

<div><div>BANGLADESH UNIVERSITY OF ENGINEERING AND TECHNOLOGY, DHAKA -1000</div><div>DEPARTMENT OF CIVIL ENGINEERING</div><div>Committed to Quality Assurance for Better Bangladesh</div></div>		
<div>APPROVED RATES FOR TESTING OF MATERIALS AND SERVICES</div> <div>Rates include VAT (15%), University Overhead (30%) & Laboratory Development and MaintenanceEffective from October, 2024</div> <div>Department of Civil Engineering reserves the right to change the rates at any time without any prior notice</div> <div>Contact person: Prof. Dr. Bashir Ahmed; Room No 415; Mobile: 01819 557964</div> <div>PABX Nos.: 55167100, 55167228-57, Ext. 7226; Web: ce.buet.ac.bd</div> <div>BRTC Office Time : Sat to Wed => 9:00 am - 5:00 pm & Thu => 9:00 am - 2:00 pm</div>		
Transportation Engineerineering Laboratory		
Sl. No.	Name of Tests	Test Rate (Tk.)
Aggregates (Sample Preparation Charge Tk. 2000 per Sample)		
1	Sieve analysis (CA) / Gradation /FM (CA) Upto No.4	7,500
2	Sieve analysis (CA) / Gradation (Base/subbase)	12,000
3	Sieve analysis / Gradation / FM (CA) (Ballast)	9,600
4	Sieve analysis / Gradation / FM (CA) (Ballast)/Specified Sieve size	12,700
5	Sieve analysis (FA) / FM	4,200
6	% finer than # 200 sieve by washing / Fine content/Silt content	4,200
7	Aggregate Crushing Value(ACV)	8,500
8	Aggregate Impact Value (AIV)	7,400
9	Ten Percent Fine Value (TFV)	12,700
10	Angularity number including specific gravity (Sp.Gr.)	10,600
11	Elongation Index (EI)	9,600
12	Flakiness Index (FI)	8,800
13	L.A. Abrasion of CA (ASTM C131)	8,500
14	L.A. Abrasion of Ballast (ASTM C535)	8,800
15	Unit weight of aggregate (CA)	5,500
16	Unit weight of aggregate (FA)	5,000
17	Soundness with Na ₂ SO ₄ (4400/- for chemical)	21,200
18	Soundness with Mg ₂ SO ₄ (6600/- for chemical)	23,400
19	Absorption and Specific Gravity / Density	7,500
20	Clay lumps & friable particles	6,300
21	Moisture Content	3,200
22	Percentage of Uncrushed Particle (Fractured face)	9,600
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) (300/- for chem)	5,000
26	Bulking of sand (Single Point/Multi Point)	6100/16500
27	Void Ratio / Porosity / Moh. Hardness	8,500
28	CBR of Base or Sub-base material	65,800
29	Standard Proctor test of aggregate (MDD)	26,500
30	Modified Proctor or Vibrating Hammer	43,500
31	Potential Alkali-Silica Reactivity of Aggregates (Chemical Method) C289	25,000
32	Potential Alkali Reactivity of Aggregates (Mortar-Bar Method) C1260	36,000
Sl. No.	Name of Tests	Test Rate (Tk.)
