Buildings (C & M) Circle,

P.W.D

Madurai

SCHEDULE - A

Name of Work: Construction of Prefabricated Structure workshop and Laboratory in Government ITI at Mudukulathur in Ramanathapuram District

Sl. No	Quantity	Description	TNBP No.	Rate	Unit	Amount
1	2	3	4	5	6	7
1	830.00 m ³ (Eight hundred and thirty cubic metres only)	Earth work excavation for foundation in all soils and sub-soils and to full depth as may be directed except in hard rock requiring blasting inclusive of shoring shuttering, bailing out water wherever necessary refilling the sides of foundation with excavated soil other than sand in layers of 15cm thick well rammed and completed, and depositing the surplus earth within the compound in places shown by the departmental officers with an initial lead of 10 mts and initial lift of 2 mts. and clearing and levelling the site, etc., complete complying with standard specification.			1 M ³ (One cubic metre)	
2	77.00 m ³ (Seventy seven cubic metres only)	Eartwork open excavation in all soils and sub soils and to full depth as may be directed except in rock requiring blasting inclusive of shoring, strutting and baling out water wherever necessary and depositing the excavated earth within the compound in places shown by the departmental officers with an initial leads and lift etc., complete complying with standard specifictions.			1 M ³ (One cubic metre)	

1	2	3	4	5	6	7
3	695.00 cu.m (Six hundred and ninety five cubic metres only)	Supplying and filling in foundation and basement with Conveyed earth 5KMMR of not more than 15cm thick, well rammed, watered and consolidated etc., complete complying with standard specification and as directed by the departmental officers.			1 M ³ (One cubic metre)	
4	182.00 cu.m (One hundred and eighty two cubic metres only)	Supplying and filling in foundation, basement, etc with Sand and Quarry rubish of mix in ratio of 1:1 in layers of not more than 15 cm thick thoroughly mixed, 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	119.50 cu.m (One hundred and nineteen point five zero cubic metres only)	Cement Concrete 1:5:10 (One Cement, Five sand and Ten hard broken stone jelly) using 40 mm gauge hard broken granite stone jelly for foundation and flooring including dewatering wherever necessary and laid in layers of not more than 15 cm thick, well rammed, consolidated and curing etc. complete complying with standard specification and as directed by the departmental officers.			1 M ³ (One cubic metre)	

					-	
1	2	3	4	5	6	7
6	152.00 m^2	Damp proof course in cement mortar 1:4 (one cement and four			$1m^2$	
	(One hundred and	sand) 12mm.thcik mixed with water proofing compound			(One	
	fifity two square	conforming to I.S. at 2% by weight of cement used, complete			square	
	metres only)	complying with standard specifications.			metre)	
7		Brick work in following Cement Mortar 1:3(One cement ,Three sand) using best quality of Second Class Ground Moulded Chamber Burnt Bricks 9" x 4-3/8" x 2-3/4" for foundation and basement including curing, etc., complete complying with standard specifiction.				
a	19.00 cu.m (Nineteen cubic metres only)	foundation and basement			1 M ³ (One cubic metre)	
8		Brick work in following Cement Mortar 1:6(One cement ,Six sand) using best quality of Second Class Ground Moulded Chamber Burnt Bricks 9" x 4-3/8" x 2-3/4" for foundation and basement including curing, etc., complete complying with standard specifiction.				

1	2	3	4	5	6	7
a	167.00 cu.m (One hundred and sixty seven cubic metres only)	foundation and basement			1 M ³ (One cubic metre)	
b	108.00 cu.m (One hundred and eight cubic metres only)	Ground floor			1 M ³ (One cubic metre)	
9	524.00 sq.m (Five hundred and twenty four square metres only)	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)			1m ² (One square metre)	

1	2	3	4	5	6	7
10		Supplying and erecting centering for sides and soffits including necessary supports and strutting upto 3.29 M height for plane surfaces as detailed below in all floors with all cross bracings using Mild Steel sheets of size 90 x 60 cm and 10 BG stiffened with welded Mild Steel angle of size 25mm x 25mm x 3 mm for boarding laid over silver oak joists of size 10cm x 6.50 cm spaced at about 90 cm centre to centre and supported by casurina props of 10cm to 13 cm dia spaced at not more than 75 cm centre to centre etc. complete complying with the standard specificaiton. (Payment for centering shall be given after the concrete is laid)				
a	155.00 sq.m (One hundred and fifty five square metres only)	For plane surfaces such as RCC floor slab, roof slab, beams, lintels, bed blocks, landing slab, waist slab, portico slabs and beams, etc.			1m ² (One square metre)	
b	635.00 sq.m (Six hundred and thirty five square metres only)	For plane surfaces such as rectangular or square RCC columns, sunshades, top and bottom slab of RCC boxing, etc.			1m ² (One square metre)	

1	2	3	4	5	6	7
с	57.00 sq.m	For plane surfaces such as vertical slab, side slabs of boxing,			$1m^2$	
		vertical drops, facia, vertical wall, etc.			(One	
	metres only)				square	
					metre)	

Providing and laying in position, Standardised Concrete Mix M-20 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 325Kg/m3 and maximum water Cement ratio of 0.55, including admixture (Plasticiser / Super plasticiser) in recommended proportions as per IS:9103 to accelerate, retard setting of concrete, improve workabality

without imparing strength and durability with about (5cu.m) 7730Kg. of 20mm machine crushed stone jelly and with about (3.3 cu.m) 5156Kg. of 10-12mm machine crushed stone jelly and with about (4.79cu.m.) 7670Kg. of 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 the RCC floor / roof slabs wherever necessary without claiming extra, etc., complete complying with standard specification 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).

