BANGLADESH UNIVERSITY OF ENGINEERING AND TECHNOLOGY, DHAKA -1000

DEPARTMENT OF CIVIL ENGINEERING

Committed to Quality Assurance for Better Bangladesh

BUET

BRTC Bureau of Research, Testing & Consultation

APPROVED RATES FOR TESTING OF MATERIALS AND SERVICES

Rates include VAT (15%), University Overhead (30%) & Laboratory Development and Maintenance Effective from 15th January 2019

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 - 2:00 pm

Sl. No.	Name of Tests	Test Rate (Tk.)
	Aggregates (Sample Preparation Charge Tk. 2000 per Sample)	
1	Sieve analysis (CA) / Gradation /FM (CA)	6,800
2	Sieve analysis (CA) / Gradation (Base/subbase)	10,600
3	Sieve analysis / Gradation / FM (CA) (Ballast)	8,700
4	Sieve analysis / Gradation / FM (CA) (Ballast)/Specified Sieve size	11,500
5	Sieve analysis (FA) / FM	3,800
6	% finer than # 200 sieve / Fine content/Silt content	3,800
7	Aggregate Crushing Value(ACV) / Compressive Strength	7,700
8	Aggregate Impact Value (AIV)	5,700
9	Ten Percent Fine Value (TFV)	11,500
10	Angularity number including specific gravity (Sp.Gr.)	9,600
11	Elongation Index (EI) / Shape Test	8,700
12	Flakiness Index (FI)	8,000
13	L.A. Abrasion of CA	7,700
14	L.A. Abrasion of Ballast	8,000
15	Unit weight of aggregate (CA)	5,000
16	Unit weight of aggregate (FA)	4,500
17	Soundness with Na_2SO4 (4000/- for chemical)	19,200
18	Soundness with Mg_2SO4 (6000/- for chemical)	19,200
19	Absorption and Specific Gravity / Density	6,800
20	Clay lumps & friable particles	5,700
21	Moisture Content	2,900
22	Percentage of Uncrushed Particle (Fractured face)	8,700
23	Mica Content of Coarse Sand / CA by visual observation	16,600
24	Effect of organic impurities (1300/- for chem)	19,200
25	Organic impurities/Salt content / Sulphate content / Salinity (Checmical 500)	4,500
26	Bulking of sand	5500/15000
27	Void Ratio / Porosity / Moh. Hardness	7,700
28	CBR of Base or Sub-base material	59,800
29	Standard Proctor test of aggregate (MDD)	24,100
30	Modified Proctor or Vibrating Hammer	39,500

Sl. No.	Name of Tests	Test Rate (Tk.)
	Bitumen (Sample Preparation Charge Tk. 3000 per Sample)	
1	Specific gravity (Sp.Gr.)/ Density	5,200
2	Penetration / Grading	5,200
3	Naphta Xylene Equivalent	22,200
4	Flash & Fire Points	5,200
5	Solubility (300/- for Chem.)	5,000
6	Ductility (300/- for Chem.)	5,000
7	Softening Point (R&B) (300/- for Chem.)	5,000
8	Thin Film Oven (TFO) / Loss-on-Heating (LOH)	6,400
9	Float Test	5,200
10	Foaming Test	5,200
11	Spot Test	5,200
12	Viscosity (Dynamic)	19,200
13	Ash Content / Inorganic Matter	9,600
14	Any test on residue from LOH/TFOT (if TFOT/LOH included separately)	9,600
15	Any test on residue from LOH/TFOT (if TFOT/LOH not included separately)	16,100
16	Any test on residue fromThin Film Oven test	15,400
	Coating & Stripping test with/without Anti-Stripping Agent/Dose	7,300
17	Asphalt Concrete Mix Design (Marshall)	81,500
18	Particle Charge Test of Bitumen Emulsion	6,100
	Asphalt or Bituminous Material / Pavement Core (Sample Preparation Charge Tk.3000 per Sample)	
19	Bitumen content (4000/- for Chemical)	15,400
20	Water Content	11,500
21	Theoretical Maximum Specific Gravity	7,700
22	Density	3,800
23	Marshall Stability and Flow Test	6,800
24	In-situ core cutting (per sample)	11500+Field Visit
25	Job Mix Formula & Marshall Test	131,000
26	TSR (Tensile Strength Ratio) Test	81,500

	Bricks (Bricks needed for ASTM = 5 Nos., BS = 10 Nos.)	
1	Absorption (ASTM / BS Standard)	2,400 /4,600
2	Crushing strength(ASTM / BS Stand; 300/400/- capping mat.)	4,800 / 7,900
3	Size & shape (ASTM / BS Standard)	3,100 / 3,100
4	Unit Weight (ASTM / BS Standard); 200/300 for S.P.C.	4,300 /5,700
5	Efflorescence (needed 10 additional bricks)	4,800
	Hollow / Special Brick Block / Kerb (Set of 3 Nos.)	
1	Comp. strength of Hollow bricks, Paving / Concrete blocks etc.	3,600
2	Compressive strength of Road Kerb Stone	4,400
3	Absorption	2,400
4	Unit weight	4,300
5	Comp. strength of Hollow bricks, Paving block incl. unit wt.	6,100

