

NAME OF WORK: Providing Barrier Free Environment under Accessible India campaign for persons with Disabilities and Elderly persons in Government College for Men, Nandanam, Chennai 35

SCHEDULE A							
EMD: Rs. 178500/-					Date: 13.05.2022		
Sl. No	Qty	Description of Work	TN BP NO.	NBC NO.	Rate in figure and Words	Unit	Amount
		CIVIL WORK					
1	9 M ² (Nine square metres)	Dismantling, clearing away and carefully stacking materials useful for re-use for any thickness of walls Brick masonry in Cement mortar walls under 3m height				1 M ² (One square metre)	
2	460 M ² (Four hundred and sixty square metres)	Dismantling, clearing away and carefully stacking materials useful for re-use for any thickness of Floor finish and dadoing walls in cement mortar with mosaic tiles / glazed tiles / Cuddapah slabs etc.complete and as directed by the departmental officers.				1 M ² (One square metre)	
3	30 M ³ (Thirty cubic metres)	Collecting the scattered debris from the campus and conveying away the same to outside by lorry to a lead of not less than 10km within city limit including loading and unloading charges and dumping in low place and levelling etc., complete complying with standard specification and as directed by the departmental officers				1 M ³ (One cubic metre)	

4	590 M ³ (Five hundred and ninety cubic metres)	Earth work excavation in all soils and sub soils and to a full depth as may be directed except in rock requiring blasting inclusive shoring, strutting dewatering wherever found necessary, depositing the excavated earth at site of work in Places shown by the departmental officers with an initial lead of 10m and lift of 12m, clearing and leveling the site etc. complete complying with standard specification.	23 & 24	V, VI (S2)		1 M ³ (One cubic metre)	
5	70 M ³ (Seventy cubic metres)	Earthwork Open excavation in all soils and sub soils to full depth as may be directed except in hard rock requiring blasting inclusive of shoring shuttering, baling out water wherever necessary refilling the foundation with excavated earth other than sandy soil in layers of not more than 15 cm thick layers well rammed and depositing the surplus earth within compound in places shown by the departmental officers with an initial lead of 10 metre and initial lift of 2 metre and clearing and leveling the site etc., complete complying with standard specification and as directed by the departmental officers.	23 & 24	V, VI (S2)		1 M ³ (One cubic metre)	
6	430 M ³ (Four hundred and thirty cubic metres)	Supplying and Filling in foundation and basement with filling M sand in layers of not more than 15cm thick well rammed watered and consolidated etc., complete complying with standard specification and as directed by the departmental officers.	24 & 25	V, VI (S2)		1 M ³ (One cubic metre)	
7	480 M ³ (Four hundred and eighty cubic metres)	Supplying and Filling in foundation and basement with Gravel in layers of not more than 15cm thick well rammed watered and consolidated etc., complete complying with standard specification and as directed by the departmental officers.	24 & 25	V, VI (S2)		1 M ³ (One cubic metre)	

8	490 M ³ (Four hundred and ninety cubic metres)	Cement concrete 1:5:10 (one cement, five M. sand and ten aggregate) using 40mm gauge hard broken blue granite stone jelly for foundation and basement including dewatering if found necessary and laid in layers of not more than 15cm thick and compacted etc., complete complying with standard specification and as directed by the departmental officers.	23 & 28	VI (8.2) 8.3 VI (S5A) 4.2.1.3		1 M ³ (One cubic metre)	
9	110 M ² (One hundred and ten square metres)	Supplying and erecting steel centering including necessary supports for plane surfaces for Reinforced Cement Concrete works such as column footings, column pedestals, plinth beams, grade beams, staircase steps, etc. which require only nominal strutting using mild steel sheets of size 90cm x 60cm and 10 BG stiffened with welded mild steel angles of size 25mm x 25mm x 3 mm for boarding, laid over silver oak joists of size 10cm x 6.5cm spaced at about 75cm centre to centre or at suitable intervals etc. complete in all floors complying with standard specification. (Payment for centering shall be given after the concrete is laid)	30(S) 86 86 A V, VI (S3) VII	VII		1 M ² (One square metre)	
10		Supplying and erecting steel centering including necessary supports for plain surfaces, for all RCC works including strutting upto 3.29m in all floors using mild steel shutters of size 90cmx60cm of BG 10 stiffened with mild steel angles of size 25mmx 25mmx3mm laid over silver oak (Country wood) Joists of size 10cmx6.5cm spaced at about 90cm c/c and supported by casurina props of 10cm to 13cm dia. (spaced at 75cm c/c) etc., complete complying with standard specification and as directed by the departmental officers. (The centering will be removed after specified period of concrete without damaging the concrete)	30(S) 86 86 A V, VI (S3) VII	VII			
a	495 M ² (Four hundred and ninety five square metres)	For plain surfaces such as RCC floor slab, roof slab, beams , lintels, bed blocks, landing slab, waist slab, portico slabs and beams, etc.				1 M ² (One square metre)	

b	535 M ² (Five hundred and thirty five square metres)	For plain surfaces such as rectangular or square RCC columns, sunshades, top and bottom slab of RCC boxing, etc.				1 M ² (One square metre)	
c	110 M ² (One hundred and ten square metres)	For plain surfaces such as vertical slab, side slabs of boxing, vertical drops, fascia, vertical wall, etc.				1 M ² (One square metre)	
11		Providing and laying in position, Standardised Concrete Mix M-30 Grade in accordance with IS 456-2000 using 20mm and down graded Hard broken Granite stone jelly for all RCC items of works with minimum cement content of 400 Kg/m ³ and maximum water cement ratio of 0.45, including admixture (plasticiser/ super plasticiser) in recommended proportions as per IS 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability with about (5.0 cu.m) 7730 Kg. of 20mm machine crushed stone jelly and with about (3.30 cu.m) 5156 Kg. of 10-12mm machine crushed stone jelly with about (4.79 cu. m) 7670 Kg. of M sand, but excluding cost of reinforcement grill and fabricating charges, centering and shuttering and also including laying, vibrating with mechanical vibrators, finishing, curing etc; and providing fixtures like fan clamps in RCC floor/roof slab where ever necessary without claiming extra, etc., complete complying with standard specifications and as directed by the Departmental officers. The coarse and fine aggregates to be used should comply with the requirements of IS standards. (No separate payment will be made by the Department for the excess usage of materials)	28	VI.8.2. 8.3. VI (S5A) 4.2.1.3			

a	55 M ³ (Fifty five cubic metres)	For foundation and basement				1 M ³ (One cubic metre)	
b	27 M ³ (Twenty seven cubic metres)	For Ground Floor				1 M ³ (One cubic metre)	
c	16 M ³ (Sixteen cubic metres)	For First Floor				1 M ³ (One cubic metre)	
d	15 M ³ (Fifteen cubic metres)	For Second Floor				1 M ³ (One cubic metre)	
e	8 M ³ (Eight cubic metres)	For Third Floor				1 M ³ (One cubic metre)	

