	General Abstract	
Sl.No.	Description	Amount (in Rs.)
1	Inlet Chamber and Screen chamber	4,160,83
2	Collecton Tank	17,892,582
3	MBBR Chambers	13,946,83
4	Flocculation Tank	4,724,77
5	Plant Room	3,492,16
6	Clarifier	5,341,17
7	Clarified Water Tank	2,923,93
8	Sludge Holding Tank	2,960,60
9	Treated Water Tank	8,124,92
10	Substation Building	1,080,47
11	Clorination Building	917,41
12	Laundry Collection Tank	2,921,87
13	Laudry pre clarifier	1,544,56
14	Laundry clarifier	1,600,62
15	InterConnecting Channel	1,422,97
16	Compound wall	10,966,43
17	Transmission main & effluent Disposal pipline	4,134,57
18	Electrical and Mechnical Installations	63,479,00
19	Deposit to be made to KSEB for availing Electrical Connection and substation equipments	1,500,00
20	Landscaping 2% details to be submitted	3,550,00
21	Providing arrangments for reusing the treated water in the toilet flushing system and Flow meter arrangements (LS)	2,043,75
22	Maintenance of the STP for 5 years 3.5%/year	31,062,50
23	Any other items required (round off)	1,807,99
	Total	191,600,00

Bailing out water with 5 HP engine and pumpset including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. etc. complete.  Say  Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level 1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size)  for raft  Bailing out water with 5 HP engine and pumpset including conveyance to the site, errection, dismantling kwh laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level 1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size)		Estimate for the construction of 5MLD STP at Medical College, Trivandrum										
An attal    Clearing jumple including uproteing of rank vegetation, grass, brush wood, trees and suplings of girth upto 20 m removal of rubbish upto a distance of 50 m outside the periphytey of the area cleared vide data no 1.2    Providing, driving and installing driven cast-in-situ reinforced centest concret epiles of grade M-2.3 in reinforced centest concrete epiles of grade M-2.3 in reinforced centest concret epiles of grade M-2.3 in reinforced centest concrete epiles of grade and proposed center concrete epiles of grade and proposed excavation by mechanical means of grade M-2.3 in reinforced centest concrete epiles epi	1. Inle		amber and Screen chamber 4.8 x 10.6 x 5.5	im			1		ı	T		
grass, ferish wood, trees and saplings of girth upto 30 m reassand at a height of Im above ground level and removal of rubbish upto a distance of 50 m outside the periphytey of the area cleared vide data not 1 in 1 i	Sl. No		-	Unit	No	Length	Breadth	Height	Quantity	Rate(Rs.)	Amount(Rs.)	
Providing, driving and installing driven cast-in-size reinforced cement concret cpiles of grade M-25 of specified diameter and length below the pile cap, to-carry safe working load not less than specified, ectuding the cast of shee and the length of pile to beenhedded in the pile cap to-call complete. (Length of pile for paymentshall be measured from top of shee to the bottom of pile cap) vide data no -2  20.11 at 0m mid piles  Earth work in excavation by mechanical means (Hydraulic excavation) manual means over areas (exceeding 30m in depth. 15 m in width as well as 10 aproximate) and lift upto 1.5m. disposed earth to be levelled and nearly dressed. All kinds of soil  I first depth upto 1.5m. disposed carth to be levelled and meally dressed. All kinds of soil  Total  Total  1	1	1	grass, brush wood, trees and saplings of girth upto 30 cm measured at a height of 1m above ground level and removal of rubbish upto a distance of 50 m outside the	m <sup>2</sup>	1	12	9		06.00	041.62	004.00	
Earth work in excavation by mechanical means over areas (exceeding 30cm in depth. 1.5 m in width as well as 10 spin on plan) including disposed of excavated earth, lead upon 50m and lift upot 1.5m, disposed earth to be levelled and neatly dressed. All kinds of soil  first depth upto 1.5m  Total  10a Second depth from 1.5m to 3m  1 1 6 12 1.50 108.00  228.22 24,647.60  3a 16a Second depth from 1.5m to 3m  1 1 6 12 1.5 108.00  Total  1 1 6 12 1.5 108.00  1 1 6 12 1.5 108.00  229.05 31,973.77  3b 16b third depth from 3m to 4.5m  Total  1 1 6 12 1.5 108.00  1 1 08.00 296.05 31,973.77  3c 16c fourth depth from 4.5m to 6m  Total  Providing steel sheet shoring to the sides of the trenches to depths of above 4.00 m but not exceeding 6.00m using 6 mm M.S. sheet 0.50 M wide stiffen on edges with 50 mm x 50mm x 6 mm M.S. angles driving down vertically on either side one after another in lines and levels with suitable pile driving equipments and accessories to a maximum depth of 0.50 M below the bottom of the proposed excavation 0.5 M above ground keep the bottom of the proposed excavation 0.5 M above ground plants and sundries etc. complete  4 24  4 24  4 24  4 25  4 26  Bailing out water with 5 HP engine and pumpset including conveyance to the site, errection, dismantling, cleaning and restacking for reuse including all labour, hire charges and conveyance for equipments, tools and plants and sundries etc. complete  4 22  24 and a conveyance for equipments, tools and plants and sundries etc. complete  5 2 12  5 100.00  Bailing out water with 5 HP engine and pumpset including out water with 5 HP engine and pumpset including conveyance to the site, errection, dismantling which the proposed excavation of engine and pump, cost of five all the proposed excavation of engine and pump, cost of five and water with 5 HP engine and pumpset including conveyance to the site, errection, dismantling which the lubricating oil and other stores pay of staff etc. etc. complete.  5 5 60.00  5 7 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8	2	2	reinforced cement concret epiles of grade M-25 of specified diameter and length below the pile cap, tocarry safe working load not less than specified, excluding the cost of steelreinforcement but including the cost of shoe and the length of pile to beembedded in the pile cap etc. all complete. (Length of pile for paymentshall be measured from top of shoe to the bottom of pile cap)		1	12	8		96.00	941.62	904.00	
(Hydraulic excavator)/ manual means over areas (exceeding 30cm) in depth. 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m. disposed earth to be levelled and nearly dressed. All kinds of soil  first depth upto 1.5m.  Total  3a 16a Second depth from 1.5m to 3m.  Total  Total  1 6 12 1.5 108.00  298.05 31,973.77  3b 16b third depth from 3.5m to 5m.  Total  3c 16c fourth depth from 4.5m to 6m.  Total  Total  Total  1 6 12 1.5 108.00  296.05 31,973.77  3b 16b third depth from 4.5m to 6m.  Total  Total  Total  Total  1 6 12 0.5 36.00  36.30 363.89 39.299.93  3c 16c fourth depth from 4.5m to 6m.  Total  Providing steel sheet shoring to the sides of the trenches to depths of above 4.00 m but not exceeding 6.00m using 6 mm MS. sheet 0.50 M wide stiffen on edges with 50 mm x 50mm x 6 mm MS. angles driving down vertically on either side one after another in lines and levels with suitable pile driving equipments and accessories to a maximum depth of 0.50 M below the bottom of the proposed executation 0.5 M above ground accessories to a maximum depth of 0.50 M below the bottom of the proposed executation 0.5 M above ground accessories to a maximum depth of 0.50 M below the pipes are laid and works are completed, dismantling, cleaning and restacking for reuse including all labour, hire charges and conveyance for equipments, tools and plants and sundries etc. complete  Bailing out water with 5 HP engine and pumpset including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of title kwh lubricating oil and other stores pay of staff etc. etc. complete.  Bailing out water with 5 HP engine and pumpset including on everyance to the site, errection, dismantling and a taking back of engine and pump, cost of title kwh lubricating oil and other stores pay of staff etc. etc. complete.  Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level 1.43		20.1.1		metre	8	11			88.00	2825.67	248,659.04	
Total	3	16	(Hydraulic excavator)/ manual means over areas (exceeding 30cm in depth. 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be	m <sup>3</sup>								
1					1	6	12	1.50		220.22	24 647 60	
Total    Total     108.00   296.05   31,973.77			1 OTA1						108.00	228.22	24,647.60	
3b   16b   third depth from 3m to 4.5m	3a	16a	Second depth from 1.5m to 3m		1	6	12	1.5	108.00			
Total  3c 16e fourth depth from 4.5m to 6m  Total  Providing steel sheet shoring to the sides of the trenches to depths of above 4.00 m but not exceeding 6.00m using 6 mm M.S. sheet 0.50 M wide stiffen on edges with 50 mm x 50mm x 6 mm M.S. angles driving down vertically on either side one after another in lines and levels with suitable pile driving equipments and accessories to a maximum depth of 0.50 M below the bottom of the proposed excavation 0.5 M above ground level suitably braced by horizontal walling pieces at 75 x 150 mm x 8 mm angles on either side at intervals not exceeding 1.50M and horizontal screw jack type struts at 1.50M intervals and maintaining the shoring till the pipes are laid and works are completed, dismantling, cleaning and restacking for reuse including all labour, hire charges and conveyance for equipments, tools and plants and sundries etc. complete  Bailing out water with 5 HP engine and pumpset including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. etc. complete.  Say  Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level 1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size)  for raft  1 5 11 0.10 5.50			Total						108.00	296.05	31,973.77	
Total  3c 16e fourth depth from 4.5m to 6m  Total  Providing steel sheet shoring to the sides of the trenches to depths of above 4.00 m but not exceeding 6.00m using 6 mm M.S. sheet 0.50 M wide stiffen on edges with 50 mm x 50mm x 6 mm M.S. angles driving down vertically on either side one after another in lines and levels with suitable pile driving equipments and accessories to a maximum depth of 0.50 M below the bottom of the proposed excavation 0.5 M above ground level suitably braced by horizontal walling pieces at 75 x 150 mm x 8 mm angles on either side at intervals not exceeding 1.50M and horizontal screw jack type struts at 1.50M intervals and maintaining the shoring till the pipes are laid and works are completed, dismantling, cleaning and restacking for reuse including all labour, hire charges and conveyance for equipments, tools and plants and sundries etc. complete  Bailing out water with 5 HP engine and pumpset including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. etc. complete.  Say  Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level 1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size)  for raft  1 5 11 0.10 5.50	3b	16b	third depth from 3m to 4.5m		1	6	12	1.5	108.00			
Providing steel sheet shoring to the sides of the trenches to depths of above 4.00 m but not exceeding 6.00m using 6 mm M.S. sheet 0.50 M wide stiffen on edges with 50 mm x 50mm x 6 mm M.S. angles driving down vertically on either side one after another in lines and levels with suitable pile driving equipments and accessories to a maximum depth of 0.50 M below the bottom of the proposed excavation 0.5 M above ground level suitably braced by horizontal walling pieces at 75 x 150 mm x 8 mm angles on either side at intervals not exceeding 1.50M and horizontal screw jack type struts at 1.50M intervals and maintaining the shoring till the pipes are laid and works are completed, dismantling, cleaning and restacking for reuse including all labour, hire charges and conveyance for equipments, tools and plants and sundries etc. complete  2 6 5 60.00  2 12 5 120.00  Bailing out water with 5 HP engine and pumpset including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. etc. complete.  Say  Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level 1:4:8 (I Cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size)  for raft										363.89	39,299.93	
Providing steel sheet shoring to the sides of the trenches to depths of above 4.00 m but not exceeding 6.00m using 6 mm M.S. sheet 0.50 M wide stiffen on edges with 50 mm x 50mm x 6 mm M.S. angles driving down vertically on either side one after another in lines and levels with suitable pile driving equipments and accessories to a maximum depth of 0.50 M below the bottom of the proposed excavation 0.5 M above ground level suitably braced by horizontal walling pieces at 75 x 150 mm x 8 mm angles on either side at intervals not exceeding 1.50M and horizontal screw jack type struts at 1.50M intervals and maintaining the shoring till the pipes are laid and works are completed, dismantling, cleaning and restacking for reuse including all labour, hire charges and conveyance for equipments, tools and plants and sundries etc. complete  2 6 5 60.00  2 12 5 120.00  Bailing out water with 5 HP engine and pumpset including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. etc. complete.  Say  Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level 1:4:8 (I Cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size)  for raft	3c	16c	fourth depth from 4.5m to 6m		1	6	12	0.5	36.00			
Bailing out water with 5 HP engine and pumpset including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. etc. complete.  Say  Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level 1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size)  for raft  1 5 11 0.10 5.50	4	24	Providing steel sheet shoring to the sides of the trenches to depths of above 4.00 m but not exceeding 6.00m using 6 mm M.S. sheet 0.50 M wide stiffen on edges with 50 mm x 50mm x 6 mm M.S. angles driving down vertically on either side one after another in lines and levels with suitable pile driving equipments and accessories to a maximum depth of 0.50 M below the bottom of the proposed excavation 0.5 M above ground level suitably braced by horizontal walling pieces at 75 x 150 mm x 8 mm angles on either side at intervals not exceeding 1.50M and horizontal screw jack type struts at 1.50M intervals and maintaining the shoring till the pipes are laid and works are completed, dismantling, cleaning and restacking for reuse including all labour, hire charges and conveyance for equipments, tools and		2	6		5	60.00	431.72	15,542.03	
Bailing out water with 5 HP engine and pumpset including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. etc. complete.  Say  Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level 1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size)  for raft  Bailing out water with 5 HP engine and pumpset including conveyance to the site, errection, dismantling kwh laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level 1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size)									120.00			
Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level m³ 1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size)  for raft  1 5 11 0.10 5.50	4a	22	including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. etc. complete.	kwh							109,104.09	
	3	4	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level 1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size)	m <sup>3</sup>		-				110.06	5,502.93	
			for raft Total		1	5	11	0.10	5.50 6.00	6308.50	37,850.98	