	R.C.C Pipes	
1	Pipes (dia up to 600mm)	7,200
2	Pipes (dia above 600mm and up to 900mm)	7,900
3	Pipes (dia above 900mm and up to 1200mm)	10,200
4	Pipes (dia above 1200mm and up to 1524mm)	13,000
5	In-situ pipe testing	8,700 + *
	Manhole Covers +	
1	Load & wt. test on manhole covers (<18 inch or 450 mm Dia)	7,900
2	Load & wt. test on manhole covers (>18 inch or 450 mm Dia)	8,700
	Miscellaneous	
1	Initial Rate of Absorption/Suction for Brick	3,400
2	Alkali-Silica Reactivity for Stone/Sand	16,500

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. 15,000; Outside Dhaka City (No overnight stay) = Tk. 25,000; Near Districts = Tk. 38,000 without overnight stay and Tk. 30,000 per day for overnight stay; Farthest Districts = Tk. 50,000 without overnight stay and Tk. 40,000 per day for overnight stay, Remote Areas with overnight stay = Tk. 45,000 per day] [* & Transport, local hospitalities, accommodation (in case of overnight stay) etc. are to be provided by the Client]*
S.P.C. = Sample Preparation Charge

Sl. No.	Name of Tests	Test Rate (Tk.)
	Cement Concrete	
1	Concrete cylinders (100x200mm), for a set of 3 Nos.	2,200
2	Concrete cylinders (150x300mm), for a set of 3 Nos.	3,900
3	Cubes (< 200mm) , for a set of 3 Nos.	3,400
4	Cubes (200mm - 300mm), for a set of 3 Nos.	4,000
5	Cubes (>300mm), each core cutting & testing (300/- for fuel)	7,100
6	Concrete Spun, for a set of 3 Nos.	3,400
7	Concrete beam in flexure, for a set of 3 Nos.	8,400
8	Concrete slab in flexure, for a set of 3 Nos.	11,700
	Concrete Mix Designs	
9	Concrete mix design without admixture (22,000+44,000) [up to 25 MPa]	66,000
10	Concrete mix design using admixture (24,000+48,000) [up to 25 MPa]	72,000
11	Concrete mix design without admixture (24,000+48,000) [>25 MPa]	72,000
12	Concrete mix design using admixture (26,500+53,500) [> 25 MPa]	80,000
	Destructive and NDT Tests	
13	In-Situ core cutting & testing per sample (without scanning) (S.P.C. 200/-)	6,400 +*
14	In-Situ core cutting & testing per sample (with quick scanning) (S.P.C. 400/-)	13,300 +*
15	In-Situ Hammer Test - per spot / location (min. 3 tests)	6,700 +*
16	In-Situ Winsor Pin Test - per spot / location (min. for 3 tests)	6,100 +*
17	In-Situ Scanning (quick & Image) per spot / location (for 2 scans)	12,000 +*
18	In-Lab Block/Kerb core cutting & testing per sample (S.P.C. 300/-)	7,000
19	In-Lab Supplied Core Testing (per core) (SPC 300/-)	2,700
	Calibration	
1	Pressure gauge / Dial Gauge	5,400
2	Calibration of Hydraulic Jack (up tp 300 ton) with Pressure Gauge Calibration	38,500
3	Calibration of Hydraulic Jack (up tp 1000 ton) with Pressure Gauge Calibration	65,400
4	Deflection dial	3,700
5	Proving ring (< 100 kN)	6,000
6	Proving ring (100 kN to 500 kN)	7,000
7	Proving ring (> 500 kN)	8,500
8	Dynamometer	10,700
9	Compression / TensionTesting Machine (with one dial)	17,500
10	Calibration of Concrete Mix Batching Plant	3,17,000
	Balance and Weight	
11	Electronic Balance up to 20kg / Platform Scale / Balance	9,700
12	CA measuring potable fara / Measuring cub	5,000
13	Schmidt Hammer (Rebound)	12,700
14	Weight < 2kg / Load Cell (Weight Box 17800)	9,700
15	Balance up to 300kg	14,400
16	Balance above 300kg to 1000kg	18,700
17	Balance above 1000kg	28,800
	Cement Testing Apparatus	
18	Mixture Machine (Mortar cube & setting)	9,700
19	Blaine Apparatus /Jolting table / Vibrating Machine	15,000
20	Vicat Apparatus	7,600
21	Cement Autoclave Machine	9,700
22	Cylinder/Cube Mould Calibration	2,900
23	Curing Tank	6,100
24	PH Meter / Stop watch	2,400
	Survey Equipment	
25	Theodolite	15,700
26	Level	12,100
27	Total Station	43,100
	Miscellaneous Equipment / Devices	
28	Vernear Scale/ Micro meter	2,200
29	Steel Scale	2,200
30	Thermometer	3,400
31	Sieve	3,700
32	Tacheometer	15,700
	Outside Laboratory / In-situ Calibration	
33	Compression / TensionTesting Machine (with one dial)	17,500 +*
34	Protable Weighing Bridge	16,500

