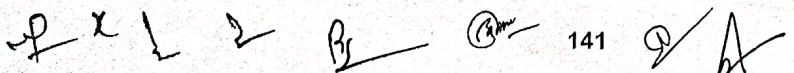

SUB HEAD : 4.0
CONCRETE WORK

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BUILDING WORK 4.0 Concrete Work

Item No	Description	Unit	Qty.	Rate	Rate Code	Cost Rs.
4.1	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering-all work upto plinth level.					
4.1.1	1:1:2 (1 cement: 1 coarse sand : 2 graded stone aggregate 20 mm nominal size)					
	Details of cost for 1 cum					
	Materials:					
	Stone aggregate 20 mm	cum	0.64	595.36	(0295)	381.03 (A)
	Stone aggregate 10 mm	cum	0.21	657.91	(0297)	138.16 (A)
	Carriage of aggregate 20 mm and 10 mm	cum	0.85	0.00	(2202)	0.00 (A)
	Coarse sand	cum	0.425	175.80	(0982)	74.72 (A)
	Carriage of coarse sand	cum	0.425	0.00	(2203)	0.00 (A)
	Cement (0.425 cum)	tonne	0.61	4408.00	(0367)	2688.88 (A)
	Carriage of cement	tonne	0.61	145.72	(2209)	88.89 (A)
	Labour:					
	Mason	per day	0.10	369.00	(0155)	36.90 (B)
	Beldar	per day	1.63	306.00	(0114)	498.78 (B)
	Bhishti	per day	0.70	332.00	(0101)	232.40 (B)
	Mixer Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Per day	0.07	800.00	(0002)	56.00 (B)
	Vibrator (Needle type 40 mm)	Per day	0.07	350.00	(0012)	24.50 (B)
	Sundries	L.S	14.30	2.12	(9999)	30.32 (B)
						878.90
	Total					4250.57
	Add for water charges @ 1%					42.51
	Total					4293.08 (X)
	Add GST 12% on "X"(multiplying factor 0.1405)					603.18
	Total					4896.25 (Y)
	Add for contractor's profit and over-heads @ 15% on "Y"					734.44
	Cost of 1 cum					5630.69
	Add labour cess @ 1%					56.31
	Rate including labour cess					5687.00
				Say		Rs.5687.00 per cum
4.1.2	1:1½ :3(1 cement : 1½ coarse sand : 3 graded stone aggregate 20 mm nominal size).					
	aggregate 20 mm nominal size)					
	Details of cost for 1 cum					
	Materials:					
	20 mm stone aggregate	cum	0.57	595.36	(0295)	339.36 (A)
	10 mm stone aggregate	cum	0.28	657.91	(0297)	184.21 (A)
	Carriage of aggregate	cum	0.85	0.00	(2202)	0.00 (A)
	Coarse sand	cum	0.425	175.80	(0982)	74.72 (A)
	Carriage of coarse sand	cum	0.425	0.00	(2203)	0.00 (A)
	Cement (0.2833 cum)	tonne	0.40	4408.00	(0367)	1763.20 (A)
	Carriage of cement	tonne	0.40	145.72	(2209)	58.29 (A)
	Labour:					
	Same as (B) in item No. 4.5.1	cum	1.00		(4.1.1-B)	878.90
	sundries	L.S	14.30	2.12	(9999)	5.50
	Total					3304.17


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Item No	Description	Unit	Qty.	Rate	Rate Code	Cost Rs.
	Add for water charges @ 1 %					33.04
	Total					3337.21 (X)
	Add GST 12% on "X"(multiplying factor 0.1405)					468.88
	Total					3806.09 (Y)
	Add for contractor's profit and over-heads @ 15%"Y"					570.91
	Cost of 1 cum					4377.00
	Add labour cess @ 1%					43.77
	Rate including labour cess					4420.77
	Say			Rs.4420.80		per cum
4.1.3	1:2:4(1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size).					
	aggregate 20 mm nominal size)					
	Details p cost for 1 cum-					
	Materials:					
	Stone aggregate 20mm	cum	0.670	595.360	(0295)	398.891 (A)
	Stone aggregate 10 mm	cum	0.220	657.910	(0297)	144.740 (A)
	Carriage of aggregate	cum	0.890	0.000	(2202)	0.000 (A)
	Coarse sand	cum	0.445	175.800	(0982)	78.231 (A)
	Carriage of sand	cum	0.445	0.000	(2203)	0.000 (A)
	Cement (0.2225 cum.)	tonne	0.320	4408.000	(0367)	1410.560 (A)
	Carriage of cement	tonne	0.320	145.720	(2209)	46.630 (A)
	Labour:					2079.053 (A)
	Same as (B) in item No. 4.1.1	cum	1.000	878.896	(4.1.1-B)	878.896
	Sundries	L.S	14.300	2.120	(9999)	30.316
						2988.265
	Add for water charges @ 1 %					29.883
	Total					3018.147
	Add GST 12% on "X"(multiplying factor 0.1405)					424.05
	Total					3442.20 (Y)
	Add for contractor's profit and over-heads @ 15%					516.330
	Cost of 1 cum					3958.527
	Add labour cess @ 1%					39.59
	Rate including labour cess					3998.12
	Say			Rs.3998.10		per cum
4.1.4	1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 40 mm nominal size).					
	Details of cost for 1 cum					
	Stone Aggregate (Single size) : 40 mm nominal size					
	(0.56-7.5% for voids i.e. 0.04=0.52 cum)	cum	0.520	486.920	(0293)	253.198 (A)
	Stone aggregate 20 mm (Single size)	cum	0.220	595.360	(0295)	130.979 (A)
	Stone aggregate 10 mm (Single size)	cum	0.110	657.910	(0297)	72.370 (A)
	Carriage of aggregate 40 mm nominal size and above	cum	0.520	0.000	(2206)	0.000 (A)
	Carriage of stone aggregate below 40 mm nominal size	cum	0.330	0.000	(2202)	0.000 (A)
	Coarse sand (zone III)	cum	0.445	175.800	(0982)	78.231 (A)
	Carriage of coarse sand	curn	0.445	0.000	(2203)	0.000 (A)
	Cement (0.2225 cum)	tonne	0.320	4408.000	(0367)	1410.560 (A)
	Carriage of cement	tonne	0.320	145.720	(2209)	46.630 (A)
	Labour:					
	Same as (B) in item No. 4.1.1	cum	1.000		(4.1.1-B)	878.896