3a	5a	Centering and shuttering including strutting, propping								
		etc. and removal of form  Foundations, footings, bases of columns, etc. for mass	<del>                                     </del>							
		concrete		1	32		0.1	3.20		
								3.20	288.13	922.03
		RCC M30 for foundation structure etc using 20mm								
4	5	broken stone and SRCexcluding all charges for form	m <sup>3</sup>							
		work ,shuttering, watering, curing etc. complete								
		raft		1	4.8	10.6	0.5	25.44	0022.02	245.040.25
			<b></b>					25.00	9833.93	245,848.25
4a	5a	Centering and shuttering including strutting, propping								
		etc. and removal of form  Foundations, footings, bases of columns, etc. for mass	<b></b> -							
		concrete		1	30.8		0.5	15.40		
								15.40	288.13	4,437.25
		RCC M30 for sub structure etc using 20mm broken								
5	5	stone and SRC excluding all charges for form work,	m <sup>3</sup>							
		shuttering, watering, curing etc. complete			20.0	0.0		#0.0 <b>2</b>		
		side wall all around	<b></b>	1	30.8	0.3	5.5	50.82		
		intermediate cross wall	<b></b> -	4	4.8	0.3	5.5 5.5	31.68		
		intermediate partitian wall Platform	<b></b>	1	10.6 30.8	0.5	0.15	17.49 2.77		
		Screen Chamber - Walkway		1	30.8	0.5	0.15	2.31		
		Screen Chamber - Block		1	0.6	0.3	0.13	0.05		
		Total			0.0	0.5	0.0	105.00	9833.93	1,032,562.67
		Centering and shuttering including strutting, propping								
		etc. and removal of form								
	5b	Walls (any thickness) including attached pilasters,								
		butteresses,plinth and string courses etc. side wall all around		2	30.8		5.5	338.80		
		intermediate cross wall	2	4	4.8		5.5			
		intermediate partitian wall	2	1	10.6		5.5	116.60		
		Screen Chamber - Block		1	0.6		0.3	0.18		
								666.78	529.19	352,850.21
	5c	Centering and shuttering including strutting, propping								
	30	etc. and removal of form								
		Suspended floors, roofs, landings, balconies and access platform								
		Platform	<b>—</b>	1	30.8		0.6	18.48		
		Screen Chamber - Walkway		1	30.8		0.5	15.40		
		Total			50.0		0.5	1367.00	589.10	805,299.78
		Steel reinforcement for R.C.C. work including								· ·
6	7	straightening, cutting, bending, placing in position and	Otl							
U	,	binding all complete upto plinth level .Mild steel and	Qu							
		Medium Tensile steel bars								
		Raft			3.2 x	110kg/m <sup>3</sup>		3.52		
		side wall			99.99	x80kg/m <sup>3</sup>		79.99		
		Slabs			5.14 >	80kg/m <sup>3</sup>		4.12		
		Total						88.00	9526.22	838,307.05
7	8	12 mm cement plaster finished with a floating coat of	m <sup>2</sup>							
		neat cement of mix: 1:3 (1 cement: 3 fine sand)	111							
		Inside- Chamber		1	30.8		5.5	169.40		
		intermediate cross wall	2	4	4.8		5.5	211.20		
		intermediate partitian wall Platform	2	1 2	10.6 30.8		5.5 0.6	116.60 36.96		
		Screen Chamber - Walkway		2	30.8		0.6	30.80		
		Bottom		1	10.6	4.8	0.3	50.88		
		Total			10.0			616.00	318.49	196,192.25
		Plastering with Cement mortar 1:4,12mm thick one coat								
8	9	floated hard and trowelled to smooth including cost and	m <sup>2</sup>							
3	7	conveyance for materials and labour charges and	111							
		watering, curing etc. complete	<u></u>							
		Outside - Inlet Chamber		1	30.8		5.5	169.40	200.11	50 200 0 1
		Total Finishing walls with water proofing cement paint of		$\vdash$				169.00	298.11	50,380.04
9	10	required shade: New work (Two or more coats applied	m <sup>2</sup>							
	10	@ 3.84 kg/10 sam)	111							
		Outside - Inlet Chamber		1	30.8		2	61.60	84.85	5,226.67
10		Providing Handrails	Ls							15,000.00
11		Providing gate valve and other acessories	Ls							60,000.00
12		Providing screen as per the requirement	Ls							35,000.00
13	34	Suppplying and providing CI steps @ 30cm c/c	Nos							
				24				24.00	201.50	£200.00
		TOTAL	<del></del>					24.00	221.70	5320.80
		TOTAL								4,160,831.37

		Estimate for the construction of 5	MLD S	STP a	at Medic	al Colle	ge, Triv	andrum		
2. Co	llecti	on Tank 10 x 30 x 8 m								
Sl. No	ref data	Description	Unit	No	Length	Breadth	Height	Quantity	Rate(Rs.)	Amount(Rs.)
1	1	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth upto 30 cm measured at a height of 1m above ground level and removal of rubbish upto a distance of 50 m outside the periphery of the area cleared.	m <sup>2</sup>		10	22		204.00	041.60	2.515.00
2	2	Providing, driving and installing driven cast-in-siture inforced cement concret epiles of grade M-25 of specified diameter and length below the pile cap, tocarry safe working load not less than specified, excluding the cost of steelreinforcement but including the cost of shoe and the length of pile to beembedded in the pile cap etc. all complete. (Length of pile for paymentshall be measured from top of shoe to the bottom of pile cap)		1	12	32		384.00	941.62	3,616.00
3	16	400 mm dia piles Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30cm in depth. 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed. All kinds of soil	metre m³	75	3			225.00	2825.67	635,775.95
		first depth upto 1.5m Total		1	11	31	1.50	511.50 512.00	228.22	116,847.88
3a	16a	Second depth from 1.5m to 3m Total		1	11	31	1.5	511.50 511.50	296.05	151,431.31
3b	16b	third depth from 3m to 4.5m		1	11	31	1.5	511.50		-
3c	16c	Total fourth depth from 4.5m to 6m		1	11	31	1.5	511.50 511.50	363.89	186,128.85
3d	16d	Total fifth depth from 6.0m to 7.5m		1	11	31	1.5	511.50 511.50	431.72	220,826.39
		Total						511.50	499.56	255,523.93
4	24	Providing steel sheet shoring to the sides of the trenches to depths of above 4.00 m but not exceeding 6.00m using 6 mm M.S. sheet 0.50 M wide stiffen on edges with 50 mm x 50mm x 6 mm M.S. angles driving down vertically on either side one after another in lines and levels with suitable pile driving equipments and accessories to a maximum depth of 0.50 M below the bottom of the proposed excavation 0.5 M above ground level suitably braced by horizontal walling pieces at 75 x 150 mm x 8 mm angles on either side at intervals not exceeding 1.50M and horizontal screw jack type struts at 1.50M intervals and maintaining the shoring till the pipes are laid and works are completed, dismantling, cleaning and restacking for reuse including all labour, hire charges and conveyance for equipments, tools and plants and sundries etc. complete	m2	2	10		-	120.00		
				2	10 32		6	120.00 384.00		
				_			Ŭ	504.00	606.13	305,491.45
4a	22	Bailing out water with 5 HP engine and pumpset including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. etc. complete.	kwh							
3	4	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level 1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size)	m <sup>3</sup>	1	11	21	0.10	100.00	110.06	11,005.85
		for raft Total		1	11	31	0.10	34.10 34.00	6308.50	214,488.89
3a	5a	Centering and shuttering including strutting, propping etc. and removal of form						2	22 30.20	
		Foundations, footings, bases of columns, etc. for mass concrete		1	84		0.1	8.40 8.40	288.13	2,420.32
4	5	RCC M30 for foundation structure etc using 20mm broken stone and SRCexcluding all charges for form work shuttering, watering, curing etc. complete	m <sup>3</sup>							,

		raft		1	10.8	30.8	0.5	166.32		
					10.0	50.0	0.0	166.00	9833.93	1,632,432.41
4a	5a	Centering and shuttering including strutting, propping etc. and removal of form								, ,
		and removal of form								
		Foundations, footings, bases of columns, etc. for mass concrete		1	83.2		0.5	41.60		
								41.60	288.13	11,986.34
		RCC M30 for sub structure etc using 20mm broken stone	2							
5	5	and SRC excluding all charges for form work, shuttering,	m <sup>3</sup>							
		watering, curing etc. complete side wall all around		1	83.2	0.4	8	266.24		
		intermediate cross wall		1	30	0.4	8	266.24 72.00		
		intermediate beam		10	10.6	0.3	0.4	12.72		
		Platform		1	83.2	0.6	0.15	7.49		
		intermediat- Walkway		1	10	0.5	0.15	0.75		
		Block for pipes/valves etc		4	0.6	0.3	0.3	0.22		
		Total						359.00	9833.93	3,530,380.93
	5a	Centering and shuttering including strutting, propping etc.								
		and removal of form Walls (any thickness) including attached pilasters,								
		butteresses, plinth and string courses etc.	m2							
		side wall all around		2	83.2		8			
		intermediate cross wall		2	30		8	480.00		
		Screen Chamber - Block		1	0.6		0.3	0.18		050 555 55
		Contains and doubtains in d. P. 1997						1811.38	529.19	958,555.78
	5b	Centering and shuttering including strutting, propping etc. and removal of form	m2							
		Suspended floors, roofs, landings, balconies and access								
		platform								
		Platform		1	83.2		0.6	49.92		
		intermediat- Walkway		1	10		0.5	5.00		
		Total						3678.00	589.10	2,166,710.00
	5b	Centering and shuttering including strutting, propping etc. and removal of form	m2							
		Lintels, beams, plinth beams, girders, bressumers and								
		cantilevers								
		intermediate beam		10	10.6		0.9	95.40		
		Total Steel reinforcement for R.C.C. work including straightening,						3828.00	487.16	1,864,865.34
6	7	cutting, bending, placing in position and binding all complete	Qtl							
		upto plinth level .Mild steel and Medium Tensile steel bars				2				
		Raft				110kg/m <sup>3</sup>		182.60		
		side wall				x80kg/m <sup>3</sup>		312.00		
		Slabs			7.86 x	x 80kg/m <sup>3</sup>		6.28		
		Total						501.00	9526.22	4,772,634.47
7	8	12 mm cement plaster finished with a floating coat of neat	$m^2$							
		cement of mix : 1:3 (1 cement: 3 fine sand)  Inside- Chamber		1	83.6		8	668.80		
		intermediate cross wall		2	30		8	480.00		
		intermediate beams		10	10.6		0.9	95.40		
		Platform		1	83.2	0.6		0.00		
		intermediat- Walkway		1	10	0.5		0.00		
		Bottom		1	30	10		300.00		
		Total						1544.00	318.49	491,754.59
		Plastering with Cement mortar 1:4,12mm thick one coat								
8	9	floated hard and trowelled to smooth including cost and conveyance for materials and labour charges and watering,	$m^2$							
		curing etc. complete								
		Outside - Inlet Chamber		1	83.6		8	668.80		
		Total						669.00	298.11	199,433.43
		Finishing walls with water proofing cement paint of								
9	10	required shade: New work (Two or more coats applied @	m <sup>2</sup>							
		3.84 kg/10 sqm)		<b>.</b>	00.5			167.00	04.07	14 105 50
10		Outside - Inlet Chamber	Τ.,	1	83.6		2	167.20	84.85	14,186.69
10 11		Providing Handrails Providing gate valve and other acessories	Ls Ls							75,000.00 60,000.00
12	34	Suppplying and providing CI steps @ 30cm c/c	Nos							00,000.00
	5-1	Supposing and providing or steps & Soom or	1,00	50				50.00		
								50.00	221.70	11085.00
		TOTAL								17,892,581.79
										1.,0/2,001.//

		Estimate for the construction of	5MLD	STP	at Medi	cal Colle	ege, Tri	vandrun	n	
3. ME	BBR C	Chamber 2nos# 2 nos 10 x 10x 6m								
Sl. No	ref data	Description	Unit	No	Length	Breadth	Height	Quantity	Rate(Rs.)	Amount(Rs.)
1	1	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth upto 30 cm measured at a height of 1m above ground level and removal of rubbish upto a distance of 50 m outside the periphery of the area cleared.		1	12	22		264.00	041.62	2.496.00
2	2	Providing, driving and installing driven cast-in-siture reinforced cement concret epiles of grade M-25 of specified diameter and length below the pile cap, tocarry safe working load not less than specified, excluding the cost of steelreinforcement but including the cost of shoe and the length of pile to beembedded in the pile cap etc. all complete. (Length of pile for paymentshall be measured from top of shoe to the bottom of pile cap)		1	12	22		264.00	941.62	2,486.00
	20.1.1		metre	50	13			650.00	2825.67	1,836,686.08
3		Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30cm in depth. 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed.  All kinds of soil	m <sup>3</sup>							
	2.6.1	first depth upto 1.5m		1	11	22	0.50	121.00		
		Total						121.00	228.22	27,614.44
3	4	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level 1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size)	m <sup>3</sup>							
_		for raft Total		2	11	11	0.20	48.40 48.00	6200.50	202 907 94
3a	5a	Centering and shuttering including strutting, propping etc. and removal of form						48.00	6308.50	302,807.84
		Foundations, footings, bases of columns, etc. for mass concrete		2	44		0.2	8.80		
4	5	RCC M30 for foundation structure etc using 20mm broken stone and SRCexcluding all charges for form work ,shuttering, watering, curing etc. complete	_					8.80	288.13	2,535.57
		raft		2	10.8	10.8	0.5	116.64		
4a	5a	Centering and shuttering including strutting, propping etc. and removal of form vide item 4 a						117.00	9833.93	1,150,569.83
		Foundations, footings, bases of columns, etc. for mass concrete		2	21.6		0.5	10.80	288.13	3,111.84
5	5	RCC M30 for sub structure etc using 20mm broken stone and SRC excluding all charges for form work , shuttering, watering, curing etc. complete	m <sup>3</sup>					10.80	200.13	5,111.04
		side wall all around		2	43.2	0.4	6			
		intermediate beam Platform		8	10.6 43.2	0.3	0.4			
		intermediat- Walkway		2	10		0.15			
		Block for pipes/valves etc Total		8	0.6	0.3	0.3		9833.93	2,310,973.59
	5a	Centering and shuttering including strutting, propping etc. and removal of form Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.	m2							
		side wall all around		4	43.2		6	1036.80		
		Screen Chamber - Block		2	0.6		0.3			
	5b	Centering and shuttering including strutting, propping etc. and removal of form	m2					1037.16	529.19	548,849.89
		etc. and removal of form Suspended floors, roofs, landings, balconies and access platform								