Sl. No.	Name of Tests	Test Rate (Tk.)
	Cement (ASTM / AASHTO Standard)	
1	Compressive strength, 3, 7 & 28 days (1000/- Ottowa Sand) (S.P.C. 1,000/-)	10,200
2	Setting time	4,300
3	Fineness	3,100
4	Setting time (only)	4,800
5	Normal Consistency (only)	2,900
6	Density / Sp.Gr.	4,300
7	Weight of cement bag	800
	Cement (EN Standard)	
1	Compressive Strength, 2 & 28 days (Ottowa Sand: 600/-)	29,400
2	Compressive Strength 2, 7 & 28 days (Ottowa Sand: 800/-	37,200
	A. Rod (Set of 3 Nos.)	
1	Tension test including wt. & elongation (up to 25mm)	2,500
2	Tension test incl. wt. & elongation (above 25mm & up to 32mm)	3,700
3	Tension test inc. wt. & elongation (above 32 mm & up to 50 mm) (S.P.C. 4,500/-)	9,000
4	Tension test inc. wt. & elongation (above 50 mm) (S.P.C. 6,000/-)	10,800
5	Bend test (up to 25mm)	1,200
6	Bend test (above 25mm)	1,300
7	Re-bend test (up to 25mm)	1,700
8	Re-bend test (above 25mm)	1,900
9	Deformation Measurement	3,000
10	Elongation at 5D as per ISO 6935-2 per Set	2,000
11	Stress-strain Curves (mod.of elasticity)(for Strand : 9,600/-)	10,000
12	Shear Test for Rod (S.P.C. as per rod dia 1200/- -- 2,000/-	2,500+
13	Shaft Rod < 30 mm	3,500
14	Shaft Rod > 30 mm <50 mm (S.P.C. 3500/-)	7,500
15	Shaft Rod > 50 mm. (S.P.C. 4000/-)	8,500
16	H.T. Wire, Tension test	8,000
17	Strand / Cable Tension test	14,400
18	Welded MS Bar Tension Test (as per MS Bar Rate x 2 times)	
19	Coupler up to 32mm, for a set of 1 No.	2,600
20	Coupler above 32mm, for a set of 1 No.	3,200
	B. Bolt, Angle and Plate (Set of 3 Nos.)	
21	Anchor Bolt/ Hooks Tension test (up to 25 mm) (S.P.C. 1000/-) (if required)	5,100
22	Anchor Bolt/ Hooks Tension test (above 25 mm) (S.P.C. 1000/-) (if required)	6,200
23	Bolt Tension Test (up to 25mm)	3,500
24	Bolt Tension Test (above 25mm) (S.P.C. 1000/-)	6,000
25	Anchor Bolt/Bolt/Hooks Shear Test (up to 25mm) (S.P.C. 1000/-)	3,600
26	Anchor Bolt/Bolt/Hooks Shear Test (above 25mm) (S.P.C. 2,000/-)	5500
27	Angle/Plate/Sheet Pile/Joist Tension test (up to 16mm) (S.P.C. 1,500/-)	4,600
28	Angle/Plate/Sheet Pile/Joist Tension test (above 16mm up to 30mm) (S.P.C. 2,000/-)	5,600
29	Angle/Plate/Sheet Pile/Joist Tension test (above 30mm) (S.P.C. 2,500/-)	6,100
30	Sheet Pile/Joist wt. per meter & Thickness (S.P.C. 1,000/-)	3,000
31	Sheet Pile/Joist Section Modulus/Moment of Inertia (S.P.C. 2,000/-)	17,700
32	Hardness test (Rockwell) (S.P.C. 1,000/-)	4,000
33	Impact test, for a set of 3 Nos. (S.P.C. 1,000/-)	4,000
	C. Rod (Miscellaneous)	
34	Scaffolding / Steel Props / Jog (for a set of 1 No.)	13,000
35	Steel Sleeper (for a set of 1 No.) (S.P.C. 800/-)	6,500
36	Transverse Breaking Load of Rail (for a set of 1 No.)	24,100
37	Fibre Glass Stainers / Pipes Tension test (for a set of 3 Nos.)	4,800
38	Fibre Glass Compression test (for a set of 1 No.)	2,200
39	Spring test (for a set of 1 No.)	3,300
40	Aluminium Column Compression test (S.P.C. 2,000/-)	10,500
41	Dog Spike	7,800
42	Bond/Weld Test or Rod Lapping Test	5,500
43	MS Box Welding Compressive Strength (S.P.C. 3,000/-)	10,500
44	Butt Welded Joint	7,200
45	Prestressing 12 Wire Anchorage Test (46,000+69,000)	1,15,000
46	Prestressing 19 Wire Anchorage Test (50,000+77,000) (for Retest of Prestressing Wire Anchorage, test fee will be one third)	127,000
47	Test on Admixture (Mineral) for Cement/Concrete	Consult with teacher

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S.P.C. = Sample Preparation Charge