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Item No	Description	Unit	Qty.	Rate	Rate Code	Cost Rs.
	Sundries	L.S	13.520	2.120	(9999)	28.662
	Total					2899.528
	Add for water charges @ 1%					28.995
						2928.523
	Add GST 12% on "X"(multiplying factor 0.1405)					411.46
	Total					3339.98 (Y)
	Add for contractors profit and over-heads @ 15%					500.997
	Cost of 1 cum					3840.977
	Add labour cess @ 1%					38.41
	Rate including labour cess					3879.39
	Say		Rs.3879.40		per cum	

4.1.5 1:3:6(1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size).

Details of cost for 1 cum

Materials:

Stone aggregate 20 mm	cum	0.700	595.360	(0295)	416.752 (A)
Stone aggregate 10 mm	cum	0.240	657.910	(0297)	157.898 (A)
Carriage of aggregate	cum	0.940	0.000	(2202)	0.000 (A)
Coarse sand	cum	0.470	175.800	(0982)	82.626 (A)
Carriage of coarse sand	cum	0.470	0.000	(2203)	0.000 (A)
Cement (0.15674 cum)	tonne	0.220	4408.000	(0367)	969.760 (A)
Carriage of cement	tonne	0.220	145.720	(2209)	32.058 (A)
Labour:					1659.095
Same as (B) in item No. 4.1.1	cum	1.00	878.90	(4.5.1-B)	878.896
Sundries	L.S	13.52	2.12	(9999)	28.662

Total

Add for water charges @ 1%					25.67
					2592.32 (X)
Add GST 12% on "X"(multiplying factor 0.1405)					364.22

Total

Add for contractor's profit and over-heads @ 15% on "X"					443.48
Cost of 1 cum					3400.02
Add labour cess @ 1%					34.00
Rate including labour cess					3434.02
Say			Rs.3434.00		per cum


4.1.6 1:3:6 (1 Cement: 3 coarse sand :6 graded stone aggregate 40 mm nominal size)

Details of cost for 1 cum

Materials:

Stone aggregate 40 mm (one size) (0.70 cum- 7.5% for voids i.e.0.05=0.65 cum)	cum	0.65	486.92	(0293)	316.498 (A)
Stone aggregate 20 mm (one size)	cum	0.24	595.36	(0295)	142.886 (A)
Carriage of aggregate 40 mm	cum	0.65	0.00	(2206)	0.000 (A)
Carriage of aggregate 20 mm	cum	0.24	0.00	(2202)	0.000 (A)
Coarse sand	cum	0.47	175.80	(0982)	82.626 (A)
Carriage of coarse sand	cum	0.47	0.00	(2203)	0.000 (A)
Cement (0.15674 cum)	tonne	0.22	4408.00	(0367)	969.760 (A)
Carriage of cement	tonne	0.22	145.72	(2209)	32.058 (A)

Labour:


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Item No	Description	Unit	Qty.	Rate	Rate Code	Cost Rs.
	Same as (B) in item No. 4.1.1	cum	1.00	878.90	(4.1.1-B)	878.896
	Sundries	L.S	13.52	2.12	(9999)	28.662
						2451.39
	Add for water charges @ 1%					24.51
	Total					2475.90 (X)
	Add GST 12% on "X"(multiplying factor 0.1405)					347.86
	Total					2823.77 (Y)
	Add for contractor's profit and over-heads @ 15%					423.56
	Cost of 1 cum					3247.33
	Add labour cess @ 1%					32.47
	Rate including labour cess					3279.80
	Say			Rs.3279.80		per cum

4.1.8 1:4 (1 Cement :4 coarse sand :8 graded stone agregate 40 mm nominal size)

Details o cost for 1 cum

Materials:

Stone agregate 40 mm (one size) (0.70 cum-7.5% for voids i.e. 0.05=0.65 cum)	cum	0.65	486.92	(0293)	316.498 (A)
Stone agregate 20 mm (oe size)	cum	0.24	595.36	(0295)	142.886 (A)
Carriage of agregate 40 mm	cum	0.65	0.00	(2206)	0.000 (A)
Carriage of agregate 20 mm	cum	0.24	0.00	(2202)	0.000 (A)
Coarse sand	cum	0.47	175.80	(0982)	82.626 (A)
Carriage of coarse sand	cum	0.47	0.00	(2203)	0.000 (A)
Cement (0.1175 cum)	tonne	0.17	4408.00	(0367)	749.360 (A)
Carriage of cement	tonne	0.17	145.72	(2209)	24.772 (A)

Labour:

Same as (B) in item No. 4.1.1	cum	1.00	878.90	(4.1.1-B)	878.896
Sundries	L.S	13.52	2.12	(9999)	28.662
					2223.70

Add for water charges @ 1%

					22.24
					2245.94 (X)
					315.55

Add GST 12% on "X"(multiplying factor 0.1405)

Total

Add for contractor's profit and over-heads @ 15%					2561.49 (Y)
Cost of 1 cum					384.22

Add labour cess @ 1%

Rate including labour cess

Say **Rs.2975.20** **per cum**

4.1.10 1:5:10(1 Cement :5 coarse sand:10 graded stone agregate 40 mm nominal size)

Detials of cost for 1 cum


Materials:

Stone agregate 40 mm (one size) (0.70 cum-7.5% for voids i.e. 0.05=0.65 cum)	cum	0.65	486.92	(0293)	316.498
Stone agregate 20 mm (one size)	cum	0.24	595.36	(0295)	142.886
Carriage of agregate 40 mm	cum	0.65	0.00	(2206)	0.000
Carriage of agregate 20 mm	cum	0.24	0.00	(2202)	0.000
Coarse sand	cum	0.47	175.80	(0982)	82.626
Carriage of coarse sand-	cum	0.47	0.00	(2261)	0.000
Cement (0.2225 cum)	tonne	0.13	4408.00	(0367)	573.040
Carriage of cement	tonne	0.13	145.72	(2209)	18.944

Labour:

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Item No	Description	Unit	Qty.	Rate	Rate Code	Cost Rs.
	Same as (B) in item No. 4.5.1	cum	1.00	878.90	(4.1.1-B)	878.896
	Sundries	L.S	13.52	2.12	(9999)	28.662
	Total					2041.55
	Add for water charges @ 1 %					20.42
	Total					2061.97 (X)
	Add GST 12% on "X"(multiplying factor 0.1405)					289.71
	Total					2351.67 (Y)
	Add for contractor's profit and over-heads @ 15%					352.75
	Cost of 1 cum					2704.43
	Add labour cess @ 1%					27.04
	Rate including labour cess					2731.47
	Say			Rs.2731.50		per cum
4.1.11	1:2:3½:9 (1 ordinary portland cement : 2 Fly ash : 3½ coarse sand (zone-III) : 9 graded stone aggregate 40 mm nominal size)					
	Details of cost for 1 cum.					
	MATERIAL					
	Stone Aggregate (Single size) : 40 mm nominal size	cum	0.65	486.92	293	316.498
	0.70 cum-7.5% for voids i.e. 0.05 = 0.65 cum)					
	Stone Aggregate (Single size) : 20 mm nominal size	cum	0.24	595.36	295	142.886
	Carriage of Stone aggregate 40 mm nominal	cum	0.65	0.00	2206	0.000
	Carriage of Stone aggregate below 40 mm nominal size	cum	0.24	0.00	2202	0.000
	Coarse sand (zone III)	cum	0.37	175.80	982	65.046
	Carriage of Coarse sand	cum	0.37	0.00	2203	0.000
	Flyash	cum	0.21	0	1980	0.000
	Carriage of Flyash	cum	0.21	0	2262	0.000
	Portland Cement	tonne	0.17	4882.00	367	829.940
	Carriage of Cement	tonne	0.17	145.72	2209	24.772
	LABOUR					
	Mason (average)	day	0.1	369.00	155	36.900
	Beldar	day	1.63	306.00	114	498.780
	Bhisti	day	0.7	332.00	101	232.400
	Hire charges of Concrete Mixer 0.25 to 0.40 cum with hooper	day	0.07	800.00	0002	56.000
	Vibrator(Needle type 40mm)	day	0.07	350.00	0012	24.500
	Sundries	L.S.	14.3	2.12	9999	30.316
	TOTAL					2258.04 W
	Add 1 % Water charges on "W"					22.58
	TOTAL					2280.62 (X)
	Add GST on "X" (multiplying factor 0.1405)					320.43
	TOTAL					2601.05 (Y)
	Add 15% CPOH on "Y"					390.16
	TOTAL					2991.20
	Add Cess @ 1% on "Z"					29.91
	Cost of one cum.					3021.11
	Say			Rs.3021.10		per cum


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Item No	Description	Unit	Qty.	Rate	Rate Code	Cost Rs.
4.1.12	1:2 ^{1/2} :4:11 (1 ordinary portland cement : 2½ Fly ash : 4 coarse sand (zone-III) :11 graded stone aggregate 40 mm nominal size)					
	Details of cost for 1 cum.					
	MATERIAL					
	Stone Aggregate (Single size) : 40 mm nominal size	cum	0.650	486.92	293	316.498
	0.70 cum-7.5% for voids i.e. 0.05 = 0.65 cum)					
	Stone Aggregate (Single size) : 20 mm nominal size	cum	0.240	595.36	295	142.886
	Carriage of Stone aggregate 40 mm nominal	cum	0.650	0.00	2206	0.000
	Carriage of Stone aggregate below 40 mm nominal size	cum	0.240	0.00	2202	0.000
	Coarse sand (zone III)	cum	0.340	175.80	982	59.772
	Carriage of Coarse sand	cum	0.340	0.00	2203	0.000
	Flyash	cum	0.210	0	1980	0.000
	Carriage of Flyash	cum	0.210	0	2262	0.000
	Portland Cement	tonne	0.130	4882.00	367	634.660
	Carriage of Cement	tonne	0.130	145.72	2209	18.944
	LABOUR					
	Mason (average)	day	0.100	369.00	155	36.900
	Beldar	day	1.630	306.00	114	498.780
	Bhisti	day	0.700	332.00	101	232.400
	Hire charges of Concrete Mixer 0.25 to 0.40 cum with hooper	day	0.070	800.00	0002	56.000
	Vibrator(Needle type 40mm)	day	0.070	350.00	0012	24.500
	Sundries	L.S.	14.300	2.12	9999	30.32
	TOTAL					2051.66 W
	Add 1 % Water charges on "W"					20.52
	TOTAL					2072.17 (X)
	Add GST on "X" (multiplying factor 0.1405)					291.14
	TOTAL					2363.31 (Y)
	Add 15% CPOH on "Y"					354.50
	TOTAL					2717.81
	Add Cess @ 1% on "Z"					27.18
	Cost of one cum.					2744.99
	Say		Say	Rs.2745.00		per cum


