

BANGLADESH UNIVERSITY OF ENGINEERING AND TECHNOLOGY, DHAKA – 1000

DEPARTMENT OF ELECTRICAL AND ELECTRONIC ENGINEERING

SERVING THE COUNTRY WITH INNOVATION AND QUALITY IN TESTING & CONSULTANCY



PARTIAL LIST OF APPROVED RATES FOR TESTING SERVICES

Rates include VAT(15%), University Overhead (30%) &

Laboratory Development and Maintenance

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

BRTC-EEE

Contact person: Dr. Mahbub Alam, Room No : 324, Mobile : +8801747627147

PABX Nos: 55167100, 55167228-57, Ext. 7226; Fax - 9668054 Web: eee.buet.ac.bd

BRTC Office Time: Sat to Wed 9:00 AM to 5:00 PM, Thursday 9:00 AM to 2:00 PM

PARTIAL LIST OF APPROVED RATES FOR TESTING SERVICES

Name of Test and Test rate			
Transformer Test			
Test Items	Rating	Combined Test Fee (Tk)	Itemwise Test Fee (Tk)
1. Measurement of Turns Ratio 2. Vector Group Test 3. Measurement of Winding Resistance at 75°C 4. Measurement of Insulation Resistance 5. Measurement of No-load Loss and No-Load Current 6. Measurement of Impedance Voltage and Load Loss at 75°C 7. Power Frequency High Voltage Test 8. Test of Transformer Oil 9. Temperature Rise Test	3 phase, Upto 100 kVA, 11/0.415 kV	50000~80000	
	3 phase, 100 < kVA ≤ 250, 11/0.415 kV		100000 ~ 150000
	3 phase, 250 < kVA ≤ 500, 11/0.415 kV		175000 ~ 225000
	3 phase, 500 < kVA ≤ 1000 11/0.415 kV		250000 ~ 300000
	3 phase, 1 < MVA ≤ 5 11/0.415 kV		325000 ~ 350000
	3 phase, 10-13 MVA 11/0.415 kV or 33/0.415 kV at supplier lab		400000-

	3 phase, 10-26 MVA 11/0.415 kV or 33/0.415 kV at supplier lab	4500000-
	single phase, 10- 20 kVA 11/0.415 kV	50000-80000

Cable Test

Test Items	Rating	Test Fee (Tk)		
1. Dimensional Test		1x 20000		
2. DC Resistance Test		2x 30000		
3. Insulation Resistance Test		3x40000		
4. Current carrying capacity Test		4x50000	1	
5. AC high voltage withstand test				
	1.0 rm-10 rm BYA/NYY XLPE	1x → 30000 2x →40000 3x →50000 4x →60000		
	10 rm-20 rm BYA/NYY XLPE	1x → 35000 2x →45000 3x →55000 4x →65000		
	20 rm-50 rm BYA/NYY XLPE	1x → 40000 2x →50000 3x →60000 4x →65000		
	50 rm-120 rm BYA/NYY XLPE	1x → 45000 2x →55000 3x →65000 4x →75000		
	120 rm-240 rm BYA/NYY XLPE	1x → 50000 2x →60000 3x →70000 4x →80000		
	240 rm-400 rm BYA/NYY XLPE	1x → 60000 2x →70000 3x →80000 4x →90000		
	400 rm-630 rm BYA/NYY XLPE			

- For HT cables Tk 10000 should be added
- For FRLS test Tk 10000 should be added

Circuit Breaker (MCCB/MCB) Test

Test Items	Rating	Test Fee (Tk)
------------	--------	---------------

1. Mechanical operation test 2. Insulation resistance test 3. High voltage test 4. Impulse voltage 5. Tripping test 6. Temperature rise	Depending upon rating	30000-80000
--	-----------------------	-------------

Circuit Breaker (VCB/ACB) Test

Test Items	Rating	Test Fee (Tk)
1. Mechanical operation test 2. Insulation resistance test 3. High voltage test 4. Impulse voltage 5. Tripping test 6. Temperature rise	Depending upon rating	70000-100000