	Timber Test	
1	Timber Compression Test,for 1 sample (S.P.C. 1,000/-)	8,800
2	Timber Flexure Test, for 1 sample (S.P.C. 1,500/-)	19,700
3	Moisture Content, for 1 sample (S.P.C. 1,000/-)	2,900
4	Hardness, for 1 sample (S.P.C. 1,000/-)	9,900
5	Density (S.P.C. 300/-)	2,200
	Tiles (Set of 5 Nos.)	
1	Size & shape	2,200
2	Absorption (with flexural needs additional 5 Nos.)	3,100
3	Flexural / Modulus of Rupture	2,900
	Rubber / Plastic / PVC Materials	
1	Tension, for a set of 5 samples	3,500
2	Hardness, for 1 sample	2,200
3	Flexural, for a set of 5 samples	4,100
4	Compression, for 1 sample	4,100
5	Compression stiffness, for 1 sample	5,700
6	Water Stopper - Tension, Dim., Elongation (S.P.C. 1000/-)	6,500
7	Water Stopper - Sp. Gr. / Hardness	5,100
	Soil Boring (Including relevant tests and Geotechnical Investigation Report)	
	Per Borehole	
	Within Dhaka City - depth up to 20 m	80,000
	Within Dhaka City - depth up to 25 m	100,000
	Within Dhaka City - depth up to 30 m	135,000
	Outside Dhaka City: *Consult with Teacher*	
(Notes: Minimum 3 borings for a particular site; Guidelines : up to 3 katha - 3 Nos.; 3 - 5 katha - 5 Nos.; 6 - 10 katha - 8 Nos.)		

33	Field density test per spot (In addition Proctor/max-min density and sieve/Hydrometer tests are needed to be done - please consult wth respective Teacher), Minimum total fees: within Dhaka City Tk. 1,00,000/- ; Outside Dhaka City Tk. 1,40,000/-; Near Districts 2,00,000/- and Farthest Districts 2,50,000/-	8,000 + *
34	Non-repetitive Plate Load Test per Location, Minimum total fees: within Dhaka City Tk. 1,75,000/-; Outside Dhaka City 2,15,000 ; Near Districts, Tk. 2,75,000/- and Farthest Districts Tk. 3,25,000/-	97,000 + *

Note: If field test is to be conducted in a restricted/specialized area, then the testing fee will be at least 1.5 times the speciified fees.

Sl. No.	Name of Soil Tests	Test Rate (Tk.)
	Physical and Index Properties	
1	Specific gravity (Sp. Gr.)	2,300
2	Unit weight (wet & dry)	2,200
3	Void ratio (Sp. Gr. & Unit Weight.)	3,600
4	Moisture content	1,100
5	Linear shrinkage	2,200
6	Skrinkage limit	2,000
7	Liquid limit and Plastic limit	5,000
8	Liquid limit and Plastic limit of Bentonite	8,000
9	Grain size analysis by wash sieving/ % finer than # 200 sieve	3,800
10	Hydrometer and wash sieving (including specific gravity)	7,000
11	Organic matter content by Loss on Ignition Test	4,500
12	Sand equivalent test	4,800
	Compaction and Density Tests	
13	Maximum and Minimum density of cohesionless soil	9,000
14	Standard Proctor Compaction test	15,000
15	Modified Proctor Compaction test	20,000
	Permeability and Seepage Characteristics	
16	Permeability of cohesive soil by 1-dimensional consolidation	24,000
17	Permeability of cohesionless soil including Sp.Gr. (Falling Head Method)	9,500
	Consolidation and Swelling Characteristics	
18	One dimensional consolidation Cc,Cs,Cv (Only e - log p Tk. 17,000)	24,000
19	One dimensional consolidation (Cc, Cs, Cv) and Permeability (e - log k)	30,000
20	Swelling Pressure	13,000
21	Swelling Potential	10,000
	Strength and Deformation Characteristics	
22	Unconfined compression test (including Sp. Gr.)	10,000
23	Laboratory California Bearing Ratio (CBR) of soils	30,000
	Direct Shear Tests	
24	Consolidated Drained test for sand (including Sp.Gr.)	16,000
25	Consolidated Drained test for clay (including Sp.Gr.)	17,000
	Triaxial Shear Tests	
26	Consolidated Drained compression (including Sp.Gr.)	52,000
27	Con. undrained compression test with pore pressure (including Sp.Gr.)	52,000
28	Con. undrained compression test without pore pressure (including Sp. Gr.)	46,000
29	Uncon. undrained compression test without pore press (including Sp. Gr.)	24,000
30	Con. undrained extension test without pore pressure (including Sp. Gr.)	46,000
31	Cyclic Triaxial Test (including Sp. Gr.)	400,000
	Geotechnical Tests (Field)	
32	Filed CBR per Location with field density (in addition Proctor/max-min density and sieve/Hydrometer tests are needed to be done - please consult wth respective Teacher), Minimum total fees: within Dhaka City Tk. 1,50,000/-; Outside Dhaka City 1,85,000; Near Districts Tk. 2,50,000/- and Farthest Districts Tk. 3,00,000/-	40,000 + *