4.2 Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, post, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plin window sills, fillets etc. upt floor five level excluding the cost of centring, shuttering and finishing:

4.2.1 1:1:2 (1 Cement: 1 coarse-sand : 2 graded stone aggregate 20 mm nominal size)

Details of cost for 1 cum
Materials:

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Item No	Description	Unit	Qty.	Rate	Rate Code	Cost Rs.
	As per item No. 4.5.1 marked 'A'	cum	1.00	3371.68	(4.1.1-A)	3371.676
	Labour:					
	Beldar	per day	0.90	306.00	(0114)	275.400 (B)
	Coolie	per day	0.78	318.00	(0115)	248.040 (B)
	Bhishti	per day	0.70	332.00	(0101)	232.400 (B)
	Mason (brick layer) 1 st class	per day	0.06	413.00	(0123)	24.780 (B)
	Mason (brick layer) 2nd class	per day	0.06	369.00	(0124)	22.140 (B)
	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Per day	0.07	800.00	(0002i)	56.000 (B)
	Vibrator(Needle type 40 mm)	Per day	0.07	350.00	(0012;	24.500 (B)
	Scaffolding	L.S	114.40	2.12	(9999)	242.528
	Sundries	L.S	14.30	2.12	(9999)	30.316
	(Extra labour for lifting material upto floor V level =0.75x2.50=1.88)					
	Coolie	per day	1.88	318.00	(0115)	596.250
	Total					5124.03
	Add for water charges @ 1 %					51.24
	Total					5175.27 (X)
	Add GST 12% on "X"(multiplying factor 0.1405)					727.13
	Total					5902.40 (Y)
	Add for contractor's profit and over-heads @ 15%"Y"					885.36
	Cost of 1 cum					6787.75
	Add labour cess @ 1%					67.88
	Rate including labour cess					6855.63
	Say			Rs.6855.60		per cum
4.2.2	1:1:5:3(1 Cement: 1:5 coarse sand : 3 graded stone aggregate 20 mm nominal size)					
	Details of cost for 1 cum					
	Materials:					
	Same as per item No. 4.5.2 Marked 'A'	cum	1.00	2419.77	(4.1.2-A)	2419.773
	Labour:					
	Same as (B) in item No. 4.6.1	cum	1.00	883.26	(4.2.1-B)	883.260
	Scaffolding	L.S	114.40	2.12	(9999)	242.528
	Sundries	L.S	14.30	2.12	(9999)	30.316
	(Extra labour for lifting material upto floor V level= 0.75x2.50=1.88)					
	Coolie	per day	1.88	318.00	(0115)	597.840
	Total					4173.72
	Add for water charges @ 1 %					41.74
	Total					4215.45 (X)
	Add GST 12% on "X"(multiplying factor 0.1405)					592.27
	Total					4807.73 (Y)
	Add for contractor's profit and over-heads @ 15% "Y"					721.16
	Cost of 1 cum					5528.88
	Add labour cess @ 1%					55.29
	Rate including labour cess					5584.17
	Say			Rs.5584.20		per cum
4.2.3	1:2:4 (1 Cement :2 coarse sand A graded stone aggregate 20 mm nominal size)					
	Details of cost for 1 cum					
	Materials:					
	As per item No. 4.1.3 Marked 'A'	cum	1.00	2079.05	(4.1.3-A)	2079.053


