## BANGLADESH UNIVERSITY OF ENGINEERING AND TECHNOLOGY, DHAKA -1000





Committed to Quality Assurance for Better Bangladesh



## APPROVED RATES FOR TESTING OF MATERIALS AND SERVICES

Rates include VAT (15%), University Overhead (30%) & Laboratory Development and Maintainence (2.25%)

Department of Civil Engineering reserves the right to change the rates at any time without any prior notice

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BRTC Office Time: Sat to Wed => 9:00 am - 5:00 pm & Thu => 9:00 am - 1:00 pm

SI.	Name of Tests	Test Rate						
No.	ivalle of fests	(Tk.)						
	Aggregates (Sample preparation charge Tk.1000)							
1	Sieve analysis (CA) / Gradation (Base/subbase : 6,100/-)	3,900						
2	Sieve analysis (Ballast)/Specified Sieve size (6,600/-)	5,000						
3	Sieve analysis (FA) / FM	2,200						
4	Material finer than # 200 sieve / Fine content/Silt content	3,900						
5	Aggregate crushing value(ACV) / Compressive Strength	4,400						
6	Aggregate Impact value (AIV)	3,300						
7	Ten percent fine value (TFV)	6,600						
8	Angularity number (Including sp. gr.)	5,500						
9	Elongation Index (EI) / Shape Test	5,000						
10	Flakiness Index (FI)	4,600						
11	L.A. Abrasion of CA (1000/- for L.C.)	4,400+1,000						
12	L.A. Abrasion of Ballast (1000/- for L.C.)	4,600+1,000						
13	Unit weight of aggregate (CA)	2,900						
14	Unit weight of aggregate (FA)	2,600						
15	Soundness with Na2SO4 (4000/- for chem.)	11,000+4,000						
16	Soundness with Mg2SO4 (6000/- for chem.)	11,000+6,000						
17	Absorption and Specific Gravity / Density (for Ballast)	3,900						
18	Clay lump & friable particles	3,300						
19	Moisture Content	1,700						
20	Percentage of Uncrushed Particle (Fractured face)	5,000						
21	Mica Content of Fine Sand using Microscope (Coarse Sand by visual observation: Tk. 9500)	15,000						
22	Effect of organic impurities (1300/- for chem)	11,000+1,300						
23	Organic impurities/Salt content / Sulphate content / Salinity	2,300						
24	Foreign material content / Deleterious substance	12,000						
25	Bulking of sand	5,500						
26	Void Ratio / Porosity / Moh. Hardness	4,400+500						
27	Co-efficient of Sand (d10)	3,400						
28	CBR of Base or Sub-base material (1500/- for L.C.)	33,600+1,500						
29	Standard Proctor test of aggregate (MDD)	13,200						
30	Modified Proctor or Vibrating Hammer	22,000						

SI.	Name of Tests	Test Rate							
No.		(Tk.)							
	Bitumen (Sample preparation charge Tk.1000)								
1	Specific gravity / Sp. Gr. / Density	3,000							
2	Penetration / Grading	3,000							
3	Naphta Xylene Equivalemt	12,700							
4	Flash & Fire points	3,000							
5	Solubility (300/- for Chem.)	2,900+300							
6	Ductility (300/- for Chem.)	2,900+300							
7	Softening point (R&B) (300/- for Chem.)	2,900+300							
8	Thin Film Oven / Loss-on-heating	3,700							
9	Float test	3,000							
10	Foaming Test	3,000							
11	Spot Test	3,000							
12	Viscocity, Saybolt Furol (S.F.)	5,500							
13	Viscocity (Kinematic)	7,200							
14	Viscocity (Absolute / Dynamic)	11,000							
15	Ash Content / Inorganic Matter	5,500							
16	Any test on residue from Loss-on-heating test/TFOT	5,500							
17	Any test on residue fromThin Film Oven test	5,500							
18	Coating & Stripping test with/without Anti-Stripping Agent/Dose	4,200							
19	Ashaplt Concrete Mix Design (Marshall)	46,000							
20	Particle Charge Test of Bitumen Emulsion	3,500							
	Pavement								
21	Bitumen content (4000/- for Chemical)	8,800+4,000							
22	Water Content	6,600							
23	Theoritical Max. Sp. Gr.	4,400							
24	Density	2,200							
25	Marshall Stability and Flow Test	3,900							
26	Distillation	8,800							
27	In-Situ per core cutting	6,600 + *							
28	Job Mix Formula & Marshall Test	88,000							
29	TSR (Tensile strength ratio) Test	48,500							