Bitumen (Sample Preparation Charge Tk. 3000 per Sample)		
1	Specific gravity (Sp.Gr.)/ Density	5,800
2	Penetration	5,800
3	Naphta Xylene Equivalent (500 for chem)	24,500
4	Flash & Fire Points	5,800
5	Solubility (500/- for Chem.)	5,500
6	Ductility (300/- for Chem.)	5,500
7	Softening Point (R&B) (300/- for Chem.)	5,500
8	Thin Film Oven (TFO) / Loss-on-Heating (LOH)	7,100
9	Float Test	5,800
10	Foaming Test	5,800
11	Spot Test (200/- for chem)	5,800
12	Viscosity (Dynamic) (200/- for chem)	21,200
13	Ash Content / Inorganic Matter	10,500
14	Any test on residue from LOH/TFOT (if TFOT/LOH included separately)	10,600
15	Any test on residue from LOH/TFOT (if TFOT/LOH not included separately)	17,800
16	Coating & Stripping test with/without Anti-Stripping Agent/Dose	8,100
17	Asphalt Concrete Mix Design (Marshall)*	89,700
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	18,000
20	Extracted Aggregate Gradation (If Bitumen Content is included)	11,700
21	Extracted Aggregate Gradation ONLY	28,600
22	Water Content	11,500
23	Theoretical Maximum Specific Gravity	8,500
24	Density	4,200
25	Marshall Stability and Flow Test	7,500
26	In-situ core cutting (per sample)	11500+Field Visit
27	Job Mix Formula & Marshall Test	1,44,000
28	TSR (Tensile Strength Ratio) Test	90,000
29	RTFO	20,000
30	Binder CS (DSR)	20,000
31	RTFO CS (RTFO + DSR)	40,000
32	MSCR	50,000
<div>Notes: [* Field visit fee; Inside Dhaka City = Tk. 20,000; Near Districts = Tk. 40,000 ; Farthest Districts = Tk. 60,000 without overnight stay and Tk. 50,000 per day for overnight stay,] [* & Transport, local hospitalities, accommodation (in case of overnight slay) etc. are to be provided by the Client]</div> <div>S.P.C. = Sample Preparation Charge. For one trial only using client's supplied sample. However, if design is to be performed by BRTC, BUET item at least 3 trial cost should be borne by the client.</div>		

Concrete Laboratory		
Bricks (Bricks needed for ASTM = 5 Nos., BS = 10 Nos.)		
1	Absorption (ASTM / BS Standard)	2,500 / 4800
2	Crushing strength(ASTM / BS Stand; 300/400/- capping mat.)	5500 / 8600
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)	5,500
Hollow / Special Brick Block / Kerb (Set of 3 Nos.)		
1	Comp. strength of Hollow bricks, Paving / Concrete blocks	4,000
2	Compressive strength of Road Kerb Stone (with core cutting)	7,200
3	Absorption	2,800
4	Unit weight	4,800
Cement Concrete		
1	Concrete cylinders (100x200mm), for a set of 3 Nos.	2,500
2	Concrete cylinders (150x300mm), for a set of 3 Nos.	4,500
3	Cubes (< 200mm) , for a set of 3 Nos.	3,800
4	Cubes (200mm - 300mm), for a set of 3 Nos.	4,500
5	Cubes (>300mm), each core cutting & testing (300/- for fuel)	7,200
6	Concrete Spun, for a set of 3 Nos.	4,000
7	Concrete beam in flexure, for a set of 3 Nos.	10,000
8	Concrete slab in flexure, for a set of 3 Nos.	14,000
Concrete Mix Designs		
9	Concrete mix design without admixture (22,000+44,000) [up to 25 MPa]	68,000
10	Concrete mix design using admixture (24,000+48,000) [up to 25 MPa]	74,000
11	Concrete mix design without admixture (24,000+48,000) [>25 MPa]	74,000
12	Concrete mix design using admixture (26,500+53,500) [> 25 MPa]	82,000
Destructive and NDT Tests		
13	In-Situ core cutting & testing per sample (without scanning) (S.P.C. 200/-)	6,800 +*
14	In-Situ core cutting & testing per sample (with quick scanning) (S.P.C. 400/-)	14,000 +*
15	In-Situ Hammer Test - per spot / location (min. 3 tests)	7,000 +*
16	In-Situ Winsor Pin Test - per spot / location (min. for 3 tests)	6,500 +*
17	In-Situ Scanning (quick & Image) per spot / location (for 2 scans)	14,000 +*
18	In-Lab Block/Kerb core cutting & testing per sample (S.P.C. 300/-)	7,200+
19	In-Lab Supplied Core Testing (per core) (SPC 300/-)	3,000+
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R.C.C Pipes		
1	Pipes (dia up to 600mm)	7,500
2	Pipes (dia above 600mm and up to 900mm)	8,500
3	Pipes (dia above 900mm and up to 1200mm)	11,000
4	Pipes (dia above 1200mm and up to 1524mm)	14,000
5	In-situ pipe testing	9,600
Manhole Covers +		
1	Load & wt. test on manhole covers (<18 inch or 450 mm Dia)	8,500
2	Load & wt. test on manhole covers (>18 inch or 450 mm Dia)	9,500
Miscellaneous		
1	Initial Rate of Absorption/Suction for Brick	3,600
Note: + Pipe specimens & manhole covers have to be taken away by the Client, immediately after the test is performed.		