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B

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Item No	Description	Unit	Qty.	Rate	Rate Code	Cost Rs.
	Labour:					
	Same as (B) in item 4.2.1	cum	1.00	883.26	(4.2.1-B)	883.260
	Scaffolding	L.S	114.40	2.12	(9999)	242.528
	Sundries	L.S	14.30	2.12	(9999)	30.316
	(Extra labour for lifting material upto floor V level)					
	Coolie (0.75x2.50)	per day	1.88	318.00	(0115)	<u>597.840</u>
	Total					3833.00
	Add for water charges @ 1 %					<u>38.33</u>
	Total					3871.33 (X)
	Add GST 12% on "X"(multiplying factor 0.1405)					<u>543.92</u>
	Total					4415.25 (Y)
	Add for contractor's profit and over-heads @ 15%"Y"					<u>662.29</u>
	Cost of 1 cum					5077.54
	Add labour cess @ 1%					50.78
	Rate including labour cess					5128.32
	Say			Rs.5128.30		per cum
4.2.4	1:2:4(1 Cement :2 coarse sand A graded stone aggregate 40 mm nominal size)					
	Details of cost for 1 cum					
	Materials:					
	Same as in item No. 4.1.4 Marked 'A'	cum	1.00	1991.97	(4.1.4-A)	1991.969
	Labour:					
	Same as (B) in item 4.2.1	cum	1.00	883.26	(4.2.1-B)	883.260
	Scaffolding	L.S	114.40	2.12	(9999)	242.528
	Sundries	L.S	13.52	2.12	(9999)	28.662
	(Extra labour for lifting material upto floor V level)					
	Coolie (0.75x2.50)	per day	1.88	318.00	(0115)	<u>597.840</u>
	Total					3744.26
	Add for water charges @ 1 %					<u>37.44</u>
	Total					3781.70 (X)
	Add GST 12% on "X"(multiplying factor 0.1405)					<u>531.33</u>
	Total					4313.03 (Y)
	Add for contractor's profit and over-heads @ 15%					<u>646.95</u>
	Cost of 1 cum					4959.99
	Add labour cess @ 1%					49.60
	Rate including labour cess					5009.59
	Say			Rs.5009.60		per cum
4.2.5	1:3:6 (1 Cement: 3 coarse sand: 6 graded stone aggregate 20 mm nominal size)					
	Details of cost for 1 cum					
	Materials:					
	As per item No. 4.1.5 Marked 'A'	cum	1.00	1659.09	(4.1.5-A)	1659.095
	Labour:					
	Same as (B) in item No. 4.2.1	cum	1.00	883.26	(4.2.1-B)	883.260
	Scaffolding	1 time	114.40	2.12	(9999)	242.528
	Sundries	1 time	13.52	2.12	(9999)	28.662
	(Extra labour for lifting material upto floor V level)					
	Coolie (0.75x2.50=1.88)	per day	1.88	318.00	(0115)	<u>597.840</u>
	Total					3411.39
	Add for water charges @ 1 %					<u>34.11</u>
	Total					3445.50 (X)
	Add GST 12% on "X"(multiplying factor 0.1405)					<u>484.09</u>

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Item No	Description	Unit	Qty.	Rate	Rate Code	Cost Rs.
	Total					3929.59 (Y)
	Add for contractor's profit and over-heads @ 15% on "Y"					589.44
	Cost of 1 cum					4519.03
	Add labour cess @ 1%					45.19
	Rate including labour cess					4564.22
	Say			Rs.4564.20		per cum
4.2.6	1:3:6 (1 Cement :3 coarse sand:6 graded stone aggregate 40 mm nominal size)					
	Details of cost for 1 cum					
	Materials:					
	As per item No. 4.1.6 Marked 'A'	cum	1.00	1543.83	(4.5.6-A)	1543.829
	Labour:					
	Same as (B) in item No. 4.2.1	cum	1.00	883.26	(4.6.1-B)	883.260
	Scaffolding	1 time	114.40	2.12	(9999)	242.528
	Sundries	1 time	13.52	2.12	(9999)	28.662
	(Extra labour for lifting material upto floor V level)					
	Coolie (0.75x2.50=1.88)	per day	1.88	318.00	(0115)	597.840
						3296.12
	Add for water charges @ 1 %					32.96
	Total					3329.08 (X)
	Add GST 12% on "X" (multiplying factor 0.1405)					467.74
	Total					3796.82 (Y)
	Add for contractor's profit and over-heads @ 15% "Y"					569.52
	Cost of 1 cum					4366.34
	Add labour cess @ 1%					43.66
	Rate including labour cess					4410.00
	Say			Rs.4410.00		per cum
4.3	Centring and shuttering including strutting,propping etc. and removal or form work for					
4.3.1	Foundations,footings, bases Columns					
	Details of cost for footing size 2.7 m x 2.7 m x 1.00m Contact area=10.8 sqm					
	Material.					
	Assuming shuttering material will become unserviceable after use of 40 times					
	Adding for maintenance @ 10% of cost					
	Taking salvage value after full use of material @ 25% of cost					
	Wall form panel 1250 x 500 mm	each	0.34	860.00	(7319)	292.40 (A)
	Qty taken for cost of using once = $16 \times 0.85 / 40 = 0.34$					
	Corner angle (1.5 m long)	each	0.085	240.00	(7326)	20.40 (A)
	Qty taken for cost of using once = $4 \times 0.85 / 40 = 0.085$					
	100 mm channel shoulders 2.5 m long	each	0.17	910.00	(7327)	154.70 (A)
	Qty taken for cost of using once = $8 \times 0.85 / 40 = 0.17$					
	Double clip (bridge clip)	each	0.34	76.00	(7328)	25.84 (A)
	Qty taken for cost of using once = $16 \times 0.85 / 40 = 0.34$					
	Single clip	each	0.17	59.00	(7329)	10.03 (A)


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Item No	Description	Unit	Qty.	Rate	Rate Code	Cost Rs.
	Qty taken for cost of using once = 8x0.85/40 = 0.17					
	MS tube 40 mm 4x2.7 m= 10.8 m	metre	0.23	215.00	(7330)	49.34 (A)
	Qty taken for cost of using once = 10.8x0.85/40 = 0.2295					
	Assembly nuts & bolts	L.S	22.10	2.12	(0999)	46.85 (A)
	Total					599.56 (A)
	Cost for using once					599.56
	Carriage	1 time	78.00	2.12	(9999)	165.360
	Labour:					
	Fitter Grade-1	per day	0.75	420.00	(0116)	315.000
	Beldar	per day	1.50	306.00	(0114)	459.000
	Shuttering oil	L.S	52.00	2.12	(9999)	110.240
	sundries	L.S	26.00	2.12	(9999)	55.120
						1704.28
	Add for water charges @ 1 %					17.04
	Total					1721.33 (X)
	Add GST 12% on "X"(multiplying factor 0.1405)					241.85
	Total					1963.17 (Y)
	Add for contractor's profit and over-heads @ 15%"Y"					294.48
	Cost of 10.8 sqm					2257.65
	Cost of 1 sqm					209.04
	Add labour cess @ 1%					2.09
	Rate including labour cess					211.13
	Say			Rs.211.10		per sqm

4.3.2 Retaining walls, return walls, walls (any thickness) including attached pilasters, buttresses, plinth and string courses fillets etc.