12	190 Qtl (One hundred and ninety quintals)	Supplying, fabricating and placing in position of steel reinforcement using MS (or) RTS rods for all RCC item of works as per design given including cost of steel and binding wire in all floors etc., complete complying with standard specification and as directed by the departmental officers.	97	VI (8.6) VII.3		1 Qtl (One quintal)	
13	18 M ³ (Eighteen cubic metres)	Plain Cement concrete 1:2:4 (One cement two m-sand and four aggregate) using machine crushed 20mm gauge hard broken granite stone jelly excluding cenetering, shuttering and, but including laying, curing and finishing etc., complete complying with standard specification and as directed by the departmental officers. For foundation and basement.	28 V, VI (S2) (S5A) VII			1 M ³ (One cubic metre)	
14		Brick work in cement mortar 1:5 (one cement and five M sand) using Ground Moulded second class chamber burnt bricks of size 9"x4 3/8 x2 3/4" including curing etc., complete complying with standard specification and as directed by the department officers. (Masonry projections wherever necessary for obtaining required elevation shall be done without extra cost)					
a	403 M ³ (Four hundred and three cubic metres)	For Foundation and basement				1 M ³ (One cubic metre)	
b	49 M ³ (Forty nine cubic metres)	For Superstructure in Ground Floor				1 M ³ (One cubic metre)	

c	35 M ³ (Thirty five cubic metres)	For Superstructure in First Floor				1 M ³ (One cubic metre)	
d	23 M ³ (Twenty three cubic metres)	For Superstructure in Second Floor				1 M ³ (One cubic metre)	
15		Brick partition walls of Fly Ash bricks of size 230 mm x 110 mm x 70 mm " in Cement Mortar 1:3 (One Cement and Three M-Sand) using hoop iron reinforcement if found necessary including curing etc. complete and as directed by the departmental officers. (Hoop iron reinforcement will be measured and paid for separately)					
a	12 M ² (Twelve square metres)	For Superstructure in Ground Floor				1 M ² (One square metre)	
b	5 M ² (Five square metres)	For Superstructure in First Floor				1 M ² (One square metre)	

c	7 M ² (Seven square metres)	For Superstructure in Second Floor					
16	12.50 M ³ (Twelve point five zero cubic metres)	Weathering course in brick jelly lime concrete using broken brick jelly of size 20mm uniform gauge in pure slaked lime (no sand to be used) to the proportion of brick jelly to lime being 32:12.5 by volume and laid over the RCC roof slab in a single layer of required slope and finished by beating the concrete with wooden beaters of approved pattern, keeping the surface constantly wet by sprinkling lime jaggery water, etc., complete as per standard specification and as directed by the departmental officers.				1 M ³ (One cubic metre)	
17	120 M ² (One hundred and twenty square metres)	Finishing the top of roof with one course of machine pressed tiles of size 230mm x 230mm x 20mm of approved quality set in Cement Mortar 1:3 (One Cement and Three M-Sand) 12mm thick mixed with water proofing compound conforming to ISS at 2% by weight of cement used and the joints pointed neatly to full depth of tiles with the same cement mortar mixed with red oxide and water proofing compound including curing etc., complete complying with standard specification and as directed by the departmental officers				1 M ² (One square metre)	
18	5200 M ² (Five thousand two hundred square metres)	Plastering with cement mortar 1:5 (one cement and five P- sand) 12mm thick in all floors using fine river sand including neat finishing, curing, etc., complete complying with standard specification and as directed by the department officers.	61	V (S4) (3)		1 M ² (One square metre)	

19	930 M ² (Nine hundred and thirty square metres)	Special ceiling plastering in all floors and finishing the exposed surface of RCC items of work such as slab, beam, sunshade, facia, canopy slab, staircase waist slab, landing slab etc., with cement mortar 1:3 (One cement and three p sand) 10mm thick including hacking the surfaces and providing cement mortar nosing, beading for sunshade, staircase, step, landing slab etc., including neat finishing and curing etc., complete complying with standard specification and as directed by the departmental officers.	56 & 57	V (S4) 3		1 M ² (One square metre)	
20	2080 M ² (Two thousand eighty square metres)	Paving the floor with pre-polished concrete anti-skid tiles of 15mm thick of approved quality and colour laid in Cement Mortar 1:3 (One Cement and Three m sand) 15mm thick and pointed with white cement mixed with colouring pigment at the rate of 0.40 Kg. / sq.m., curing, etc., complete complying with standard specification and as directed by the departmental officers. (The make and brand of the tiles should be got approved by Executive Engineer before use on works)				1 M ² (One square metre)	
21	890 M ² (Eight hundred and ninety square metres)	Flooring with follwing Tactile paver type of New Tack BT Yellow colour ceramic tiles of size 305x305x15mm for vision impairment person laid lover 20mm thick cement mortar and three m sand) base mortar over the existing slab/floor including cutting the tiles to the required size with special cutter wherever nesssry, laying in position and pointing with white cement mixed with colouring pigment at the rate of 0.3kg/sq.m etc. complete complying with standard specification. (The make and brand of the tiles should got approved by the Executive Engineer before use on works)				1 M ² (One square metre)	
22	58 M ² (Fifty eight square metres)	Paving the floor with best quality Double Charged Virtified Tiles of size 600 x 600 x 8mm of approved colour, shade and quality laid in cement mortar 1:3 (one cement and three M-sand) 20mm thick in all floors and the top pointed with the white cement mixed same colour pigments etc., complete complying with standard specification. (The make and brand of the tiles should be got approved by Executive Engineer before use on works)				1 M ² (One square metre)	