	Bricks (Bricks needed for ASTM = 5 Nos., BS = 10 Nos.)							
1	Absorption (ASTM / BS Standard)	2,200 /4,200						
2	Crushing strength(ASTM / BS Stand; 300/400/- capping mat.)	4,400 / 7,200						
3	Size & shape (ASTM / BS Standard)	2,800 / 2,800						
4	Unit Weight (ASTM / BS Standard); 200/300 for L.C.	3,900 /5,200						
5	Unit Wt. & Absorption (ASTM / BS Stand); 200/300 for L.C.	5,500 /8,300						
6	Efflorescence (needed 10 additional bricks)	4,400						
	Hollow / Special Brick Block / Kerb (Set of 3 Nos.)							
8	Comp. strength of Hollow bricks, Paving / Concrete blocks etc.	3,300						
9	Compressive strength of Road Kerb Stone	4,000						
10	Absorption	2,200						
11	Unit weight	3,900						
12	Comp. strength of Hollow bricks, Paving block incl. unit wt.	5,500						

	R.C.C Pipes							
1	Pipes (dia up to 600mm)	6,500						
2	Pipes (dia above 600mm and up to 900mm)	7,200						
3	Pipes (dia above 900mm and up to 1200mm)	9,300						
4	Pipes (dia above 1200mm and up to 1524mm)	11,800						
5	In-situ pipe testing	7,900 + *						
	Mahole Covers +							
1	Load & wt. test on manhole covers (<18 inch or 450 mm Dia)	6,500						
2	Load & wt. test on manhole covers (>18 inch or 450 mm Dia)	7,200						
	Miscellaneous							
1	Initail Rate of Absorption/Suction for Brick	3,100						
2	Alkali-Silica Reactivity for Stone/Sand	15,000						

Note: + Pipe specimens & manhole covers have to be taken away by the Client, immediately after the test is performed.

**Notes:** [\* Field visit fee; Inside Dhaka City = Tk. 13,000; Outside Dhaka City (No overnight stay) = Tk. 22,000; Near Districts = Tk. 34,000 without overnight stay and Tk. 27,000 per day for overnight stay; Farthest Districts = Tk. 45,000 without overnight stay and Tk. 35,000 per day for overnight stay, Remote Areas with overnight stay = Tk. 40,000 per day ] [\* & Transport, local hospitalities, accommodation (in case of overnight stay) etc. are to be provided by the Client]

