

Schedule - A						
NAME OF WORK :		Construction of Registrar's Bungalow in CEG campus in Anna University, Guindy, Chennai 25				
EMD: Rs. 66,000/-				Date: 13.05.2022		
Sl. No	Qty	Description of Work	TN BP NO.& NBC NO	Rate in Words	Unit	Amount
		CIVIL WORK				
1	315 M ³ (Three hundred and fifteen cubic metres)	Earthwork excavation for narrow foundation in all soils and sub soils to full depth as may be directed except in hard rock requiring blasting inclusive of shoring shuttering, bailing 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 place 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 officer.			1 M ³ (One cubic metre)	
2	70 M ³ (Seventy cubic metres)	Supplying and filling in foundation, basement, etc with filling M sand in layers of not more than 15 cm thick well watered, rammed and consolidated etc. complete complying with standard specification and as directed by the departmental officers.			1 M ³ (One cubic metre)	

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Contractor

Chief Engineer

3	45 M ³ (Forty five cubic metres)	Refilling with excavated earth other than M sand with an initial head load of 100 mts. and depositing the earth as shown by the departmental officers in layers of not more than 15 cm thick well rammed, watered and consolidated etc. complete complying with standard specification			1 M ³ (One cubic metre)	
4	35 M ³ (Thirty five cubic metres)	Supplying and filling in foundation, basement, etc with Gravel in layers of not more than 15 cm thick well watered, rammed and consolidated etc. complete complying with standard specification and as directed by the departmental officers.			1 M ³ (One cubic metre)	
5	12 M ³ (Twelve cubic metres)	Supplying and filling in foundation, basement, etc with 20 mm HBG Jelly including well watered, rammed and consolidated etc. complete complying with standard specification and as directed by the departmental officers.			1 M ³ (One cubic metre)	
6	12 M ³ (Twelve cubic metres)	Supplying and filling in foundation, basement, etc with 40 mm HBG Jelly including well watered, rammed and consolidated etc. complete complying with standard specification and as directed by the departmental officers.			1 M ³ (One cubic metre)	

7	45 M ³ (Forty five 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.			1 M ³ (One cubic metre)	
8	180 M ² (One hundred and eighty square metres)	Supplying and erecting steel centering including necessary supports for plane surfaces, in foundation and basement for all RCC works such as column footing, plinth beam, grade beam staircase step, bed block etc., which requires only normal strutting using MS sheets 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)			1 M ² (One square metre)	

9		Providing form work for centering, shuttering etc., for all RCC works including strutting upto 3.29m high 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				
a	630 M ³ (Six hundred and thirty cubic metres)	For plane surfaces such as RCC floor slab, roof slab, beams, lintels, bed blocks, landing slab, waist slab, portico slabs and beams, etc.			1 M ³ (One cubic metre)	
b	290 M ³ (Two hundred and ninety cubic metres)	For plane surfaces such as rectangular or square RCC columns, sunshades, top and bottom slab of RCC boxing, etc.			1 M ³ (One cubic metre)	

10		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 wherever 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)				
a	57 M ³ (Fifty seven cubic metres)	For Foundation and Basement			1 M ³ (One cubic metre)	

b	57 M ³ (Fifty seven cubic metres)	For Ground Floor Super Structure			1 M ³ (One cubic metre)	
c	34.50 M ³ (Thirty four point five zero cubic metres)	For First Floor Super Structure			1 M ³ (One cubic metre)	
d	7 M ³ (Seven cubic metres)	For Second Floor Super Structure			1 M ³ (One cubic metre)	
11		Cement Concrete 1:3:6 (One cement, three M sand and six aggregate) using 40mm gauge hard broken granite stone jelly for dummy columns,excluding cost of centering, shuttering, reinforcement grill fabrication charges but including consolidating as per standard specification, finishing, curing etc., complete complying with standard specification and as directed by the departmental officer.(Cement concrete 1:2:4 for slabs to be extended upto top of splashing with pressed tiles and future extension rods to be embedded in cement concrete 1:3:6 Dummy column should be atleast in 1m height)				