23	14 M ² (Fourteen square metres)	Paving the floor with Colour designed ceramic tiles of approved quality and colour of size 305 x 305 x 6mm in all floors over a base layer of cement mortar 1:3 (one cement and three M sand) 20mm thick using M. sand and pointing with white cement using 0.30kg/m ² including adding suitable colour pigments to suit the colour of tiles finishing perfectly and curing etc., including cost of tiles, all materials and incidental charges, transportation charges and labour charges for laying tiles etc., complete complying with standard specification and as directed by the departmental officers . (The quality of tiles should be got approved by the departmental officers before use on works).	39F			1 M ² (One square metre)	
24	30 M ² (Thirty square metres)	Dadoing the walls with colour designed glazed tiles of size 300mmx 600mmx 6mm of approved quality in all floors set in cement mortar 1:2 mix (one cement & two M sand) 10mm thick and pointing with white cement using 0.4 kg/m ² including adding suitable colour pigments to suit the colour of tiles including finishing the joints neatly and curing etc., complete complying with standard specifications. (The quality of tiles should be got approved by departmental officers before use on the work).	Spl			1 M ² (One square metre)	
25	1825 Kg (One thousand eight hundred and twenty five kilogram)	Supplying and fixing MS grills to doors, windows and ventilators etc. using necessary MS flats (or) square rods for inner members and outer members Spl 1 Kg (One kilo thousand six hundred and twenty two kilogram) which should be fixed to window frames as directed and design given by the departmental officers inclusive of cost of providing one coat of best quality red oxide primer etc., complete complying with standard specification and as directed by the departmental officers				1 Kg (One kilogram)	
26	40 M ² (Forty square metres)	Paving the floor with best approved quality fine polished Granite Stone Slabs of size 1200 x 600 of 18 / 20mm thick of Synthetic Grey, Paradise and similar varieties with machine cut edges laid over a cement mortar bed of 20mm thick using cement mortar 1:3 (One cement and three M-sand) fixing the slabs with required cement slurry and laid in true right angles with minimum possible width of joints and pointing the joints with white cement mixed with matching colouring pigments etc., The granite stone slabs and other materials to be used shall be got approved by the Executive Engineer concerned before use on work, etc., complete as per standard specification.				1 M ² (One square metre)	

27	73 M ² (Seventy three square metres)	Painting new iron works such as steel doors, windows, ventilators, window bars, balustrades etc., with two coats of best approved first quality and colour of synthetic enamel paint over one coat of red oxide priming coat in all floors including cost of priming coat etc., complete complying with standard specification. (The make, quality and colour of paint should be got approved by the Executive Engineer before use on works.)				1 M ² (One square metre)	
28	6130 M ² (Six thousand one hundred and thirty square metres)	Painting two coats of newly plastered wall surface with ready mixed plastic emulsion paint of first quality and of approved colour over a priming coat including preparing the surface, clean removal of dirt and including necessary plaster of paris putty wherever required etc., complete complying with standard specification. (The paint and colour should be got approved by the departmental officers before use on works)				1 M ² (One square metre)	
29	200 M ² (Two hundred square metres)	Providing and fixing Stainless Steel hand rail made out of SS 304 grade 50.80 mm dia stainless steel tube of 1.60 mm thick at required locations to a height of 1000 mm from finished floor level welded to 38.30 mm dia stainless steel tube post of 1.60 mm thick as vertical at 1.00 m center to center with 3 nos of 25.40 mm dia horizontal stainless steel tubes of 160mm thick in between as per the details shown in the drawing and as directed. The rate shall include for grouting with concrete into necessary supporting arrangements of handrail verticals and in floor, welding the base cup of the post into slab reinforcement polishing, buffing and prectecting the hand rail surface etc., complete complying with standard specification and as directed by the departmental officers. SI-225				1 M ² (One square metre)	
30	25 RM (Twenty five running metre)	Manufacturing, Supplying and Fixing of Stainless Steel Hand rails for staircase near wet riser using 50mm dia 304L Grade Stainless Steel pipe of 1.60mm thick will be provided with tubular supports made of 304L Grade Stainless Steel pipe of 25mm dia of 1.60mm thick welded to the railing. The supports will be grouted into the wall and provided with 93.00mm thick Stainless Steel circular base plate of 304 Grade. The rate shall included for grouting into concrete with necessary supporting arrangements the hand rail in floor polishing buffing, bonding, cutting, grinding, conveyance, welding charges, electrical charges, etc. complete SI-226				1 RM (One running metre)	

31	3 Nos (Three numbers)	Manufacturing, supplying and fixing of stainless steel of U shaped movable grab bar with hinges for accessible toilet using 32 mm dia pipe of 304 L grade stainless steel pipe of 1.60 mm thick in required size of 750mm x 110mm. The rate is inclusive of the charges for cutting, bending, welding, grinding, polishing, conveyance, electrical charges, etc., complete.				1 No (Each)	
32	10 M ² (Ten square metres)	Supplying and fixing of PVC Sliding Door with Roller The Door shutter and frame should be got approved from the Exe. Engineer before use on work. (Sliding Door)				1 M ² (One square metre)	
33	1 M ² (One square metres)	Supplying and fixing in position of aluminium anodised colour matt finish louvered ventilator. The out frame will be 62x38x2mm @ 1.174kg/m and the louver with moving arrangement will be made with aluminium channel of size 60x30x4mm @ 1.27 kg/m with necessary glass panes for louvers 4mm thick and aluminium clips, including all materials, labour and power consumption charges required for fabrication if necessary chipping, dismantling, making holes in RCC columns beams or masonry wherever necessary with power drill to be extent required and make good to the original conditions after fixing etc. complete. The aluminium surface is to be anodised with matt finish under electrically controlled condition in accordance with ISI specification 1868/1962 of anodic film thickness of not less than 15 microns for all section. (All materials should be got approved by the Executive Engineer before fixing in position as directed)				1 M ² (One square metre)	