		Platform		2	43.2		0.6	51.84		
		intermediat- Walkway		2	10	+	0.5	10.00		
		Total		_	- 10		0.5	2136.00	589.10	1,258,317.72
	5b	Centering and shuttering including strutting, propping etc. and removal of form	m2							, ,
		Lintels, beams, plinth beams, girders, bressumers and cantilevers								
		intermediate beam		8	10.6		0.9	76.32		
		Total						2274.00	487.16	1,107,811.86
6	7	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level .Mild steel and Medium Tensile steel bars	Qtl							
		Raft			117 >	110kg/m <sup>3</sup>		128.70		
		side wall				6 x80kg/m <sup>3</sup>		355.24		
		Slabs			17.05	x 80kg/m <sup>3</sup>		13.64		
		Total						498.00	9526.22	4,744,055.82
7	8	12 mm cement plaster finished with a floating coat of neat cement of mix: 1:3 (1 cement: 3 fine sand)	m <sup>2</sup>							
		Inside- Chamber		2	40		8	640.00		
		intermediate beam		8	10.6		0.9	76.32		
		Platform		2	43.2	0.6		51.84		
		intermediat- Walkway		2	10	0.5		10.00		
		Bottom		2	10	10		200.00		
		Total						978.00	318.49	311,487.04
8	9	Plastering with Cement mortar 1:4 ,12mm thick one coat floated hard and trowelled to smooth including cost and conveyance for materials and labour charges and watering, curing etc. complete	$m^2$							
		Outside - Inlet Chamber		2	43.6		8	697.60		
		Total						698.00	298.11	208,078.53
9	10	Finishing walls with water proofing cement paint of required shade: New work (Two or more coats applied @ 3.84 kg/10 sqm)	m <sup>2</sup>							
		Outside - Inlet Chamber		2	43.6		2	174.40	84.85	14,797.59
10		Providing Handrails	Ls						•	50,000.00
11		Providing gate valve and other acessories	Ls							60,000.00
12	34	Suppplying and providing CI steps @ 30cm c/c	Nos							
				30				30.00		
								30.00	221.70	6651.00
		TOTAL								13,946,834.63

		Estimate for the construction of	5MLD	STP	at Medi	cal Colle	ege, Tri	vandrun	n	
4. Flo	culat	ion Tank 10 x 10 x 3m								
Sl. No	ref data	Description	Unit	No	Length	Breadth	Height	Quantity	Rate(Rs.)	Amount(Rs.)
1	1	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth upto 30 cm measured at a height of 1m above ground level and removal of rubbish upto a distance of 50 m outside the periphery of the area cleared. vide data no: 1	m <sup>2</sup>	1	12	10		120.00	041.62	1 120 00
2	2	Providing, driving and installing driven cast-in-siture inforced cement concret epiles of grade M-25 of specified diameter and length below the pile cap, tocarry safe working load not less than specified, excluding the cost of steelreinforcement but including the cost of shoe and the length of pile to beembedded in the pile cap etc. all complete. (Length of pile for paymentshall be measured from top of shoe to the bottom of pile cap) vide data no -1a				10		120.00	941.62	1,130.00
	20.1.1	•	metre	25	15.5			387.50	2825.67	1,094,947.47
3	16	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30cm in depth. 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed.  All kinds of soil 5	$m^3$							
	2.6.1	first depth upto 1.5m		1	11	11	0.50	60.50		
		Total						61.00	228.22	13,921.33
3	4	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level 1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size) for raft		1	11	11	0.20	24.20		
		Total					0.20	24.00	6308.50	151,403.92
3a	5a	Centering and shuttering including strutting, propping etc. and removal of form Foundations, footings, bases of columns, etc. for mass								
		concrete		1	22		0.2	4.40 4.40	288.13	1,267.79
4	5	RCC M30 for foundation structure etc using 20mm broken stone and SRCexcluding all charges for form work ,shuttering, watering, curing etc. complete vide data no: 4	m <sup>3</sup>		10.0	10.0				
		raft		1	10.8	10.8	0.5	58.32 58.00	9833.93	570,367.95
4a	5a	Centering and shuttering including strutting, propping etc. and removal of form						50.00	7000.70	370,307133
		Foundations, footings, bases of columns, etc. for mass concrete		1	21.6		0.5	10.80	288.13	3,111.84
5	6	RCC M30 for sub structure etc using 20mm broken stone and SRC excluding all charges for form work , shuttering, watering, curing etc. complete	m <sup>3</sup>							, , , , , ,
$\vdash$		side wall all around		1	43.6		3			
		intermediate beam Platform		4	10.6 43.2		0.4		<del>                                     </del>	
		intermediat- Walkway		1	10		0.15			
		Block for pipes/valves etc		4	0.6	0.3	0.3			
		Total						61.00	10288.24	627,582.67
		Centering and shuttering including strutting, propping etc. and removal of form								
	5b	Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.	m2							-
		side wall all around		2	43.2		3	259.20		
		Screen Chamber - Block		2	0.6		0.3	0.36		
<b>⊢</b>		1	1		l	1		259.56	529.19	137,355.35

	5c	Suspended floors, roofs, landings, balconies and access platform								
		Platform		2	43.2		0.6	51.84		
		intermediat- Walkway		2	10		0.5	10.00		
		Total						581.00	589.10	342,267.13
	<i>5</i> .1	Centering and shuttering including strutting, propping	m2							
	5d	etc. and removal of form	m2							
		Lintels, beams, plinth beams, girders, bressumers and								
		cantilevers		<b>.</b>				20.44		
		intermediate beam		4	10.6		0.9	38.16	407.16	221 770 05
		Total Steel reinforcement for R.C.C. work including straightening,						681.00	487.16	331,758.96
6	7	cutting, bending, placing in position and binding all complete upto plinth level .Mild steel and Medium Tensile steel bars vide data no 6	Qtl							
		Raft			58 x	110kg/m <sup>3</sup>		63.80		
		side wall				x80kg/m <sup>3</sup>		35.46		
		Slabs			16.52	x 80kg/m <sup>3</sup>		13.21		
		Total						112.00	9526.22	1,066,936.25
		12 mm cement plaster finished with a floating coat of								
7	8	neat cement of mix: 1:3 (1 cement: 3 fine sand) vide	$m^2$							
		data no :7								
		Inside- Chamber		1	40		8	320.00		
		intermediate beam		4	10.6		0.9	38.16		
		Platform		1	43.2	0.6		25.92		
		intermediat- Walkway		1	10	0.5		5.00		
		Bottom		1	10	10		100.00		
		Total						489.00	318.49	155,743.52
		Plastering with Cement mortar 1:4 ,12mm thick one								
8	9	coat floated hard and trowelled to smooth including cost	$m^2$							
0	,	and conveyance for materials and labour charges and	m							
		watering, curing etc. complete vide data no: 8								
		Outside - Inlet Chamber		1	43.6		8	348.80		
		Total						349.00	298.11	104,039.26
Ī		Finishing walls with water proofing cement paint of								
9	10	required shade: New work (Two or more coats applied	$m^2$							
		@ 3.84 kg/10 sqm)								
		Outside - Inlet Chamber		1	43.6		2	87.20	84.85	7,398.80
10		Providing Handrails	Ls							50,000.00
11		Providing gate valve and other acessories	Ls							60,000.00
12	34	Suppplying and providing CI steps @ 30cm c/c	Nos							
				25				25.00		
								25.00	221.70	5542.50
		TOTAL								4,724,774.74

		Estimate for the construction of	5MLD	STP	at Medi	cal Colle	ege, Tri	vandrun	n	
5. Pla	nt Ro	oom 10 x 20 x 5m								
Sl. No	ref data	Description	Unit	No	Length	Breadth	Height	Quantity	Rate(Rs.)	Amount(Rs.)
1	1	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth upto 30 cm measured at a height of 1m above ground level and removal of rubbish upto a distance of 50 m outside the periphery of the area cleared. vide data no: 1	m <sup>2</sup>	1	10	20		200.00	941.62	1,883.00
2	2	Providing, driving and installing driven cast-in-situ reinforced cement concret epiles of grade M-25 of specified diameter and length below the pile cap, tocarry safe working load not less than specified, excluding the cost of steelreinforcement but including the cost of shoe and the length of pile to beem bedded in the pile cap etc. all complete. (Length of pile for paymentshall be measured from top of shoe to the bottom of pile cap)		1	10	20		200.00	741.02	1,003.00
	20.1.1	400 mm dia piles	metre	25	13			325.00	2825.67	918,343.04
3		Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30cm in depth. 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed.  All kinds of soil vide data no 15	m <sup>3</sup>							
	2.6.1	first depth upto 1.5m		1	11	11	0.50	60.50	220.22	12.021.22
		Total						61.00	228.22	13,921.33
3	4	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level 1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size)								
		for raft Total		1	11	11	0.20	24.20	6308.50	151,403.92
3a		Centering and shuttering including strutting, propping etc. and removal of form vide item 4 a						24.00	0300.30	131,403.72
		Foundations, footings, bases of columns, etc. for mass concrete		1	22		0.2	4.40		
4		RCC M30 for foundation structure etc using 20mm broken stone and SRC excluding all charges for form work ,shuttering, watering, curing etc. complete vide data no: 4	m <sup>3</sup>					4.40	288.13	1,267.79
		foundation of column		10	1.5	1.5	0.2	4.50		
				10	1.3	1.3	0.4	6.76		
				10	0.3	0.3	1	0.90 12.16	9833.93	119,580.59
4a		Centering and shuttering including strutting, propping etc. and removal of form vide item 4 a	m2							. ,
		Foundations, footings, bases of columns, etc. for mass concrete		10	6		0.5	30.00		
		concrete		10	1.2		1	12.00		
								42.00	288.13	12,101.60
5		RCC M30 for sub structure etc using 20mm broken stone and SRC excluding all charges for form work , shuttering, watering, curing etc. complete $$ vide data no :	m <sup>3</sup>							
		Columns		15	0.3	0.3	4			
		longitudinal beams intermediate beam		13 10	5 4.6		0.4			
		plinth beam		1	60		0.4			
		Roof Slab		1	10		0.15			-
		Sunshade Machine Foundations		4	0.6		0.1			
		Total			0.0	0.0	0.0	60.00	10288.24	617,294.43
	5a	Centering and shuttering including strutting, propping etc. and removal of form Columns, Pillars, Piers, Abutments, Posts and Struts	- T							
		Columns, Pillars, Piers, Abutments, Posts and Struts Columns	m2	15	1.2		3	54.00		
								54.00	664.93	35,906.14

		Centering and shuttering including strutting, propping		1					I	
	5b	etc. and removal of form	m2							
		Suspended floors, roofs, landings, balconies and access								
		platform								
		Roof Slab		1	10	20		200.00		
		Sunshade Total		1	60	0.6		36.00	589.10	139,027.61
		Centering and shuttering including strutting, propping						236.00	389.10	139,027.01
	5b	etc. and removal of form	m2							
		Lintels, beams, plinth beams, girders, bressumers and								
		cantilevers								
		longitudinal beams		13	5	1.1		71.50		
		intermediate beam		10	4.6	1.1		50.60		
		plinth beam		1	60	1.1		66.00	487.16	01 506 01
6		Total Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level .Mild steel and Medium Tensile steel bars vide data no 6	Qtl					188.00	487.10	91,586.91
		Columns			5.4 x	80kg/m <sup>3</sup>		4.32		
		beams				x110kg/m <sup>3</sup>	1	22.57		
		Slabs				100kg/m		33.36		
		Total			22.20 2	. 100kg/III		60.00	9526.22	571,572.99
7		Brick work with common burnt clay selected F.P.S. (non modular) bricks of class designation 7.5 in exposed brick work including making horizontal and vertical grooves 10 mm wide 12 mm deep complete in cement mortar 1:6 (1 cement: 6 coarse sand) Above plinth level								,
		upto floor V level vide data no: 13								
		Wall		1	60	0.23	5	69.00		
		Parapet		1	60	0.125	0.6	4.50		
								73.50		
		Deduction for		10	0.0	0.00	_	2.15		
		column		10	0.3	0.23	5	3.45		
		window total deduction		8	1.5	0.23	1.5	4.14		
		Total less deduction						7.59 65.91	8153.90	537,423.46
8		12 mm cement plaster finished with a floating coat of neat cement of mix: 1:3 (1 cement: 3 fine sand) vide data no: 7	m <sup>2</sup>					03.91	5155.90	551, <del>1</del> 23.40
		Wall		1	60		5	300.00		
		Parapet		1	60		0.6	36.00		
		total						336.00		
		Deduction for			_					
		window		8	1.5		1.5	18.00		
		total deduction						18.00		404 4
		Total						318.00	318.49	101,281.06
8		Plastering with Cement mortar 1:4 ,12mm thick one coat floated hard and trowelled to smooth including cost and conveyance for materials and labour charges and watering, curing etc. complete vide data no:8	m <sup>2</sup>							
		Outside -wall		1	60		5	300.00		00.455.55
		Total						300.00	298.11	89,432.03
9		Finishing walls with water proofing cement paint of required shade: New work (Two or more coats applied @ 3.84 kg/10 sqm) vide data no: 9	$m^2$							
		qty vide 7 and 8						618.00	84.85	52,436.43
10		Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters.  80x1.25 mm M.S. laths with 1.25 mm thick top cover	m2	1	3	4			3141.82	37701.82
		TOTAL						-		3,492,164.14
										3,494,104.14