1	2	3	4	5	6	7
а	345.00 cu.m (Three hundred and forty five cubic metres only)	foundation and basement			1 M ³ (One cubic metre)	
b	43.00 cu.m (Forty three cubic metres only)	Ground floor			1 M ³ (One cubic metre)	
12	430.00 Qtl. (Four hundred and thirty quintals only)	Supplying, fabricating and placing in position Mild Steel / Ribbed Tor Steel rod for all RCC works as per execution 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			Qtl.	

binding wire)

1	2	3	4	5	6	7
13		Brick partition walls of 10.80cm thickness using best quality country bricks of size 8-3/4" x 4-1/4" x 2-3/4" in Cement Mortar 1:3 (One Cement and Three 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	45.00 m ² (Forty five square metres only)	10.80 cm thick For superstructure in Ground Floor			1m ² (One square metre)	
14	1.00 m ³ (One cubic metres only)	Providing plain Cement concrete 1:2:4 (One Cement , Two Crushed stone sandand Four aggregate) using 20mm gauge hard broken stone jelly including laying, finishing and the top rubbed smooth with power trawl, thread lining, curing etc. complete complying with standard specification and as directed by the departmental officers. (The rate is inclusive of necessary planking for panelling wherever necessary and as directed by the departmental officers)			1 M ³ (One cubic metre)	

1	2	3	4	5	6	7
15	266.00 sq.m (Two hundred and sixty six square metres only)	Paving the floor with best quality Double Charged Vitrified Tiles of size 800 x 800 x 8mm of approved colour, shade and quality laid in cement mortar 1:3 (one cement and three 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)			1m ² (One square metre)	
16	44.00 sq.m (Forty four square metres only)	Flooring with following ceramic tiles of size 305 x 305 x 6 mm laid over 20 mm thick Cement Mortar 1:3 (One Cement and Three 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)			1m ² (One square metre)	
17	48.00 sq.m (Forty eight square metres only)	Dadooing walls with colour designed digital printed ceramic tiles of size 300mm x 450mm x 8mm and above in best approved quality tiles set in Cement Mortar 1:2 (One Cement and Two 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 (Non branded) and as directed by the departmental officers.			1m ² (One square metre)	

1	2	3	4	5	6	7
18	37.00 Rm	Supplying ,fabricating and fixing in position of steel frame			1 RM.	
		without bottom frame, of size 100X60mm rectangular section			(One	
	metres only)	with necessary rebate 30mmX15mm, to host the shutter, using			running	
		1.25mm thick (18 guage) CRCA cold rolled frame steel plate			metre)	
		confirming to ISI specified ensured of right butt joint riveted				
		hold assembly with nylon insert, not be welded with special				
		purpose hard ware.Proclaimed including phopating as per ISI with rust preventive primer ready to assemble condition for				
		easy installation at site including dismantling, making necessary				
		chipping and holes in RCC columns, walls with power drills to				
		the extent required ,including providing concrete 1:2:4 inside				
		the box curing etc complete. The cost includes the cost of hold				
		fast ,plastic bush, insert receiver,rubber bottom,shock absorber				
		etc complete as directed by the departmental officers in all				
		floors.				
19	51.50 sq.m	Fabricating, Supplying and fixng in position of steel glazed			1m^2	
	• •	window (Four Leaves) with the following specifications. Outer			(One	
	1	frames of windows made of 'Z' section F7D of size 33 x 25 x			square	
	only)	3mm at 1.419 kg/ m and mullion 'J' section (F4B) of size			metre)	
		46x25x3mm at 2.28kg/m and shutter section of made of F7D				
		of 33x25x3mm at 1.419 kg/m as specified in IS 7452/1990. Each openable shutter should not exceed a width of 600mm to				
		enable separate operations and easy maintenance. The panel of				
		the shutters to be covered with 3mm thick pin headed glass and				
		fixed with 15x12mm teakwood beading of superior quality and				
		fixed with shutter frames.2 numbers of sturdy hinges and one				
		number of handle to be fixed each shutter at an appropriate				
		height in window. suitable opening is left for its easy operation.				
		a stopper square rod for handle				

1	2	3	4	5	6	7
20	14.70 sq.m	Supplying and fixing door shutters for Medium Density Fibre			$1m^2$	
	· •	board of exterior grade, Both side Pre laminated including			(One	
	zero square metres				square	
	only)	conforming to IS 12406 / 1989 with necessary adhesive and			metre)	
		C.P. screws, including fixing of aldrops, tower bolts, hinges				
		and lock strike plates, putty, fevical, varnish for T.W. lipping				
		with thinner colouring agent etc., The rate includes cost of				
		materials and cost for aluminium furniture fittings such as 3 nos Alu. hinges 125mm, 1 no Alu. aldrop 250 x 16mm, 1no				
		Alu. tower bolt of 200x12mm and 1 no Alu. tower bolt of				
		150x12mm, 2 Nos Alu. Handles, 1 no door stopper with				
		rubber bush incase of Single leaf door inclusive of labour				
		charges for fixing in position etc., complete.				
		All Aluminium furniture fittings are to be anodised with matt				
		finish under electrically controlled condition in accordance				
		with ISI specification 1868/1968 for anodic film thickness of				
		not less than 15 microns, The rate is inclusive cost of fevical				
		and fixing charges, transportation, loading, unloading and all				
		other incidential charges, handling charges etc., complete				
		complying with standard specification.under electrically controlled condition in accordance with IS 1868-1962 for an				
		average anodic flim thickness of 15 microns etc., complete.				
		The materials should be got approved by the Executive				
		Engineer before use on works. The rate shall be inclusive of all				
		materials, labour for fixing, transportation, loading, unloading				
		and all other incidential charges. (Single Leaf Door)				