	GEOTEXTILES / GEOBAGS (Set of 3 samples)				
1	Thickness (10 specimens)	1,400	9	Vertical Permeability under 2 kN/m^2 and 200 kN/m^2 Pressure	9,400
2	Unit Weight / Mass per Unit Area (3 specimens)	2,300	10	Vertical Permeability under 2 kN/m^2 Pressure	5,800
3	Apparent/Effective Opening Size (AOS/EOS)/Pore Size (3 specimens)	4,800	11	Water Permeability by Permittivity/Velocity Index	4,800
4	Strip/Wide-Width Tensile strength & elong) (5 specimens x 2-dir)	5,800	12	Vertical Permeability under head loss of 50 mm	4,800
5	Grab Tensile Strength & Elongation (5 specimens x 2-dir)	4,800	13	Horizontal Permeability Under 2kN/m^2 Pressure (S.P.C. 500/-)	10,500
6	Trapezoidal Tear Strength	4,800	14	Index Puncture Resistance or CBR Puncture (10 specimens)	3,600
7	Seam Strength (6 specimens)	4,800	15	Cone Penetration	3,600
8	Burst Strength	3,600			
	ELASTOMERIC BEARING PAD			EPOXY COATED REBAR	
1	Rubber Bearing Pad - Checking the dimensional variations - ASTM D4014; Clause 7	5,500	1	Holiday Test (3 specimens, each 4m length)	1,500
2(a)	Rubber Bearing Pad - Bearing compression test for compression stiffness - ASTM D4014; Clause 9	109,250	2	Thickness Measurement Test (3 specimens, each 4m length)	2,000
2(b)	Rubber Bearing Pad - Short-term Compression Proof Load Test to 150% of design load and visual inspection under load using video extensometer -AASHTO 2002, 17th Edition, Clause 18.7.2.5, 18.7.4.5.6		3	Bend (Flexibility Test) (3 specimens, each 4m length)	1,500
2(c)	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		4	Impact Test (3 specimens each 300mm length)	1,000
3	Durometer hardness test (Shore A)- ASTM D2240	3,700			
4	Heat Resistance	5,000			

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S.P.C. = Sample Preparation Charge

Sl. No.	Name of Tests	Test Rate (Tk.)
	Tests on Water	
	Routine Drinking Water Parameters (Package)	
1	pH	9,600 + 2,600 = 12,200 (Drinking+As+TC/FC) 7,500 + 2,000 = 9,500 (Drinking+As)
2	Colour (True or Apparent)	
3	Turbidity	
4	Total Hardness	
5	Chloride (Cl)	
6	Total Dissolved Solids (TDS)	
7	Manganese (Mn)	
8	Arsenic (As)	
9	Total Iron (Fe)	
10	Total Coliform(TC)/Thermotolerent Coliform (TTC)	
11	Fecal Coliform (FC)	
	Environmental Quality of Soil, Sludge and Solids	
1	pH (Chemical 200/-)	1,200
2	Electrical Conductivity (Chemical 300/-)	1,500
3	Organic Matter Content by Loss on Ignition Test	4,500
4	Water Soluble Cl / Salinity/ PO_4 / SO_4 (each) (Chemical 400/-)	4,500
	Metal Analysis of Soil, Sludge and Solids following Total Extraction and / or TCLP	
5	Total Extraction Charges (each sample) (Chemical 500/-)	2,500
6	*Extractant Analysis Charge*	
	Ca/Cd/Co/Cr/Cu/Fe/Mg/Mn/Ni/Pb/Zn - using FLAAS (each) (Chemical 600/-)	2,500
	Arsenic (As) - using GFAAS (Chemical 600/-)	2,500
	Mercury (Hg) - Cold Vapor Method (Chemical 1200/-)	6,000
	Selenium (Se) - using GFAAS / Ba (Chemical 800/-)	5,000
	Na / K - using FLAAS (each) (Chemical 500/-)	3,000
7	Toxic Characteristics Leaching Procedure (TCLP) Charge (Chemical 1500/-)	6,000
8	*Extractant Analysis Charge*	
	Ca/Cd/Co/Cr/Cu/Fe/Mg/Mn/Ni/Pb/Zn - using FLAAS (each) (Chemical 600/-)	2,500
	Arsenic (As) - using GFAAS (Chemical 600/-)	2,500
	Mercury (Hg) - Cold Vapor Method (Chemical 1200/-)	6,000
	Selenium (Se) - using GFAAS / Ba (Chemical 800/-)	5,000
	Na / K - using FLAAS (each) (Chemical 500/-)	3,000

	Ambient Air Quality Monitoring *	
	Parameters	
1	SPM (Chemical 1500/-)	16,000
2	PM10	
3	PM2.5 (Chemical 2500/-)	20,000

	Noise Monitoring *	
1	Minimum Fee (per 5 locations in one entity)	20,000
2	Clibration of Noise Meter (per equipment)	5,000

	Sample Collection Charges +++	
1	Sampling for Bacteriological Analysis	7,000 + *
2	Sampling for Physical and Chemical Analysis	7,000 + *

	Tubewell Design (Sample preparation charge TK. 2,000)	
1	Tubewell Design (depth up to 600'), incl. 8 Nos. sand test ^	17,000+16,000
2	Tubewell Design (depth above 600'), Incl. 11 Nos. sand test ^	18,000+22,000

Notes :