Instrument Transformer (CT/PT) Test

Test Items	Rating	Test Fee (Tk)
1. Mechanical operation test 2. Insulation resistance test 3. High voltage test 4. Ratio Test 5. Temperature rise	Depending upon rating	50000

•

Overhead conductor

Test Items	Rating	Test Fee (Tk)
1. Dimensional Test 2. DC Resistance Test 3. Insulation Resistance Test (if insulated) 4. Current carrying capacity Test 5. AC high voltage withstand test (if insulated)	Depending upon rating	Same as Cables

HT panel

1. Dimensional 2. Fitment & Alignment 3. Physical Test (Sample) 4. Measurement of IR Value a) Before HV Test b) After HV Test 5. High Voltage test/Dielectric 6. Impulse Test 7. Partial Discharge Test 8. Heat run / Temperature rise test 9. Enclosure Protection Test / Ingress Protection (IP) 10. Calibration 11. Noise & Vibration 12. Operational & functional check 13. Clearance and creepage Distance	Depending upon rating	80000-
LT panel		
Test Items	Rating	Test Fee (Tk)
1.Mechanism Operation Test 2.Rated Current Test 3.Temperature Rise Test 4.Thermal Overload Test 5.Magnetic Trip Test 6.Insulation Resistance Measurement Test 7.Power Frequency High Voltage Test	Depending upon rating	80000-
PFI plant		
1.Discharge rate of the capacitor bank 2.AC voltage test of the capacitor bank between terminals and the casing. 3.Insulation test 4.Performance test at rated voltage of the capacitor banks 5.Operations of the PFI controller, digital display, contactor, fuse and ON/OFF indicators. 6.Auto Mode Operation Sequence and Manual Mode Sequences 7.MCCB test.	Depending upon rating	80000-

ATS		
Test Items	Rating	Test Fee (Tk)
1. Mechanical Operation Test Satisfactory 2. Functionality Test Satisfactory 3. Rated Current and Temperature Rise Test Satisfactory 4. Insulation Resistance Test Satisfactory 5. Power Frequency High Voltage Test	Depending upon rating	40000-
Drop out fuse		
Test Items	Rating	Test Fee (Tk)
1. Dimension Test 2. Dry Flashover 3. Wet Flashover 4. Continuous Current Test 5. Mechanical Operation Test		40000-
Busbar		
Test Items	Rating	Test Fee (Tk)
1. Dimensional Test 2. DC Resistance Test 3. Insulation Resistance Test (if insulated) 4. Current carrying capacity Test 5. AC high voltage withstand test (if insulated)		30000-
BBT system		
Test Items	Rating	Test Fee (Tk)
1. Dimensional Test 2. DC Resistance Test 3. Insulation Resistance Test (if insulated) 4. Current carrying capacity Test 5. AC high voltage withstand test (if insulated)		30000-
AVR		
Test Items	Rating	Test Fee (Tk)

1. Performance of AVR under no-load condition 2. Performance of AVR under resistive full load condition		40000-
UPS		
Test Items	Rating	Test Fee (Tk)
1. kVA rating test 2. AC high voltage withstand test 3. Current rating test		20000-
Motor		
Test Items	Rating	Test Fee (Tk)
1. Insulation resistance test 2. No load and blocked rotor test 3. Efficiency test 4. Wire damage test 5. Electrical current leakage test		20000-
Motor starter		
Test Items	Rating	Test Fee (Tk)
1. Testing of Wye-Delta starter		20000-
Capacitor bank		
Test Items	Rating	Test Fee (Tk)
1. Discharge rate of the capacitor bank 2. AC voltage withstand test 3. Insulation test 4. Performance test at rated voltage of the capacitor banks		20000-
High voltage insulator test		
Test Items	Rating	Test Fee (Tk)
1. Dimension Test 2. Dry Flashover 3. Wet Flashover		40000-
Test and calibration of meters		