		Estimate for the construction of	5MLD	STP	at Medi	cal Colle	ege, Tri	vandrur	n	
6. Cla	arifier	10m dia x 5.5m								
Sl. No	ref data	Description	Unit	No	Length	Breadth	Height	Quantity	Rate(Rs.)	Amount(Rs.)
1	1	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth upto 30 cm measured at a height of 1m above ground level and removal of rubbish upto a distance of 50 m outside the periphery of the area cleared.		1	12	12		144.00	941.62	1,356.00
2	2	Providing, driving and installing driven cast-in-situ reinforced cement concret epiles of grade M-25 of specified diameter and length below the pile cap, tocarry safe working load not less than specified, excluding the cost of steelreinforcement but including the cost of shoe and the length of pile to beembedded in the pile cap etc. all complete. (Length of pile for paymentshall be measured from top of shoe to the bottom of pile cap)			12	12		144.00	741.02	1,330.00
	20.1.1		metre	25	13			325.00	2825.67	918,343.04
3	16	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30cm in depth. 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed.	m <sup>3</sup>							
	2.6.1	first depth upto 1.5m		1	11	11	0.50	60.50		
		Total						61.00	228.22	13,921.33
3	4	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level 1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size) for raft	m <sup>3</sup>	3.14	5	5	0.20	15.70		
		Total	1	3.14	3	3	0.20	16.00	6308.50	100,935.95
3a	5a	Centering and shuttering including strutting, propping etc. and removal of form Foundations, footings, bases of columns, etc. for mass								
		concrete	2	3.14	5		0.1	3.14 3.14	288.13	904.74
4	5	RCC M30 for foundation structure etc using 20mm broken stone and SRC excluding all charges for form work ,shuttering, watering, curing etc. complete vide data no: 4	m <sup>3</sup>							
		raft	1	3.14	5	5	0.50	39.25 39.25	9833.93	385,981.76
4a	5a	Centering and shuttering including strutting, propping etc. and removal of form vide item 4 a						39.23	9633.93	383,981.70
		Foundations, footings, bases of columns, etc. for mass concrete	2	3.14	5		0.5	15.70 15.70	288.13	4,523.69
5	6	RCC M30 for sub structure etc using 20mm broken stone and SRC excluding all charges for form work, shuttering, watering, curing etc. complete vide data no:	m <sup>3</sup>		_					
		side wall all around	2	3.14	5	0.3	5.5			
$\vdash$		intermediate channel Platform	2	3.14	5	0.2	1			
		intermediat- Walkway		1	10	1	0.15			
		Block for pipes/valves etc		4	0.6	0.3	0.3			
		Total				1		64.00	10288.24	658,447.39
5a	5a	Centering and shuttering including strutting, propping etc. and removal of form								
		Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.	m2							
		side wall all around	2	3.14	5		5.5			
		Screen Chamber - Block		4	0.6		0.3		500 10	01.771.22
5b	5b	Centering and shuttering including strutting, propping etc. and removal of form	m2					173.42	529.19	91,771.33

		Suspended floors, roofs, landings, balconies and access blatform								
		intermediate channel	2	3.14	4		1	25.12		
		Platform	2	3.14	5		1	31.40		
		intermediat- Walkway		1	10	0.5		5.00		
		Total			10	0.5		62.00	589.10	36,524.20
6	7	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level .Mild steel and Medium Tensile steel bars	Qtl					02100		
		Raft			39.25 x	110kg/m <sup>3</sup>		43.18		
		side wall			51.81	x80kg/m <sup>3</sup>		41.44		
		Slabs				80kg/m <sup>3</sup>		10.00		
		Total			12.5 /	l dokg/iii		95.00	9526.22	904,990.57
7	8	12 mm cement plaster finished with a floating coat of neat cement of mix: 1:3 (1 cement: 3 fine sand)	m <sup>2</sup>							
		inside wall all around	1	3.14	5		5.5	86.35		
		intermediate channel	2	3.14	4		1	25.12		
		Platform	1	3.14	5		1	15.70		
		intermediat- Walkway	1	1	10	0.5		5.00		
		Bottom		1	10	10		100.00		
		Total						232.00	318.49	73,890.59
8	9	Plastering with Cement mortar 1:4 ,12mm thick one coat floated hard and trowelled to smooth including cost and conveyance for materials and labour charges and watering, curing etc. complete	m <sup>2</sup>							
		Outside -wall all around	1	3.14	5		5.5	86.35		
		Total						86.00	298.11	25,637.18
9	10	Finishing walls with water proofing cement paint of required shade: New work (Two or more coats applied @ 3.84 kg/10 sqm)								
		vide qty above						86.00	84.85	7,296.98
10		Providing Handrails	Ls							50,000.00
11		Providing gate valve and other acessories	Ls							60,000.00
12		Lamella plate setling plates	LS							2,000,000.00
13	34	Suppplying and providing CI steps @ 30cm c/c	Nos							
				30				30.00		
								30.00	221.70	6651.00
		TOTAL								5,341,175.74

		Estimate for the construction of	5MLD	STP	at Medi	cal Colle	ege, Tri	vandrur	n	
7. Cla	arified	l Water Tank 7.5 x 10 x 5.5								
Sl. No		Description	Unit	No	Length	Breadth	Height	Quantity	Rate(Rs.)	Amount(Rs.)
1		Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth upto 30 cm measured at a height of 1m above ground level and removal of rubbish upto a distance of 50 m outside the periphery of the area cleared. vide data no: 1		1	8	10.6		94.90	041.63	798.00
2		Providing, driving and installing driven cast-in-siture inforced cement concret epiles of grade M-25 of specified diameter and length below the pile cap, tocarry safe working load not less than specified, excluding the cost of steelreinforcement but including the cost of shoe and the length of pile to beembedded in the pile cap etc. all complete. (Length of pile for paymentshall be measured from top of shoe to the bottom of pile cap):vide data no -2		1		10.6		84.80	941.62	
	20.1.1	400 mm dia piles	metre	20	13			260.00	2825.67	734,674.43
3		Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30cm in depth. 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed.  All kinds of soil vide data no 15	m <sup>3</sup>							
	2.6.1	first depth upto 1.5m		1	11	11	0.50	60.50		
		Total						61.00	228.22	13,921.33
3		Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level 1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size) vide data no: 4 for raft	m <sup>3</sup>	1	8	10.6	0.20	16.96		
		Total		1	0	10.0	0.20	17.00	6308.50	107,244.44
3a		Centering and shuttering including strutting, propping etc. and removal of form vide item 5 a  Foundations, footings, bases of columns, etc. for mass								,
		concrete		1	36		0.2	7.20 7.20	288.13	2,074.56
4		RCC M30 for foundation structure etc using 20mm broken stone and SRCexcluding all charges for form work ,shuttering, watering, curing etc. complete vide data no: 5	m <sup>3</sup>		7.5	10.6	0.5	20.75		
		raft		1	7.5	10.6	0.5	39.75 40.00	9833.93	393,357.21
4a		Centering and shuttering including strutting, propping etc. and removal of form vide item 5 a  Foundations, footings, bases of columns, etc. for mass						40.00	9633.93	393,337.21
		concrete		1	36		0.5	18.00 18.00	288.13	5,186.40
5		RCC M30 for sub structure etc using 20mm broken stone and SRC excluding all charges for form work , shuttering, watering, curing etc. complete vide data no:	m <sup>3</sup>						200.13	5,100.40
		side wall all around		1	36		5.5			
		intermediate beam		1	10.6 7.5		0.4		-	
		Platform		1	36		0.4			
		column		1	0.3		5			
		Block for pipes/valves etc		2	0.6	0.3	0.3			
	5b	Total  Centering and shuttering including strutting, propping etc. and removal of form						65.00	10288.24	668,735.63
		Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.	m2							
		side wall all around		2	36		5.5	396.00		
		Screen Chamber - Block		2	0.6		0.3	0.36		
	5c	Centering and shuttering including strutting, propping etc. and removal of form	m2					396.36	529.19	209,747.91

		Suspended floors, roofs, landings, balconies and access blatform								
		Platform		1	36		0.6	21.60		
		Total		1	50		0.0	22.00	589.10	12,960.20
	5d	Centering and shuttering including strutting, propping etc. and removal of form	m2							,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
		Lintels, beams, plinth beams, girders, bressumers and cantilevers								
		intermediate beam		1	10.6	1.1		11.66		
		intermediate ocum		1	7.5	1.1		8.25		
		Total		-	7.0	111		20.00	487.16	9,743.29
	5e	Centering and shuttering including strutting, propping etc. and removal of form	m2							. ,
		Columns, Pillars, Piers, Abutments, Posts and Struts								
		column		1	1.1		5.5	6.05		
		Total						6.00	664.93	3,989.57
6		Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level .Mild steel and Medium Tensile steel bars vide data no 7	Qtl							
		Raft			40 x	110kg/m <sup>3</sup>		44.00		
		side wall			59.4	x80kg/m <sup>3</sup>		47,52		
		Slabs				80kg/m <sup>3</sup>		4.80		
		Total			0.0.7	oong m		49.00	9526.22	466,784.61
		12 mm cement plaster finished with a floating coat of						.,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
7		neat cement of mix: 1:3 (1 cement: 3 fine sand) vide data no:8	m <sup>2</sup>							
		side wall all around		1	36		5.5	198.00		
		intermediate beam		1	10.6		1.1	11.66		
				1	7.5		1.1	8.25		
		Platform		1	36	0.6		21.60		
		column		1	1.2		5	6.00		
		Bottom		1	7.5	10		75.00		
		Total						321.00	318.49	102,236.54
8		Plastering with Cement mortar 1:4 ,12mm thick one coat floated hard and trowelled to smooth including cost and conveyance for materials and labour charges and watering, curing etc. complete vide data no:9	$m^2$							
		Outside - side wall all around		1	36		5.5	198.00		
		Total						198.00	298.11	59,025.14
9		Finishing walls with water proofing cement paint of required shade: New work (Two or more coats applied @ 3.84 kg/10 sqm) vide data no: 10	m <sup>2</sup>							
		qty vide item above						198.00	84.85	16,800.02
10		Providing Handrails	Ls							50,000.00
11		Providing gate valve and other acessories	Ls				, The state of the			60,000.00
12		Suppplying and providing CI steps @ 30cm c/c	Nos							
				30				30.00	221 5-	
				<b> </b>		-		30.00	221.70	6651.00
		TOTAL				+				
		IUIAL								2,923,930.28

		Estimate for the construction of	5MLD	STP	at Medi	cal Colle	ege, Tri	vandrur	n	
8. Slu	ıdge l	Holding Tank 6.0 x 10 x 5.5								
Sl. No		Description	Unit	No	Length	Breadth	Height	Quantity	Rate(Rs.)	Amount(Rs.)
1		Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth upto 30 cm measured at a height of 1m above ground level and removal of rubbish upto a distance of 50 m outside the periphery of the area cleared.		1	7	11		77.00	941.62	725.00
2		Providing, driving and installing driven cast-in-situ reinforced cement concret epiles of grade M-25 of specified diameter and length below the pile cap, tocarry safe working load not less than specified, excluding the cost of steelreinforcement but including the cost of shoe and the length of pile to beembedded in the pile cap etc. all complete. (Length of pile for paymentshall be measured from top of shoe to the bottom of pile cap)		1				77.00	741.02	725.00
	20.1.1		metre	18	13			234.00	2825.67	661,206.99
3		Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30cm in depth. 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed.  All kinds of soil vide data no 15	m <sup>3</sup>							
	2.6.1	first depth upto 1.5m		1	7	11	0.50	38.50		
		Total						39.00	228.22	8,900.52
3		Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level 1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size) for raft	m <sup>3</sup>	1	6.6	10.6	0.20	13.99		
		Total						14.00	6308.50	88,318.95
3a		Centering and shuttering including strutting, propping etc. and removal of form vide item 4 a Foundations, footings, bases of columns, etc. for mass								
		concrete		1	34.4		0.2	6.88	288.13	1,982.36
4		RCC M30 for foundation structure etc using 20mm broken stone and SRCexcluding all charges for form work ,shuttering, watering, curing etc. complete								,
		raft		1	6.3	10.3	0.5	32.45	0022.02	214 695 77
4a		Centering and shuttering including strutting, propping etc. and removal of form						32.00	9833.93	314,685.77
		Foundations, footings, bases of columns, etc. for mass concrete		1	33.8		0.5	16.90	200.12	1,050,45
5		RCC M30 for sub structure etc using 20mm broken stone and SRC excluding all charges for form work , shuttering, watering, curing etc. complete	m <sup>3</sup>					16.90	288.13	4,869.45
		side wall all around		1	32	0.3	5.5	52.80		
		intermediate beam		1	10.6		0.4			
		Di se		1	6		0.4			
		Platform column		1	33.8		0.15		-	
		Block for pipes/valves etc		2	0.3		0.3		<del> </del>	
		Total			0.0	0.5	0.5	58.00	10288.24	596,717.95
	5b	Centering and shuttering including strutting, propping etc. and removal of form								
		Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.	m2							
		side wall all around		2	33.8		5.5	371.80		
		Screen Chamber - Block		2	0.6		0.3			
	5c	Centering and shuttering including strutting, propping etc. and removal of form	m2					372.16	529.19	196,941.62