34	135 M ² (One hundred and thirty five square metres)	Providing, mixing, laying polymer based water proofing treatment for the Sunken Toilet / Lift well/ OHT Rcc wall by applying cement based, flexible, waterproofing compound confirming to IS:2645, to a thickness of 1mm of the prepared surface of the roof slab / floor slab as per specifications mentioned above providing cement mortar 1:3, waterproofing cover plaster to a thickness of 12mm over the membrane coating with admixture of approved make. Rate quoted is inclusive of preparation of surface, which includes cleaning of surface polymer mortar curing, labour, tools and equipment, etc. Rate inclusive of grouting with cement and sand required for the treatment, the cost and labour charges for fixing 25mm dia pressure pipes 15kg/cm ² to a length of 45cm for drip pipes, etc. complete.
35	3 Nos (Three numbers)	Supplying and fixing in position white colour glazed Special delux model Glazed Cascade type (parryware/hindware/equivalent wall mounted) European Water Closet of best quality and approved make with 100 mm "P" or "S" trap connecting with CI pipe of 100mm dia / PVC pipe of 110mm dia, double flapped rigid PVC black seat and seat cover with CP brass hinges including cost of white cement, cement for packing, spun yarn, teak wood plugs, brass screws, etc., including supplying and fixing 10 litres capacity PVC / 12.5 litres capacity porcelin low level flushing tank with a pair of CI brackets, etc., complete with all fittings such as 15mm brass ball valve with polythene float with brass handle, union, coupling connected by means of 40mm white PVC flush hand using Indian adopter joint including all internal fittings.....

		1 M ² (One square metre)	
		1 No (Each)	

36	3 Nos (Three numbers)	Supplying and fixing in position best quality and approved make Indian made white / colour glazed earthenware wash hand basin of size 550 x 400mm (with pedestal / without pedestal) with a pair of cast iron brackets, including cost 15mm dia brass CP pillar tap, 32mm dia "B" class GI waste pipe with rubber plug and chain, 15mm dia GM wheel valve, 15mm brass nipple, 15mm dia nylon connection, 32mm dia CP brass waste coupling including fixing of wash basin using CI brackets on to the wall in position with TW plugs and screws, rubber washers, white lead and giving necessary water supply connection and painting the brackets with two coat of painting over a priming coat of anti-corrosive paint including testing for leakages etc., complete complying with standard specification and as directed by the departmental officers. (The wash hand basin and specials should be got approved by the Executive Engineer before use on works).				1 No (Each)	
37	6 Nos (Six numbers)	Supplying and fixing in position 15mm dia brass CP screw down tap / Pillar tap (heavy duty) of approved make conforming to BIS specifications and quality including cost of shellac, thread, etc., complete complying with standard specification and including cutting and threading wherever necessary. (Taps should be got approved by the Executive Engineer before use on the works)				1 No (Each)	
38	19 Nos (Nineteen numbers)	Supplying and fixing in position best approved quality CI Nahini trap of 110mm x 75mm size with stainless steel grating of approved quality fixed over a bed of brick jelly lime concrete 1:2:5(one lime two sand and five brick jelly) using 40mm broken brick jelly including dismantling the flooring concrete / Brick masonry wherever necessary and redoing the disturbed portion to the original condition and giving in connection to the PVC soil (stacks)pipe as directed etc., complete complying with standard specifications. (The PVC Nahini trap should be got approved from the Executive Engineer before use on works.)				1 No (Each)	

39	12 Nos (Twelve numbers)	Supplying and fixing in position Indian make bevelled edge mirror of approved quality and brand PVC / Fibre Glass framed 600 x 450 x 5.5mm thick mirror, shelf type with hard board backing of approved colour fixed with brass screws, rawl plug, etc., complete complying with standard specification. (The mirror should be got approved by the Executive Engineer before use on woks)				1 No (Each)	
40	6 Nos (Six numbers)	Supplying and fixing best approved best quality brass CP soap tray of size 150 x 150mm including cost of teak wood plugs, brass screws, etc., complete complying with standard specifications. (The soap tray should be got approved by Executive Engineer before use on works).				1 No (Each)	
41		Supplying and fixing in position of following PVC soil waste pipe of 6 kg/m2 below ground level including earth work excavation to a width of 500 mm and average depth of 800 mm and jointing the pipe with adhessive including dismantling the brick wall and redoing the same with original condition, testing etc. complete and refilling with excavated earth etc. complete.					
a	26 RM (Twenty six running metre)	75mm dia PVC soil pipe				1 RM (One running metre)	
b	50 RM (Fifty running metre)	110mm dia PVC soil pipe				1 RM (One running metre)	

42		Supplying and fixing in position of the following PVC specials best approved quality conforming to ISS and providing leak proof joints with PVC adhesive etc., and giving connections to the PVC pipe etc., complete complying with standard specification.(The PVC specials should be got approved by the departmental officer before use on works).					
a	10 Nos (Ten numbers)	75mm dia Tee				1 No (Each)	
b	10 Nos (Ten numbers)	75mm dia Elbow				1 No (Each)	
c	10 Nos (Ten numbers)	75mm dia Bend				1 No (Each)	
d	6 Nos (Six numbers)	110mm dia Tee				1 No (Each)	
e	10 Nos (Ten numbers)	110mm dia Elbow				1 No (Each)	

f	10 Nos (Ten numbers)	110mm dia Bend				1 No (Each)	
43		Supplying, laying and jointing UPVC Pipes of approved quality and best variety of "B" class pipe of the following dia including labour fixing UPVC Specials, (excluding charges for cutting and threading of pipes, cost of such specials) to wall with necessary teak wood plugs, clamps, screws, thread balls, shellac, etc., making holes on the walls (or) drilling holes in roof and making good the dismantled portions to original condition with necessary brick work / concrete and plastering wherever necessary with necessary scaffolding charges. The pipes are to be painted with the 2 coats of good variety and approved best quality of synthetic enamel paint over a priming coat of red oxide etc., complete in all floors complying with standard specification. UPVC shall be got approved by the Executive Engineer before use on works.					
a	105 RM (One hundred and five running metre)	32mm dia UPVC pipe				1 RM (One running metre)	
b	75 RM (Seventy five running metre)	25mm dia UPVC pipe				1 RM (One running metre)	