SI. No.	Name of Tests	Test Rate (Tk.)	SI. No	Name of Tests	Test Rate (Tk.)
	Cement Concrete			Cement (ASTM / AASHTO Standard)	
1	Concrete cylinders (100x200mm), for a set of 3 Nos.	2,000		Compressive strength, 3, 7 & 28 days (600/- Ottowa Sand)	
2	Concrete cylinders (150x300mm), for a set of 3 Nos.	3,500		Setting time	3,900
3	Cubes (< 200mm), for a set of 3 Nos.	3,100		Fineness	2,800
4	Cubes (200mm - 300mm), for a set of 3 Nos.	3,600		Setting time (only)	4,400
5	Cubes (>300mm), each core cutting & testing (300/- for fuel)	6,200+300		Normal Consistency (only)	2,600
6	Concrete Spun, for a set of 3 Nos.	3,100	7	Density / Sp.Gr.	3,900 700
7	Concrete beam in flexure, for a set of 3 Nos.  Concrete slab in flexure, for a set of 3 Nos.	7,600 10,600		Weight of cement bag  Cement (EN Standard)	700
	Concrete Mix Designs	10,000	1	Compressive Strength, 2 & 28 days	26,200+400
9	Concrete mix design without admixture (20,000+41,000)	61,000	2	• • • • • • • • • • • • • • • • • • • •	33,100+500
	Concrete mix design using admixture (22,000+44,000)	66,000		Rod (Miscellaneous)	
	Destructive and NDT Tests	55,555	1	Hooks/Anchor Bolts Tension test (up to 36 mm); for a set of 3 Nos.(L.C. 900/-)	3,700+900
11	In-Situ per core cutting & testing (without scanning)	5,600 +200+ *	-	Hooks/Anchor Bolts Tension test (above 36 mm); for a set of 3 Nos.(L.C. 900/-)	4,700+900
	In-Situ per core cutting & testing (with quick scanning)	11,700 +400+ *		H.T. Wire, Tension test; for a set of 3 Nos.	7,300
	In-Situ Hammer Test - per spot / location (min. 3 tests)	6,100+*		Strand / Cable, Tension test, for a set of 3 Nos.	13,100
	In-Situ Winsor Pin Test - per spot / location (min. for 3 tests)	5,500+*		Fibre Glass Stainers / Pipes, Tension test, for a set of 3 Nos.	4,400
15	In-Situ Scanning (quick & Image) per spot / location (for 2 scans)	10,900+ *	6	Fibre Glass, Compression test, for 1 sample	2,000
16	In-Lab Block/Kerb per core cutting & testing (300/- L.C.)	6,100+300	7	Hardness test (Rockwell), for a set of 3 Nos. (L.C. 500/-)	1,800+500
17	In-Lab Supplied Core Testing (Per core) (300/- L.C.)	2,200+300		Impact test, for a set of 3 Nos. (L.C. 1,000/-)	2,300+1,000
	Calibration			Spring test, for per specimen	3,000
1	Pressure gauge / Dial Gauge	4,900		Bond / Weld Test or Rop lapping test	4,600
2	Hydraulic Jack (calibration range up to 300 ton) with pressure gauge (Regular : < 500 kg)	22,700		Sheet Pile, Wt. per m, Dim.; (L.C. 1,000/-)	7,200+1,000
3	Hydraulic Jack (calibration range up to 300 ton) with pressure gauge (Heavy : > 500 kg	30,100		Sheet Pile, Section Modulus / Moment of Inertia.; (.L.C 2,000/-)	14,300+2,000
4	Hydraulic Jack (calibration range up to 1000 ton) with pressure gauge	50,000		Aluminium Column, Compression test (L.C. 2,000/-)	7,700+1,000
5	Deflection dial	3,400		MS Box Welding, Compressive Strength; (L.C 3,000/-)	6,800+3,000