+++ Sampling charge may vary depending on the area to be sampled

^ Cost depends on the client's requirements

* Usual field visit fees apply in addition to above

Sl. No.	Name of Tests	Test Rate (Tk.)
	Miscellaneous Water Quality Parameters	
1	pH (Chemical 200/-)	500
2	Colour (True or Apparent) (Chemical 200/-)	500
3	Colour Scanning at Specific Wavelength/UV-VISRange (Chemical 200/-)	2,000
4	Turbidity (Chemical 200/-)	500
5	Carbon-di-Oxide (CO_2) / Acidity (Chemical 150/-)	500
6	P-Alkalinity/ M-Alkalinity/T-Alkalinity (Chemical 200/-)	600
7	Carbonate (CO_3) or Bi-carbonate (HCO_3) + pH (Chemical 200/-)	700
8	Total Hardness (Chemical 300/-)	1,100
9	Ca - Hardness (Chemical 800/-)	3,000
10	Mg - Hardness (Chemical 800/-)	3,000
11	Chloride (Cl) (Chemical 250/-)	900
12	Fluoride (F) (Chemical 100/-)	700
13	Ammonia-Nitrogen (NH_3 - N) (Chemical 400/-)	1,200
14	Nitrate - Nitrogen (NO_3 - N) (Chemical 250/-)	900
15	Nitrite - Nitrogen (NO_2 - N) (Chemical 250/-)	900
16	Total Nitrogen (TN) (Chemical 1500/-)	6,000
17	Total Kjeldahl Nitrogen (TKN) / Organic Nitrogen (Chemical 3,000/-)	16,000
18	Chlorine Content - Total Cl_2 (Chemical 250/-)	800
19	Chlorine Content - Free Cl_2 (Chemical 250/-)	800
20	Iodine Content (Chemical 200/-)	800
21	Bromine Content (Chemical 200/-)	800
22	Break Point Chlorination (Chemical 1200/-)	10,000
23	Total Solids (TS) (Chemical 100/-)	1,100
24	Total Suspended Solids (TSS)/Insoluble Solids/(TSS+TDS+TS) (Chemical 500/-)	2,200
25	Total Dissolved Solids (TDS) (Chemical 150/-)	1,100
26	Silica Content (SiO_2) (Chemical 400/-)	1,500
27	Electrical Conductivity (EC) (Chemical 350/-)	700
28	Total Phosphorous (TP) (Chemical 700/-)	3,700
29	Orthophosphate (PO_4) (Chemical 200/-)	1,000
30	Hydrogen Sulphide (H_2S) / Odour (Chemical 200/-)	900
31	Sulphate (SO_4) (Chemical 200/-)	800
32	Biochemical Oxygen Demand (BOD)-5 day (Chemical 400/-)	2,000
33	Chemical Oxygen Demand (COD) (Chemical 600/-)	2,000
34	Dissolved Oxygen (DO) (Chemical 400/-)	600
35	Boron (B) (Chemical 1,200/-)	3,000
36	Manganese (Mn): UV - VIS (Chemical 500/-)	1,800
37	Aluminum (Al) (Chemical 500/-)	4,500
38	Silver (Ag) (Chemical 500/-)	5,000
39	Arsenic (As) - using GFAAS (Chemical 600/-)	1,800
40	Selenium (Se) - using GFAAS (Chemical 900/-)	4000
41	Ca/Cd/Cr/Cu/Fe/Mg/Mn/Ni/Pb/Zn - using FLAAS (each) (Chemical 500/-)	1,800
42	Na / K - using FLAAS (each) (Chemical 400/-)	2,200
43	Nickel (Ni) / Cobalt (each) (Chemical 1,000/-)	3,000
44	Mercury(Hg)-Cold Vapour Method (Mini. 30 days required) (Chemical 1200/-)	4,000
45	Cyanide (Cn) (Chemical 1000/-)	4,000
46	Ferrous Iron/ Ferric Iron (Chemical 500/-)	2,500
47	Total Organic Carbon (TOC) (Chemical 1000/-)	9,000
48	Dissolved Organic Carbon (DOC) (Chemical 1500/-)	10,000
49	Silt Density Index (SDI) with Plugging (Chemical 500/-)	12,000
50	Sodium Absorption Ratio (SAR) (Chemical 1000/-)	5,000
51	Langlier Saturation Index (Chemical 1000/-)	6,000
52	Ryznar Index (Chemical 1000/-)	6,000
53	Aggressiveness / Corrosivity Index (Chemical 1000/-)	6,000
54	Puckorius Scaling index (Chemical 1000/-)	6,000
55	Larson-Skold Index (Chemical 1200/-)	8,000
	BACTERIOLOGICAL ANALYSIS	
1	Fecal Coliform (FC) / Total Coliform (TC) (each) (Chemical 500/-)	1,400
2	E. Coli (Chemical 1500/-)	4,000
3	Algae / Chlorophyll_a (Chemical 1500/-)	11,000