Test Items	Rating	Test Fee (Tk)
Ammeter		15000
Voltmeter		15000
Energy meter		15000
Power meter		15000
Multimeter		15000
Analog/digital insulation resistance meter		15000
Eearh resistance meter		15000
Lux meter		15000
Variac, current injector		
Test Items	Rating	Test Fee (Tk)
1. Voltage, current and kVA rating test 2. AC high voltage withstand test 3. Heat run 4. Efficiency test 5. Load test		40000-
Copper terminals lugs and service ball tests		
Test Items	Rating	Test Fee (Tk)
1. Current rating test		25000-
Earth resistivity test		
Test Items	Rating	Test Fee (Tk)
		15000-
Surge arrestor test		
Test Items	Rating	Test Fee (Tk)
1. Operation test 2. Current rating test		30000-
Transformer sound level (dB) test		
Test Items	Rating	Test Fee (Tk)
		10000
Battery		
Test Items	Rating	Test Fee (Tk)
Industrial 2V Battery Block		65000

Battery (Pb-acid)		40000
Battery (Li-based)		25000

Solar PV Panel

Test Items	Rating	Test Fee (Tk)
1. Rated Power/Maximum Power under STC, Pmax (Watts) 2. Open circuit voltage under STC, Voc (Volts) 3. Short circuit current under STC, Isc (Amps) 4. Maximum working voltage at Pmax under STC, Vmp (Volts) 5. Maximum working current at Pmax under STC, Imp (Amps) 6. Cell efficiency 7. Module efficiency 8. Fill factor, FF	NA	20000-

Street Light System consisting of Light, battery, charge controller

Test Items	Rating	Test Fee (Tk)
1. Testing of light 2. Testing of battery 3. Testing of charge controller	NA	70000-

LED Light

1. LED Input Power(W) 2. Color Rendering Index (CRI) 3. Lumen 4. Lumen per Watt 5. PF 6. Correlated Color Temperature (CCT)		30000-

Ingress protection test

Test Items	Rating	Test Fee (Tk)
IP 55, IP 65		15000-25000

Charge Controller

Test Items	Rating	Test Fee (Tk)

1. MPPT mechanism 2. Labeling on charge controller casing 3. Rated Voltage 4. High voltage disconnect 5. Low voltage disconnect 6. Low voltage reconnect 7. Maximum current handling capacity 8. Maximum self current drawn 9. Reverse current leakage protection 10. Short-circuit protection 11. Reverse polarity protection 12. Efficiency of the Charge Controller 13. Charging indicator	NA	30000-
Inverter		
Test Items	Rating	Test Fee (Tk)
1. Voltage and current ratings 2. Power ratings 3. Efficiency	<5 kVA	25000
DC - DC Converter with charge controller		
1. Voltage ratio 2. Conversion efficiency 3. Current rating	<5 kVA	30000
Solar Pump Controller		
Test Items	Rating	Test Fee (Tk)
Inverter efficiency at different frequency	NA	30000
Switch/Socket		
Test Items	Rating	Test Fee (Tk)
1. Mechanical operation test 2. Insulation resistance test 3. High voltage test 4. Temperature rise	NA	8000-20000
Fan		
Test Items	Rating	Test Fee (Tk)
1. Speed at rated condition 2. Input power 3. Rated current 4. Power factor at rated Condition	NA	10000-50000

5. Air Delivery 6. Service Value 7. Temperature rise test		
Fan Dimmer		
Test Items	Rating	Test Fee (Tk)
1. Insulation resistance test 2. Power frequency High Voltage test 3. Temperature rise test 4. Leakage current test 5. Voltage Drop test 6. Uniformity Test	NA	8000-
Generator		
Test Items	Rating	Test Fee (Tk)
1.Rated output 2.Maximum output 3.Power factor 4.Rated voltage 5.Voltage regulation 6.Frequency		30000-
Firefighting generator		
Test Items	Rating	Test Fee (Tk)
1.Rated output 2.Maximum output 3.Power factor 4.Rated voltage 5.Voltage regulation 6.Frequency		35000-
Optical Fiber		
Test Items	Rating	Test Fee (Tk)
1.Dimensional test 2.Attenuation 3.Dispersion		30000-