a	2 M ³ (Two cubic metres)	For First Floor			1 M ³ (One cubic metre)	
12	185 qtl (One hundred and eighty five quintal)	Supplying, fabricating and placing in position Mild Steel / Ribbed Tor Steel grills for all RCC works as per design given including cost of steel and G.I. binding wire in all floors etc. complete complying with standard specification. (Contractor has to make his own arrangements for the supply of steel and binding wire)			1 qtl (One quintal)	
13		Brick work in cement mortar 1:6 (one cement and six M sand) using Fly Ash bricks of size 230×110×70mm 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	50 M ³ (Fifty cubic metres)	For foundation and basement			1 M ³ (One cubic metre)	

b	75 M ³ (Seventy five cubic metres)	For Super Structure in Ground floor			1 M ³ (One cubic metre)	
c	52 M ³ (Fifty two cubic metres)	For Super Structure in First floor			1 M ³ (One cubic metre)	
d	11.50 M ³ (Eleven point five zero cubic metres)	For Super Structure in Second floor			1 M ³ (One cubic metre)	
14		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 sand including fixing hoop iron reinforcement if found necessary, laying, finishing and curing etc., complete complying with standard specification and as directed by the departmental officers.				
a	85 M ³ (Eighty five cubic metres)	For Super Structure in Ground floor			1 M ³ (One cubic metre)	

b	25 M ³ (Twenty five cubic metres)	For Super Structure in First floor			1 M ³ (One cubic metre)	
15	920 M ² (Nine hundred and twenty square metres)	Special ceiling plastering and finishing the exposed surface of all RCC items of work such as slabs, beams, sunshades, 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, providing cement mortar nosing, beading for sunshades, staircases, steps, landing slabs and curing, etc., in all floors complying with standard specification and as directed by the departmental officers			1 M ² (One square metre)	
16	1700 M ² (One thousand seven hundred square metres)	Plastering with Cement Mortar 1:5 (One cement and Five P sand), 12mm thick in all floors including curing etc. complete complying with standard specification and as directed by the departmental officers.			1 M ² (One square metre)	
17	190 M ² (One hundred and ninety square metres)	White washing two coats with freshly burnt white shell lime in all floors including cost of lime, blue powder fevicol type gum, brushes, scaffolding charges, etc., complete complying with standard specification and as directed.			1 M ² (One square metre)	

18	2430 M ² (Two thousand four hundred and thirty square metres)	Painting two coats of newly plastered wall surface with ready mixed plastic emulsion paint of first class quality and of approved colour over a priming coat including thorough scrapping, clean removal of dirt, and including necessary plaster of paris putty, wherever required etc., complete complying with standard specification.			1 M ² (One square metre)	
19	6 M ³ (Six cubic metres)	Lime Concrete 1:2:5 (One lime, two M sand and five brick jelly) using 20mm gauge brick jelly for flooring and toilet depression filling etc., including laying, consolidating, finishing, rendering the top surface rough to receive the floor finish, curing, etc., complete complying with standard specification.			1 M ³ (One cubic metre)	
20	66 RM (Sixty six running metres)	Supplying and fixing in position best approved of ISI quality of following dia of PVC rain water down fall pipes having a working pressure of 4 kg / sq.cm including cost of necessary PVC shoe, PVC bend, C.I. gratings of required dia. and special clamps, brass screws, nails etc., and fixing of cast iron gratings at junction of parapet and the RCC roof slab including finishing neatly etc., complete. The rate shall be inclusive of cost of removable iron grating. The PVC pipe shall be fixed on wall with special type of clamps. Special type "U" clamp at the centre of the pipe line shall be fixed in addition to those for more than 3.0M pipe length complying with standard specification.			1 RM (One running metre)	

21	135 M ² (One hundred and thirty five 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)	
22	295 M ² (Two hundred and ninety five square metres)	Supplying and paving the floor with Double charged Vitrified Tiles 600 x 600 x 8mm for flooring in all floors over a base layer of cement mortar 1:3 - 20mm thick 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 tiles should be got approved by the Departmental officers before use on works).			1 M ² (One square metre)	