		Suspended floors, roofs, landings, balconies and access								
		platform			**		0.1	***		
		Platform		1	33.8		0.6	20.28	500.10	11.702.00
		Total						20.00	589.10	11,782.00
	5d	Centering and shuttering including strutting, propping etc. and removal of form	m2							
		Lintels, beams, plinth beams, girders, bressumers and cantilevers								
		intermediate beam		1	10.6	1.1		11.66		
		mornious coun		1	6	1.1		6.60		
		Total						18.00	487.16	8,768,96
	5e	Centering and shuttering including strutting, propping etc. and removal of form	m2							,
		Columns, Pillars, Piers, Abutments, Posts and Struts								
		column		1	1.1		5.5	6.05		
		Total						6.00	664.93	3,989.57
6		Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level .Mild steel and Medium Tensile steel bars	Qtl							
		Raft			32 x	10kg/m <sup>3</sup>		35.20		
		side wall				x80kg/m <sup>3</sup>		42.24		
		Slabs				80kg/m <sup>3</sup>		4.47		
		Total			J.J7 X	. oukg/III		82.00	9526.22	781,149.75
		12 mm cement plaster finished with a floating coat of						62.00	9320.22	761,149.73
7		neat cement of mix: 1:3 (1 cement: 3 fine sand)	$m^2$							
		side wall all around		1	33.8		5.5	185.90		
		intermediate beam		1	10.6		1.1	11.66		
				1	6		1.1	6.60		
		Platform		1	33.8	0.6		20.28		
		column		1	1.2		5.5	6.60		
		Bottom		1	6	10		60.00		
		Total						291.00	318.49	92,681.73
		Plastering with Cement mortar 1:4 ,12mm thick one								•
8		coat floated hard and trowelled to smooth including cost and conveyance for materials and labour charges and watering, curing etc. complete	$m^2$							
		Outside - side wall all around		1	33.8		5.5	185.90		
		Total						186.00	298.11	55,447.86
9		Finishing walls with water proofing cement paint of required shade: New work (Two or more coats applied @ 3.84 kg/10 sqm)	m <sup>2</sup>							
		qty vide item above						186.00	84.85	15,781.84
10		Providing Handrails	Ls							50,000.00
11		Providing gate valve and other acessories	Ls							60,000.00
12		Suppplying and providing CI steps @ 30cm c/c	Nos							
				30				30.00		
								30.00	221.70	6651.00
		TOTAL I								
		TOTAL								2,960,601.32

		Estimate for the construction of	5MLD	STP	at Medi	cal Colle	ege, Tri	vandrun	n	
9. Tre	eated	Water Tank 10 x 20 x 5m								
Sl. No		Description	Unit	No	Length	Breadth	Height	Quantity	Rate(Rs.)	Amount(Rs.)
1		Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth upto 30 cm measured at a height of 1m above ground level and removal of rubbish upto a distance of 50 m outside the periphery of the area cleared.	$m^2$	1	12	22		264.00	941.62	2,486.00
2		Providing, driving and installing driven cast-in-situ reinforced cement concret epiles of grade M-25 of specified diameter and length below the pile cap, tocarry safe working load not less than specified, excluding the cost of steelreinforcement but including the cost of shoe and the length of pile to beembedded in the pile cap etc. all complete. (Length of pile for paymentshall be measured from top of shoe to the bottom of pile cap)		1	12	22		204.00	741.02	2,400.00
	20.1.1		metre	50	13			650.00	2825.67	1,836,686.08
3		Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30cm in depth. 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed.  All kinds of soil	m <sup>3</sup>							
	2.6.1	first depth upto 1.5m		1	12	22	0.50	132.00		
		Total						132.00	228.22	30,124.84
3		Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level 1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size) for raft	m <sup>3</sup>	1	11	21	0.20	46.20		
		Total						46.00	6308.50	290,190.85
3a		Centering and shuttering including strutting, propping etc. and removal of form vide item 4 a Foundations, footings, bases of columns, etc. for mass								
		concrete		1	63		0.2	12.60 12.60	288.13	3,630.48
4		RCC M30 for foundation structure etc using 20mm broken stone and SRCexcluding all charges for form work ,shuttering, watering, curing etc. complete								.,
		raft		1	10.8	20.8	0.5	112.32 112.00	9833.93	1,101,400.18
4a		Centering and shuttering including strutting, propping etc. and removal of form						112.00	9633.93	1,101,400.18
		Foundations, footings, bases of columns, etc. for mass concrete		1	63.2		0.5	31.60		
5		RCC M30 for sub structure etc using 20mm broken stone and SRC excluding all charges for form work , shuttering, watering, curing etc. complete	m <sup>3</sup>					31.60	288.13	9,105.01
		side wall all around		1	63.2	0.3	5	94.80		
		Columns		3	0.3		5			
		longitudinal beams intermediate beam		13 10	5 4.6		0.4		<del>                                     </del>	
		Roof Slab		1	10.6		0.15			
		Block for pipes/valves etc Total		4	0.6	0.3	0.3		10299.24	1 460 020 15
	5b	Centering and shuttering including strutting, propping						142.00	10288.24	1,460,930.15
	ىن	etc. and removal of form  Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.	m2							
		side wall all around		2	63.2		5	632.00		
		Screen Chamber - Block		2	0.6		0.3		##n 11	224 527 55
	5c	Centering and shuttering including strutting, propping etc. and removal of form	m2					632.36	529.19	334,635.65

		Suspended floors, roofs, landings, balconies and access platform								
		Roof Slab		1	10.6	20.6		218.36		
		Total			10.0	20.0		218.00	589.10	128,423.81
	5d	Centering and shuttering including strutting, propping etc. and removal of form	m2							.,
		Lintels, beams, plinth beams, girders, bressumers and cantilevers								
		longitudinal beams		13	5	1.1		71.50		
		intermediate beam		10	4.6	1.1		50.60		
		Total						122.00	487.16	59,434.06
	5e	Centering and shuttering including strutting, propping etc. and removal of form								
		Columns, Pillars, Piers, Abutments, Posts and Struts	m2							
		Columns		3	1.2		5	18.00		
								18.00	217.15	3,908.70
6		Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level . Mild steel and Medium Tensile steel bars	Qtl							
		Raft			112 x 1	110kg/m <sup>3</sup>		123.20		
		side wall				100kg/m <sup>3</sup>		94.80		
		Slabs				80kg/m <sup>3</sup>		38.11		
		Total		1	47.04 X	t ookg/III		256.00	9526.22	2,438,711.42
		12 mm cement plaster finished with a floating coat of		-				230.00	9320.22	2,436,711.42
7		neat cement of mix: 1:3 (1 cement: 3 fine sand)	$m^2$							
		inside wall all around		1	63.2		5	316.00		
		Columns		3	1.2		5	18.00		
		longitudinal beams		13	5		1.1	71.50		
		intermediate beam		10	4.6		1.1	50.60		
		Roof Slab		1	10.6	20.6	0.15	32.75		
		Bottom		1	10	10		100.00		
		Total						589.00	318.49	187,592.91
		Plastering with Cement mortar 1:4 ,12mm thick one								20,,0,2,2,5
8		coat floated hard and trowelled to smooth including cost and conveyance for materials and labour charges and watering, curing etc. complete	m <sup>2</sup>							
		Outside - wall all around		1	63.2		5	316.00		
		Total						316.00	298.11	94,201.74
9		Finishing walls with water proofing cement paint of required shade: New work (Two or more coats applied	m <sup>2</sup>							
		@ 3.84 kg/10 sqm)								
		vide qty above						316.00	84.85	26,812.16
10		Providing Handrails	Ls							50,000.00
11		Providing gate valve and other acessories	Ls							60,000.00
12		Suppplying and providing CI steps @ 30cm c/c	Nos							
				30				30.00		
								30.00	221.70	6651.00
		TOTAL								8,124,925.04

## Estimate for the construction of 5MLD STP at Medical College, Trivandrum

## 10. Substation Building 10 x 20 x 3.70m

Sl. No	Description	Unit	No	Length	Breadth	Height	Quantity	Rate(Rs.)	Amount(Rs.)
51. 140	Clearing jungle including uprooting of rank	Cint	110	Length	Dicautii	Height	Quantity	Rate(Rs.)	Amount(Ks.)
	vegetation, grass, brush wood, trees and saplings								
	of girth upto 30 cm measured at a height of 1m	2							
1	above ground level and removal of rubbish upto a	m <sup>2</sup>							
	distance of 50 m outside the periphery of the area								
	cleared.								
			1	10	20		200.00	941.62	1883.24
	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas								
	(exceeding 30cm in depth. 1.5 m in width as well								
2	as 10 sqm on plan) including disposal of	$m^3$							
	excavated earth, lead upto 50m and lift upto								
	1.5m, disposed earth to be levelled and neatly								
	dressed. All kinds of soil			4.2	4.2	1.6	225.70		
	Column		8	4.2	4.2	1.6	225.79		
	Wall Total		2	16.92	1.4	1.6	75.80 302.00	561.89	169691.62
	Providing and laying in position cement concrete						302.00	301.89	109091.02
	of specified grade excluding the cost of centering								
3	and shuttering - All work up to plinth level	$m^3$							
3	1:4:8 (1 Cement : 4 coarse sand : 8 graded stone	m							
	aggregate 40mm nominal size)								
	Column		4	4.2	4.2	0.1	7.06		
	Wall		1	16.92	0.8	0.1	1.35		
	Ramp		1	4	1	0.1	0.40		
	Total						9.00	6308.50	56776.47
	Random rubble masonry with hard stone in								
	foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand								
4	: 12 graded stone aggregate 20 m m nominal size)	$m^3$							
· ·	upto plinth level with Cement mortar 1:6 (1	111							
	cement : 6 coarse sand) vide data no : 15								
	E 1.C C W/ II			16.00	0.6	0.45	4.57		
	Foundation for Wall Basement for Wall		1	16.92 16.92	0.6 0.45	0.45 0.45	4.57 3.43		
	Total			10.52	0.15	0.15	8.00	5746.68	45973.42
	RCC M30 for foundation etc using 20mm broken								
5	stone and SRC including all charges for form	$m^3$							
5	work ,shuttering, watering, curing etc. complete	111							
	Column footing		4	4.2	4.2	0.2	14.11		
	Column footing		7	7.2	4.2	0.2	14.00	9833.93	138776.42
	RCC M30 for super structure etc using 20mm								
6	broken stone and SRC including all charges for form work ,shuttering, watering, curing etc.	$m^3$							
	complete								
	Column		4	0.4	0.4	5.85	3.74		
	Plinth beam		1	16.92	0.3	0.4	2.03		
	Lintel beam		1	16.92	0.23 1/2x(0.	0.3	1.17		
	Ramp Beams		1	4	0.3	0.45	1.08 0.54		
	Roof slab		1	5.66	4	0.2	4.53		
	Total						13.00	10887.61	141538.90
	Brick work with common burnt clay selected								
	F.P.S. (non modular) bricks of class designation 7.5 in exposed brick work including making								
	1.5 m exposed blick work including making	3							
	horizontal and vertical grooves 10 mm wide 12			I	l		I		
	horizontal and vertical grooves 10 mm wide 12 mm deep complete in cement mortar 1:6 (1	m <sup>3</sup>						ļ l	
	mm deep complete in cement mortar 1:6 (1	m"							
	mm deep complete in cement mortar 1:6 (1 cement : 6 coarse sand) Above plinth level upto floor V level vide data no: 14	m"							
	mm deep complete in cement mortar 1:6 (1 cement : 6 coarse sand) Above plinth level upto floor V level vide data no: 14 Wall	m	1	16.92	0.23	3.65	14.20		
	mm deep complete in cement mortar 1:6 (1 cement : 6 coarse sand) Above plinth level upto floor V level vide data no: 14	m	1 1 4	16.92 21.84 0.4	0.23 0.12 0.4	3.65 1.1 3.65	2.88		

Column footing	1 ×	Providing and fabricating Ribbed tor steel bars / HYSD steel reinforcement including straightening ,cutting,welding, bending , hooking , lapping, placing in position tieing with binding wire of approved quality and gauge including cost of binding wire anchoring to the adjoining members where ever necessary, etc., including cost of labour, materials, with all lead and lift complete as per the design specifications and as directed by the engineer.  Column footing	Qtl		14.11 x	: 110kg/m <sup>3</sup>		15.52		
Slab   Beam   S.36 x 90kg/m²   3.62		Ü								
Beam										
12 mm cement plaster finished with a floating cand of neat cement of mix: 1:3 (1 cement: 3 fine sand)		Slab						3.62		
12 mm cement plaster finished with a floating coat of neat cement of mix: 1:3 (I cement: 3 fine sand)   m²					5.36 x	90kg/m <sup>3</sup>				
9 coat of neat cement of mix : 1:3 (1 cement: 3 fine sand)  Inside		* ***						28.00	9526.22	266734.06
Roof underside	9	coat of neat cement of mix: 1:3 (1 cement: 3 fine	$m^2$							
Floor Sunshade Total  12 mm cement plaster finished with a floating coat of neat cement of mix: 1:4 (1 cement: 4 fine sand) vide data no: 8  Roof outer side Parapet ouside Total  Total  Finishing walls with water proofing cement paint of required shade: New work (Two or more coats applied @ 3.84 kg/10 sqm) Oty as per item 9 and 10  Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together through their entire length and jointed together with purchase and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing namuractured from high tensile steel wire of adequate strength conforming to 1S: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters. 80x1.25 mm M.S. laths with 1.25 mm thick top		Inside			16		3.65	58.40		
Sunshade Total  12 mm cement plaster finished with a floating coat of neat cement of mix: 1:4 (1 cement: 4 fine sand) vide data no: 8  Outside  1 1 17.84  Total  1 1 17.84  Roof outer side  1 1 5.26  Parapet ouside  1 21.84  2.4 52.42  Total  Finishing walls with water proofing cement paint of required shade: New work (Two or more coats applied @ 3.84 kg/10 sqm)  Qry as per item 9 and 10  Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 44.54 - part 1 and M.S. top cover of required thickness for rolling shutters. 80x1.25 mm M.S. laths with 1.25 mm thick top										
Total  10 coat of neat cement plaster finished with a floating coat of neat cement of mix: 1:4 (1 cement: 4 fine sand) vide data no: 8  Outside  Roof outer side  Parapet ouside  Total  Total  11 17.84 3.65 65.12  Roof outer side  Parapet ouside  Total  Finishing walls with water proofing cement paint of required shade: New work (Two or more coats applied @ 3.84 kg/10 sqm)  Qty as per item 9 and 10  Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters. 80x1.25 mm M.S. laths with 1.25 mm thick top					-					
12 mm cement plaster finished with a floating coat of neat cement of mix: 1:4 (1 cement: 4 fine sand) vide data no: 8  Outside  Roof outer side  Roof outer side  Parapet ouside  Total  Finishing walls with water proofing cement paint of required shade: New work (Two or more coats applied @ 3.84 kg/10 sqm)  Qty as per item 9 and 10  Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters.  80x1.25 mm M.S. laths with 1.25 mm thick top				1	18.12	0.8				
10 coat of neat cement of mix: 1:4 (1 cement: 4 fine sand) vide data no: 8  Outside  Roof outer side  Parapet ouside  Total  Finishing walls with water proofing cement paint of required shade: New work (Two or more coats applied @ 3.84 kg/10 sqm)  Qty as per item 9 and 10  Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters.  80x1.25 mm M.S. laths with 1.25 mm thick top		* ***						108.00	318.49	34397.34
Roof outer side Parapet ouside Total Total Finishing walls with water proofing cement paint of required shade: New work (Two or more coats applied @ 3.84 kg/10 sqm) Qty as per item 9 and 10 Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters.  80x1.25 mm M.S. laths with 1.25 mm thick top	10	coat of neat cement of mix: 1:4 (1 cement: 4 fine	$m^2$							
Parapet ouside  Total  Total  Finishing walls with water proofing cement paint of required shade: New work (Two or more coats applied @ 3.84 kg/10 sqm)  Qty as per item 9 and 10  Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters.  80x1.25 mm M.S. laths with 1.25 mm thick top		Outside		1	17.84		3.65	65.12		
Finishing walls with water proofing cement paint of required shade: New work (Two or more coats applied @ 3.84 kg/10 sqm)  Qty as per item 9 and 10  Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters.  80x1.25 mm M.S. laths with 1.25 mm thick top		Roof outer side		1	5.26		5.26	27.67		
Finishing walls with water proofing cement paint of required shade: New work (Two or more coats applied @ 3.84 kg/10 sqm)  Oty as per item 9 and 10  Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters.  80x1.25 mm M.S. laths with 1.25 mm thick top		Parapet ouside		1	21.84	2.4		52.42		
of required shade: New work (Two or more coats applied @ 3.84 kg/10 sqm)  Qty as per item 9 and 10  Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters. 80x1.25 mm M.S. laths with 1.25 mm thick top								145.00	298.11	43225.48
Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters.  80x1.25 mm M.S. laths with 1.25 mm thick top		of required shade : New work (Two or more coats applied @ 3.84 kg/10 sqm)	$m^2$							
make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters. 80x1.25 mm M.S. laths with 1.25 mm thick top								253.00	84.85	21466.69
TOTAL 1080473.94	12	make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters. 80x1.25 mm M.S. laths with 1.25 mm thick top cover	m2	1	3	4		12.00	3141.82	