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1	2	3	4	5	6	7
21	17.28 sq.m	Supplying and Erecting Pull and Push Type rolling Shutter with			$1m^2$	
	(Seventeen point two	ISI make of approved size and section using 18 GI sheet. The			(One	
	eight square metres	shutter shall be painted with one coat of red oxide primer and			square	
	only)	the rate is inclusive of hood covers, ransportation charges etc.,			metre)	
		Gear Operated Type				
22	15.60 sq.m	Supplying and fixing in position of Solid PVC DOOR			1m^2	
	(Fifteen point six	SHUTTERS using 19 gauge 19mm MS Sq. tubes for styles and			(One	
	zero square metres	outer frames. 15 mm MS square tubes for top, lock and bottom			square	
	only)	rails. The steel tubes shall be covered with 5mm thick solid			metre)	
	•	PVC sheets. Shutter using 5mm thick solid PVC sheets for			metre)	
		panelling shall rigidly fixed in position including necessary				
		furniture and fittings.				
		The overall size of styles shall be 50 x 30 mm.				
		The overall size of top rail, lock rail and bottom rail shall be 75				
		x 30 mm				
		The overall size of frames sshall be 50 x 45 mm, with suitable				
		rabate for housing the shutter. etc., complete as directed by the				
		departmental officers.				

1	2	3	4	5	6	7
23	hundred and thirty	Plastering with Cement Mortar 1:5 (One cement and Five sand), 12mm thick in all floors including curing etc. complete complying with standard specification and as directed by the departmental officers.			1m ² (One square metre)	
24	153.00 sq.m (One hundred and fifty three square metres only)	Plastering with Cement Mortar 1:3 (One Cement and Three Sand) 12mm thick mixed with water proofing compound conforming to BIS at 2% by weight of cement used including finsihing, curing, etc., complete in all floors complying with standard specification and as directed by the departmental officers.			1m ² (One square metre)	
25	376.00 sq.m (Three hundred and seventy six square metres only)	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 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			1m ² (One square metre)	

1	2	3	4	5	6	7
26	hundred and sixty	Supplying and fixing of M.S.grill of approved design for open courtyard, grill, grill work to doors and window openings etc., using necessary mild steel flats for inner and outer members which should be fixed on edges including cutting the members, welding, grinding, one coat of priming coat using best approved quality red oxide primer, dismantling of walls / concrete if necessary, fixing and finishing the dismantled portion to original condition etc., complete complying with standard specification.			1Kg (One kilo gram)	
27	·	Painting two coats of newly plastered wall surface with ready mixed interior plastic emulsion paint of first class quality and of approved colour over a priming coat including thorough scrapping, clean removal of dirt etc., complete complying with standard specification.			1m ² (One square metre)	
28		Painting two coats of newly plastered wall surface with ready mixed exterior 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.			1m ² (One square metre)	

Contractor :

1	2	3	4	5	6	7
29	388.00 sq.m (Three hundred and eighty eight square metres only)	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 the existing red oxide priming coat in all floors excluding 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.)			1m ² (One square metre)	
31	231.00 sq.m (Two hundred and thirty one square metres only)	Supplying and fixing of false ceiling with new false ceiling with aluminium anodized with "Using Hilux board plain sheets (10mm thick) MS oxidized rods, 20 \G binding wire, wood screws, 4/2 way clips for fixing the 'L' angle to the sides of wale to the specified height from the ground fixing the 'T' angles to the 'L' angles at intervals of 120 x 60mm horizontally and laterally with rivets to from a frame work to the existing Mangalore tiled roof with 6mm MS rods, 20G binding wire placing the ceiling tiles in position and screwing the same with 2 way clips etc., complete complying as directed by the departmental officers.			1m ² (One square metre)	
32	179.00 RM (One hundred and seventy nine running metres only)	Supplying and fixing GYP BOARD Ornamental cornice etc., complete complying as directed by the departmental officers.			1 RM. (One running metre)	

1	2	3	4	5	6	7
33	726.00 sq.m (Seven hundred and twenty six square metres only)	vacuum dewatering for workshop			1m ² (One square metre)	
34	69.00 sq.m (Sixty nine square metres only)	supplying and laying vinyl flooring of 2.00mm thick of appoved quality, brand and colour including labour charges for fixing in position using necessary activities approved quality etc., complete complying with standard specification and as directed by the departmental officers etc.			1m ² (One square metre)	
35	· •	Specification: 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			1m ² (One square metre)	

No.of corrections: No.of over writtings:

1	2	3	4	5	6	7
36	27.00 MT	Supply, Fabrication, Erection, alignment and levels as per			1Mt	
	(Twenty seven metric	approved shop drawing of structural steel work in built up			(One	
	tone only)	sections comprising of ISMB, ISMC, angle, plates and round			metric tone)	
		bar section etc., Necessary permanent rivets, bolts, washers			,	
		and nuts, handling, straightening, cutting, drilling holes,				
		welding, sand blasting, shop assembly, transport to erection				
		site, storing, leading to erection site and apply a coat of anti-				
		corrosive yellow primer paint of approved make and two coat				
		of MRF enamel paint prior to erection t complete job in all				
		respect. a) Connection Bolt are E350 GR.8.8 (IS3757) b) Hot				
		Rolled are E250 GR, or Equivalent , Plate Grade E350 and all				
		structural steel confirm to IS2062.c) Specification for Cold				
		formed Light gauge Structural Steel Sections Confirm to IS:				
		811d) Painting confirm to IS 1477 part 1& 2. The rate is				
		inclusive of design ,shop drawing preparation, submission for				
		approval etc., and also inclusive of any other incidental charges				
		such as lifting using cranes, labour charges for erection, cost of				
		all materials involved and painting two coats over one coat of				
		primer and as directed by the departmental officers.				

1	2	3	4	5	6	7
37		Supply, Fabrication, Erection, alignment and levels as per				
		approved shop drawing of structural steel work in single				
		section for purlins, tie runners with sag rods, etc., Necessary				
		permanent rivets, bolts, washers and nuts, handling,				
		straightening, cutting, drilling holes, welding, shop assembly,				
		transport to erection site, storing, leading to erection site and				
		apply a coat of anti-corrosive yellow primer paint and MRF				
		enamel paint prior to erection. The rate is inclusive of design				
		,shop drawing preparation, submission for approval etc., and				
		also inclusive of any other incidental charges such as lifting				
		using cranes, labour charges for erection, cost of all materials				
		involved and painting two coats over one coat of primer and as directed by the departmental officers.				
		directed by the departmental officers.				
а	7.20 MT	Purlin but with Painted cold rolled steel sections Z Section			1Mt	
	(Seven point two zero	MET- Z Purlin 150 X 60 x 2.0			(One	
	metric tone only)				metric tone)	
					incure tone)	
b	2.50 MT	Sag rod			1Mt	
	(Two point five zero				(One	
	metric tone only)				metric tone)	
					metric tone)	

1	2	3	4	5	6	7
38		Supplying and embedding P.V.C rain water pipes of approved quality embedded inside the RC columns/masonry in position or underside of truss/lattice, column sides with all necessary specials like shoes , bends or any other specials required to suit site conditions etc., jointed with suitable adhesive and covering the joints using fibre glass wherever required, the steel collar and PVC Pipes with necessary MS clamps, brackets ,bolts and nuts all complete as directed. The rate should including providing M.S pipe sleeve necessary lugs of required dia in concrete in the concrete. The rate is inclusive of any other incidental charges such as labour charges, cost of all materials involved and as directed by the departmental officers.				
a	101.00 Rm (One hundred and one running metres only)	200 mm Dia PVC Pipe (6k/cm2)			1 RM. (One running metre)	
39	95.00 Rm (Ninety five running metres only)	Supply and Fixing of UPVC Rain water Gutter of approved design and drawing including clamping and all others works required to complete the job. The rate is inclusive of any other incidental charges such as labour charges, cost of all materials involved and as directed by the departmental officers.			1 RM. (One running metre)	

1	2	3	4	5	6	7
40	1278.11 sq.m	Supply & Fixing of Continuous sandwich PUF panels 50 mm			1 M^2	
	(One thousand two	thick either as single piece, prefabricated, modular, factory			(One Square	
	hundred and seventy	e ; e			metre)	
	eight point one one	polyurethane foam between two layers of metal sheets,				
	square metres only)	comprises of PUF bonded between two sheets of Pre-coated GI				
		sheets of 0.5 mm thick to produce straight-to-finish panels with				
		all necessary fixtures to complete the work in all respect. The				
		rate is inclusive of design shop drawing preparation,				
		submission for approval etc., and also inclusive of any other incidental charges such as lifting using cranes, labour charges				
		for erection, cost of all materials involved and as directed by				
		the departmental officers.				
41	111.80 Rm (One hundred and eleven point eight zero running metres only)	Supply and fixing of Ridge made out of 0.50mm thick colour coated galvanized steel sheet (JSW sheet brand or equivalent brand). The both sides will be of 275mm,center angle will be of 120mm and both end drop will be of 30mm .This sheet will be fixed with self-drilling screws. The rate is inclusive of design ,shop drawing preparation, submission for approval etc., and also inclusive of any other incidental charges such as lifting using cranes, labour charges for erection, cost of all materials involved and as directed by the departmental officers. All the materials used on work should be got approved by the executive engineer before use on works.			1 RM. (One running metre)	

1	2	3	4	5	6	7
<u>1</u> 42	2	3 Supplying, laying and jointing PVC pipes (having working pressure 10 kg. / sq.cm) of approved quality and best variety conforming to BIS of the following dia including cutting, threading and fixing PVC specials using PVC adhesives (but excluding cost of such specials) and fixing into wall with teak wood plugs, PVC clamps and screws making holes on the wall (or) drilling holes in the roof and making good the dismantled portion to original condition with necessary brick work / cement concrete and plastering neatly wherever necessary with pecaesary scaffolding charges atc. complete complying with	4	5	6	7
а	60.00 Rm	necessary scaffolding charges, etc., complete complying with standard specifications. The PVC pipes shall be got approved by Executive Engineer before use on works.(The Above ground level) For External water supply 25 mm dia PVC Pipe			1 RM.	