Cement (ASTM / AASHTO Standard)		
1	Compressive strength, 3, 7 & 28 days (1000/- Ottawa Sand) (S.P.C. 1,000/-)	11,400
2	Setting time	4,800
3	Fineness	3,500
4	Setting time (only)	5,200
5	Normal Consistency (only)	3,200
6	Density / Sp.Gr.	4,500
7	Weight of cement bag	800
Cement (EN Standard)		
1	Compressive Strength, 2 & 28 days (Ottawa Sand: 600/-)	30,000
2	Compressive Strength 2, 7 & 28 days (Ottawa Sand: 800/-)	38,000

S. M. Laboratory			
Calibration			
1	Pressure gauge / Dial Gauge	6,000	
2	Calibration of Hydraulic Jack (up tp 300 ton) with Pressure Gauge Calibration	44,000	
3	Calibration of Hydraulic Jack (up tp 1000 ton) with Pressure Gauge Calibration	74,000	
4	Proving ring (< 100 kN)	7,000	
5	Proving ring (100 kN to 500 kN)	8,000	
6	Proving ring (> 500 kN)	9,500	
7	Dynamometer	11,500	
8	Compression / TensionTesting Machine (with one dial)	20,000	
9	Calibration of Concrete Mix Batching Plant	3,50,000	
Balance and Weight			
10	Electronic Balance up to 20kg / Platform Scale / Balance	11,000	
11	CA measuring potable fara / Measuring cub	5,700	
12	Schmidt Hammer (Rebound)	14,500	
13	Weight < 2kg / Load Cell (Weight Box 17800)	11,000	
14	Balance up to 300kg	16,000	
15	Balance above 300kg to 1000kg	21,000	
16	Balance above 1000kg	32,500	
Cement Testing Apparatus			
17	Mixture Machine (Mortar cube & setting)	9,700	
18	Blaine Apparatus /Jolting table / Vibrating Machine	15,000	
19	Vicat Apparatus	7,600	
20	Cement Autoclave Machine	9,700	
21	Cylinder/Cube Mould Calibration	2,900	
22	Curing Tank	6,100	
23	PH Meter / Stop watch	2,400	
Survey Equipment			
14	Theodolite	15,700	
25	Level	12,100	
26	Total Station	43,100	
Miscellaneous Equipment / Devices			
27	Vernear Scale/ Micro meter	2,500	
28	Steel Scale	2,500	
29	Thermometer	4,000	
30	Sieve	4,000	
31	Tacheometer	18,000	
Outside Laboratory / In-situ Calibration			
32	Compression / TensionTesting Machine (with one dial)	20,000 +*	
33	Portable Weighing Bridge	18,500	
Tiles (Set of 5 Nos.)			
1	Size & shape	2,500	
2	Absorption (with flexural needs additional 5 Nos.)	3,500	
3	Flexural / Modulus of Rupture	3,500	
Rubber / Plastic / PVC Materials			
1	Tension, for a set of 5 samples	3,500	
2	Hardness, for 1 sample	2,500	
3	Flexural, for a set of 5 samples	4,600	
4	Compression, for 1 sample	4,600	
5	Compression stiffness, for 1 sample	6,500	
6	Water Stopper - Tension, Dim., Elongation (S.P.C. 1000/-)	7,500	
7	Water Stopper - Sp. Gr. / Hardness	6,000	
Truck Scale Calibration			
1	Capacity: 0-20 ton	1,75,000	
2	Capacity: 0-40 ton	2,15,000	
3	Capacity: 0-60 ton	2,60,000	
4	Capacity: 0-80 ton	3,15,000	
5	Capacity: 0-100 ton	3,75,000	
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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)	4,500