23	30 M ² (Thirty square metres)	Flooring with Self Designed Colour ceramic tiles of size 305 x 305 x 6 mm laid over 20 mm thick cement mortar 1:3 (One Cement and Three M-Sand) base mortar over the existing slab / floor including cutting the tiles to the required size with special cutter wherever necessary, laying in position and pointing with white cement mixed with colouring pigment at the rate of 0.3 Kg. / sq.m. 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)	
24	100 M ² (One hundred square metres)	Dadoing walls with Designed colour Glazed Tiles of size 300 mm x 600 mm x 10 mm thick best approved quality, white / colour glazed tiles of following sizes set in Cement Mortar 1:2 (One Cement and Two P-sand) 10mm thick and pointing the joints with white cement mixed with colouring pigments at the rate of 0.40 Kg. / sq.m. neatly in all floors, curing, etc., complying with standard specification and as directed by the departmental officers.			1 M ² (One square metre)	
25	30 RM (Thirty running metres)	Supplying and fixing of PVC corner bedding of best approved quality and colour standard size and thickness of required height of walls using cement mortar 1:2 (One cement and two sand) and finishing the surface smooth with ceramic tiles etc., complete complying with standard specification and as directed by the departmental officers.			1 RM (One running metre)	

26	310 M ² (Three hundred and ten square metres)	Supplying and laying of 60 mm thick high strength type of interlocking rubber moulded hydraulic pressed paver block of approved colour made up of designed concrete mix 1:1:2 using 10 to 12mm size HBG stone jelly in required shapes and sizes having minimum compressive strength of 40 N/mm ² to be laid in flurrying bone pattern with approved non sticking surface at top. The rate is inclusive of levelling the site, compacting with power compactor and sweeping the sand grouting and also inclusive of transportation charges, loading, unloading and labour charges for laying the paver block, etc. complete and as directed by the departmental officers			1 M ² (One square metre)	
27	57.50 RM (Fifty seven point five zero running metres)	Supplying and fixing of Stainless Steel (Salem Stainless Steel) Door Frame (Box Section using Stainless Steel Plate of 1 mm thick) of size 100 mm x 60 mm with a rebate of 30 / 35 mm x 15 mm on one side of the frame including supplying and fixing dovetail splayed end stainless steel Hold fast etc., complete complying with standard specification and as directed by the departmental officers.			1 RM (One running metre)	
28		Supplying and fixing in position of 35mm Solid Core Flush shutters following leaf with commercial ply on both side with teakwood lipping around 35mm thick and with TW lipping of size 35x12mm on all edges with necessary adhesives and C.P. Screws. Alu. Butt Hinges (6 nos. 250 x 16 mm Size), Alu. Aldrop 1 No. 250 x 16 mm Size, Alu. Tower Bolt 2 No. 250 x12 mm size, alu. Tower Bolt, 1 No. 200 x 12 mm size, D type alu. Handle 2 Nos, 2 Nos. of 200mm length alu. door stopper with rubber bush shall be provided, as directed by the departmental officers etc., complete.				

a	19.50 M ² (Nineteen point five zero square metres)	Single Leaf			1 M ² (One square metre)	
b	2.50 M ² (Two point five zero square metres)	Double Leaf			1 M ² (One square metre)	