60.00 Rm	25 mm dia PVC Pipe	1 RM.
(Sixty running metres		(One
only)		running
		metre)

1	2	3	4	5	6	7
43		Supplying, laying and jointing PVC pipes (having working pressure 10 kg. / sq.cm) of approved quality and best variety conforming to BIS of the following dia including cutting, threading and fixing UPVC specials using UPVC adhesives (but excluding cost of such specials) and fixing into wall with teak wood plugs, UPVC clamps and screws making holes on the wall (or) drilling holes in the roof and making good the dismantled portion to original condition with necessary brick work / cement concrete and plastering neatly wherever necessary with necessary scaffolding charges, etc., complete complying with standard specifications. The UPVC pipes shall be got approved by Executive Engineer before use on works (The Below ground level) For external water supply				
a	70.00 Rm (Seventy running metres only)	25 mm dia PVC Pipe			1 RM. (One running metre)	

1	2	3	4	5	6	7
44		Supplying, laying and jointing PVC pipes (having working pressure 10 kg. / sq.cm) of approved quality and best variety conforming to BIS of the following dia including cutting, threading and fixing UPVC specials using UPVC adhesives (but excluding cost of such specials) and fixing into wall with teak wood plugs,UPVC clamps and screws making holes on the wall (or) drilling holes in the roof and making good the dismantled portion to original condition with necessary brick work / cement concrete and plastering neatly wherever necessary with necessary scaffolding charges upto 4 metre height above ground level, etc., complete complying with standard specifications. The UPVC pipes shall be got approved by Executive Engineer before use on works. (The Above ground level) For Internal water supply				
a	83.00 Rm (Eighty three running metres only)	20 mm dia PVC Pipe			1 RM. (One running metre)	
b	35.00 Rm (Thirty five running metres only)	25mm dia PVC Pipe			1 RM. (One running metre)	

1	2	3	4	5	6	7
45		Supplying and fixing in position UPVC unions of heavy duty of approved quality and good variety of various sizes inluding necessary cutting and threading of UPVC pipes for jointing the union and providing two coats of painting with good variety and approved quality of synthetic enamel paint over one coat of primer in case of pipe line above ground level / one coat of tar in case of below ground level for both internal and external water supply arrangements, etc., complete complying with standard specifications. (The UPVC unions should be got approved by Executive Engineer before use on works).				
a	2.00 Nos (Two numbers only)	20 mm.dia PVC Union.			1 No (One Number)	
b	2.00 Nos (Two numbers only)	25 mm.dia PVC Union.			1 No (One Number)	

1	2	3	4	5	6	7
с	12.00 Nos	32 mm.dia PVC.Union.			1 No	
	(Truchus numbers				(One	
	(Twelve numbers				Number)	
	only)					
46		Supplying and fixing in position PVC specials of the following				
		dia and types of approved quality confirming to BIS and				
		providing leak proof joints including fixing to the walls and				
		giving connection to the UPVC soil stacks, dismantling the				
		masonry or RCC works and re-doing the dismantled portion to				
		original condition etc., complete complying with standard				
		specifications. (The UPVC specials should be got approved by				

the Executive Engineer before use on works).

а	16.00 Nos	32mm diameter PVC Elbow	1 No
	(Sixteen numbers		(One
	only)		Number)

b	20.00 Nos	25mm diameter PVC Elbow
	(Twenty numbers	
	only)	

1 No (One

Number)

1	2	3	4	5	6	7
c	24.00 Nos (Twenty four numbers only)	20mm diameter PVC Elbow			1 No (One Number)	
d	24.00 Nos (Twenty four numbers only)	32mm diameter PVC Tee			1 No (One Number)	
e	28.00 Nos (Twenty eight numbers only)	25mm diameter PVC Tee			1 No (One Number)	
f	28.00 Nos (Twenty eight numbers only)	20mm diameter PVC Tee			1 No (One Number)	

1	2	3	4	5	6	7
g	24.00 Nos (Twenty four numbers only)	32mm x 25mm diameter PVC Reducer			1 No (One Number)	
h	20.00 Nos (Twenty numbers only)	25mm x 20mm diameter PVC Reducer			1 No (One Number)	
i	20.00 Nos (Twenty numbers only)	20mm x 15mm diameter PVC Reducer			1 No (One Number)	
47		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				

1	2	3	4	5	6	7
a	2.00 Nos	25 mm.dia G.M.Wheel Valve			1 No	
	(Two numbers only)				(One	
					Number)	
1.	2.00 Nos	20 mm.dia G.M.Wheel Valve			1 No	
b					(One	
	(Two numbers only)				Number)	
					Nulliber)	
48	10.00 Rm	Sumplying loving and initial alared standards and			1 DM	
48		Supplying, laying and jointing glazed stoneware pipes of			1 RM.	
	(Ten running metres only)	150mm dia of approved best quality with spigot and socket ends (in reverse direction) in dry condition and laid in loose			(One running	
	onry)	joints (i.e.) without cement and spun yarn, so that the waste			metre)	
		water can be drained to the trenches already available,			metre)	
		excluding cost of earth work excavation, cost of re-filling with				
		sand / earth, but including laying the pipe in true alignment and				
		gradient and conducting required water supply test for draining				
		with necessary tools and plants, etc., complete complying with				
		standard specifications.				
		•				