c	39 RM (Thirty nine running metre)	20mm dia UPVC pipe				1 RM (One running metre)	
44		Supplying and fixing in position the following UPVC Specials of heavy type and approved quality and good variety excluding fixing charges but including necessary cutting and threading of UPVC pipes, jointing the UPVC specials and painting with two coats with good variety and best quality synthetic enamel paint over a coat of red oxide primer and jointing the specials with pipe line using shellac etc., complete complying with standard specification. (The UPVC specials should be got approved by the Executive Engineer concerned before use on works.)					
i)		32mm dia					
a	6 Nos (Six numbers)	Tee				1 No (Each)	
b	6 Nos (Six numbers)	Elbow				1 No (Each)	

c	6 Nos (Six numbers)	Bend				1 No (Each)	
d	6 Nos (Six numbers)	32x25mm reducer				1 No (Each)	
ii)		25mm dia					
a	6 Nos (Six numbers)	Tee				1 No (Each)	
b	6 Nos (Six numbers)	Elbow				1 No (Each)	
c	6 Nos (Six numbers)	Bend				1 No (Each)	

d	6 Nos (Six numbers)	25x20mm reducer				1 No (Each)	
iii)		20mm dia					
a	6 Nos (Six numbers)	Tee				1 No (Each)	
b	6 Nos (Six numbers)	Elbow				1 No (Each)	
c	6 Nos (Six numbers)	Bend				1 No (Each)	
d	6 Nos (Six numbers)	25x15mm reducer				1 No (Each)	

45		Supplying and fixing in position first quality and approved variety of Gun metal Gate Valve / Wheel Valve with BIS make of the following dia including cost of shellac, thread balls, etc., complete complying with standard specifications (for both internal and external water supply arrangements). The valves to be used on work shall be got approved by the Executive Engineer before use on work.					
a	3 Nos (Three numbers)	32mm dia Gate valve				1 No (Each)	
b	3 Nos (Three numbers)	25mm dia Gate valve				1 No (Each)	
c	3 Nos (Three numbers)	20mm dia Gate valve				1 No (Each)	
46	1 No (One number)	supplying of manual foldable wheel Chair with fixed armrest and footrest,Cushion seat and back,Black Colour Rexin finish with standard specification and as directed by the departmental officers				1 No (Each)	

47	1 No (One number)	supplying of manual foldable wheel Chair with motorised seat up/down mechanism -6" fixed armrest and footrest,battery and charger,Cushion seat and back,Black Colour Rexin finish with standard specification and as directed by the departmental officers				1 No (Each)	
48	45 Nos (Forty five numbers)	supplying and fixing of braile signage boards of required size as with standard specification and as directed by the departmental officers				1 No (Each)	
49	112 M ² (One hundred and twelve square metres)	Providing, fabricating, assembling and erection of tensile membrane fabric structure imported ferrai 900 gsm white colour/ any colour, with highly coated both side PVDF, UV protection, Anti dust and fire retardant properties. MS Steel structure will be used for tensile work with truss arrangements as per drawings with two coats of primer and two coats of PU paint finish ther cost includethe materials, fabrication, erection, installation, transportation, incidental charges etc., complete complying with styandard specificcations and as directed by departmental officers before execution of the work.				1 M ² (One square metre)	
50		Supplying and fixing of HDPE pipe for cable duct etc complete 150mm dia pipe					
a	150 RM (One hundred and fifty running metre)	230mm dia pipe				1 RM (One running metre)	

b	80 RM (Eighty running metre)	150mm dia pipe				1 RM (One running metre)	
		ELECTRICAL					
51	1 No (One number)	<p>Supply, Erection, Testing, Commissioning and Handing over of 1No 15 Persons capacity Gearless Disability person Lift (SS304 grade) without machine room as per the following technical specifications which includes all taxes and duties.</p> <p>Technical Specifications:</p> <p>1) Locations:- Administrative Block</p> <p>2) No. of Lift: One No.</p> <p>3) Type of Lift : Disability person Lift</p> <p>4) Capacity of lift: 15 persons</p> <p>5) Speed : 1.0 mtr/sec</p> <p>6) Type of Drive: Microprocessor V3F.</p> <p>7) No. of floor Ground + 1 floor (6.3m ceiling height)</p> <p>8) Total Travel: 13 mtrs (approx)</p> <p>9) Leveling Accuracy: High level accuracy with smooth & jerk free stopping</p> <p>10) Construction of car: Stainless steel hairline finish with direct lighting with new beautiful single tube false ceiling with tubular handrail on three sides, 300mm sweep fan</p> <p>11) Position of Machine :Directly above the Lift level</p> <p>12) No. of Landing Entrance – One in front 2 Nos</p> <p>13) No of Car Entrance: One in front only.</p> <p>14) Car Entrance Door:- Stainless steel centre opening auto door.</p>				1 No (Each(

- 15) Landing Entrance Door:- V3F Drive side opening sliding 18SWG stainless steel (Hairline finish) door with provision for emergency key opening at all landing.
- 16) Car size : 1500 x 1600 mm
- 17) Car Clear Opening: 1000mm x 2200mm
- 18) Lift Well size : 2550mm wide x 2050mm deep
- 19) Lift pit depth:-1600mm
- 20) Power supply: 400/440 V Three phase 50Cy/Sec A.C. supply and 230V 50 Hz single phase AC supply for light.
- 21) Control: Micro computer based Duplex full collective control with/without attendant.
- 22) Car fittings: Compact fluorescent lighting with 2Nos 300mm sweep fans.
- 23) Lift Well: RCC Construction with brick masonry.
- 25) Indication: Up/ Down Digital direction and position indicator for all landing and in car.
- 26) Emergency alarm bell:- Battery operated alarm bell to be provided with automatic charging device.
- 27) Emergency light : Battery operated light to be provided with automatic charging device.
- 28) Fire man's switch ; To be provided at Ground Floor
- 29) Minor builders work: To be provided by Lift Contractor.
- 30) Scaffolding : To be provide by lift contractor
- 31) Stainless steel sill angles and fascia plates.
- 32) Steel for lift Machinery : To be provided by lift contractor
- 33) Servicing and Maintenance: Free comprehensive servicing and maintenance should be provided by lift contractor during the guarantee period of one year
- 34) Automatic Rescue Device: To facilitate the landing of the lift to the nearest floor at the time of power failure.
- 35) Provision of Intercom with Phone: To be provided by lift contractor.