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 : 12,800/-)	13,000
12	Shear Test for Rod (S.P.C. as per rod dia 1200/- -- 2,000/-)	2,500
13	Shaft Rod < 30 mm	4,000
14	Shaft Rod > 30 mm <50 mm (S.P.C. 4000/-)	10,500
15	Shaft Rod > 50 mm <60 mm (S.P.C. 5000/-)	11,500
16	Shaft Rod > 60 mm <80 mm (S.P.C. 5000/-)	12,500
17	H.T. Wire, Tension test	10,000
18	Strand / Cable Tension test	16,200
19	Welded MS Bar Tension Test (as per MS Bar Rate x 2 times)	
20	Coupler up to 32mm, for a set of 1 No.	3,000
21	Coupler above 32mm, for a set of 1 No.	3,600
B. Bolt, Angle and Plate (Set of 3 Nos.)		
22	Anchor Bolt/ Hooks Tension test (up to 25 mm) (S.P.C. 1000/-) (if required)	5,800
23	Anchor Bolt/ Hooks Tension test (above 25 mm) (S.P.C. 1000/-) (if required)	7,000
24	Bolt Tension Test (up to 25mm)	4,000
25	Bolt Tension Test (above 25mm) (S.P.C. 1000/-)	6,800
26	Anchor Bolt/Bolt/Hooks Shear Test (up to 25mm) (S.P.C. 1000/-)	4,100
27	Anchor Bolt/Bolt/Hooks Shear Test (above 25mm) (S.P.C. 2,000/-)	6,200
28	Angle/Plate/Sheet Pile/Joist Tension test (up to 16mm) (S.P.C. 1,500/-)	5,200
29	Angle/Plate/Sheet Pile/Joist Tension test (above 16mm up to 30mm) (S.P.C. 2,000/-)	6,300
30	Angle/Plate/Sheet Pile/Joist Tension test (above 30mm) (S.P.C. 2,500/-)	6,900
31	Sheet Pile/Joist wt. per meter & Thickness (S.P.C. 1,000/-)	3,400
32	Sheet Pile/Joist Section Modulus/Moment of Inertia (S.P.C. 2,000/-)	20,000
33	Hardness test (Rockwell) (S.P.C. 1,000/-)	4,500
34	Impact test, for a set of 3 Nos. (S.P.C. 1,000/-)	4,500
C. Rod (Miscellaneous)		
35	Scaffolding / Steel Props / Jog (for a set of 1 No.)	14,700
36	Steel Sleeper (for a set of 1 No.) (S.P.C. 800/-)	7,400
37	Transverse Breaking Load of Rail (for a set of 1 No.)	27,200
38	Fibre Glass Stainers / Pipes Tension test (for a set of 3 Nos.)	5,400
39	Fibre Glass Compression test (for a set of 1 No.)	2,500
40	Spring test (for a set of 1 No.)	3,700
41	Aluminium Column Compression test (S.P.C. 2,000/-)	11,900
42	Dog Spike	8,800
43	Bond/Weld Test or Rod Lapping Test	6,200
44	MS Box Welding Compressive Strength (S.P.C. 3,000/-)	11,900
45	Butt Welded Joint	8,100
46	Prestressing 12 Wire Anchorage Test (46,000+69,000)	1,30,000
47	Prestressing 19 Wire Anchorage Test (50,000+77,000)	1,43,500
48	(for Retest of Prestressing Wire Anchorage, test fee will be one third)	
49	Test on Admixture (Mineral) for Cement/Concrete	Consult with teacher

Geotechnical Engineering Laboratory				
Soil Boring (Including relevant tests and Geotechnical Investigation Report)			Sl. No.	Test Rate (Tk.)