1	2	3	4	5	6	7
49		Supplying, laying and jointing the following diametre of glazed STONEWARE SPECIALS of approved quality with spigot and socket ends in dry condition with spun yarn and cement joints including necessary earthwork excavation to the required depth for trenches including shoring and strutting whever found necessary and refilling the same, well rammed, consolidated, levelling the ground, laying the speicals to true allignment and gradient and giving required water supply test with necessary tools and plants etc., as directed complete complying with standard specification.				
a	2.00 No (Two numbers only)	150 mm dia S.W Tee			No	
50	8.00 Nos (Eight numbers only)	Supplying and fixing in position best variety and approved qualtity, heavy type brass chromium plated 15mm.dia Screw down Tap(heavy duty) of approved make conforming to I.S.Specification and quality including cost of shellac thread etc., and including cutting and threading of GI pipe white lead etc.complete complying with Standard specification.			1 No (One Number)	

1	2	3	4	5	6	7
51	2.00 Nos	Supplying and fixing in position 15mm dia Satinless steel health faucet (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) 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	7	5	1 No (One Number)	
а	118.00 Rm	measured and paid separately in the cases where the pipe lines are proposed to laid below ground level For 110mm.dia PVC pipe			1 RM.	
u	(One hundred and eighteen running metres only)				(One running metre)	
b	88.00 Rm (Eighty eight running metres only)	For 75mm.dia PVC pipe			1 RM. (One running metre)	

No.of corrections:

No.of over writtings:

1	2	3	4	5	6	7
53		Supplying and fixing in position PVC Specials of varieous size of best approved quality conforming to ISS and providing leakproof joints including fixing to walls and giving connection to PVC soil stack,dismantling the brick masonry/RCC floor slab and redoing the distrubed portion to original condition etc., complete.		· · ·		
a	16.00 Nos (Sixteen numbers only)	110 mm dia PVC Elbow			1 No (One Number)	
b	24.00 Nos (Twenty four numbers only)	110 mm dia PVC Plain Tee			1 No (One Number)	
с	16.00 Nos (Sixteen numbers only)	75 mm dia PVC Elbow			1 No (One Number)	
d	16.00 Nos (Sixteen numbers only)	75 mm dia PVC Plain Tee			1 No (One Number)	

1	2	3	4	5	6	7
54	4.00 Nos (Four numbers only)	Supplying and fixing in position best Indian make Colour glazed earthenware WASH HAND BASIN of 560 * 406mm with a pair of C.I. Brackets, 15mm dia C.P. Pillar tap, 32mm G.I. Waste water pipe, 32mm dia C.P. Brass waste coupling, plug with chain, 15mm dia PVC connection, 15mm G.M. wheel valve with I.S.I. mark and necessary G.I. Union and G.I. Elbow, including fixing wash hand basin in position with white lead, clamps, teakwood plugs, screws, rubber washer etc., comp[lete			1 No (One Number)	
55	2.00 Nos (Two numbers only)	Supplying and fixing in position White / Colour Glazed Model Floor 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 bras 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.			1 No (One Number)	

1	2	3	4	5	6	7
56	4.00 Nos	Supplying and fixing in positon Indian Water Closet (Oriya			1 No	
	(Four numbers only)	type) of size 580 x 440mm white glazed earthern ware of approved quality and brand with "P" or "S" trap conforming to			(One Number)	
		BIS with sand cushion and forming flooring alround the closet			(unioer)	
		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				
57	2.00 Nos	Supply and fixing in position of best Indian make white / colour			1 No	
	(Two numbers only)	glazed earthernware lipped mouth flat back urinal of best			(One	
		quality and approved make of size 430mm x 260mm x 350mm with GI pipe, 32mm dia bell mouth PVC connection and waste			Number)	
		pipe, 15mm dia GI pipe of required length, 15mm dia GM				
		wheel valve, 15mm dia brass nipple 2 Nos., and fixing the				
		urinals in position with necessary TW plugs, clamps, screws,				
		etc., including dismantling masnory and re-doing the same to				
		the original condition, etc., including painting the pipe with two coats of best quality approved synthetic enamel paint over one				
		coat of red oxide primer and checked without any leakage etc.				
		complete complying with standard specifications and as				
		directed by the departmental officers. (The urinal should be got				
		approved by the Executive Engineer before use on works.)				

1	2	3	4	5	6	7
58	4.00 No (Four numbers only)	Supplying and fixing position PVC Nahani Trap / Floor Trap of the following sizes with best stainless steel gratings of approved brand and quality, fixed over a bed of brick jelly lime concrete 1:2:5 (One part of lime, two part of Crushed stone sandand five part of 40mm gauge brick jelly) and finished with Cement Mortar 1:3 (One Cement , Three sand) including dismantling masonry works wherever found necessary and making good the dismantled portions to the original condition and giving connection to the CI / PVC pipes, etc., complete complying with standard specification. (The Nahani Trap should be got approved by the Executive Engineer before use on works)			No	
59	4.00 Nos (Four numbers only)	Supplying and fixing in psotiion Indian make bewelled edge mirror of approved quality and brand of size 600x450x5.5mm.shelf type with necessary plywood backing, rubber bottons, brass CP screws, T.W.plugs etc.,complete complying with standard specification.(The mirror should be got approved by the Executive Engineer before use on works)			1 No (One Number)	
60	4.00 Nos (Four numbers only)	Supplying and fixing approved best quality brass CP towel rail 600mm long and 20mm dia with brackets of same materials including cost of teak wood plugs and CP screws, etc., complete complying with standard specifications. (The tower rail should be got approved by Executive Engineer before use on works).			1 No (One Number)	