29	2.10 M ² (Two point one zero square metres)	Manufacturing supplying and fixing of steel door (Single leaf) with the following specification MS angels of size 40x40x6mm are used for the outer frames and M.S. angles of size 35x35x5mm for the shutter frames stiffeners with 32 x 6mm M.S flat is provided at required intervals in the shutter frame. 18-gauge C.R. sheet laid as panel in the shutter and welded intact. M.S. flat 18x5mm is welded over the 32 x 6mm M.S. flat sandwiching the C.R. sheet in between additional stiffeners with 18x5mm M.S. flat is provided diagonally at the rear side of the shutter, 3nos. of hinges in case of single leaf and 6nos. of hinges in double leaves shutter to be provided 6nos. of holdfasts 120 mm in length made of angle section spliced at the ends are welded to the outer frames of the door. Tower bolts 2nos. one at the top and the other at the bottom are provided 1no. Aldrop is provided incase of double leaf door at lock rail section in the door in single leaf door, one more aldrop is provided in the inner lock rail section of the door One rotaing locking arrangements for the inner side of the door and additional provision for locking arrangements for lock is provided on the rear side of the door at an appropriate place. Incase of double leaf door M.S.Flat 32 x 3mm at 1.1Kg/m is provided on the one shutter t conceal the gap between the two shutters.at an appropriate place in the door. A tie bar is provided at the bottom of the frame to prevent twisting of frame during transportation and fixing. All members are given a coat of red oxide primer as directed by the departmental officers. The rate includes cost of all materials, labour charges, transportation to site of work, loading, un loading and all other incidental charges etc., complete.			1 M ² (One square metre)	
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30	15.50 M ² (Fifteen point five zero square metres)	Supplying and fixing in position FRP door Sutter with FRP door frames made out of FRP Sheets of 3mm thick of over all size 65mm x 50mm with rebate suitably reinforced using MS Angle / Flats, cost of holdfasts and solid core FRP shutter Panel of 5mm thick and hollow core frames of 3m wall thickness for styles and rails etc., of sizes specified by Engineers			1 M ² (One square metre)	
31	55.20 M ² (Fifty five point two zero square metres)	Supplying and fixing UPVC (Un-Plasticized Polyvinyl Chloride) Windows of casement type (open) from the profile the size of outer frame 60mm x 58mm and shutter profile are reinforcement with GI/1mm 125GSM and 100% corrosion free, the profiles are multi chambered sections with wall thick of 2mm. The EPDM rubber (black colour) covered with over all the edges of frame and shutter the shutter will be provided with Espag multi power point locks and also it operates as handle. The corners and joints should be welded and cleaned. Radiations free pin headed plain or brown colour glass 4mm thick should be provided to the shutter and it should not allow leakage of water even at most ranging storms and should have key lockable action, security protective hinges, strong locking systems and as per size for arresting noise and energy loss. The connecting mechanism between sash and outer frame that enables opening of the window. The window should be fixed to the wall with 100% packing with screws and silicon packing all round the frames. The window should be got approved from the Executive Engineer before use on work			1 M ² (One square metre)	

32	4.50 M ² (Four point five zero square metres)	Supplying and fixing UPVC (Un-Plasticized Polyvinyl Chloride) Louvered Ventilators of from the profile the size of outer frame 60mm x 58mm and shutter profile size of 60 x 78mm both profiles are reinforced with GI/1mm 125GSM and 100% corrosion free, the profile are multi chambered sections with wall thick of 2mm. The EPDM rubber (black colour) covered with all over the edges of frame and shutter. The corners and joints should be welded and cleaned. Radiations pin headed glass 4mm thick should be provided in the louvers. The window should be fixed to the wall with 100% packing with screws and silicon packing all round the frames. The ventilator should be got approved from the Executive Engineer before use on work			1 M ² (One square metre)	
33	1500 kg (One thousand five hundred 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 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)	

34	70 M ² (Seventy 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)	
35	55 M ² (Fifty five square metres)	Painting new wood work with two finishing coats of synthetic enamel ready mixed paint of approved quality and colour over one coat priming coat in all floors including the cost of primer 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)	

36	25 M ² (Twenty five 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 protecting 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)	
37	9 M ² (Nine 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.			1 M ² (One square metre)	

38		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. (Above Ground Level)				
a	20 RM (Twenty running metres)	50mm dia			1 RM (One running metre)	
b	20 RM (Twenty running metres)	40 mm dia			1 RM (One running metre)	

c	30 RM (Thirty running metres)	32mm dia			1 RM (One running metre)	
39		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. (Above Ground Level)				
a	30 RM (Thirty running metres)	25 mm dia			1 RM (One running metre)	

b	66 RM (Sixty six running metres)	20 mm dia			1 RM (One running metre)	
40		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.)				
a	10 Nos (Ten numbers)	20 mm dia UPVC Union			1 No. (Each)	

b	5 Nos (Five numbers)	25 mm dia UPVC Union			1 No. (Each)	
c	5 Nos (Five numbers)	32 mm dia UPVC Union			1 No. (Each)	
d	5 Nos (Five numbers)	40 mm dia UPVC Union			1 No. (Each)	
e	5 Nos (Five numbers)	50 mm dia UPVC Union			1 No. (Each)	
f	5 Nos (Five numbers)	20 mm dia UPVC Elbow			1 No. (Each)	

g	5 Nos (Five numbers)	25 mm dia UPVC Elbow			1 No. (Each)	
h	5 Nos (Five numbers)	32 mm dia UPVC Elbow			1 No. (Each)	
i	5 Nos (Five numbers)	40 mm dia UPVC Elbow			1 No. (Each)	
j	5 Nos (Five numbers)	50 mm dia UPVC Elbow			1 No. (Each)	
k	5 Nos (Five numbers)	20 mm dia UPVC Tee			1 No. (Each)	