6	Proving ring (< 100 kN )	5,200		Scaffolding / Steel Props / Jog	11,800
7	Proving ring (100 kN to 500 kN )	6,000		Dog Spike Steel Sleeper; (L.C. 800/-)	7,100 5,200+800
8	Proving ring (> 500 kN )  Dynamometer	7,200 9,700		Coupler up to 25mm, for a set of 1 No.	2,000
10	Compression / TensionTesting Machine (with one dial)	11,800		Coupler above 25mm & up to 32mm, for a set of 1 No.	2,400
-	Calibration of Concrete Mix Batching Plant	2,88,000		Coupler above 32mm, for a set of 1 No.	2,800
	Balance and Weight		21	MS Bar (60 Grade) above 32 mm & up to 50 mm	3,800
12	Electronic Balance up to 20kg / Platform Scale / Balance	8,800	22	MS Bar (60 Grade) above 50 mm (L.C. 6,000/-)	4,400+6,000
13	CA measuring potable fara / Measuring cub	4,500	23	Elongation at 5D as per ISO 6935 Per Set	900
14	Schmidt Hammer (Rebound)	11,500	24	Shaft Rod > 30 mm & < 40 mm. (L.C. 3000/-)	3,100+3,000
15	Weight < 2kg / Load Cell (Weight Box 17800)	8,800		Shaft Rod > 40 mm & <50 mm (L.C. 3500/-)	3,300+3500
	Balance up to 300kg	13,100		Shaft Rod > 50 mm. (L.C. 4000/-)	3,900+4000
	Balance above 300kg to 1000kg	17,000		Bult Welded Joint	6,500
18	Balance above 1000kg	26,200		Tranverse Breaking Load of Rail	21,900
10	Cement Testing Apparatus	0.000		Shear Test for Rod	2,500+1,200
	Mixture Machine (Mortar cube & setting)	8,800		Prestressing 19 wire Anchorage Test; (46,000+70,000)	1,16,000 1,05,000
	Blaine Apparatus / Jolting table / Vibrating Machine Vicat Apparatus	8,800 6,900		Prestressing 12 wire Anchorage Test; (42,000+63,000) Test on Admixture (Mineral) for Cement/Concrete	Consult with teacher
22	Cement Autoclave Machine	8,800	32	Rod (Set of 3 Nos.)	COLIZAR MILLI RESCREE
-	Cylinder Mould Calibration	2,600	1	Tension test including wt. & elongation (up to 25mm)	2,300
	Curing Tank	5,500		Tension test incl. wt. & elongation (above 25mm & up to 32mm)	3,400
	PH Meter / Stop watch	2200		Bend test (up to 25mm)	1,100
	Survey Equipment		4	Bend test (above 25mm)	1,200
26	Theodolite	14,300		Rebend test (up to 25mm)	1,500
27	Level	11,000		Rebend test (above 25mm)	1,700
28	Total Station	39,200		Stress-strain curves (Mod.of Elasticity)(Strand : 8,700/-)	7,900
20	Miscellaneous Equipment / Devices	2 000	8	Deformation Measurement  Bolt, Angle and Plate (Set of 3 Nos.)	3,000
	Vernear Scale/ Micro meter Steel Scale	2,000 2,000	Q	Bolt, Tension test up to 30mm	2,800
31	Thermometer	3,100		Bolt, Tension test up to 30mm (L.C. 800/-)	4,200+800
-	Sieve	3,400		Bolt, Shear test up to 25mm	2,200
	Tacheometer	14,300	12	Bolt, Shear test above 25mm (L.C. 2,000/-)	2,800+2000
	Outside Laboratory / In-situ Calibration			Angle / Plate, Tension test up to 16mm (L.C. 1,500/-)	2,800+1,500
	Compression / TensionTesting Machine (with one dial)	11,800 + *		Angle / Plate, Tension test above 16mm & up to 30mm (L.C. 2,000/-)	3,300+2,000
35	Protable Weighing Bridge	15,000	15	Angle / Plate, Tension test above 30mm (L.C. 2,500/-)	3,300+2,500