36) Lift license : Preparation of drawing payment of charges to CEIG and Insurance policies and obtaining CEIG safety certificate as per lift act should be done by lift contractor

37) Floor annunciator with music

38) Special Features.

- (a). Infra red door sensor with full height screen.
- (b). Full width half height rear panel Mirror.
- (c). Tubular stainless steel handrail on three sides in car.
- (d). Voltage stabilizer for circuit control.
- (e). Stainless steel signal fixtures.
- (f). Vandal proof S.S button with S.S Cover. Lift buttons with Braille codes and handicap sign.
- (g) Stainless steel door frames for landing doors
- (h) VF door operator.
- (i) Call register Signal
- (j) Stainless steel fascia plate for car operating panel and landing fixtures.
- (k) ON-OFF switch for fan & light
- (l). Over load warning indicator.

39) Over speed governor, phase failure and phase reversal relay, alarm bell, T guide brackets for car and counter weight. Rubber padding under winding unit. Motor of adequate capacity, electromagnetic brake with compression springs, car safety gears, buffers, electro mechanical door locks. Emergency key. Side supporting angles motor over load protection devices, final limit switch main suspensions ropes, counter weights, lifting joint joist mounting the machineries.

40) Guarantee: Guarantee for the materials and workman ship of equipments complete should be offered by the Lift firm for a period of not less than one year.

		<p>41) Site testing in accordance with IS 14665 should be carried out at the time of handing over.</p> <p>42) Providing Architraves by supply and fixing for all landing door entrances.</p> <p>Rate of one lift as per above specifications like (Make:Johnson / Kone/OTIS)</p>					
52	1 No (One number)	<p>Supply, Erection, Testing, Commissioning and Handing over of 1 No 15 Persons capacity Gearless Disability person Lift (SS304 grade) without machine room as per the following technical specifications which includes all taxes and duties.</p> <p>Technical Specifications:</p> <p>1) Locations:- Arts Block</p> <p>2) No. of Lift: One No.</p> <p>3) Type of Lift : Disability person Lift</p> <p>4) Capacity of lift: 15 persons</p> <p>5) Speed : 1.0 mtr/sec</p> <p>6) Type of Drive: Microprocessor V3F.</p> <p>7) No. of floor Ground + 1 floor</p> <p>8) Total Travel: 8 mtrs (approx)</p> <p>9) Leveling Accuracy: High level accuracy with smooth & jerk free stopping</p> <p>10) Construction of car: Stainless steel hairline finish with direct lighting with new beautiful single tube false ceiling with tubular handrail on three sides, 300mm sweep fan</p> <p>11) Position of Machine :Directly above the Lift level</p> <p>12) No. of Landing Entrance – One in front 2 Nos</p> <p>13) No of Car Entrance: One in front only.</p> <p>14) Car Entrance Door:- Stainless steel centre opening auto door.</p> <p>15) Landing Entrance Door:- V3F Drive side opening sliding 18SWG stainless steel (Hairline finish) door with provision for emergency key opening at all landing.</p> <p>16) Car size : 1500 x 1600 mm</p> <p>17) Car Clear Opening: 1000mmx2200mm</p> <p>18) Lift Well size : 2550mm wide x 2050mm deep</p>				1 No (Each)	

19) Lift pit depth:-1700mm
 20) Power supply: 400/440 V Three phase 50Cy/Sec A.C.supply and 230V 50 Hz single phase AC supply for light.
 21)Control: Micro computer based Duplex full collective control with/without attendant.
 22)Car fittings: Compact fluorescent lighting with 300mm sweep fans.

 23) Lift Well: RCC Construction with brick masonry.
 25) Indication: Up/ Down Digital direction and position indicator for all landing and in car.
 26)Emergency alarm bell:-Battery operated alarm bell to be provided with automatic charging device.
 27)Emergency light : Battery operated light to be provided with automatic charging device.
 28)Fire man's switch ;To be provided at Ground Floor
 29)Minor builders work: To be provided by Lift Contractor.
 30)Scaffolding : To be provide by lift contractor
 31) Stainless steel sill angles and facia plates.
 32) Steel for lift Machinery :To be provided by lift contractor
 33)Servicing and Maintenance: Free comprehensive servicing and maintenance should be provided by lift contractor during the guarantee period of one year
 34)Automatic Rescue Device: To facilitate the landing of the lift to the nearest floor at the time of power failure.
 35)Provision of Intercom with Phone: To be provided by lift contractor.
 36)Lift license : Preparation of drawing payment of charges to CEIG and Insurance policies and obtaining CEIG safety certificate as per lift act should be done by lift contractor
 37)Floor annunciator with music
 38) Special Features.
 (a). Infra red door sensor with full height screen.