## Estimate for the construction of 5MLD STP at Medical College, Trivandrum

# 11. Chlorination Building 7 x 6 x 4

Sl. No	Description	Unit	No	Length	Breadth	Height	Quantity	Rate(Rs.)	Amount(Rs.)
1	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth upto 30 cm measured at a height of 1m above ground level and removal of rubbish upto a distance of 50 m outside the periphery of the area cleared.	m <sup>2</sup>							
			1	15	10		150.00	941.62	1412.00
2	Earth work in rough excavation, banking excavated earth in layers not exceeding 20 cm in depth, breaking clods, watering, rolling each layer with ½ tonne roller or wooden or steel rammers, and rolling every 3rd and top-most layer with power roller of minimum 8 tonnes and dressing up in embankments for roads, flood banks, marginal banks and guide banks or filling up ground depressions, lead upto 50 m and lift upto 1.5 m	$\mathrm{m}^3$							
	Column		6	2.1	2.1	1.3	34.40		
	Wall		1	17	1.2	1.3	26.52		
	Ramp		1	3.5	2.5	0.2	1.75		
	Total						62.67	561.89	35213.00
3	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level 1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size) Column	$m^3$							
	Column		6	1.5	1.5	0.1	1.35		
	Wall		1	17	0.6	0.1	1.02		
	Ramp		1	3.5	1/2x(2	.5x0.5)	2.19		
4	Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 m m nominal size) upto plinth level with Cement mortar 1:6 (1 cement : 6 coarse sand)	m <sup>3</sup>					4.56	6308.50	28751.00
	Foundation for Wall		1	21.12	0.6	0.45	5.70		
	Basement for Wall		1	20.52	0.45	0.45	4.16		
5	Total  RCC M30 for foundation etc using 20mm broken stone and SRC including all charges for form work ,shuttering, watering, curing etc. complete	m <sup>3</sup>					10.00	5746.68	57467.00
	Column footing		6	1.5	1.5	0.3	4.05		
							4.00	9833.93	39336.00
6	RCC M30 for super structure etc using 20mm broken stone and SRC including all charges for form work ,shuttering, watering, curing etc. complete	m <sup>3</sup>							
	Column		6	0.3	0.3	3.7	2.00		
	Plinth beam		1	23.2	0.3	0.4	2.78		
	Lintel beam		1	23.2	0.3	0.4	2.78		
	Beams		3	5	0.3	0.4	1.80		
	Roof slab		1	6.8	5.8	0.15	5.92		
	Ramp		1	3.5	1/2x(2	.5x0.4)	1.75		
	Net Total		<u></u>				17.03	10887.61	185438.00

7	Brick work with common burnt clay selected F.P.S. (non modular) bricks of class designation 7.5 in exposed brick work including making horizontal and vertical grooves 10 mm wide 12 mm deep complete in cement mortar 1:6 (1 cement : 6 coarse sand) Above plinth level upto floor V level	$\mathrm{m}^3$							
	Wall		1	22.38	0.23	3.7	19.05		
	Parapet		1	24.64	0.12	1	2.96		
	Deduction			2	0.12	-	22.00		
	Window		4	1.2	0.23	1.50	1.66		
	Ventilator		4	0.75	0.23	0.45	0.31		
	Rolling Shutter		1	3.5	0.23	3.50	2.82		
							4.78		
8	Providing and fabricating Ribbed tor steel bars / HYSD steel reinforcement including straightening ,cutting,welding, bending, hooking, lapping, placing in position tieing with binding wire of approved quality and gauge including cost of binding wire anchoring to the adjoining members where ever necessary, etc., including cost of labour, materials, with all lead and lift complete as per the design specifications and as directed by the engineer.	Qtl					17.22	8153.90	140395.00
	Column footing			4.05	x110kg/m <sup>3</sup>		4.46		
	Column				x100kg/m <sup>3</sup>		2.00		
	slab				7x75kg/m <sup>3</sup>		5.75		
	Beam			7.3	7x95kg/m <sup>3</sup>		7.00		
	Total						19.20	9526.22	182923.00
9	12 mm cement plaster finished with a floating coat	$m^2$							
	of neat cement of mix: 1:3 (1 cement: 3 fine sand)	•••					00.00		
	Inside		1	22		4.5	99.00		
	Roof underside		1	6	5		30.00		
	Deduction Window		4	1.0		1.50	7.20		
	Ventilator		4	1.2 0.75		1.50 0.45	7.20 1.35		
	Rolling Shutter		1	3.5		3.50	12.25		
	Total		1	3.3		3.30	108.20	318.49	34461.00
10	Cement concrete flooring 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate) finished with a floating coat of neat cement, including cement slurry, but excluding the cost of nosing of steps etc. complete. 40 mm thick with 20 mm nominal size stone aggregate	$m^2$							
	Floor		1	6	5		30.00		
<b>—</b>	Total			0	3		30.00	518.26	15548.00
1.1	12 mm cement plaster finished with a floating coat	2							
11	of neat cement of mix : 1:4 (1 cement: 4 fine sand)	m <sup>2</sup>							
	Outside		1	23.84		4.5	107.28		
	Roof outer side		1	6.36		5.36	34.09		
	Parapet outside		1	24.4	,	2.12	51.73		
	Deduction Nr. 1			1.0		1.50	=		
	Window Ventilator		4	1.2		1.50	7.20		
	Rolling Shutter		4	0.75 3.5		0.45 3.50	1.35 12.25		
<b>-</b>	Total		1	ر.ر		5.50	193.10	298.11	57564.00
12	Finishing walls with water proofing cement paint of required shade: New work (Two or more coats applied @ 3.84 kg/10 sqm)	m <sup>2</sup>					173.10	270.11	2.201.00
	Qty as per item 9 and 11						301.30	84.85	25565.00
13	Providing and fixing glazed shutters for doors, windows and clerestory windows using 4 mm thick float glass panes including ISI marked M.S. pressed butt hinges bright finished of required size with necessary screws. Using Anjili wood/ Jack wood 30mm thick shutters.	m <sup>2</sup>							
	Window		4	1.2		1.50	7.20		
	Ventilator		4	0.75		0.45	1.35		
	Total						8.55	3390.80	28991.00

14	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters.  80x1.25 mm M.S. laths with 1.25 mm thick top cover	m <sup>2</sup>							
			1	3.5		3.5	12.25		
							12.00	3141.82	37702.00
15	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade: Two or more coats on new work vide data no: 25	$m^2$							
			1	3.5		3.5	18.38		
							18.00	109.12	1964.00
16	Painting wood work with Deluxe Multi Surface Paint of required shade. Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of primer applied @0.75 ltr/ 10 sqm of approved brand and manufacture vide data no: 26	$m^2$							
			4	1.2		1.50	10.80		
			4	0.75		0.45	2.03		
							12.83	129.36	1659.00
17	Suppplying and providing CI steps @ 30cm c/c	Nos	24				24.00		
			24				24.00	221.70	5320.80
18	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters.  80x1.25 mm M.S. laths with 1.25 mm thick top cover	m2	1	3	4		12.00		37701.82
	TOTAL								917411.62

12. L	Estimate for the construction aundry Collection Tank 7m x 8.5 x 5.5n		5MLD	STP at	Medical Co	nege, Tr	<u> 1vandrun</u>	n	
Sl. No	Description	Unit	No	Dia	Dia/Thickn ess	Height	Quantity	Rate(Rs.)	Amount(Rs.)
	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth upto 30 cm measured at a height of 1m above ground level and removal of rubbish upto a distance of 50 m outside the periphery of the area	m <sup>2</sup>							
	Total			8.00	9.00		72.00	041.62	679.00
2	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30cm in depth. 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed. All kinds of soil	m <sup>3</sup>					72.00	941.62	678.00
	Total			7.50	8.50	2.00	15.00 15.00	561.89	8428.00
3	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level 1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size)	m <sup>3</sup>		7.00	0.50	0.10		301.87	8428.00
	Total			7.00	8.50	0.10	5.95 6.00	6308.50	37851.00
3a	Centering and shuttering including strutting, propping etc. and removal of form Foundations, footings, bases of columns, etc. for								
	mass concrete raft			31		0.1	2.4335		
	Tait			31		0.1	2.4335	288.13322	701
4	RCC M30 for sub structure etc using 20mm broken stone and SRC including all charges for form work ,shuttering, watering, curing etc. complete excluding reinforcement	m <sup>3</sup>							
	Raft slab			7.00	8.50	0.50	29.75		
	Wing Wall			31.00	0.30	1.50	13.95	0000 00	120712.00
4a	Total  Centering and shuttering including strutting, propping etc. and removal of form						43.70	9833.93	429743.00
	Foundations, footings, bases of columns, etc. for mass concrete								
	Raft slab			31.00		0.50	48.67		
	Total Walla (any thickness) including attached pilesters						49.00	288.13	14119.00
4b	Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.								
	Wing Wall		2	31.00		4.00	248.00		
5	Total  RCC M30 for sub structure etc using 20mm broken stone and SRC including all charges for form work ,shuttering, watering, curing etc. complete excluding reinforcement						248.00	529.19	131238.00
	Wing Wall			31.00	0.30	4.00	37.20		
	Walkway slab Total			31.00	1.00	0.15	4.65	10200 24	120562.00
	Centering and shuttering including strutting, propping etc. and removal of form						41.85	10288.24	430563.00
5b	Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.								
	Wing Wall		2	31.00		4.00	248.00	520.10	121229 00
5c	Total Suspended floors, roofs, landings, balconies and access platform						248.00	529.19	131238.00
	Walkway slab			31.00	1.20		116.81		
	Total	ı T		1	1		117.00	589.10	68925.00

6	Providing and fabricating Ribbed tor steel bars / HYSD steel reinforcement including straightening ,cutting,welding, bending , hooking , lapping, placing in position tieing with binding wire of approved quality and gauge including cost of binding wire anchoring to the adjoining members where ever necessary, etc., including cost of labour, materials, with all lead and lift complete as per the design specifications and as directed by the engineer.	Qtl							
	Raft			78 x	110kg/m <sup>3</sup>	1	85.80		
	side wall				00kg/m <sup>3</sup>		51.00		
	Slabs				30kg/m <sup>3</sup>				
	Total			5 X C	SUKg/m		4.00 141.00	9526.22	1343197.00
	12 mm cement plaster finished with a floating coat						141.00	9520.22	1343197.00
7	of neat cement of mix: 1:3 (1 cement: 3 fine sand)	$m^2$							
	Wing Wall			31.00		5.00	155.00		
	Walkway slab			31.00	1.15	3.00	35.65		
	bottom inside			7.00	8.50		59.50		
	Total			7.00	0.00		250.00	318.49	79623.00
_	12 mm cement plaster finished with a floating coat	2							
8	of neat cement of mix: 1:4 (1 cement: 4 fine sand)	$m^2$							
	Outside wing wall			31.00		5.50	170.50		
	Total						171.00	298.11	50976.00
	Finishing walls with water proofing cement paint								
9	of required shade: New work (Two or more coats	$m^2$							
	applied @ 3.84 kg/10 sqm)								
	Qty as per item 8						171.00	84.85	14509.00
10	Painting with anti corrosive bituminous paint two coats to the outside surfaces including all charges for material and labour, etc. complete as per the instruction of the engineer.	$m^2$							
				31.00		5.50	535.37		
	Total						535.00	118.56	63430.00
11	Providing Handrails	Ls							50,000.00
12	Providing gate valve and other acessories	Ls							60,000.00
13	Suppplying and providing CI steps @ 30cm c/c	Nos							
			30				30.00		
							30.00	221.70	6651.00
-	Total					-	<del>                                     </del>		2021070.00
Ь	Total				<u> </u>	ļ	L		2921870.00