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Sl. No.	Name of Tests	Test Rate (Tk.)
	Miscellaneous Wastewater/Effluent Quality Parameters	
1	pH (Chemical 200/-)	600
2	Colour (True or Apparent) (Chemical 200/-)	800
3	Colour Scanning at Specific Wavelength/UV-VIS Range (Chemical 200/-)	2,500
4	Turbidity (Chemical 200/-)	700
5	P-Alkalinity/ M-Alkalinity/T-Alkalinity (Chemical 200/-)	800
6	Carbonate (CO_3) or Bi-carbonate (HCO_3) + pH (Chemical 200/-)	1,000
7	Total Hardness (Chemical 300/-)	1,300
8	Ca - Hardness (Chemical 800/-)	3,500
9	Mg - Hardness (Chemical 800/-)	3,500
10	Chloride (Cl) (Chemical 250/-)	1,200
11	Fluoride (F) (Chemical 100/-)	900
12	Ammonia-Nitrogen (NH_3 - N) (Chemical 400/-)	1,500
13	Nitrate - Nitrogen (NO_3 - N) (Chemical 250/-)	1,000
14	Nitrite - Nitrogen (NO_2 - N) (Chemical 250/-)	1,000
15	Total Nitrogen (TN) (Chemical 1500/-)	5,500
16	Total Kjeldahl Nitrogen (TKN) / Organic Nitrogen (Chemical 3000/-)	16,000
17	Chlorine Content - Total Cl_2 (Chemical 250/-)	900
18	Chlorine Content - Free Cl_2 (Chemical 250/-)	900
19	Iodine Content (Chemical 200/-)	900
20	Bromine Content (Chemical 200/-)	900
21	Total Solids (TS) (Chemical 100/-)	1,200
22	Total Suspended Solids (TSS)/Insoluble Solids/(TSS+TDS+TS) (Chemical 500/-)	2,400
23	Total Dissolved Solids (TDS) (Chemical 500/-)	1,200
24	Silica Content (SiO_2) (Chemical 400/-)	1,600
25	Electrical Conductivity (EC) (Chemical 350/-)	1,000
26	Total Phosphorous (TP) (Chemical 700/-)	4,000
27	Orthophosphate (PO_4) (Chemical 200/-)	1,200
28	Hydrogen Sulphide (H_2S) / Odour (Chemical 200/-)	1,000
29	Sulphate (SO_4) (Chemical 200/-)	1,000
30	Organic Matter (Chemical 300/-)	3,800
31	Inorganic Matter (Chemical 300/-)	2,100
32	Biochemical oxygen Demand (BOD) - 5 day (Chemical 400/-)	2,400
33	Chemical Oxygen Demand (COD) (Chemical 500/-)	2,400
34	Dissolved Oxygen (DO) (Chemical 400/-)	1,000
35	Boron (B) (Chemical 1200/-)	3,500
36	Aluminum (Al) (Chemical 500/-)	5,000
37	Silver (Ag) (Chemical 500/-)	5,500
38	Arsenic (As) - using GFAAS (Chemical 600/-)	2,000
39	Selenium (Se) - using GFAAS / Ba (each) (Chemical 900/-)	4500
40	Ca/Cd/Cr/Cu/Fe/Mg/Mn/Ni/Pb/Zn - using FLAAS (each) (Chemical 500/-)	2,000
41	Na / K - using FLAAS (each) (Chemical 400/-)	3,500
42	Total Organic Carbon (TOC) (Chemical 1000/-)	10,000
43	Dissolved Organic Carbon (DOC) (Chemical 1500/-)	11,000
	BACTERIOLOGICAL ANALYSIS	
1	Fecal Coliform (FC) / Total Coliform (TC) (each) (Chemical 500/-)	2,000
2	Algae / Chlorophyll_a (Chemical 1500/-)	12,000

Sl. No.	Name of Tests	Test Rate (Tk.)
	Miscellaneous Saline Water (*EC > 5mS/cm*) Quality Parameters	
1	pH (Chemical 200/-)	600
2	Colour (True or Apparent) (Chemical 200/-)	1,000
3	Colour Scanning at Specific Wavelength/UV-VIS Range (Chemical 200/-)	2,500
4	Turbidity (Chemical 150/-)	700
5	Carbon-di-Oxide (CO_2) / Acidity (Chemical 200/-)	600
6	P-Alkalinity/ M-Alkalinity/T-Alkalinity (Chemical 200/-)	900
7	Carbonate (CO_3) or Bi-carbonate (HCO_3) + pH (Chemical 200/-)	1,100
8	Total Hardness (Chemical 500/-)	2,200
9	Chloride (Cl) (Chemical 500/-)	2,500
10	Fluoride (F) (Chemical 500/-)	2,500
11	Ammonia-Nitrogen (NH_3 - N) (Chemical 800/-)	3,500
12	Nitrate - Nitrogen (NO_3 - N) (Chemical 500/-)	2,500
13	Nitrite - Nitrogen (NO_2 - N) (Chemical 500/-)	2,500
14	Total Nitrogen (TN) (Chemical 2000/-)	12,000
15	Total Kjeldahl Nitrogen (TKN) / Organic Nitrogen (Chemica	17,000
16	Chlorine Content - Total Cl_2 (Chemical 300/-)	1,500
17	Chlorine Content - Free Cl_2 (Chemical 300/-)	1,500
18	Iodine Content (Chemical 300/-)	1,500
19	Bromine Content (Chemical 300/-)	1,500
20	Total Solids (TS) (Chemical 200/-)	1,800
21	Total Suspended Solids (TSS)/Insoluble Solids/(TSS+TDS+TS) (Chemical 500/-)	3,500
22	Total Dissolved Solids (TDS) (Chemical 200/-)	1,800
23	Silica Content (SiO_2) (Chemical 500/-)	2,500
24	Electrical Conductivity (EC) (Chemical 500/-)	1,600
25	Total Phosphorous (TP) (Chemical 700/-)	4,000
26	Orthophosphate (PO_4) (Chemical 300/-)	2,000
27	Hydrogen Sulphide (H_2S) / Odour (Chemical 300/-)	1,500
28	Sulphate (SO_4) (Chemical 300/-)	1,500
29	Biochemical oxygen Demand (BOD) - 5 day (Chemical 500/-)	3,600
30	Chemical Oxygen Demand (COD) (Chemical 600/-)	4,600
31	Dissolved Oxygen (DO) (Chemical 400/-)	1,000
32	Boron (B) (Chemical 1200/-)	4,500
33	Aluminum (Al) (Chemical 500/-)	5,500
34	Silver (Ag) (Chemical 500/-)	6,000
35	Arsenic (As) - using GFAAS (Chemical 800/-)	3,500
36	Selenium (Se) - using GFAAS / Ba (each) (Chemical 1000/-)	5,000
37	Ca/Cd/Cr/Cu/Fe/Mg/Mn/Ni/Pb/Zn - using FLAAS (each) (Chemical 1000/-)	4000
38	Na / K - using FLAAS (each) (Chemical 1000/-)	5,500
39	Mercury(Hg)-Cold Vapour Method (Mini. 30 days required) (Chemical 1500/-)	8,000
40	Total Organic Carbon (TOC) (Chemical 1000/-)	11,000
41	Dissolved Organic Carbon (DOC) (Chemical 1500/-)	13,000
	BACTERIOLOGICAL ANALYSIS	
1	Fecal Coliform (FC) / Total Coliform (TC) (each) (Chemical 1500/-)	2,500
2	E. Coli (Chemical 1500/-)	6,500
3	Algae / Chlorophyll_a (Chemical 1500/-)	13,500