	<p>(b). Full width half height rear panel Mirror.</p> <p>(c). Tubular stainless steel handrail on three sides in car.</p> <p>(d). Voltage stabilizer for circuit control.</p> <p>(e). Stainless steel signal fixtures.</p> <p>(f). Vandal proof S.S button with S.S Cover. Lift buttons with Braille codes and handicap sign.</p> <p>(g) Stainless steel door frames for landing doors</p> <p>(h) VF door operator.</p> <p>(i) Call register Signal</p> <p>(j) Stainless steel fascia plate for car operating panel and landing fixtures.</p> <p>(k) ON-OFF switch for fan & light</p> <p>(l). Over load warning indicator.</p> <p>39) Over speed governor, phase failure and phase reversal relay, alarm bell, T guide brackets for car and counter weight. Rubber padding under winding unit. Motor of adequate capacity, electromagnetic brake with compression springs, car safety gears, buffers, electro mechanical door locks. Emergency key. Side supporting angles motor over load protection devices, final limit switch main suspensions ropes, counter weights, lifting joint joist mounting the machineries.</p> <p>40) Guarantee: Guarantee for the materials and workman ship of equipments complete should be offered by the Lift firm for a period of not less than one year.</p> <p>41)Site testing in accordance with IS 14665 should be carried out at the time of handing over.</p> <p>42) Providing Architraves by supply and fixing for all landing door entrances.</p> <p>Rate of one lift as per above specifications like (Make:Johnson / Kone/OTIS)</p>				
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53	1 No (One number)	<p>Supply, Erection, Testing, Commissioning and Handing over of 1No 15 Persons capacity Gearless Disability person Lift (SS304 grade) without machine room as per the following technical specifications which includes all taxes and duties.</p> <p>Technical Specifications:</p> <p>1) Locations:- MGR Building</p> <p>2) No. of Lift: One No.</p> <p>3) Type of Lift : Disability person Lift</p> <p>4) Capacity of lift: 15 persons</p> <p>5) Speed : 1.0 mtr/sec</p> <p>6) Type of Drive: Microprocessor V3F.</p> <p>7) No. of floor Ground + 2 floor</p> <p>8) Total Travel: 12 mtrs (approx)</p> <p>9) Leveling Accuracy: High level accuracy with smooth & jerk free stopping</p> <p>10) Construction of car: Stainless steel hairline finish with direct lighting with new beautiful single tube false ceiling with tubular handrail on three sides, 300mm sweep fan</p> <p>11) Position of Machine :Directly above the Lift level</p> <p>12) No. of Landing Entrance – One in front 3 Nos</p> <p>13) No of Car Entrance: One in front only.</p> <p>14) Car Entrance Door:- Stainless steel centre opening auto door.</p> <p>15) Landing Entrance Door:- V3F Drive side opening sliding 18SWG stainless steel (Hairline finish) door with provision for emergency key opening at all landing.</p> <p>16)Carsize : 1500 x 1600 mm</p> <p>17)Car Clear Opening: 1000mmx2200mm</p> <p>18)Lift Well size : 2550mm wide x 2050mm deep</p>				1 No (Each)	
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19) Lift pit depth:-1700mm
 20) Power supply: 400/440 V Three phase 50Cy/Sec A.C.supply and 230V 50 Hz single phase AC supply for light.
 21)Control: Micro computer based Duplex full collective control with/without attendant.
 22)Car fittings: Compact fluorescent lighting with 300mm sweep fans.

23) Lift Well: RCC Construction with brick masonry.
 25) Indication: Up/ Down Digital direction and position indicator for all landing and in car.
 26)Emergency alarm bell:-Battery operated alarm bell to be provided with automatic charging device.
 27)Emergency light : Battery operated light to be provided with automatic charging device.
 28)Fire man's switch ;To be provided at Ground Floor
 29)Minor builders work: To be provided by Lift Contractor.
 30)Scaffolding : To be provide by lift contractor
 31) Stainless steel sill angles and facia plates.
 32) Steel for lift Machinery :To be provided by lift contractor
 33)Servicing and Maintenance: Free comprehensive servicing and maintenance should be provided by lift contractor during the guarantee period of one year
 34)Automatic Rescue Device: To facilitate the landing of the lift to the nearest floor at the time of power failure.
 35)Provision of Intercom with Phone: To be provided by lift contractor.
 36)Lift license : Preparation of drawing payment of charges to CEIG and Insurance policies and obtaining CEIG safety certificate as per lift act should be done by lift contractor
 37)Floor annunciator with music
 38) Special Features.

(a). Infra red door sensor with full height screen.

	<p>(b). Full width half height rear panel Mirror.</p> <p>(c). Tubular stainless steel handrail on three sides in car.</p> <p>(d). Voltage stabilizer for circuit control.</p> <p>(e). Stainless steel signal fixtures.</p> <p>(f). Vandal proof S.S button with S.S Cover. Lift buttons with Braille codes and handicap sign.</p> <p>(g) Stainless steel door frames for landing doors</p> <p>(h) VF door operator.</p> <p>(i) Call register Signal</p> <p>(j) Stainless steel fascia plate for car operating panel and landing fixtures.</p> <p>(k) ON-OFF switch for fan & light</p> <p>(l). Over load warning indicator.</p> <p>(m) Pit Ladder</p> <p>39) Over speed governor, phase failure and phase reversal relay, alarm bell, T guide brackets for car and counter weight. Rubber padding under winding unit. Motor of adequate capacity, electromagnetic brake with compression springs, car safety gears, buffers, electro mechanical door locks. Emergency key. Side supporting angles motor over load protection devices, final limit switch main suspensions ropes, counter weights, lifting joint joist mounting the machineries.</p> <p>40) Guarantee: Guarantee for the materials and workman ship of equipments complete should be offered by the Lift firm for a period of not less than one year.</p> <p>41)Site testing in accordance with IS 14665 should be carried out at the time of handing over.</p> <p>42) Providing Architraves by supply and fixing for all landing door entrances.</p> <p>Rate of one lift as per above specifications like (Make:Johnson / Kone/OTIS)</p>					
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54	72 mts (Seventy two metres)	Supply and run of 2 x 1.5 sq.mm. (22 / 0.3) PVC insulated unsheathed single core copper conductor of 1100V grade in suitable gauge MS conduit pipe on wall and ceiling with continuous earth wire connection of 14 SWG TC wire with painting of suitable colour.				1 mt (One metre)	
55	15 Nos (Fifteen numbers)	Supplying and fixing of 6A modular switch on suitable GI modular switch box covered with modular white plate on wall with connection				1 No (Each)	
56	15 Nos (Fifteen numbers)	Supplying and fixing of ceiling rose on MS conduit round box on wall with connections				1 No (Each)	
57	15 Nos (Fifteen numbers)	Supply and fixing of WT Bulk head fitting with guard (Philips/Bajaj/crompton/Klite) suitable for 11W CFL lamp with CFL.				1 No (Each)	
58	1 No (One number)	Renewal by Supply, Erection, Testing and Commissioning of 125A capacity Dust and Vermin Proof MCCB wall mounted Panel Board made up of 16 SWG CRCA sheet steel with supply and fixing of the following interior mounting MCCB switches arranged in two Horizontal or Vertical rows with one switch over the other with a central bus bar chamber and two nos. of Horizontal or vertical cable chambers at the two ends one on each side next to the MCCB switch chamber and confirming to IE rules.				1 No (Each)	