Details for 7.9 m long and 1.00 high wall

Area of contact 2x7.9x1.0=15.8 sqm

Materials:

Wall form panel (1.25x0.5) 2x3x2x2=24 nos.	each	24.00	860.00	(7319)	20640.00 (A)
100 mm channel shoulder 2.5 m long. 4x2=8	each	8.00	910.00	(7327)	7280.00 (A)
Bridge clop 2x6x2=24	each	24.00	76.00	(7328)	1824.00 (A)
Single clip 2x3x2=12	ea'eh	12.00	59.00	(7329)	708.00 (A)
M.S. Tube 40 mm 2x2x8m=32m	metre	32.00	215.00	(7330)	6880.00 (A)
Nut & bolts	L.S	1299.76	2.12	(9999)	2755.50 (A)
Add maintenance charges @ 10% on 'A' salvage value of materials after full use @ 25% on 'A'					40087.50 (A)

Assuming shuttering will become unserviceable after use of 40 times

cost for using once

Carriage L.S 78.00 2.12 (9999) 165.360

Labour:

Fitter Grade-1 per day 3.50 420.00 (0116) 1470.000

Beldar per day 6.00 306.00 (0114) 1836.000

Shuttering oil L.S 1299.76 2.12 (9999) 2755.501

sundries L.S 52.00 2.12 (9999) 110.240

Total 7188.96

Add for water charges @ 1 % 71.89

Total 7260.85 (X)

Add GST 12% on "X"(multiplying factor 0.1405) 1020.15

Total 8281.00 (Y)

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Item No	Description	Unit	Qty.	Rate	Rate Code	Cost Rs.
	Add for contractor's profit and over-heads @ 15%"Y"					1242.15
	Cost of 158 sqm					9523.15
	Cost of 1 sqm					602.73
	Add labour cess @ 1%					6.03
	Rate including labour cess					608.76
	Say			Rs.608.80		per sqm

4.3.3 Columns, piers, abutments, pillars, posts and struts Details of cost for

Size of column 450x450mm and 2.5m high Area of contact=4x0.45x2.5=4.5 sqm

Materials:

Wall form panel (1250x450)	each	8.00	860.00	(7331)	6880.000 (A)
Corner angle 2.5m long	each	4.00	255.00	(7332)	1020.000 (A)
Column clamp (450-1070 mm)	each	5.00	965.00	(7333)	4825.000 (A)
Prop. 2 m (2.0-3.5m)	each	4.00	635.00	(7334)	2540.000 (A)
Assembly nut & bolt	1 time	1299.76	2.12	(9999)	2755.501 (A)
					<u>18020.50 (A)</u>

Add for maintenance charges @ 10% on 'A' Less salvage value of material after full use @ 25% on 'A'

Assume shuttering will become unserviceable after use of 40 times

Cost for using once

Carriage LS 52.00 2.12 (9999) 110.240

Labour:

Fitter Grage-1 per day 1.00 420.00 (0116) 420.000

Beldar per day 2.00 306.00 (0114) 612.000

Shuttering oil LS 39.00 2.12 (9999) 82.680

Sundries LS 26.00 2.12 (9999) 55.120

Total 1662.98

Add for water charges @ 1% 16.63

Total 1679.61 (X)

Add GST 12% on "X" (multiplying factor 0.1405) 235.98

Total

1915.59 (Y)

Add for contractor's profit and over-heads @ 15%"Y" 287.34

Cost of 4.5 sqm 2202.93

Cost of 1 sqm 489.54

Add labour cess @ 1% 4.90

Rate including labour cess 494.44

Say Rs.494.40 per sqm

4.4 Providing and laying cement concrete in kerbs, steps and the like at or near ground level excluding the cost of centring, shuttering and finishing.

4.4.1 1:2:4 (1 Cement :2 coarse sand :4 grade stone aggregate 20 mm nominal size)

Details of cost for kerb

100 m long, 20 cm deep and 30 cm wide

100m x 0.30m x 0.20m = 6.00 cum

Materials:

Cement concrete 1:2:4 cum 6.00 3958.53 (4.1.3) 23751.16


Cost of 6 cum 23751.16

Cost of 1 cum 3958.53

Add labour cess @ 1% 39.59

Rate including labour cess 3998.12

Say Rs.3998.10 per cum

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Item No	Description	Unit	Qty.	Rate	Rate Code	Cost Rs.
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4.4.2 1:3:6 (1 Cement:3 coarse sand:6 graded stone aggregate 20 mm nominal size)

Details of cost for kerb:

100m long 20cm deep and 30cm wide
 $100m \times 0.30m \times 0.20m = 6.00 \text{ cum}$

Materials:

Cement concrete 1:3:6

	cum	6.00	3400.02	(4.1.5)	20400.13
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Cost of 6 cum

20400.13

Cost of 1 cum

3400.02

Add labour cess @ 1%

34.00

Rate including labour cess

3434.02

Say Rs.3434.00

per cum

4.4.3 1:1½:3 (1 Cement: 1½ coarse sand(zone-III) : 3 graded stone aggregate 20 mm nominal size)