Computer Hardware (motherboard, CPU, Speaker, microphone, power supply, webcam)		
Test Items	Rating	Test Fee (Tk)
As required		20000-
CCTV system		
Test Items	Rating	Test Fee (Tk)
As required		20000
PA system		
Test Items	Rating	Test Fee (Tk)
As required		20000
Incubator tests		
Test Items	Rating	Test Fee (Tk)
As required		20000
Kitchen Appliances (Washing machine, grinder/blender/juicer, dish washer, rice cooker, microwave/electrical oven, kitchen hood etc)		
Test Items	Rating	Test Fee (Tk)
1. Earthing test 2. Insulation Resistance test 3. THD measurement test 4. Measurement of true power		10000-
Data communication Cables (all electrical tests)		
Test Items	Rating	Test Fee (Tk)
		8000-
Wireless Walkie Talkie/ VHF test (repeater test)		
Test Items	Rating	Test Fee (Tk)
		8000-

Cable connector (all electrical tests)		
Test Items	Rating	Test Fee (Tk)
		5000-
Monitor/display (CRT, LED, LCD)		
Test Items	Rating	Test Fee (Tk)
1. Lumen test 2. Resolution test 3. Voltage, current, power, efficiency test		5000-
CFL		
Test Items	Rating	Test Fee (Tk)
1. Input Power(W) 2. Color Rendering Index (CRI) 3. Lumen 4. Lumen per Watt 5. PF 6. Correlated Color Temperature (CCT) 7. Efficiency		30000-
Fluorescent lamp (all electrical tests)		
Test Items	Rating	Test Fee (Tk)
1. Input Power(W) 2. Lumen 3. Lumen per Watt 4. Color Rendering Index (CRI) 5. Correlated Color Temperature (CCT) 6. PF 7. Efficiency		
Fluorescent lamp		
Test Items	Rating	Test Fee (Tk)
1. Input Power(W) 2. Color Rendering Index (CRI)		30000-

3. Correlated Color Temperature (CCT) 4. Lumen 5. Lumen per Watt 6. PF 7. Correlated Color Temperature (CCT)		
--	--	--

Personal computer and laptop (all electrical tests)

Test Items	Rating	Test Fee (Tk)
1. Earthing test 2. Insulation Resistance test 3. THD measurement test 4. Measurement of true power 5. Testing of battery		10000-

Router/switch/modem (all electrical tests)

Test Items	Rating	Test Fee (Tk)
1. Bandwidth test 2. Electrical properties (insulation resistance, earthing, true power measurement, THD measurement)		30000-

Power conditioning unit (PCU) (all electrical tests)

Test Items	Rating	Test Fee (Tk)
		30000-

Room Air-conditioning Unit (all electrical tests)

Test Items	Rating	Test Fee (Tk)
1. Earthing test 2. Insulation Resistance test 3. THD measurement test 4. Measurement of true power 5. Testing of inverter efficiency and power saving		30000-

Washing machine (all electrical tests)

Test Items	Rating	Test Fee (Tk)

1. Earthing test 2. Insulation Resistance test 3. THD measurement test 4. Measurement of true power 5. Testing of inverter efficiency and power saving		30000-
--	--	--------

Lift, Escalator, Moving platform

Test Items	Rating	Test Fee (Tk)
1. Control System test 2. Lift motor test 3. Motor Braking System test 4. Sensor and any other opto-electrical component test		30000-

Biomedical Equipment

Test Items	Rating	Test Fee (Tk)
Test of all Biomedical Equipment related to Medical Imaging		20000-

Electrical Safety Test of any kind of equipment and Machinery

Test Items	Rating	Test Fee (Tk)
		Based on Job Involvement