
5. The active matrix size should be 2K x2K or more
6. Should have a minimum image depth of 14 bit
7. 150 micron or less resolution

IX. Display and other features

- a. Two medical grade monochrome monitors of at least 19" should be provided in the examination room with resolution of 1 mega pixel or more.
- b. Image horizontal and vertical reversal and rotation shall be possible on both monitors from the examination room.

X. Console, Image acquisition, image processing

1. The digital workstation should be based on the latest high speed processors of at least 64 bit with 20 inch 2 megapixel medical grade monitor or more
2. It should have the possibility of acquiring the image from the detector system. Should have preview time 5 seconds or better
3. It should have image storage of 500 Gigabyte or more
4. The system should have DICOM 3 (or newer) ready interface and networking capability with RIS/HIS/PACS.
5. Multi modality work list table shall be enabled.
6. Post acquisition image processing, viewing, reprocessing, hard copy documentation and onward transmission should be available.
7. Dry imager camera with at least 3 online film trays, 500 dpi or more for printing the digital images
8. DVD – R/W drive should be supplied
9. One additional workstation with i5 (or equivalent) processor, 1 TB HDD or more, at least 16GB RAM, 20 inch 2 megapixel medical grade monitor with all required software. Data sheet to be provided with the technical bid
10. The system should have facility for edge enhancement, positive / negative image display, windowing, contrast / brightness, electronic shuttering, image / pixel shifting, vertical and horizontal image reversal, image rotation, zoom functions.
11. The system should have fast and direct access to all series, single images in both examination and console room.
12. Should have angle and distance measurement, image labeling and patient positioning facilities.
13. System should have on line dosimeter to display the actual radiation dose in radiography and fluoroscopy.
14. Intercom system should be available to communicate with patients from the console room.

15. Should be possible to control X-ray tube and detector movements from the console room and examination room.
16. Should have provision to take X-ray with external cassette.
17. Video fluoroscopy rate to be quoted separately in BOQ and will be taken for evaluation
18. Rate for DSA to be quoted separately which will be taken for evaluation.

XI. Accessories

1. On line UPS with 30 minutes back up for both work station and for the imager and 100KVA automatic servo stabilizer for the main equipment.
2. Lead glass of size 80cms x 120cms or more
3. Lead less light weight Radiation protection Apron of 0.5 mm lead equivalence, AERB approved – 5 nos
4. Four viewing station with at least 21” monitor (hardware) with necessary software and UPS with table and chair. Rate to be quoted separately.
5. Should be supplied with X-Ray view box (LED Type) Double – 1 No.
6. Thyroid shield leadless – 5 nos
7. Lead goggles – 5 nos
8. Removable patient foot rest, shoulder supports, patient hand grips, compression band, armpit support
9. Two tables and two chairs for workstation and main console.

XII. Others

1. The offer should be accompanied by original product data sheet/brochure of the product and AERB type approval certificate or valid No Objection Certificate (NOC) for the model offered should be submitted along with the technical bid. In case of NOC valid type approval certificate has to be submitted prior to submission of invoice for payments.
2. There shall be no separate licensing fee for the use of software (software by the bidder or third party) supplied by the bidder.
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. The quoted model should have CE issued by a notified body registered in European Commission and FDA (US) Certifications.
5. AERB and DRS formalities for installation to be completed by the vendor with support from institution/Hospital authorities.
6. The bill of items with specifications of turnkey is provided in the price bid(BOQ). 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.

7. The rate offered for turnkey shall be taken for L1 evaluation. The split-up items and the quantity taken for evaluation is shown in BOQ. However actual quantity may vary depend upon site.

8. The turnkey rates offered shall be inclusive of labour charges, clearing of debris, storage of materials, loading, Unloading, etc.

9. Two components out of three X-ray generator, X-ray tube head and detector should be from the same manufacturer.