Details of cost for kerb

100 m long. 20 cm deep and 30 cm wide
 $100m \times 0.30m \times 0.20m = 6.00 \text{ cum}$

Cement concrete 1:1.5:3

Rate as per item no.4.1.2 of SH: Concrete work

	cum	6.00	4377.00	(4.1.3)	26262.01
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Cost of 6 cum

26262.01

Cost of 1 cum

4377.00

Add labour cess @ 1%

43.77

Rate including labour cess

4420.77

Say Rs.4420.80

per cum

4.5 Providing and fixing up to floor five level precast cement concrete string or lacing courses, copings, bed plates, anchor blocks, plain window sills, shelves, louvers, steps, stair cases, etc. including hoisting and setting in position with cement mortar 1:3 (1 cement : 3 coarse sand), cost of required centering, shuttering complete.

4.5.1 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size).

Details of cost for Plain window sill 15 nos.

$15 \times 1m \times 0.20m \times 0.15m = 0.45 \text{ cum.}$

MATERIAL:

Cement concrete 1:1.5:3

Rate as per Item Number 4.1.2 of

	cum	0.45	4377.00	(4.1.2)	1969.65 (A)
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SH: Concrete work

Extra labour for lifting

$0.45 \times 0.45 \times 2.5 = 0.51$

Coolie

	day	0.51	318.00	(0115)	162.18
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Centering and shuttering

(1) Mould

(i) Plate 3mm thick: $(2 \times 1 \times 0.15) + (2 \times 0.15 \times 0.20) = 0.36 \text{ sqm. @ } 23.55 \text{ kg/m}^2 = 8.48 \text{ kg.}$

(ii) Flat 10x5mm: $4 \times 1.0 = 4.0 \text{ m}$

$8 \times 0.2 = 1.6 \text{ m}$

$4 \times 0.15 = 0.60 \text{ m}$

Handle $2 \times 0.25 = 0.5 \text{ m}$

$= 6.70 \text{ m @ } 0.4 \text{ kg/m} = 2.68 \text{ kg.}$

Total = 11.16kg. or 0.112 qtl.

Assuming shuttering will become unserviceable after use of 40 times and taking 75% credit.

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Item No	Description	Unit	Qty.	Rate	Rate Code	Cost Rs.
	Qty taken for cost of using once = 0.112x 0.75/40 = 0.0021 qtl = 0.21 kg					
	Rate as per Item Number 10.1 of SH: Steel work (2) Moulding Platform	kg	0.21	88.29	(10.1)	18.54 (A)
	Assuming platform will become unserviceable after use of 40 times,					
	(i) Brick on edge flooring cement mortar 1:6 1x2.0x2.0m = 4 sqm.					
	Qty taken for cost of using once = 4/40 = 0.1 sqm					
	Rate as per Item Number 11.1.2 of SH: Flooring	sqm	0.1	613.32 (11.1.2)		61.33 (A)
	(ii) 25mm thick cement concrete 1:2:4 in pavement 2.00x2.00x0.025 = 0.10cum					
	Qty taken for cost of using once = 0.100/40 = 0.0025 cum					
	Rate as per Item Number 11.7 of SH: Flooring	cum	0.0025	5364.92 (11.7)		13.41 (A)
	Mortar and labour for hoisting and finishing	LS	36.3	2.12 (9999)		76.96
	TOTAL					2302.073
	Add Water Charges @ 1% except on A i.e on Total					2.39
	Add GST 12% on "X" except "A" (multiplying factor 0.1405)					2304.46 (X) 33.93
	Total					2338.40 (Y)
	Add CPOH @ 15% except on A i.e on "Y"					41.32
	Total					2379.72
	Cost of 0.45 cum					2379.72
	Cost of 1 cum					5288.26
	Add labour cess @ 1%					52.88
	Rate including labour cess					5341.14
	Say			Rs.5341.10		per cum

4.5.2 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size).

Details of cost for Plain window sill 15 nos.
15x1m x 0.20m x 0.15m = 0.45cum.

MATERIAL:

Cement concrete 1:2:4

Rate as per Item Number 4.1.3 of

SH: Concrete work

Extra labour for lifting

0.45 x 0.45 x 2.5 = 0.51

Coolie

Centering and shuttering

(1) Mould

(i) Plate 3mm thick: (2x1x0.15)+(2x0.15x0.20) =

0.36 sqm. @ 23.55kg/m² = 8.48 kg.

(ii) Flat 10x5mm: 4x1.0 = 4.0m

8x0.2 = 1.6m

4x0.15 = 0.60m

Handle 2x0.25 = 0.5m

=6.70 m @ 0.4kg/m = 2.68 kg.

Total = 11.16kg. or 0.112 qtl.