	Per Borehole		Strength and Deformation Characteristics	
	Within Dhaka City - depth up to 20 m	80,000	22	Unconfined compression test (including Sp. Gr.) 10,000
	Within Dhaka City - depth up to 25 m	1,00,000	23	Laboratory California Bearing Ratio (CBR) of soils 30,000
	Within Dhaka City - depth up to 30 m	1,35,000		
	Outside Dhaka City: <i>Consult with Teacher</i>		Direct Shear Tests	
(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.)			24	Consolidated Drained test for sand (including Sp.Gr.) 16,000
Physical and Index Properties			25	Consolidated Drained test for clay (including Sp.Gr.) 17,000
1	Specific gravity (Sp. Gr.)	2,300	Triaxial Shear Tests	
2	Unit weight (wet & dry)	2,200	26	Consolidated Drained compression (including Sp.Gr.) 52,000
3	Void ratio (Sp. Gr. & Unit Weight.)	3,600	27	Con. undrained compression test with pore pressure (including Sp.Gr.) 52,000
4	Moisture content	1,100	28	Con. undrained compression test without pore pressure (including Sp. Gr.) 46,000
5	Linear shrinkage	2,200	29	Uncon. undrained compression test without pore press (including Sp. Gr.) 24,000
6	Skrinkage limit	2,000	30	Con. undrained extension test without pore pressure (including Sp. Gr.) 46,000
7	Liquid limit and Plastic limit	5,000	31	Cyclic Triaxial Test (including Sp. Gr.) 4,00,000
8	Liquid limit and Plastic limit of Bentonite	8,000	Geotechnical Tests (Field)	
9	Grain size analysis by wash sieving/ % finer than # 200 sieve	3,800	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 with 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 + *
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	33	Field density test per spot (In addition Proctor/max-min density and sieve/Hydrometer tests are needed to be done - please consult with 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 + *
17	Permeability of cohesionless soil including Sp.Gr. (Falling Head Method)	11,800		
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	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.	
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	1,09,250	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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Sl. No.	Name of Tests		Test Rate (Tk.)	Sl. No.	Name of Tests		Test Rate (Tk.)
Environmental Engineering Laboratory							
Tests on Water				Miscellaneous Water Quality Parameters			
Routine Drinking Water Parameters (Package)							
1	pH	12,000 +3,000 = 15,000 (Drinking+As+TCFC) 9,800 + 2,200 = 12,000 (Drinking+As)		1	pH (Chemical 200/-)	700	
2	Colour (True or Apparent)			2	Colour (True or Apparent) (Chemical 200/-)	700	
3	Turbidity			3	Colour Scanning at Specific Wavelength/UV-VISRange (Chemical 200/-)	2,000	
4	Total Hardness			4	Turbidity (Chemical 200/-)	700	
5	Chloride (Cl)			5	Carbon-di-Oxide (CO ₂) / Acidity (Chemical 150/-)	600	
6	Total Dissolved Solids (TDS)			6	P-Alkalinity/ M-Alkalinity/T-Alkalinity (Chemical 200/-)	700	
7	Manganese (Mn)			7	Carbonate (CO ₃) or Bi-carbonate (HCO ₃) + pH (Chemical 200/-)	900	
8	Arsenic (As)			8	Total Hardness (Chemical 300/-)	1,400	
9	Total Iron (Fe)			9	Ca - Hardness (Chemical 800/-)	3,200	
10	Total Coliform(TC)/Thermotolerent Coliform (TTC)			10	Mg - Hardness (Chemical 800/-)	3,200	
11	Fecal Coliform (FC)			11	Chloride (Cl) (Chemical 250/-)	1,000	
Environmental Quality of Soil, Sludge and Solids				12	Fluoride (F) (Chemical 100/-)	800	