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			S	Name of Call Toots	Test Rate
- 1_	Timber Compression Test,for 1 sample (L.C. 1,000/-)	6,800+1000	N	· ·	(Tk.)
	Timber Flexure Test, for 1 sample (L.C. 1,500/-)	16,500+1500		Physical & Index Properties	
	Moisture Content, for 1 sample (L.C. 1,000/-)	1,700+300		Specific gravity (Sp. Gr.)	2,100
	Hardness, for 1 sample (L.C. 1,000/-) Density (L.C. 300/-)	8,100+1000 1,700+300		Unit weight (wet & dry) Void ratio (Sp. Gr. & Unit Weight.)	2,000 3,300
JL	Definity (E.G. 3001-)	1,700+300	4		1,000
	Tiles (Set of 5 Nos.)		Ę		2,000
	Size & shape	2,000	ć	Skrinkage limit	1,700
	Absorption (with flexural needs additional 5 Nos.)	2,800	7	1	3,300
3 F	Flexural / Modulus of Rupture	2,600	8		2,700
			1	Hydrometer, Wash sieving & Specific gravity  Organic matter content by Loss on ingnition	5,100
	Rubber / Plastic / PVC Materials		1	3 0	3,000 4,400
1 T	Tension, for a set of 5 samples	3,200	ľ	Compaction and Density Tests	7,700
	Hardness, for 1 sample	2,000	1	Max. and Min. density of cohesionless soil	8,000
	Flexural, for a set of 5 samples	3,700	_	3 Standard Proctor Compaction test	12,000
	Compression, for 1 sample	3,700	1	4 Modified Proctor Compaction test	15,000
	Compression stiffness, for 1 sample	5,200	_	Permeability and Seepage Characteristics	
	Water Stopper - Tension, Dim., Elongation; L.C. 1000/- Water Stopper - Sp. Gr. / Hardness	5,000+1000 4,600	_	5 Permeability of cohesieve soil by 1-dimensional consolidation 6 Permeability of cohesionless soil (falling head)	22,000 8,500
/ V	Soil Boring (Including relevant tests and report)	4,600		7 Permeability of cohesionless soil (railing head)	15,000
F	Per Borehole		▎┞	Consolidation and Swelling Characteristics	10,000
_	Within Dhaka City - depth up to 20 m	75,000	1	One dimensional consolidation Cc,Cr,Cv (Only e - log p Tk. 15,000)	20,000
٧	Within Dhaka City - depth up to 25 m	95,000	1	9 One dimensional consolidation (Cc, Cr, Cv) and Permeability (e - log k)	25,000
_	Within Dhaka City - depth up to 30 m	125,000		0 Swelling Pressure	12,000
(	Outside Dhaka City: Consult with Teacher			Strongth and Deformation Characteristics	9,000
(Not	es: Minimum 3 borings for a particular site;		2	Strength and Deformation Characteristics 2 Unconfined compression test (including Sp. Gr.)	8,000
	es. Minimum 3 bonings for a particular site; lelines : up to 3 katha - 3 Nos.;  3 - 5 katha - 5 Nos.; 6 - 10 kath.	a - 8 Nos.)		3 Laboratory California Bearing Ratio (CBR) of soils	22,000
Cura	omittee tap to a natural action, and a natural action, and the natural	a 0 7100.y	' <b> </b> -	Direct Shear Tests	,
			2	4 Consolidated Drained test for sand (including Sp. Gr.)	13,000
			2	Consolidated Drained test for clay (including Sp. Gr.)	14,000
	Field density test per spot (In addition Proctor/max-min density and sieve/Hydrometer tests are needed to be done - please consult wth			Triaxial Shear Tests	
	respective Teacher), <b>Min total fees</b> : within Dhaka City Tk.	6,600 + *	_	6 Consolidated Drained compression (including Sp. Gr.)	47,000
1	1,00,000/-; Outside Dhaka City Tk. 1,40,000/-; Near Districts			7 Con. undrained compression test with pore pressure (including Sp. Gr.)	47,000
2	2,00,000/- and Farthest Districts 2,50,000/-			8 Con. undrained compression test without pore pressure (including Sp. Gr.) 9 Uncon. undrained compression test without pore press (including Sp. Gr.)	42,000 22,000
				Uncon. undrained compression test without pore press (including Sp. Gr.)  Con. undrained extension test without pore pressure (including Sp. Gr.)	42,000