	Estimate for the construction of 5MLD STP at Medical College, Trivandrum										
13. L	aundry Pre clarifier 7m x 3 x 5.5m					-6-7					
Sl. No	Description	Unit	No	Dia	Dia/Thickn ess	Height	Quantity	Rate(Rs.)	Amount(Rs.)		
1	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth upto 30 cm measured at a height of 1m above ground level and removal of rubbish upto a distance of 50 m outside the periphery of the area	m <sup>2</sup>									
	Total			8.00	4.00		32.00 32.00	941.62	301.00		
2	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30cm in depth. 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed. All kinds of soil	m <sup>3</sup>		7.50	3.50	2.00		941.02	301.00		
	Total			7.30	3.30	2.00	15.00 15.00	561.89	8428.00		
3	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level 1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size)			7.00	2.00	0.10		361.09	0120.00		
	Total			7.00	3.00	0.10	2.10	6308.50	12617.00		
3a	Centering and shuttering including strutting, propping etc. and removal of form Foundations, footings, bases of columns, etc. for										
	mass concrete raft			20		0.1	1.57				
	Turt			20		0.1	1.57	288.13322	452		
4	RCC M30 for sub structure etc using 20mm broken stone and SRC including all charges for form work ,shuttering, watering, curing etc. complete excluding reinforcement	$m^3$									
	Raft slab			7.00	3.00	0.50	10.50				
	Wing Wall			20.00	0.30	1.50	9.00				
4a	Total  Centering and shuttering including strutting, propping etc. and removal of form						19.50	9833.93	191762.00		
	Foundations, footings, bases of columns, etc. for mass concrete										
	Raft slab			20.00		0.50	31.40	200.12	9922.00		
4b	Total Walls (any thickness) including attached pilasters, butteresses,plinth and string courses etc.		2	20.00		4.00	31.00	288.13	8932.00		
	Wing Wall Total		2	20.00		4.00	160.00 160.00	529.19	84670.00		
5	RCC M30 for sub structure etc using 20mm broken stone and SRC including all charges for form work ,shuttering, watering, curing etc. complete excluding reinforcement	m <sup>3</sup>									
	Wing Wall Walkway slab			20.00	0.30 0.60	4.00 0.10	24.00 1.20				
	Waikway siab  Total			20.00	0.00	0.10	25.20	10288.24	259264.00		
	Centering and shuttering including strutting, propping etc. and removal of form										
5a	Walls (any thickness) including attached pilasters, butteresses,plinth and string courses etc.  Wing Wall		2	20.00		4.00	160.00				
	Total					*	160.00	529.19	84670.00		
5b	Suspended floors, roofs, landings, balconies and access platform			20.00	0.70		12.25				
	Walkway slab Total			20.00	0.70		43.96 44.00	589.10	25920.00		
	_ 3444						00	207.10	20,20.00		

6	Providing and fabricating Ribbed tor steel bars / HYSD steel reinforcement including straightening ,cutting,welding, bending, hooking, lapping, placing in position tieing with binding wire of approved quality and gauge including cost of binding wire anchoring to the adjoining members where ever necessary, etc., including cost of labour, materials, with all lead and lift complete as per the design specifications and as directed by the engineer.	Qtl			3		20.50		
	side wall				110kg/m <sup>3</sup>		37.50		
					.00kg/m <sup>3</sup>		33.00		
	Slabs			1.2 x	80kg/m <sup>3</sup>	1	0.96		
	Total						71.00	9526.22	676361.00
7	12 mm cement plaster finished with a floating coat of neat cement of mix: 1:3 (1 cement: 3 fine sand) vide data no: 7	$m^2$							
	Wing Wall			20.00		4.00	80.00		
	Walkway slab			20.00	0.70		14.00		
	bottom inside			7.00	3.00		21.00		
	Total						115.00	318.49	36627.00
8	12 mm cement plaster finished with a floating coat of neat cement of mix: 1:4 (1 cement: 4 fine sand)	$m^2$							
	Outside wing wall			20.00		4.00	80.00		
	Total						80.00	298.11	23849.00
9	Finishing walls with water proofing cement paint of required shade: New work (Two or more coats applied @ 3.84 kg/10 sqm)	$m^2$							
	Qty as per item 8						80.00	84.85	6788.00
10	Painting with anti corrosive bituminous paint two coats to the outside surfaces including all charges for material and labour, etc. complete as per the instruction of the engineer.	$m^2$							
	Qty as per item 9						80.00		
	Total						80.00	118.56	9485.00
11	Providing Handrails	Ls		-					50,000.00
12	Providing gate valve and other acessories	Ls							60,000.00
13	Suppplying and providing CI steps @ 30cm c/c	Nos							
			20				20.00		
							20.00	221.70	4434.00
	Total								1544560.00

	Estimate for the construction of 5MLD STP at Medical College, Trivandrum										
	aundry Clarifier 7m dia x 5.5m		ı	ı	D: //EL: 1			ı	1		
Sl. No	Description	Unit	No	Dia	Dia/Thickn ess	Height	Quantity	Rate(Rs.)	Amount(Rs.)		
	Clearing jungle including uprooting of rank										
1	vegetation, grass, brush wood, trees and saplings of girth upto 30 cm measured at a height of 1m										
1	above ground level and removal of rubbish upto a	m <sup>-</sup>									
	distance of 50 m outside the periphery of the area										
	distance of 50 m outside the periphery of the area			8.00	8.00		64.00				
	Total						64.00	941.62	603.00		
	Earth work in excavation by mechanical means										
	(Hydraulic excavator)/ manual means over areas										
	(exceeding 30cm in depth. 1.5 m in width as well										
2	as 10 sqm on plan) including disposal of excavated	$m^3$									
	earth, lead upto 50m and lift upto 1.5m, disposed										
	earth to be levelled and neatly dressed. All kinds of soil										
	Kilius of soft		1 /4	7.00	7.00	2.00	10.00				
	Total		1xπ/4	7.00	5.00	2.00	10.99 11.00	561.89	6181.00		
	Providing and laying in position cement concrete						11.00	301.07	0101.00		
	of specified grade excluding the cost of centering										
3	and shuttering - All work up to plinth level	$m^3$									
	1:4:8 (1 Cement : 4 coarse sand : 8 graded stone										
	aggregate 40mm nominal size)										
			1xπ/4	7.00	7.00	0.10	3.85				
2	Total						4.00	6308.50	25234.00		
3a	Centering and shuttering including strutting, propping etc. and removal of form										
	Foundations, footings, bases of columns, etc. for										
	mass concrete										
	raft		π	7		0.1	0.5495				
							1	288.13322	288		
	RCC M30 for sub structure etc using 20mm										
4	broken stone and SRC including all charges for	$m^3$									
_	form work ,shuttering, watering, curing etc. complete excluding reinforcement	111									
	1 0										
	Raft slab		1xπ	3.50	3.50	0.50	19.23				
	Wing Wall Central inlet		1xπ	7.00	0.30	1.50	9.89 0.81				
	Total		1xπ	1.15	0.15	1.50	30.00	9833.93	295018.00		
	Centering and shuttering including strutting,						30.00	7033.73	293018.00		
4a	propping etc. and removal of form										
	Foundations, footings, bases of columns, etc. for										
	mass concrete										
	Raft slab		π	7.00		0.50	10.99				
	Total Walls (any thickness) including attached pilasters,			-			11.00	288.13	3169.00		
4b	Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.										
	Wing Wall		π	7.00		1.50	32.97				
	Total		,			2.20	33.00	529.19	17463.00		
4c	Columns, Pillars, Piers, Abutments, Posts and										
4C	Struts										
	Central inlet		π	1.15		1.50	5.42	661.00	2225.00		
	Total						5.00	664.93	3325.00		
	RCC M30 for sub structure etc using 20mm broken stone and SRC including all charges for										
4	form work ,shuttering, watering, curing etc.	$m^3$									
	complete excluding reinforcement										
	Wing Wall		1xπ	7.00	0.30	4.00	26.38				
	Walkway slab		1xπ	7.00	1.20	0.15	3.96				
	Central inlet		1xπ	1.15	0.15	4.00	2.17				
	Top slab in middle wall		lxπ	1.15	0.60	0.15	0.32	10707	000 510 11		
	Total				-		33.00	10288.24	339512.00		
	Centering and shuttering including strutting, propping etc. and removal of form										
	Walls (any thickness) including attached pilasters,						-				
5a	butteresses, plinth and string courses etc.										
	Wing Wall		π	7.00		4.00	87.92				
	Total						88.00	529.19	46568.00		

5b	Columns, Pillars, Piers, Abutments, Posts and Struts								
	Central inlet		π	1.15		4.00	14.44		
	Total						14.00	664.93	9309.00
5c	Suspended floors, roofs, landings, balconies and access platform								
	Walkway slab		1xπ	7.00	1.20		26.38		
	Top slab in middle wall		1xπ	1.15	0.60		2.17		
	Total						29.00	589.10	17084.00
6	Providing and fabricating Ribbed tor steel bars / HYSD steel reinforcement including straightening ,cutting,welding, bending , hooking , lapping, placing in position tieing with binding wire of approved quality and gauge including cost of binding wire anchoring to the adjoining members where ever necessary, etc., including cost of labour, materials, with all lead and lift complete as per the design specifications and as directed by the engineer.	Qtl							
	Raft		<u> </u>	20. x	110kg/m <sup>3</sup>	1	22.00		
	side wall				x100kg/m <sup>3</sup>				
	Slabs						39.25		
			1	5 x 8	30kg/m <sup>3</sup>	1	4.00		
	Total						65.00	9526.22	619204.00
7	12 mm cement plaster finished with a floating coat	$m^2$							
	of neat cement of mix: 1:3 (1 cement: 3 fine sand)		1	<b>-</b> 00		4.00	07.02		
	Wing Wall		1xπ	7.00	2.55	4.00	87.92		
	Walkway slab		1xπ	7.00	2.55	4.00	56.05		
	Central inlet		2xπ	1.15	0.05	4.00	28.89		
	Top slab in middle wall		1xπ	1.15	0.85		3.07	210.40	56055.00
	Total						176.00	318.49	56055.00
8	12 mm cement plaster finished with a floating coat	$m^2$							
	of neat cement of mix : 1:4 (1 cement: 4 fine sand)  Outside wing wall		1	7.00		4.00	87.92		
	Total		1xπ	7.00		4.00	88.00	298.11	26233.00
							88.00	298.11	26233.00
9	Finishing walls with water proofing cement paint of required shade: New work (Two or more coats applied @ 3.84 kg/10 sqm)	m <sup>2</sup>							
	Qty as per item 8						88.00	84.85	7467.00
10	Painting with anti corrosive bituminous paint two coats to the outside surfaces including all charges for material and labour, etc. complete as per the instruction of the engineer	$m^2$							
			1xπ	13.76		2.20	95.05		
	Total						95.00	118.56	11263.00
11	Providing Handrails	Ls							50,000.00
12	Providing gate valve and other acessories	Ls							60,000.00
13	Suppplying and providing CI steps @ 30cm c/c	Nos							
			30				30.00		
							30.00	221.70	6651.00
	Total								1600627.00

	Estimate for the construction of 5MLD STP at Medical College, Trivandrum											
15. In	terconnecting Channels											
Sl. No	Description	Unit	No	Length	Breadth	Height	Quantity	Rate(Rs.)	Amount(Rs.)			
1	RCC M30 for sub structure etc using 20mm broken stone and SRC including all charges for form work ,shuttering, watering, curing etc. complete	$m^3$										
	Floor slab		1	150.00	1.05	0.20	31.50					
	Side wall		2	150.00	0.15	0.65	29.25					
	Total						61.00	9833.93	599870.00			
2	Providing and fabricating Ribbed tor steel bars / HYSD steel reinforcement including straightening ,cutting,welding, bending , hooking , lapping, placing in position tieing with binding wire of approved quality and gauge including cost of binding wire anchoring to the adjoining members where ever necessary, etc., including cost of labour, materials, with all lead and lift complete as per the design specifications and as directed by the	Qtl										
				6	0.75 x 95kg/m	3	57.95					
	Say						58.00	9526.22	552521.00			
3	12 mm cement plaster finished with a floating coat of neat cement of mix: 1:3 (1 cement: 3 fine sand)	$m^2$										
	Side wall		2	150.00		0.65	195					
	Тор		2	150.00		0.15	45					
	Floor		1	150.00	0.75		112.5					
	Total						353	318.49	112428.00			
4	12 mm cement plaster finished with a floating coat of neat cement of mix: 1:4 (1 cement: 4 fine sand)	$m^2$										
	Side wall		2	150.00		0.85	255.00					
	Bottom		1	150.00	1.05		157.50					
							413.00	298.11	123118.00			
5	Finishing walls with water proofing cement paint of required shade: New work (Two or more coats applied @ 3.84 kg/10 sqm)	m <sup>2</sup>										
	Qty as per item 4						413.00	84.85	35042.00			
	TOTAL								1422979.00			