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Sl. No.	Name of Tests	Test Rate (Tk.)
	GRP Board Sandwich Panel	
1	Tensile Strength (5 Nos. from each Sample)	5,100
2	Tensile Modulus (5 Nos. from each Sample)	13,200
3	Flexural Strength (127 mm x 12.7 mm x 3.2mm; 5 Nos.)	5,100
4	Flexural Modulus (100 mm x 10 mm x 4mm; 5 Nos.)	13,200
5	Impact Strength (5 Nos. from each Sample)	5,100
6	Water Absorption (76.2 mm x 25.4 mm x 6mm; 3 Nos.)	3,400
	Consultancy on Pile Integrity	
	Per Pile (see conditions a,b,c) (a) Minimum total fees: within Dhaka City - 75,000/- ; Outside Dhaka City 1,15,000/-; Near Districts 1,50,000/- and Farthest Districts 1,75,000/- (b) Integrity tests be done on all piles for a structure (c) Pile load test be done on at least 1% of piles selected on the basis of integrity results	3,000 + *

Sl. No.	Name of Tests	Test Rate (Tk.)
	Non-Asbestos Fibre-Cement Board	
1	Modulus of Rupture (6" X 12")	
	2 Nos. Parallel to Fibre Lay from Same Sheet (S.P.C. 900/-)	7,900
	2 Nos. Perpendicular to Fibre Lay from Same Sheet	
2	Modulus of Elasticity (6" X 12")	
	2 Nos. Parallel to Fibre Lay from Same Sheet (S.P.C. 900/-)	14,700
	2 Nos. Parpendicular to Fibre Lay from Same Sheet	
3	Density (from MOR Test)	2,500
4	Size & Shape (5 Nos.)	3,400
5	Water Absorption (4" X 4"; 3 Nos. from Per Sheet) (S.P.C. 700/-)	3,500
6	Moisture Content (from MOR Test)	3,400
7	Water Tightness (24" X 20"; 3 Nos. One from each Sheet) (S.P.C. 700/-)	11,000
8	pH Value (from MOR Test)	1,300
9	Heat & Rain Wall Structures (5' X 4'; 2 Nos.; One from each Sheet)	33,400
	Consultancy on Axial Pile Load Capacity	
	Test Supervision & Report (per pile): **Minimum total fees**: within Dhaka City Tk. 1,35,000/-; Outside Dhaka City 1,75,000; Near Districts, Tk. 2,25,000/- and Farthest Districts Tk. 2,50,000/-	1,07,000 + *

	Various Consultancy Services
1	Land Survey (Plannimetric/Topographic/Contour) by Total Station and GPS
2	Cost Estimation of Civil Structures
3	Asset Evaluation of Civil Structures/Industries/Properties
1	Design of Building, Bridges, Airport, Offshore Structures, Drainage Structures etc.
2	Structural Evaluation of Old Civil Structures without Drawings/Records
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 plants)
2	Environmental Impact Assessment (EIA) of Civil Engineering Projects
3	Environmental Monitoring of Civil Engineering Projects
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 Pollution Control
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
1	Transportation Impact Assessment (TIA) of Civil Engineering Projects
2	Traffic Studies (Volume, O-D, Speed, Delay, Parking etc.)
3	Traffic Forecasting
4	Geometric and Structural Design of Pavements, Parking Lots etc.
5	Planning and Design of Inland Container Terminal/Depot (ICT / ICD)
6	Planning and Design of Airport Terminal
7	Design of Runway Pavement
8	Design of Road/Highways/Bridge/Culverts
9	Planning and Design of Flyover / Underpass / Interchange
10	Road Accident Investigation/Safety Measure/Road Safety Auditing
11	Development of Transportation Model
12	Training on Traffic Studies, Traffic Management, Transportation Planning, Traffic Safety

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