	Rate as per Item Number 4.1.3 of SH: Concrete work	cum	0.45	3958.53	(4.1.3)	1781.34 (A)
	Extra labour for lifting					
	Coolie	day	0.51	318.00 (0115)		162.18


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A
B

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BCD Analysis of Rates 2022

Item No	Description	Unit	Qty.	Rate	Rate Code	Cost Rs.
	Assuming shuttering will become unserviceable after use of 40 times and taking 75% credit. Qty taken for cost of using once = 0.112x 0.75/40 = 0.0021 qtl = 0.21 kg					
	Rate as per Item Number 10.1 of SH: Steel work	kg	0.21	88.29	(10.1)	18.54 A
	(2) Moulding Platform Assuming platform will become unserviceable after use of 40 times, (i) Brick on edge flooring cement mortar 1:6 1x2.0x2.0m = 4 sqm. Qty taken for cost of using once = 4/40 = 0.1 sqm					
	Rate as per Item Number 11.1.2 of SH: Flooring	sqm	0.1	613.32	(11.1.2)	61.33 A
	(ii) 25mm thick cement concrete 1:2:4 in pavement 2.00x2.00x0.025 = 0.10cum Qty taken for cost of using once = 0.100/40 = 0.0025 cum					
	Rate as per Item Number 11.7 of SH: Flooring	cum	0.0025	5364.92	(11.7)	13.41 A
	Mortar and labour for hoisting and finishing	LS	36.3	2.12	(9999)	76.96
	TOTAL					2113.76
	Add Water Charges @ 1% except on A i.e on TOTAL					2.39
						2116.15 X
	Add GST 12% on "X" except "A" (multiplying factor 0.1405)					33.93
	Total					2150.08 (Y)
	Add CPOH @ 15% except on A i.e on Cost of 0.45 cum					41.32
	Cost of 1 cum					2191.40
	Cost of 1 cum					4869.79
	Add labour cess @ 1%					48.70
	Rate including labour cess					4918.49
	Say			Rs.4918.50		per cum

4.5.3 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size).

Details of cost for Plain window sill 15 nos.

15x1m x 0.20m x 0.15m = 0.45cum.

MATERIAL:

Cement concrete 1:3:6

Rate as per Item Number 4.1.2 of

cum

0.45

3400.02

(4.1.5)

1530.01 A

SH: Concrete work

Extra labour for lifting

0.45 x 0.45 x 2.5 = 0.51

Coolie

day

0.51

318.00

(0115)

162.18

Centering and shuttering

(1) Mould

(i) Plate 3mm thick: (2x1x0.15)+(2x0.15x0.20) =

0.36 sqm. @ 23.55kg/m² = 8.48 kg.

(ii) Flat 10x5mm: 4x1.0 = 4.0m

8x0.2 = 1.6m

4x0.15 = 0.60m

Handle 2x0.25 = 0.5m

=6.70 m @ 0.4kg/m = 2.68 kg.

Total = 11.16kg. or 0.112 qtl.

Assuming shuttering will become unserviceable after use of 40 times and taking 75% credit.

BCD Analysis of Rates 2022

Item No	Description	Unit	Qty.	Rate	Rate Code	Cost Rs.
	Qty taken for cost of using once = $0.112 \times 0.75/40 = 0.0021$ qtl = 0.21 kg					
	Rate as per Item Number 10.1 of SH: Steel work (2) Moulding Platform	kg	0.21	88.29	(10.1)	18.54 A
	Assuming platform will become unserviceable after use of 40 times,					
	(i) Brick on edge flooring cement mortar 1:6 $1 \times 2.0 \times 2.0 \text{m} = 4 \text{ sqm}$.					
	Qty taken for cost of using once = $4/40 = 0.1 \text{ sqm}$					
	Rate as per Item Number 11.1.2 of SH: Flooring	sqm	0.10	613.32	(11.1.2)	61.33 A
	(ii) 25mm thick cement concrete 1:2:4 in pavement $2.00 \times 2.00 \times 0.025 = 0.10 \text{ cum}$					
	Qty taken for cost of using once = $0.100/40 = 0.0025 \text{ cum}$					
	Rate as per Item Number 11.7 of SH: Flooring Mortar and labour for hoisting and finishing	cum	0.00	5364.92	(11.7)	13.41 A
		LS	36.30	2.12	(9999)	76.96
	TOTAL					1862.43
	Add Water Charges @ 1% except on A i.e on TOTAL					2.39
	Add GST 12% on "X" except "A" (multiplying factor 0.1405)					1864.82 33.93
	Total					1898.76 (Y)
	Add CPOH @ 15% except on A i.e on Cost of 0.45 cum					36.23
	Cost of 1. cum					1934.99
	Add labour cess @ 1%					4299.97
	Rate including labour cess					43.00
	Say			Rs.4343.00		4342.97
4.6	Providing and fixing at or near ground level precast cement concrete in kerbs, edgings etc. as per approved pattern and setting in position with cement mortar 1:3 (1 cement : 3 coarse sand), including the cost of required centering, shuttering complete.					per cum
4.6.1	1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size).					
	Details of cost for 25 no kerbs, $40 \times 30 \times 20 \text{cm} = 25 \text{ no} \times 0.40 \text{m} \times 0.30 \text{m} \times 0.20 \text{m}$					
	0.6 cum.					
	MATERIAL:					
	Cement concrete 1:2:4					
	Rate as per Item Number 4.1.3 of SH: Concrete work	cum	0.6	3400.02	4.1.3	2040.01 A
	Centering and shuttering					
	1) Mould					
	i) Plate 3mm thick					
	$0.28 \text{ sqm.} @ 23.55 \text{kg/m}^2 = 6.59 \text{ kg.}$					
	ii) Flat 10x5mm					
	Handle $2 \times 0.25 \times 0.4 = @ 0.4 \text{kg/m} = 0.20 \text{ kg.}$					
	$= 6.79 \text{kg. or } 0.068 \text{ qtl.}$					
	Assuming shuttering will become unserviceable after use of 40 times and taking 75% credit.					
	Qty taken for cost of using once =					

Handwritten signatures and initials: P, L, B, R, etc.

Handwritten initials: P, A, B