	Estimate for the construction of 5MLD STP at Medical College, Trivandrum										
16 Cc	ompo	und Wall		•							
Sl. No		Description	Unit	No	Length	Breadth	Height	Quantity	Rate(Rs.)	Amount(Rs.)	
1		Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth upto 30 cm measured at a height of 1m above ground level and removal of rubbish upto a distance of 50 m outside the periphery of the area cleared.	$m^2$	1	400	2		800.00	941.62	7,533.00	
2		Providing, driving and installing driven cast-in-situ reinforced cement concret epiles of grade M-25 of specified diameter and length below the pile cap, tocarry safe working load not less than specified, excluding the cost of steelreinforcement but including the cost of shoe and the length of pile to beembedded in the pile cap etc. all complete. (Length of pile for paymentshall be measured from top of shoe to the bottom of pile cap)				2				,	
	20.1.1	400 mm dia piles @1.5mc/c for total length -200m Bailing out water with 5 HP engine and pumpset	metre	140	14			1960.00	2825.67	5,538,314.93	
4a		bailing out water with 3 Hr engine and pumpset including conveyance to the site, errection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. etc. complete.									
		say						100.00	110.06	11,005.85	
3		Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30cm in depth. 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed.  All kinds of soil	m <sup>3</sup>								
	2.6.1	first depth upto 1.5m		1	400	0.6	0.50	120.00	•••		
		Total						120.00	228.22	27,386.22	
3		Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level 1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size)	m <sup>3</sup>								
		Total		1	400	0.6	0.10	24.00	6308.50	151,403.92	
3a		Centering and shuttering including strutting, propping etc. and removal of form  Foundations, footings, bases of columns, etc. for mass						21.00	0300.30	131,103.72	
		concrete		1	400		0.2	80.00 80.00	288.13	23,050.66	
4		RCC M30 for foundation structure etc using 20mm broken stone and SRC excluding all charges for form work shuttering, watering, curing etc. complete						80.00	266.13	23,030.00	
		between the piles		1	200	0.3	1	60.00	0022.02	500 025 01	
4a		Centering and shuttering including strutting, propping etc. and removal of form	m2					60.00	9833.93	590,035.81	
				1	200		1.2	240.00	200 12	69,151.97	
5		Random rubble masonry in CM 1:6 for foundation including	m3					240.00	288.13	09,131.97	
		cost of 72 kg cement		1	200	0.7	0.8	112.00			
				1	200	0.6	0.6	72.00			
				1	400	0.45	0.45	81.00 265.00	5746.68	1,522,869.48	
6		Pointing the exposed face of RR masonry with CM 1:4 including cost of 10 kg cement as per standard specification									
				2	400	0.45		360.00 360.00	155.98	56,154.08	
7		Brick work in cement mortar 1:5 with existing country burnt bricks(22.9cm*11.2cm*7cm) for superstructure	m3						233.50	,	
				1	400	0.3	2	240.00 240.00	8153.90	1,956,935.67	

8	Plastering with cement mortar 1:3, 12 mm thick two coats including hire charges of scaffolding, cost of cement etc. complete including cost of 88 kg cement/10m2 for grit chamber and collecting chamber.	m2							
			2	400	2		800.00		
							800.00	318.49	254,795.12
9	Finishing new cement plastered walls with cement water proof paint 2 coats.	m2							
			2	400	2		800.00		
							800.00	84.85	67,878.88
10	Providing MS grills for windows or compound gates including all labour and hire charges for fabricating and cost of materials and applying a coat of iron primer	kg							
			300				300.00	159.87	47,961.09
11	Providing the European type water closet with all the necessary sanitary fittings, white glazed earthenware flat back wash hand basin 550mmx400mm with one pillar tap as per the requirement and providing 500liters PVC good quality water tank	ls							25,000.00
12	Supplying and fixing solid PVC door of size 0.80X2.10m as per standard specifications including all fittings and labour charges, etc. complete as per the direction of the Engineer in charge.	ls							10,000.00
13	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m	m3							
			1	180	20	1.5	5400.00	112.40	606,960.00
	TOTAL								10,966,436.69

	Estimate for the construction of 5MLD STP at Medical College, Trivandrum											
	ransmission main & Effluent Disposal Pip	oeline	1	,			,					
SI.	Description	Unit	No	Length	Breadth	Height	Quantity	Rate(Rs.)	Amount(Rs.)			
	Excavating trenches of required width for pipes,											
	cables, etc including excavation for sockets, and											
	dressing of sides, ramming of bottoms, depth up											
	to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers											
1	not exceeding 20 cm in depth, including	$m^3$										
	consolidating each deposited layer by ramming,											
	watering, etc. and disposing of surplus excavated											
	soil as directed, within a lead of 50 m:											
	All kinds of soil vide data no : 38											
			1	500		0+1.25)/2	843.75					
			1	200	1.5X(1.	0+1.25)/3	337.5 1181.00	395.85	467498.85			
	Excavating trenches of required width for pipes,											
	cables, etc including excavation for sockets, and											
	dressing of sides, ramming of bottoms, depth from											
	1.5 up to 3.0 m, including getting out the											
2	excavated soil, and then returning the soil as	$m^3$										
	required, in layers not exceeding 20 cm in depth,											
	including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus											
	excavated soil as directed, within a lead of 50 m:											
	All kinds of soil vide data no : 39											
			1	500	1.5x(1.	25+1.5)/2	1031.25					
			1	100	1.5x(1.	25+1.5)/3	206.25					
							1238.00	463.70	574060.60			
	Excavating trenches of required width for pipes,											
	cables, etc including excavation for sockets, and											
	dressing of sides, ramming of bottoms, depth from 3 up to 4.5 m, including getting out the excavated											
	soil, and then returning the soil as required, in											
3	layers not exceeding 20 cm in depth, including	m <sup>3</sup>										
	consolidating each deposited layer by ramming,											
	watering, etc. and disposing of surplus excavated											
	soil as directed, within a lead of 50 m:											
	All kinds of soil vide data no : 40											
			1	500	1.0	0x1.5	750 750.00	531.55	398662.50			
	Providing shoring to the sides of trenches upto a						730.00	331.33	398002.30			
	depth of 4.00m with 50mm thick mango wood											
	planks and two rows of maruthu wood wallings											
	150mmX100mm provided horizontally on each											
	side, 100mmx100mm struts spaced at 2.00m											
	an aut		2	500	4		4000.00	363.17	1452697.09			
4	Supplying R.C.C. pipes NP2 class 500 mm dia vide data no : 31	m	1	500			500.00	1476.60	738300.00			
	Supplying SW pipes NP2 class 150 mm dia vide											
5	ata no : 41	m	1	200			500.00	195.56	97780.00			
	Conveying , Laying , Jointing and Testing											
	500mm dia RCC non pressure NP2 including											
5	fixing collar with cement mortar 1:2 including	m										
	cost of pipe, all labour, material etc.complete.											
			1	500			500	202.41	451005.00			
	Conveying, laying and jointing glazed stoneware			<del>                                     </del>	1		500.00	303.61	151805.00			
	pipes class SP-1 with stiff mixture of cement											
	mortar in the proportion of 1:1 (1 cement : 1 fine											
5	sand) including testing of joints etc. complete	m										
	(excuding cost of pipes):											
	150 mm diameter. vide data no 42											
			1	200			200					
	C						200.00	242.88	48576.00			
6	Contruction of Manholes as per requirement vide DSR 19.13.1.1	Е	4				1.00	51299.67	205198.66			
	DOK 17.13.1.1											
	Total								4134578.70			

	Estimate for the construction of 5MLD STP at Medical College, Trivandrum											
21. R	ecycling & Pipeline											
Sl. No	Description	Unit	No	Length	Breadth	Height	Quantity	Rate(Rs.)	Amount(Rs.)			
1	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m: All kinds of soil vide data no: 38	m <sup>3</sup>										
			1	5000	0.6	1	300					
2	Supplying & Laying 90mm pvc. pipes 10kg/m2	m	1	5000			300.00 5000.00	395.85 276.91	118755.00 1384542.50			
3	Supplying & Laying 50mm pvc. pipes 10kg/m3	m	1	1000			1000.00	86.32	86319.00			
4	Laying UPVC pipes of class 2 to class 6 and specials, lowering to the trenches already made, placing in position aligning the pipe line to the lines and levels and jointing the pipes and specials with solvent cement and testing the pipe line with water to the required test pressure (excluding cost of pipes and specials).90 mm nominal outer dia pipes.	m										
			1	5000			5000					
5	Laying UPVC pipes of class 2 to class 6 and specials, lowering to the trenches already made, placing in position aligning the pipe line to the lines and levels and jointing the pipes and specials with solvent cement and testing the pipe line with water to the required test pressure (excluding cost of pipes and specials). 50 mm nominal outer dia pipes.	m					5000.00	63.83	319125.00			
			1	1000			1000					
	D 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						1000.00	34.90	34902.50			
6	Providing and placing on terrace (at all floor levels) polyethylene water storage tank, ISI: 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.	liter	10	2000			20000.00	10.63	106.34			
	El M. CD : 1:	T.C.							100000 00			
7	Flow Meter of Required size  Total	LS							100000.00 2043750.34			
	Total			L	il		1		<b>40+3730.34</b>			

## Estimate for the construction of 5MLD STP at Medical College, Trivandrum

18. Electrical and Mechnical Installations including recycling and sludge drying system

10. L	lectrical and wechnical installations inc	iaaiiig	lecyci	Unite rate (LS /	je drynig system
SL NO	DESCRIPTION	QTY	UNIT	Market Rate)	Total amount in Rupees
1	Bio Fluid Treatment System for Labs			,	1
a	Tanks for Collection of Bio Fluids				
а	Capacity - 500 lts				
b	Chlorine Dosing System - Capacity 0-10 LPH (1w +1s)	Cata	18	110,000.00	1 000 000 00
	Tanks for Disinfected Bio Fluids	Sets	18	110,000.00	1,980,000.00
С	Capacity - 500 lts				
	capacity 500 hb				
d	Venturi Aeration System - Capacity 0.5 HP				
2	Bio Fluid Treatment System for OT Fluids				
	bio Fluid Treatment System for OT Fluids				
	Tanks for Collection of OT Fluids				
a	Capacity - 5000 lts				
b	Chlorine Dosing System - Capacity 0-25 LPH (1w +1s)				
		Sets	16	300,000.00	4,800,000.00
с	Tanks for Disinfected OT Fluids				
	Capacity - 5000 lts				
d	Venturi Aeration System - Capacity 1 HP				
	venturi rietution bystom — expuenty i in		I		
3	Laundry - Flow 700 KLD - 8hrs Operation				
	-				
a	Submersible Pump for Laundry waste water	Nos	2	130,000.00	260,000.00
	Duty: 50 cum/hr @ 15 M H. (1 W +1 S)	1103	2	130,000.00	200,000.00
					400000
b	DeFoamer Dosing System - Capacity 0-35 LPH (1w +1s)	Nos	2	60,000.00	120,000.00
С	HCL Dosing System - Capacity 0-20 LPH (1w +1s)	Nos	2	60,000.00	120,000.00
	The Dosing Bystem Cupacity of 20 EFF (111 + 15)	1105		00,000.00	120,000.00
d	Clarifier Mechanism	Set	1	500,000.00	500,000.00
e	Flocculation Dosing System - Capacity 0-20 LPH (1w +1s)	Nos	2	60,000.00	120,000.00
_					
4	Oil and Grease Separator System				
a	OGS for Main Canteen - Capacity 20m3/hr	No	1	2,000,000.00	2,000,000.00
а	OGS for Main Canteen - Capacity 2011/3/111	NO	1	2,000,000.00	2,000,000.00
b	OGS for Girls and Boys Hostel Canteen - Capacity 7.5m3/hr	Nos	5	1,200,000.00	6,000,000.00
С	OGS for Regional Cancer Center - Capacity 15m3/hr	No	1	1,700,000.00	1,700,000.00
	100000000000000000000000000000000000000		1 .		. ====
d	OGS for Sri Chitra Institute - Capacity 15 m3/hr	No	1	1,700,000.00	1,700,000.00
	СТР				
5	STP MS Bar Screen - 8mm & 6mm with rake	Set	1	100,000.00	100,000.00
a	1419 Dai Deiteil - Ollilli & Ollilli Willi läke	ઝદા	1	100,000.00	100,000.00

	Submaraible type 2W+2 S	Nos	4	170,000.00	680,000.00
	Submersible type 2W+2 S				
/	Aeration grid system for the MBBR tanks with seives and supports MOC : SS Diffuser	Set	1	2,700,000.00	2,700,000.00
				·	
8 (	Coarse bubble diffusers for Equalization Tank	Set	1	1,750,000.00	1,750,000.00
<del>                                     </del>			T 1	1	
9	Air blowers for Equalization ,MBBR	Nos	1	7,644,000.00	7,644,000.00
	Duty: 6250 m3 /hr			.,,	
10 N	MBBR media - 500m2/m3	m3	233	45,000.00	10,485,000.00
<u> </u>			1		
S	Sludge Pumps, Submersible type for clariflculator	Nos	4	200,000.00	800,000.00
11 –					
f	flowrate = $62.5 \text{ m}3/\text{hr}@12 \text{ M head } (2\text{w}+2\text{s})$				
<u> </u>	<del>_</del>			T-	
12 <u>F</u>	Filter Feed pumps, ( 2W+2S ), Submersible type	Nos	4	250,000.00	1,000,000.00
12 F	Required flowrate = 62.5 m3/hr @ 25m				
	Coagulant Dosing pump, (2W + 2S)			00,000,00	260,000,00
	Pump Capacity: 0-250 lph + Tank 100 lts capacity	No.	4	90,000.00	360,000.00
L			<u> </u>	<u>,                                    </u>	
14 I	Lamella Clarifier	No	1	1,500,000.00	1,500,000.00
	Disc Filter	Set	1	2,800,000.00	2,800,000.00
F	Flowrate 250 m3/hr.		•	2,000,000.00	
<del></del>				1	
	Dual Media Filter & Accessories	Set	1	5,000,000.00	5,000,000.00
1	Flowrate - 250 m3/hr.				
Т	De watering system of sludge drying from 70% to 10% water			<u> </u>	_
1/	content	Lot	1	3,000,000.00	3,000,000.00
	Content				
I	Disinfection Dosing Pump ( 2w + 2S)				
	Pump Capacity: 0-150 lph + Tank 100 lts capacity	Set	4	90,000.00	360,000.00
	F - F - F - F - F - F - F - F - F - F -				
10 F	Plant Piping,pumps, valves	т.,	1	2 500 000 00	2 500 000 00
19	(MS/GI/PVC/UPVC?HDPE)	Lot	1	2,500,000.00	2,500,000.00
20 I	LT Control Panel & Automation	No.	1	2,000,000.00	2,000,000.00
21 E	Elelctrical wiring and instrumentation	Lot	1	1,000,000.00	1,000,000.00
<del>                                     </del>					
	Recycling water pumping units and acessories including	set	1	500,000.00	500,000.00
1	100% standbye			,	
					63,479,000.00
TOTAL - INR 6,30,69,000					