N	Non-repetitive Plate Load Test per Location, Min total fees: within			Cyclic Triaxial Test (including Sp. Gr.)	2,77,000
	·		ľ	Geotechnical Tests (Field)	_,,,,,,,,
	Dhaka City Tk. 1,75,000/-; Outside Dhaka City 2,15,000 ; Near	00,000 +		Filed CBR per Location with field density (in addition	
	Districts, Tk. 2,75,000/- and Farthest Districts Tk. 3,25,000/-			Proctor/max-min density and sieve/Hydrometer tests are needed	
			3	to be done - please consult wth respective Teacher), Min total	33,000 + *
	e: If field test is to be conducted is a restricted/specialized	d area, then		fees: within Dhaka City Tk. 1,50,000/-; Outside Dhaka City 1,85,000; Near Districts Tk. 2,50,000/- and Farthest Districts Tk.	
the to	testing fee will be at least 1.5 times the speciified fees.			1,85,000; Near Districts Tk. 2,50,000/- and Farthest Districts Tk. 3,00,000/-	
	GEOTEXT	TILES / GEO	BAG	S (Set of 3 samples)	
	Apparent/Effective Opening Size (AOS/EOS)/Pore Size				4 400
1 (	(3 specimens)	4,400		Trapezoidal Tear Strength	4,400
	Burst Index	3,300		Unit Weight / Mass (3 specimens)	2,100
_	ndex Puncture Resistance or CBR Puncture (10 specimens)	3,300		1 Vertical Permeability under 2 kN/m2 and 200 kN/m2 Pressure	8,500
	Cone Penetration  Grah Tansila strangth & alangation (5 specimens v. 2 dir)	3,300		Vertical Permeability under 2 kN/m2 Pressure     Water Permeability by Permittivity	5,300
	Grab Tensile strength & elongation (5 specimens x 2-dir) Horizontal Permeability Under 2kN/m2 Pressure	4,400 9,100+400		Water Permeability by Permittivity      Strip/Wide-Width Tensile strength & elong) (5 specimens x 2-dir)	4,400 5,300
	Seam Strength (6 specimens)	4,400		5 Grab Test (Long. & X-dir. & Top & Bot. seam) of Geo Bag	14,900
	• • • • • • • • • • • • • • • • • • • •	1,300	<b> </b> -	South Took (Long. & Arall. & Top & Dut. Scall) of Geo Day	14,700
οI	Thickness (10 specimens)		ns '	Enovy Posin Primore and Enovy based Marters	
		u GFKP Wľá	aps /	Epoxy Resin, Primers and Epoxy based Mortars	
	CFRP Strip/CFRP wraps -Tensile Strength,Modulus of elasticity,Elongation - ASTM D3039	13,500+1,100	8	17th Edition, Clause 18.7.2.5, 18.7.4.5.6	20,000+500
	Epoxy Resin, Primers and Epoxy based Mortars - Compressive Yield Strength and Modulus @ 14days - ASTM D695:08	10700	Ç	Rubber Bearing Pad - Long-term Compression Proof Load Test to 150% of design load and visual inspection under load using video extensometer-AASHTO 2002, 17th Edition, Clause 18.7.2.6, 18.7.4.5.7	26,800+600
<sup>3</sup> E	Epoxy Resin, Primers and Epoxy based Mortars - Tensile Strength & Elongation at Break @ 14days - ASTM D638:08	13,500+1,100	1	Durometer hardness test (Shore A)- ASTM D2240 / Dimension -	3,400
4 A	Epoxy Resin, Primers and Epoxy based Mortars - Absorption / Viscosity- ASTM D570:98 (05)	4,300	1	test/ Determining adhesion on rigid substrates - 4200+6500(L.C.)}	6,700+2,000
٥ .	Epoxy Resin, Primers and Epoxy based Mortars - Bond Strength @ 14days ASTM C882/C882M:05e1	20,000	1	compression set - ASTM D395	7,300+700
<b>o</b> C	Rubber Bearing Pad - Checking the dimensional variations - ASTM D4014; Clause 7	3,400+2,000	1	Heat persistence test to change in tensile strength and ultimate elongation - ASTM D573 & ASTM D2240 / Ash content -	5,300
7 a	Rubber Bearing Pad - Bearing compression test for compression stiffness and video extensometer for checking laminate deformations - ASTM D4014; Clause 9	27,000+600	1	Heat persistence test to change in tensile strength and ultimate elongation - ASTM D573 & ASTM D412	8,700+800