1	pH (Chemical 200/-)	1,500	13	Ammonia-Nitrogen (NH ₃ - N) (Chemical 400/-)	1,500		
2	Electrical Conductivity (Chemical 300/-)	1,500	14	Nitrate - Nitrogen (NO ₃ - N) (Chemical 250/-)	1,100		
3	Organic Matter Content by Loss on Ignition Test	5,000	15	Nitrite - Nitrogen (NO ₂ - N) (Chemical 250/-)	1,100		
4	Water Soluble Cl / Salinity/ PO ₄ / SO ₄ (each) (Chemical 400/-)	5,500	16	Total Nitrogen (TN) (Chemical 1500/-)	12,000		
			17	Total Kjeldahl Nitrogen (TKN) / Organic Nitrogen (Chemical 3,000/-)	16,000		
Metal Analysis of Soil, Sludge and Solids following Extraction and / or TCLP			Total	18	Chlorine Content - Total Cl ₂ (Chemical 250/-)	1,000	
5	Total Extraction Charges (each sample) (Chemical 500/-)	3,000	19	Chlorine Content - Free Cl ₂ (Chemical 250/-)	1,000		
6	TCLP Extractant Analysis		20	Iodine Content (Chemical 200/-)	1,000		
	Ca/Cd/Co/Cr/Cu/Fe/Mg/Mn/Ni/Pb/Zn - using FLAAS (each) (Chemical 600/-)	3,000	21	Bromine Content (Chemical 200/-)	1,000		
	Arsenic (As) - using GFAAS (Chemical 600/-)	3,000	22	Break Point Chlorination (Chemical 1200/-)	15,000		
	Mercury (Hg) - Cold Vapor Method (Chemical 1200/-)	6,000	23	Total Solids (TS) (Chemical 100/-)	1,200		
	Selenium (Se) - using GFAAS / Ba (Chemical 800/-)	5,000	24	Total Suspended Solids (TSS)/Insoluble Solids/(TSS+TDS+TS) (Chemical 500/-)	2,400		
	Na / K - using FLAAS (each) (Chemical 500/-)	4,000	25	Total Dissolved Solids (TDS) (Chemical 150/-)	1,200		
7	Toxic Characteristics Leaching Procedure (TCLP) Charge (Chemical 1500/-)	7,000	26	Silica Content (SiO ₂) (Chemical 400/-)	1,800		
8	Extractant Analysis		27	Electrical Conductivity (EC) (Chemical 350/-)	700		
	Ca/Cd/Co/Cr/Cu/Fe/Mg/Mn/Ni/Pb/Zn - using FLAAS (each) (Chemical 600/-)	3,000	28	Total Phosphorous (TP) (Chemical 700/-)	4,500		
	Arsenic (As) - using GFAAS (Chemical 600/-)	3,000	29	Orthophosphate (PO ₄) (Chemical 200/-)	1,200		
	Mercury (Hg) - Cold Vapor Method (Chemical 1200/-)	6,000	30	Hydrogen Sulphide (H ₂ S) / Odour (Chemical 200/-)	1,100		
	Selenium (Se) - using GFAAS / Ba (Chemical 800/-)	5,000	31	Sulphate (SO ₄) (Chemical 200/-)	1,200		
	Na / K - using FLAAS (each) (Chemical 500/-)	4,000	32	Biochemical Oxygen Demand (BOD)-5 day (Chemical 400/-)	2,500		
	Calorific Values of Sludge, Solids and Semi-Solids		33	Chemical Oxygen Demand (COD) (Chemical 600/-)	2,500		
1	Calorific Values of Sludge/Solids/Semi-Solids	12,000	34	Dissolved Oxygen (DO) (Chemical 400/-)	700		
Ambient Air Quality & Exhuast Emission Monitoring *				35	Boron (B) (Chemical 1,200/-)	3,500	
	Parameters			36	Manganese (Mn): UV - VIS (Chemical 500/-)	2,200	
Ambient Air Quality Parameters				37	Aluminum (Al) (Chemical 500/-)	5,000	
1	SPM (Chemical 1500/-), PM10, PM2.5 (Chemical 2500/-), CO, NO2, SO2, VOCs	Please contact us		38	Silver (Ag) (Chemical 500/-)	5,000	
	Exhaust Emission Parameters			39	Arsenic (As) - using GFAAS (Chemical 600/-)	2,200	
2	CO2, CO, O2, NO, NO2, SO2, CH4, NH3			40	Selenium (Se) - using GFAAS (Chemical 900/-)	4,500	
				41	Ca/Cd/Cr/Cu/Fe/Mg/Mn/Ni/Pb/Zn - using FLAAS (each) (Chemical 500/-)	2,200	
				42	Na / K - using FLAAS (each) (Chemical 400/-)	2,700	
Noise Level Monitoring *				43	Nickel (Ni) / Cobalt (each) (Chemical 1,000/-)	3,500	
1	Minimum Fee (per 5 locations in one entity)	25,000	44	Mercury(Hg)-Cold Vapour Method (Mini. 30 days required) (Chemical 1200/-)	5,000		