l	5 Nos (Five numbers)	25 mm dia UPVC Tee			1 No. (Each)	
m	5 Nos (Five numbers)	32 mm dia UPVC Tee			1 No. (Each)	
n	5 Nos (Five numbers)	32 mm x 25 mm UPVC Reducer Tee			1 No. (Each)	
o	5 Nos (Five numbers)	25 mm x 20 mm UPVC Reducer Tee			1 No. (Each)	
p	10 Nos (Ten numbers)	20 mm x 15 mm UPVC Reducer			1 No. (Each)	

41		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	1 No (One number)	50 mm dia Gate valve			1 No. (Each)	
b	1 No (One number)	40mm dia Gate valve			1 No. (Each)	
c	1 No (One number)	32 mm dia Gate valve			1 No. (Each)	

42	15 Nos (Fifteen 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)	
43	7 Nos (Seven numbers)	Supplying and fixing in position Indian make bevelled edge mirror of approved quality and brand of size 600x450mm x5.5mm thick with necessary plastic back, PVC frame with bottom stand of approved colour with brass screws, rawal plugs etc. complete complying with standard specification and as directed by the departmental officers. (The materials should be got approved by the departmental officers before use on works)			1 No. (Each)	
44	1 No (One number)	Supplying and fixing in position Indian Water Closet (Oriya type) of size 580 x 440mm white glazed earthen ware of approved quality and brand with "P" or "S" trap conforming to BIS with sand cushion and forming flooring around the closet using 40mm broken brick jelly in lime concrete 1:2:5 (One lime, Two sand and Five brick jelly) 100mm thick and finishing the top to the required slope and including giving necessary connection to CI soil pipes (including the cost of 100mm dia CI pipe for a length of 600mm) by dismantling brick masonry wall / reinforced cement concrete roof / floor slab and making good the dismantled portion to the original condition with leakages etc., complete complying with standard specifications and as directed by the departmental officers. (The water closet should be got approved by the Executive Engineer before use on works).			1 No. (Each)	

45	2 Nos (Two numbers)	Supplying and fixing in position White Glazed European water closet of best quality and approved make with 100mm P or S trap with double flapped rigid PVC.seat cover with chromium plate brass hinges, including supplying and fixing PVC. Low level flushing tank 12.5 litre capacity of approved quality on wall with teak wood plugs, brass screws and 2 numbers 15mm dia gun metal wheel valve, 15mm dia nylon connection and giving necessary water supply connection as directed by the departmental officers. The rate includes cost of 100mm dia PVC.Pipe 60cm long including cost of 3 Kg.of white cement 6Kg.of cement, spunyarn, shellac, thread ball, teak wood plugs, brass screws 75mmx10mm etc., complete complying with standard specification and as directed by the departmental officers. (The European Water Closet and flushing tank should be got approved by the Departmental Officers before use on work.)			1 No. (Each)	
46	8 Nos (Eight 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 nylone 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)	

47	4 Nos (Four numbers)	Supplying and fixing in position White / Colour Special Delux Model Glazed Cascade Type Parryware / Hindware / Equivalent Wall Mounted European Water Closet of best quality and approved make with 100mm "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, such as, 15mm brass connections, 15mm GM wheel valve, 15mm brass nipple (2 Nos.), 15mm nylon connection, TW plugs, screws and also giving necessary connection to the PVC pipe and painting the CI brackets with 2 coats of approved paint over one coat of red oxide primer, dismantling the masonry and re-doing the dismantled masonry to original condition, etc., complete complying with standard specifications. (The EWC and flushing tank with all accessories should be got approved by the Executive Engineer before use on works) with 10 litres capacity flushing tank with all internal dual flush fittings with normal seat cover Wall Fitting			1 No. (Each)	
48	6 Nos (Six numbers)	Supplying and fixing in position of CP Health Faucit of best quality with control valve etc complete complying with standard specifications. (The health faucet should be got approved by Executive Engineer before use on works).			1 No. (Each)	