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SI.		Test Rate	SI.		Test Rate
No.	Name of Tests	(Tk.)	No.	Name of Tests	(Tk.)
	Tests on Water			Miscellaneous Water Quality Parameters	
	Routine Drinking Water Parameters (Package)		1	рН	200+200
1	pH	()	2	Colour (True or Apparent)	250+250
3	Colour (True or Apparent) Turbidity	6,200 + 2300 = 8500 (Drinking+As+TC/FC) 4700 + 1800 = 6500 (Drinking+As)	4	Colour Scanning at Specific Wavelength/UV-VISRange Turbidity	900+200 200+200
4	Total Hardness	g+As Iking	5	Carbon-di-Oxide (CO2) / Acidity	150+150
5	Chloride (CI)	nking (Drin	6	P-Alkalinity/ M-Alkalinity/T-Alkalinity	200+200
6	Total Dissolved Solids (TDS)	) (Dri	7	Carbonate (CO3) or Bi-carbonate (HCO3) + pH	400+200
7	Manganese (Mn)	= 8500 30 = 6	8	Total Hardness	600+200
8	Arsenic (As)	300 =		Ca - Hardness	1,900+800
9	Total Iron (Fe) -Phenanthroline Method Total Coliform(TC)/Thermotolerent Coliform (TTC)	0 + 2		Mg - Hardness Chloride (CI)	1,900+800 550+250
	Fecal Coliform (FC)	6,20		Fluoride (F)	400+100
Ë	Environmental Quality of Soil, Sludge and Solids			Ammonia-Nitrogen (NH3 - N)	600+400
1	pH	300+200		Nitrate - Nitrogen (NO3 - N)	350+250
2	Electrical Conductivity	550+250		Nitrite - Nitrogen (NO2 - N)	350+250
3	Organic Matter (Dry Combustion Method)	2,000+400		Total Nitrogen (TN)	3,900+1,500
4	Water Soluble CI / PO4 / SO4 (each)	1,900+700		Total Kjeldahl Nitrogen (TKN) / Organic Nitrogen	11,000+3,000
-	Motal Analysis Following T Futration and / TO			Chlorine Content - Total Cl2 Chlorine Content - Free Cl2	350+250
5	Metal Analysis Following T. Extraction and / or TCL Total Extraction Charges (each sample)	1,300+500		Iodine Content	350+250 400+200
6	Toxic Characteristics Leaching Procedure (TCLP)	2,900+2,500		Bromine Content	400+200
	Ca/Cd/Co/Cr/Cu/Fe/Mg/Mn/Ni/Pb/Zn - using FLAAS + (each)	1,000+500		Break Point Chlorination	6,400+1,200
	Aluminum (Al) - using GFAAS	3,300+500		Total Solids (TS)	800+100
7	Arsenic (As) - using GFAAS	1,000+500		Total Suspended Solids (TSS)/Insoluble Solids/(TSS+TDS+TS)	1,400+400
	Mercury (Hg) - Cold Vapor Method	3,100+1,200		Total Dissolved Solids (TDS)	750+150
	Selenium (Se) - using GFAAS / Ba Na or K (each) - using FLAAS	2,200+800 1,300+400		Silica Content (SiO2) Colloidal Silica	600+400 1,700+1000
8	Mixed Liquor Suspended Solids (MLSS)	3,400+600		Electrical Conductivity (EC)	250+250
	Mixed Liquor Volatile Solids (MLVSS)	3,400+600		Total Phosphorous (TP)	2,700+500
	Pb or Cd release from Tableware (each)	1,200+400		Orthophosphate (PO4)	600+200
				Hydrogen Sulphide (H2S) / Odour	600+200
	Ambient Air Quality Monitoring *			Sulphate (SO4)	400+200
_	Parameters			Organic Matter ***	1,800+300
1	SPM	8,500		Biochemical oxygen Demand (BOD) - 5 day	1,450+350 1,200+600
_	PM10 PM2.5	10,000		Chemical Oxygen Demand (COD) KMnO4 Value	1,200+600
5	I IVIZ.J	10,000		Dissolved Oxygen (DO)	250+250
				Boron (B)	1,500+1,200
				Manganese (Mn): UV - VIS	1100+400
				Aluminum (AI) - using GFAAS	3,300+500
				Arsenic (As) - using GFAAS	1,000+500
				Cyanide (Cn) Mercury(Hg)-Cold Vapour Method (Mini. 30 days required)	2,800+1000
Н	Noise Monitoring *			Selenium (Se) - using GFAAS / Ba	3,100+1,200 2,200+800
1	Minimum Fee ^ per Location	22,000		Silver (Aq)	3,500+500
<u> </u>	This is a post 200dition.			Total Organic Carbon (TOC)	5,000+1000
	Sample Collection Charges +++			Na or K (each) - using FLAAS	1,300+400
1	Sampling for Bacteriological Analysis	6,500 + *	48	Ca/Cd/Cr/Cu/Fe/Mg/Mn/Ni/Pb/Zn - using FLAAS	1,000+500
2	Sampling for Physical and Chemical Analysis	6,500 + *		Nickel (Ni), Cobalt (for Drinking Water)	1,500+1,000
_	Tubough Decima (Complementary Visit House TV 10	100)		Total Iron (Fe) - Phenanthroline Method	650+150
1	Tubewell Design (Sample preparation charge TK. 4,0 Tubewell Design (depth up to 600'), incl. 8 Nos. sand test ^^	14,400+14,100		Ferrous Iron (Fe2+) / Ferric Iron (Fe3+)(1500+600) Total Coliform(TC)/Thermotolerent Coliform (TTC)	900+400 700+500
2	Tubewell Design (depth above 600'), Incl. 8 Nos. sand test ***  Tubewell Design (depth above 600'), Incl. 11 Nos. sand test *^	14,400+14,100		Fecal Coliform (FC)	700+500 700+500
^^	For complete design, fees would be Tk. 16,500/-	11/100117/100		E. Coli	2,800+1,000
	. o. ooproto doorgin, rood reduid bo Tr. Tu, out-			Silt Density Index (SDI)	6,000+500
	Invented Tubewell Design Extra 2,500/-			Sodium Absorption Ratio (SAR)	2,800+1000
	2 2 301gii 2 2 2000i			Algae / Chlorophyll_a	8,300+2,500
Not	es:			Total Organic Carbon (TOC)	5,000+1,000
		13,000+500	59	Dissolved Organic Carbon (DOC)	6,000+1,500
	Sampling charge may vary depending on the area to be samp	oled	60	Silver (Ag)	3,000+500
*	Cost depends on the client's requirements		-		8,300+2,500
***	Usual field visit fees apply in addition to above Only for Solids / Sludge		$\vdash$		
	only for Johns / Jiduge		$\vdash$		