	<p>1. 125A FP MCCB switch, 25KA, x160= 1 no</p> <p>2. 100A FP MCCB switch, 25KA, x160= 1 no</p> <p>2. 63A FP MCCB switch, 25KA, x160 = 4 nos</p> <p>(All the FP MCCB's should be Higher end with front handle make only)</p> <p>All switches are with suitable extended handles and spreaded terminals as required.</p> <p>The bus bar chamber will consist of 4nos of 30x3mm size of copper flat for phase and neutral buses on epoxy moulded bus insulators at proper and sufficient spacing between the buses as per IE rules. This bus bar chamber should be segregated from the adjacent chambers by providing hylem sheet of suitable thickness as partisans suitable size of copper flats should be provided all round the panel for earth bus.</p> <p>The fuse switches should be connected with the phase and neutral buses with suitable size of copper rod or flat and each switch should be connected with earth with 2 nos. earth bus with 2 runs of No:8 SWG rigid copper rod with suitable lugs.Phase and neutral copper buses should be tinned properly.</p> <p>The panel should be painted with one coat of Red oxide as primer coat and two coats of enamel paint of approved colour, Approved by the site engineer and also the danger board. The capacity of MCCB switches, size of the incoming and outgoing cables, the place to which the supply is fed shall be marked on switch chamber.</p> <p>The panel board should be mounted on suitable angle iron frame fixed on floor.</p>					
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59	3 Nos (Three numbers)	Supply and fixing of 63A TPN Switch Disconnecter Fuse Units Interior only in existing Sheet Steel Enclosure with HRC fuses Double Break with earth connection and inter connections (Legrand MDS)				1 No (Each)	
60	3 Nos (Three numbers)	Supply and fixing of 12 way MCB DB with IP 42 protection Double door type DB (legrand) with 1No 63A 4P MCB as incoming and 1No 40A TP MCB, 2 nos 16A DP MCB and 1 Nos 16A SP MCB as outgoing in flush with wall with earth connection only. (The MCB DB and MCB's should be Like legrand make)				1 No (Each)	
61	72 mts (Seventy two metres)	Supply and run of 2 of 2.5 sqmm (36/0.3) PVC insulated SC unsheathed Cu.Conductor of 1100V Grade in suitable PVC rigid pipe on wall and ceiling with continuous earth wire connection of 14 SWG TC wire with painting of suitable colour.				1 mt (One metre)	
62	15 Nos (Fifteen numbers)	Renewal by supply and fixing 5A modular (2 in one 3pin socket) wall socket with control switches with suitable MS modular box covered with Modular 3 module white plate on wall with earth connection(For computer plug socket)				1 No (Each)	
63	175 mts (One hundred and seventy five metres)	Supply and run of 4 of 10 sqmm (140/0.3) PVC insulated SC unsheathed Cu.Conductor of 1100V Grade in suitable PVC rigid pipe on wall and ceiling with continuous earth wire connection of 14 SWG TC wire with painting of suitable colour. (DATA 8)				1 mt (One metre)	

64	25 mts (Twenty five metres)	Supply and clamping of 3 1/2 x 95 sq.mm PVC LTUG aluminium armoured LTUG cable on post or on wall with MS clamps (SD-226)				1 mt (One metre)	
65	2 Nos (Two numbers)	Supply and fixing of brass cable gland for 3 1/2 x 95 sq.mm PVC armoured LTUG cable with earth connection (SD-190)				1 No (Each)	
66	2 Nos (Two numbers)	Supply and providing cable end termination of 3½ x 95 sqmm PVC LTUG Aluminium armoured cable with necessary aluminium cable sockets by crimping etc. with electrical connection complete(SD 239)				1 No (Each)	
67	175 mts (One hundred and seventy five metres)	Supply and clamping of 2 x 6 sq.mm PVC LTUG aluminium armoured LTUG cable on post or on wall with MS clamps (SD-215)				1 mt (One metre)	
68	30 mts (Thirty metres)	Supply and clamping of 2 x 6 sq.mm PVC LTUG aluminium armoured LTUG cable on post or on wall with MS clamps (SD-197)				1 mt (One metre)	

69	3 Nos (Three numbers)	Supply and fixing of 4way SP MCB DB with IP 42 protection Double door type DB (legrand) with 1No 32A DP MCB as incoming and 2 nos 16A SP MCB as outgoing in flush with wall with earth connection only. (The MCB DB and MCB's should be Like legrand make)				1 No (Each)	
70	21 pts (Twenty one points)	Wiring with 2x1.5 sqmm (22/0.3) PVC insulated SC unsheathed Cu.Conductor of 1100V grade in suitable PVC rigid pipe in flush with wall and ceiling with Modular 6 module white plate with MS modular switch box with 6A modular switch and making good of the concealed portion with suitable colour for PVC concealed light/ Fan Point (For electronic regulator)(6 points per coil)(DATA-9)				1 pt (One point)	
71	15 Nos (Fifteen numbers)	Renewal by Supply and fixing of 1' x 1' 18W LED 3000K square type surface mounting type fitting Higher end complete with electronic drivers on wall or ceiling with PVC unloaded leads from terminal to the fitting with LED				1 No (Each)	
72	3 Nos (Three numbers)	Renewal by Supply and fixing of 9W mirror light type fitting Higher end complete with electronic drivers on wall or ceiling (DATA -11)				1 No (Each)	
73	3 Nos (Three numbers)	Supply and fixing of 300mm (12") sweep (light duty) AC exhaust fan complete without provision of hole in the wall (SD-115)				1 No (Each)	

74	3 Nos (Three numbers)	Supply and fixing of louvers shutters arrangements for 300mm (12") sweep (light duty) AC exhaust fan (SD-120)				1 No (Each)	
75	6 Nos (Six numbers)	Earthing as per the ISI specification with an earth electrode of 2.1 mt class 'B' GI pipe of dia not less than 40mm, with copper earth plate of size 125mmx50mmx6mm, with necessary funneling arrangements with necessary masonry work and with 38mm RCC cover slab for the brick masonry (SD-233)				1 No (Each)	
76	75 mts (Seventy five metres)	Supply and run of 1 No. of No.8 SWG Copper wire on floor or wall for Earth Connection.				1 mt (One metre)	
					TOTAL		
				12%	GST		
76 Items (Seventy six items)					GRAND TOTAL		