49	12 Nos (Twelve numbers)	Supplying and fixing in position PVC Nahini trap of size 110x75mm with best pvc gratings of approved brand and quality with fixed over a bed of brick jelly lime concrete 1:2:5(one part of lime,two parts of M sand and five parts of 40mm size brick jelly)and finished with cement Mortar 1:3(one cement and three M sand)including dismantling masonry works wherever found necessary and making good the damaged portions to the original condition giving connections to the pipe etc., complete complying with standard specification and as directed by the departmental officers. (The PVC Nahini trap with grating should be got approved by the departmental officer before use on works).			1 No. (Each)	
50		Supplying and fixing in position best quality PVC soil / waste pipes of various dia having 6 kg / sq.cm. pressure BIS mark and providing leak proof joints using PVC adhesives including fixing to the wall with special PVC / MS clamp, teak wood plugs, brass screws, etc., and making connection to all sanitary fittings, dismantling masonry / RCC works wherever found necessary and making the good dismantled portion to the original condition, including testing for any leakages, etc., complete complying with standard specifications. (The PVC pipes should be got approved by the Executive Engineer before use on works). The rate for earth work excavation will be measured and paid separately in the cases where the pipe lines are proposed to laid below ground level				

a	35 RM (Thirty five running metres)	160 mm dia			1 RM (One running metre)	
b	129 RM (One hundred and twenty nine running metres)	110mm dia			1 RM (One running metre)	
c	45 RM (Forty five running metres)	75 mm dia			1 RM (One running metre)	
51		Supplying and fixing in position of the following PVC specials best approved quality conforming to BIS and providing leak proof joints with PVC adhesive etc., including fixing to walls with necessary teak wood plugs screws etc., and giving connections to the PVC pipe dismantling the brick masonry RCC floor or roof slab and redoing the disturbed portion to original conditions etc., complete complying with standard specification.(The PVC specials should be got approved from the Executive Engineer before use on works).				

a	16 Nos (Sixteen numbers)	75mm dia Tee with Door			1 No. (Each)	
b	26 Nos (Twenty six numbers)	75mm dia Bend			1 No. (Each)	
c	25 Nos (Twenty five numbers)	110 mm dia Y with Double Door			1 No. (Each)	
d	12 Nos (Twelve numbers)	110mm dia Tee			1 No. (Each)	

e	9 Nos (Nine numbers)	75 mm dia Y			1 No. (Each)	
f	6 Nos (Six numbers)	75 mm dia Cowl			1 No. (Each)	
g	8 Nos (Eight numbers)	110 mm dia Cowl			1 No. (Each)	
52	1 No (One number)	Supplying and fixing in position of Cast Iron Man hole cover with CI frames of size 600x600mm (Heavy Duty) of best approved quality and as per Indian standard specification make etc., complete complying with standard specification and as directed by the departmental officers. (The Cast Iron Man hole cover should be got approved by the departmental officers before use on work).			1 No. (Each)	

53	1 No (One number)	Construction of Inspection chamber of following size with the following description. The earth work excavation to a size of 1.20 x 1.20 x 1.05m, sand filling for 10cm thick, cement concrete 1:5:10 for 15cm thick using 40mm gauge HBGS jelly, walls in brick work in cement mortar 1:3 (One cement three M sand) using country bricks of size 9" x 4 3/8" x 2 3/4" plastering with cement mortar 1:3 (One cement three M sand) 12mm thick and the bottom is finished with cement concrete 1:3:6 (One cement three M sand and six aggregate) using 20mm brick jelly etc., complete complying with standard specification and as directed by the departmental officers.			1 No. (Each)	
54	2 Nos (Two numbers)	Supplying and Fixing of Stainless steel sink of size 600mm X 600mm X 200mm including cost of 32mm dia 'B' class GI waste water pipe with rubber, plug and chain and 32mm dia CP waste coupling, 15mm dia brass nipple including fixing the sink in position and testing for leakage etc., complete complying with standard specification and as directed by the departmental officers. (The sink and specials should be got approved by the Executive Engineer before use on works). (For fixing the sink on masonry support walls to be measured and paid in main item.)			1 No. (Each)	