Notes: [\* Field visit fee; Inside Dhaka City = Tk. 13,000; Outside Dhaka City (No overnight stay) = Tk. 22,000; Near Districts = Tk. 34,000 without overnight stay and Tk. 27,000 per day for overnight stay; Farthest Districts = Tk. 45,000 without overnight stay and Tk. 35,000 per day for overnight stay, Remote Areas with overnight stay = Tk. 40,000 per day ] [\* & Transport, local hospitalities, accommodation (in case of overnight stay) etc. are to be provided by the Clien

SI. No.	Name of Tests	Test Rate (Tk.)	SI. No	Name of Tests	Test Rate (Tk.)	
IVO.	GRP Board Sandwich Panel	(11.)	IVO	Non-Asbestos Fibre-Cement Board	(1K.)	
1	Tensile Strength (5 Nos. from each Sample)	4,600	1	Modulus of Rupture (6" X 12")		
2	Tensile Modulus (5 Nos. from each Sample)	12,000	H	2 Nos. Parallel to Fibre Lay from Same Sheet		
3	Flexural Strength (127 mm x 12.7 mm x 3.2mm; 5 Nos.)	4,600		2 Nos. Parpendicular to Fibre Lay from Same Sheet	6,400+800	
4	Flexural Modulus (100 mm x 10 mm x 4mm; 5 Nos.)	12,000	2	Modulus of Elasticity (6" X 12")		
5	Impact Strength (5 Nos. from each Sample)	4,600		2 Nos. Parallel to Fibre Lay from Same Sheet		
6	Water Absorption (76.2 mm x 25.4 mm x 6mm; 3 Nos.)	3,100		2 Nos. Parpendicular to Fibre Lay from Same Sheet	12,500+800	
			3	· · · · · · · · · · · · · · · · · · ·	2,300	
İ			4	Size & Shape (5 Nos.)	3,100	
			5	Water Absorption (4" X 4"; 3 Nos. from Per Sheet)	2,500+600	
	Consultancy on Pile Integrity		6	Moisture Content (from MOR Test)	3,100	
			7	Water Tightness (24" X 20"; 3 Nos. One from each Sheet)	9,400+600	
l	Per Pile (see conditions a,b,c)		8	pH Value (from MOR Test)	1,200	
l	(a) Min total fees: within Dhaka City - 75,000/-; Outside Dhaka City 1,15,000/-; Near Districts 1,50,000/- and Farthest Districts		o	Heat & Rain Wall Structures (5' X 4'; 2 Nos.; One from	30,400	
	1,75,000/-	2,300 + *	7	each Sheet)		
	(b) Integrity tests be done on all piles for a structure	_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Consultancy on Axial Pile Load Capacity	1	
	(c) Pile load test be done on at least 1% of piles selected on the			Test Supervision & Report (per pile):		
	basis of integrity results			Min total fees: within Dhaka City Tk. 1,25,000/-; Outside Dhaka City	88,000 + *	
				1,65,000; Near Districts, Tk. 2,00,000/- and Farthest Districts Tk. 2,25,000/-		
	V	· 0	14	I .	<u> </u>	
				cy Services		
1	Land Survey (Plannimetric/Topographic/Contour) by Total	Station and GI	PS			
2	Cost Estimation of Civil Structures					
3	Asset Evaluation of Civil Structures/Industries/Properties					
1	Declare of Delibios Delibora Almost Offshare Charatures I	)! Ct		-1-		
1	Design of Building, Bridges, Airport, Offshore Structures, I Structural Evaluation of Old Civil Structures without Drawir		ures	eic.		
3	Quality Assurance (QA) of Civil Structures / Flat					
4	Certification on Structural Stability of Civil Structures					
5	Design Checking of various Concrete and Steel Structures					
6	Investigation of Civil Engineering Projects					
7	Assessment of Safety for Old Structures					
8	Strengthening of Existing Structures					
1	Environmental Site Assessment (e.g. for LPG plants, Power	er plants)				
2	Environmental Impact Assessment (EIA) of Civil Engineeri					
3	Environmental Monitoring of Civil Engineering Projects	<u> </u>			-	
4	Design of Solid Waste Disposal Systems					
5	Design of Water and Wastewater Treatment Systems					
6	Design of Iron Removal Plants					
7	Plumbing and Sewer Systems Design					
8	Solid, Hazardous and Industrial Waste Management and F	Pollution Contro	ol			
9	Design of Water Supply System					
10	Training on Water Quality, Water Supply and Sanitation					
1	Design and Analysis of Shallow and Deep Foundations					
2	Design and Analysis of Embankments					
3	Design and Analysis of Earth Retaining Structures					
4	Planning of Soil Investigation Programs					
5	Planning and Design of Soil Improvement Schemes					
6	Seismic Design of Foundation					
7	Seismic Hazard Analysis					
8	Microzonation Maps					

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Transportation Impact Assessment (TIA) of Civil Engineering Projects

Training on Traffic Studies, Traffic Management, Transportation Planning, Traffic Safety

Traffic Studies (Volume, O-D, Speed, Delay, Parking etc.)

Planning and Design of Flyover / Underpass / Interchange Road Accident Investigation/Safety Measure/Road Safety Auditing

Planning and Design of Airport Terminal

Design of Road/Highways/Bridge/Culverts

Development of Transportation Model

Design of Runway Pavement

Geometric and Structural Design of Pavements, Parking Lots etc.
Planning and Design of Inland Container Terminal/Depot (ICT / ICD)

Traffic Forecasting