No.of corrections:

No.of over writtings:

1	2	3	4	5	6	7
61	4.00 Nos (Four numbers only)	Supplying and fixing in position best approved qualtiy C.P.brass Soap tray of size 150x100mm. Including cost of teak wood plugs, brass scres, etc., complete complying with standard specification and as directed by the departmental Officers.			1 No (One Number)	
62	1.00 No (One numbers only)	Supplying and fixing PVC ventilating shaft of 110mm dia (having working pressure 4 kg. / sq.cm) with 3 metre height including cost of PVC cylindrical cowl of best approved quality etc., complete complying with standard specifications and as directed by the departmental officers				
63	2.00 Nos (Two numbers only)	Supplying and fixing of PVC ready made WATER TANK 2000 litres of following Litre capacity of best and approved quality with ISI specification and having inlet,outlet, overflow and clearing pipe arrangements and labour charges for fixing in position with all necessary accessories and transporting at site of work etc., complete complying as directed by the departmental officers.				

1	2	3	4	5	6	7
64	3.00 m ³ (Three cubic metres only)	Supplying and filling 40mm gauge I.R.C. metal in DISPERSION TRENCH etc., complete complying with standard specification and as directed by the departmental officers.			1 M ³ (One cubic metre)	
65	3.00 m ³ (Three cubic metres only)	Supplying and filling 20mm gauge I.R.C. metal in DISPERSION TRENCH etc., complete complying with standard specification and as directed by the departmental officers.			1 M ³ (One cubic metre)	
66	1.00 No (One numbers only)	Supplying and fixing in position CI manhole covers with CI frames (Heavy duty) of size 60cm x 60cm of best approved quality as per standard specification etc., complete compying with standard specifications			1 No (One Number)	

1	2	3	4	5	6	7
67		Drilling of Borewells anywhere in Tamilnadu including transportation from one place to another with in Tamilnadu in alluvial soil sedimentary strata of clay and sand stone shale pebbles boulders etc. By first taking a pilot bore of 140 mm/150mm dia and then enlarging to required dia direct or reverse rotary mud circulation method using rotary rigs, fuel, labour and drilling bentonite and water required for drilling at site (Site will be shown by the departmental Officers) including construction of mud	-4	<u> </u>	<u> </u>	<u>, , </u>
a	60.00 RM (Sixty running metres only)	Up to 60m depth ending below ground level			1 RM. (One running metre)	
b	30.00 RM (Thirty running metres only)	From 60mm depth upto 90m depth ending below ground level			1 RM. (One running metre)	
с	30.00 RM (Thirty running metres only)	From 90m depth upto 120m depth ending below ground level			1 RM. (One running metre)	

Contractor :

1	2	3	4	5	6	7
d	30.00 RM	From 120m depth upto 150m depth ending below ground level			1 RM.	
	(Thirty running				(One	
	metres only)				running	
					metre)	
68		Reaming the bore well from 150mm dia pilot bore to 300mm dia bore as directed by the departmental officers upto 60m depth ending from ground level.				
а	60.00 RM	Up to 60m depth ending below ground level			1 RM.	
	(Sixty running metres				(One	
	only)				running	
					metre)	
b	30.00 RM	From 60mm depth upto 90m depth ending below ground level			1 RM.	
	(Thirty running				(One	
	metres only)				running	
					metre)	

1	2	3	4	5	6	7
с	30.00 RM (Thirty running metres only)	From 90m depth upto 120m depth ending below ground level			1 RM. (One running metre)	
d	30.00 RM (Thirty running metres only)	From 120m depth upto 150m depth ending below ground level			1 RM. (One running metre)	
69		Labour charges for inserting PVC casing pipe assembly (with slots and without slots) in the drilled holes including jointing the pipes with PVC couplers with PVC adhesive etc., complete and supplying and packing annular space with pebbles of size and quality as approved by the Departmental Officers.				
a	150.00 RM (One hundred and fifty running metres only)	PVC casing pipes			1 RM. (One running metre)	

1	2	3	4	5	6	7
70	8.00 Hrs (Eight hours only)	Charges for developing the bore well with air compressor of 600 CFM capacity (minimum 8 Hrs.) including transportation labour and fuel charges for compressor as directed by the departmental officers and conducting yield test by 'V ' notch methods.		·	1 Hrs. (One hours)	
71		Supplying and erecting of 160mm dia heavy duty PVC Casing pipe				
a	75.00 RM (Seventy five running metres only)	160mm dia plain PVC pipe			1 RM. (One running metre)	
b	75.00 RM (Seventy five running metres only)	160 mm dia slotted PVC pipes			1 RM. (One running metre)	

1	2	3	4	5	6	7
72		Supplying, erecting and inserting the following size of CPVC column pipes of approved quality and variety in to bore conforming to pressure IS 4985. The rate is inclusive of cost of pipe, all taxes, conveyance charges of materials and all other labour charges for inserting the UPVC pipe as directed by the departmental officers etc., complete complying with standard specifications. The PVC / HDPE pipe should be got approved by the departmental officers before use on work.				
а	142.00 RM (One hundred and forty two running metres only)	32 mm dia CPVC pipes			1 RM. (One running metre)	
73	1.00 No. (One number only)	S & F bore well end cap 160mm			1 No (One Number)	