55	224 M ² (Two hundred and twenty four square metres)	<p>Providing Anti – termite treatment to soil adjacent and under building foundation, plinth periphery of the building by application of chemicals of IS 6313 part I to IV in stage to suit the progress of work consist as per the detailed specification as below (Measurements taken for the plinth area for the purpose of payment) including braking of termite mounds, making holes with crow bar, closing the holes after the treatment and including cost of chemicals, labour charges, transport & storing etc., complete and as directed by the departmental officers.(The chemical should be got approved by Executive Engineer before use on work). Stage - 1 : Spraying Anti – termite chemical solution for the foundation before laying concrete, in bottom and sides of foundation.</p> <p>Stage-2 : Spraying Anti –termite chemical solution to the grade beam level, spraying has to done for to grade beam brick masonry contact with the back fill earth.</p> <p>Stage-3 : Spraying Anti –termite chemical solution on the sand for the flooring before laying the flooring concrete. This treatment has to be carried out and sand filling by making holes with crow bar to a depth of 60cms and at 60cms intervals on both direction and at junction of wall and flooring throughout.</p> <p>Stage -4 : Spraying Anti –termite chemical solution alround building outside by making holes through bar before laying plinth protection and the holes to be close after the treatment.</p>			1 M ² (One square metre)	
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56	10 RM (Ten running metres)	Supplying and fixing of 300mm dia RCC Hume Pipe with necessary fitting materials like spun yarn etc., complete.complying with standard specification and as directed by the departmental officers.			1 RM (One running metre)	
57	1 No (One number)	Supplying and Fixing of PVC ready made water tank (1000 litres) of approved quality with standard specification and best brand including testing for leakages after making installations and connections. The cost inclusive of lid and lock with bolt and nuts for PVC tank, transportation, loading, unloading, lifting, installation and necessary connections etc., complete complying with standard specifications and as directed by the departmental officers.(The PVC Water Tank should be got approved by the Executive Engineer before use on works).			1 No. (Each)	
58	255 M ² (Two hundred and fifty five square metres)	Finishing the top roof with one course of solar reflecting ceramic tiles of size 305x305x7mm thick of approved quality set in cement mortar 1:3 (One cement and three M sand) (12mm thick) and mixed with for 10M2 / 4.00 kg Epoxy Packing conforming to ISS including curing etc., complete complying with standard specification and as directed by the Departmental officers.			1 M ² (One square metre)	

59	2 Nos (Two numbers)	Supplying and fixing of Reverse Osmosis Plant of capacity 25 litres per hour. The Reverse Osmosis plant is stainless steel skid mounted with the parts. Raw water from the water tank is fed in to Pressure sand filter by raw water feed pump. The Pressure sand filter consists of FRP Vessel, Multiport valve and filtration media of pebbles & sand. Raw water enters in to the top of vessel and percolate through filter media and the suspended particles traps in the filter media top. Filtered water flows through Activated carbon filter for removal of colour and organic particles present in the water. The water passes through 10, 5 Micron filter to ensure the fine filtration of feed water. Micron filter made of Polypropylene material and its housing also made of PP. This fine prefiltered water pumped in to RO membrane in the pressure of 10-12 kg/cm ² through high pressure pump. The RO membrane made of thin film composite polyamide and it pore size 0.0001 microns (pore size lesser than Bacteria and virus). After penetrating through this membrane the purified water is collected in the center of the membrane and the salt, bacteria are rejected from the membrane side way. This purified water is collected in to water storage tank for further distributions. The reject water from the RO plant will have a higher TDS and the water is suitable for external applications like sanitary applications, flushing lines, gardening, etc., and as directed by the departmental officers. The rate includes cost of plant, cost of storage tank, loading and unloading, transportation charges, electrification charges, all taxes and all other incidental charges etc., complete.			1 No. (Each)	
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60	51 M ² (Fifty one square metres)	Providing cupboard shutter using termite/water proof plywood of 19mm thick over which laminated sheet of 0.8mm thick fixed inside the shutter and 1mm thick fixed in the outside of the shutter using fevicol along with necessary furniture fittings, such as, hydraulic hinges, tower bolt, handles, multi purpose locks etc. as directed by the departmental officers. The design pattern, water proof plywood, laminate sheet and other materials should be got approved from the Executive Engineer before use on work.			1 M ² (One square metre)	
				TOTAL		
				GST 12 %		
				GRAND TOTAL		
	60 Items (Sixty items only)					