2	Clibration of Noise Meter (per equipment)	6,000	45	Cyanide (Cn) (Chemical 1000/-)	5,000		
Field Sampling *				46	Ferrous Iron/ Ferric Iron (Chemical 500/-)	3,000	
1	Sampling for Bacteriological Analysis	10,000 + *	47	Total Organic Carbon (TOC) (Chemical 1000/-)	10,000		
2	Sampling for Physical and Chemical Analysis	10,000 + *	48	Dissolved Organic Carbon (DOC) (Chemical 1500/-)	11,000		
TUBEWELL DESIGN				49	Silt Density Index (SDI) with Plugging (Chemical 500/-)	15,000	
1	Tubewell Design (depth up to 600'), incl. 8 Nos. sand test ^	20,000+18,000	50	Sodium Absorption Ratio (SAR) (Chemical 1000/-)	6,500		
2	Tubewell Design (depth above 600'), Incl. 11 Nos. sand test ^	21,000+25,000	51	Langlier Saturation Index (Chemical 1000/-)	7,500		
			52	Ryznar Index (Chemical 1000/-)	7,500		
			53	Aggressiveness / Corrosivity Index (Chemical 1000/-)	7,500		
			54	Puckorius Scaling index (Chemical 1000/-)	7,500		
			55	Larson-Skold Index (Chemical 1200/-)	9,000		
			56	Oil & Grease	15,000		
			57	Total Silicon/Total Silica (SiO2)	7,000		
Notes :				BACTERIOLOGICAL ANALYSIS			
+++ Sampling charge may vary depending on the area to be sampled				1	Fecal Coliform (FC) / Total Coliform (TC) (each) (Chemical 500/-)	1,600	
^ Cost depends on the client's requirements				2	E. Coli (Chemical 1500/-)	4,000	
* Usual field visit fees apply in addition to above				3	Algae / Chlorophyll_a (Chemical 1500/-)	11,000	
Notes: [* Field visit fee; Inside Dhaka City = Tk. 20,000; Near Districts = Tk. 40,000 ; Farthest Districts = Tk. 60,000 without overnight stay and Tk. 50,000 per day for overnight stay,] [* & Transport, local hospitalities, accommodation (in case of overnight stay) etc. are to be provided by the Client] S.P.C. = Sample Preparation Charge. For one trial only using client's supplied sample. However, if design is to be performed by BRTC, BUET item at least 3 trial cost should be borne by the client.							

Sl. No.	Name of Tests		Test Rate (Tk.)	Sl. No.	Name of Tests		Test Rate (Tk.)
GRP Board Sandwich Panel				Non-Asbestos Fibre-Cement Board			
1	Tensile Strength (5 Nos. from each Sample)		5,100	1	Modulus of Rupture (6" X 12")		7,900
2	Tensile Modulus (5 Nos. from each Sample)		13,200		2 Nos. Parallel to Fibre Lay from Same Sheet (S.P.C. 900/-)		
3	Flexural Strength (127 mm x 12.7 mm x 3.2mm; 5 Nos.)		5,100		2 Nos. Perpendicular to Fibre Lay from Same Sheet		
4	Flexural Modulus (100 mm x 10 mm x 4mm; 5 Nos.)		13,200	2	Modulus of Elasticity (6" X 12")		14,700
5	Impact Strength (5 Nos. from each Sample)		5,100		2 Nos. Parallel to Fibre Lay from Same Sheet (S.P.C. 900/-)		
6	Water Absorption (76.2 mm x 25.4 mm x 6mm; 3 Nos.)		3,400		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):		1,07,000 + *	
				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/-			
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						
Notes: [* Field visit fee; Inside Dhaka City = Tk. 20,000; Near Districts = Tk. 40,000 ; Farthest Districts = Tk. 60,000 without overnight stay and Tk. 50,000 per day for overnight stay,] [* & Transport, local hospitalities, accommodation (in case of overnight stay) etc. are to be provided by the Client] S.P.C. = Sample Preparation Charge. For one trial only using client's supplied sample. However, if design is to be performed by BRTC, BUET item at least 3 trial cost should be borne by the client.							