2	3	4	5	6	7
1.00 No.	S & F bore well clamp and cover			1 No	
(One number only)				(One	
				Number)	
150.00 PM	Supplying and figure of Nylon zone for horowall			1 DM	
	Supplying and fixing of Nylon rope for borewell				
·					
				0	
only)				metre)	
170.00 RM	supply of 2.5 sq.mm. three core flat copper cable for			1 RM.	
(One hundred and	submercible motor pump with wire bounded punched copper			(One	
seventy running	conductor insulated and sheathed with PVC with voitage grate			running	
• •				metre)	
57	complying with standrad etc., complete			,	
	1.00 No. (One number only) 150.00 RM (One hundred and fifty running metres only) 170.00 RM (One hundred and	1.00 No. S & F bore well clamp and cover (One number only) Supplying and fixing of Nylon rope for borewell (One hundred and fifty running metres only) Supply of 2.5 sq.mm. three core flat copper cable for submercible motor pump with wire bounded punched copper conductor insulated and sheathed with PVC with voitage grate upto 1100v confirming to and marked with is (694-1990)	1.00 No. S & F bore well clamp and cover (One number only) 150.00 RM Supplying and fixing of Nylon rope for borewell (One hundred and fifty running metres only) 170.00 RM supply of 2.5 sq.mm. three core flat copper cable for submercible motor pump with wire bounded punched copper conductor insulated and sheathed with PVC with voitage grate upto 1100v confirming to and marked with is (694-1990)	1.00 No. S & F bore well clamp and cover (One number only) Supplying and fixing of Nylon rope for borewell (One hundred and fifty running metres only) Supply of 2.5 sq.mm. three core flat copper cable for submercible motor pump with wire bounded punched copper conductor insulated and sheathed with PVC with voitage grate upto 1100v confirming to and marked with is (694-1990)	1.00 No. S & F bore well clamp and cover 1 No (One number only) (One 150.00 RM Supplying and fixing of Nylon rope for borewell 1 RM. (One hundred and (One fifty running metres running only) supply of 2.5 sq.mm. three core flat copper cable for 1 RM. (One hundred and submercible motor pump with wire bounded punched copper (One iseventy running conductor insulated and sheathed with PVC with voitage grate running metres only) upto 1100v confirming to and marked with is (694-1990) metre)

1	2	3	4	5	6	7
77	1.00 No. (One number only)	Supply and fixing of panel board item for the following motor pump with fully automatic starter phase preventor, on & off switch indicator lamp, volta meter and ammeter with selector switch with suitablepower capacity arranded in a steel sheet box as directed by the deparmental office etc., complete.			1 No (One Number)	
78	1.00 No. (One number only)	Supplying and fixing of 2 HP Submerssible Pumpset with 3 phase panel board - DOL with Two Level guard and Auto start in borewell Including Fixing and Jointing submersible cable with proper clamps upto the starter to required depth and also fixing of riser pipes to required depth wall erection clamps, pressure gauge upto exterior wall of pumproom and erection of panel board consisting of DPICL switches starter voltmeter, ammeter, three pilot lamp three phasing preventer waterlevel gaurd and lying etc. complete			1 No (One Number)	
79	1.00 Set (One set only)	Supply three phase capacitor type 2.00HP monoblock motor with suitable for 220V 50HZ, AC electrical supply with 1420/1440 RPM motor of best quality and make with ISI mark on a suitable pedestal with foundation bolt and nut with panel board with accessories such as 1No. 15Amps DPIC switch, 1 No. voltmetre 0 to 500V with control switch, 3Nos. Indicator lamps with 5 amps control switch, 1no. 15Amps fuse carrier and giving electrical wiring connections. The rate includes supplying and fixing of 1no. of foot valve pump set including wiring from panel board to motor, etc., complete (The pump should be tested for a minimum of three days at contractor's own cost)			1 set (One set)	

1	2	3	4	5	6	7
80	1.00 job (One job only)	Labour charges for erection horizontal shaft centrifugal pumpset (coupled/ monoblock/ air compressor with motor) open well including fixing of suction pipe and foot valve upto a maximum depth and delivery pipes to the required length with valves pressure gauges upto the exterior wall of pump room and erection of panel board, consisting of TPICN Switches starters, voltmetre ammeter, single phasing preventor and laying and jointing the cable and wein earthing as per IE rules etc., complete and operating the pumps on trail run as directed by departmental officers including signing of completion reports as required by EB authorities. Up to 3HP			1 job (One job)	
81	2.90 Set (Two point nine zero set only)	Supplying and fixing if marble of 0.61*1.22m.,18/20mm thick in all floors for urinal partition including for labour charges for fixing and polishing etc.,			1m ² (One square metre)	

1	2	3	4	5	6	7
82	7.00 Nos	Supply and fixing of stored pressure ABC (Mono Ammonium			1 No	
	(Seven numbers only)	Phospate) Powder Type Fire Extinguisher of 6 kg. capacity as			(One	
		per IS 15683 with pressure gauge, discharge hose & control			Number)	
		nozzie, wall mounting bracket, safety clip etc., ncluding				
		conveyance, all incidental charges, necessary scaffolding and re-				
		doing the dismantled portions to its original condition				
		whererver found necessary etc complete as per standard				
		specification and as directed by the Departmental Officers.				
		Make: EXCELLENT/ SAFETY FIRST ? EQUIVALENT.				
		Total Item No: (82 items only)				
		Sub Total				
		GST 12%				

Total Rs.