

<b>Calibration</b>					
<b>Sr. No.</b>	<b>Measurement Quantity</b>	<b>Range Capacity</b>	<b>Calibration Fee in PRs for Secondary Reference Labs.</b>	<b>Time Required for Calibration Depend on the nature of calibration</b>	<b>Services Availbale at</b>
<b>Electrical Metrology</b>					
1	Processor Calibrator	—	50000	10 days	NPSL, Islamabad
2	Multifunction Calibrator /Universal Calibration System	V= upto 1 kV, A= upto 1000 A, R= 100 MΩ	50000	10 days	NPSL, Islamabad
3	Digital Multimeter 5 ½ --- 8 ½ digit	V= upto 1 kV A= upto 10 A R= 100 MΩ	50000	10 days	NPSL, Islamabad
4	Digital Multimeter 3 ½ --- 4 ½ digit	V= upto 1 kV A= upto 10 A R= 100 MΩ	30000	10 days	NPSL, Islamabad
5	Digital LCR Meter 4 ½ --- 6 ½ digit	V= upto 1 kV A= upto 10 A R= 1 GΩ	30000	10 days	NPSL, Islamabad
6	Nano Voltage Transfer Standard	—	30000	10 days	NPSL, Islamabad
7	Thermal Voltage Transfer Standard	—	40000	10 days	NPSL, Islamabad
8	Reference Dividers	—	40000	10 days	NPSL, Islamabad
9	Fixed Value Standards Resistance	1 mΩ --- 1 GΩ	30000	10 days	NPSL, Islamabad
10	Fixed Value Standards Inductance	1 mH 100 m & 1	30000	10 days	NPSL, Islamabad
11	Fixed Value Standards Capacitance	1 micro F, 10mF	30000	10 days	NPSL, Islamabad
12	High Voltage Calibrator / Tester	Upto 50 kV	50000	10 days	NPSL, Islamabad
13	Digital / Analog Power Meter/Power Analyzer	5A/1000V	50000	10 days	NPSL, Islamabad
14	Digital /Analog Voltmeter	1μV --- 1kV	30000	10 days	NPSL, Islamabad
15	Digital /Analog Ammeter	100μV --- 20A	30000	10 days	NPSL, Islamabad
16	Digital /Analog Clamp Meter	1kV, 1000 A, 100 MΩ	30000	10 days	NPSL, Islamabad
17	Electronic AC/DC Ref. Voltage Std	—	50000	10 days	NPSL, Islamabad
<b>Length &amp; Dimension Metrology</b>					
18	Glass Slide	0-50 mm	10000	10 days	NPSL, Islamabad
19	Glass Slide	0-300mm	20000	10 days	NPSL, Islamabad
20	Vernier Caliper	Upto 150mm	15000	10 days	NPSL, Islamabad
21	Vernier Caliper	Upto 300mm	20000	10 days	NPSL, Islamabad
22	Micrometer	Upto 25mm	15000	10 days	NPSL, Islamabad
23	Micrometer with Spindle	Max. range 400mm	40000	10 days	NPSL, Islamabad
24	Micrometer with Spindle	Max. range 300mm	20000	10 days	NPSL, Islamabad
25	Meter Scale	1 Meter	10000	10 days	NPSL, Islamabad
26	Steel Ruler / Foot	0 to 30 cm	8000	10 days	NPSL, Islamabad
27	Measuring Tape	Upto 5 m	20000	10 days	NPSL, Islamabad
28	Measuring Tape	Upto 50m	50000	10 days	NPSL, Islamabad
29	End Standard Meter	1 meter	10000	10 days	NPSL, Islamabad
30	Dial Gauges / Calipers	0-10mm	20000	10 days	NPSL, Islamabad
31	Height Gauge	0-2m	20000	10 days	NPSL, Islamabad

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32	Feeler Gauges (per blade)	0-1mm	1000	10 days	NPSL, Islamabad
33	Gauges Blocks (per piece)	0.5 - 100mm	1000	10 days	NPSL, Islamabad
34	Gauges Blocks (per piece)	125 - 200mm	6000	10 days	NPSL, Islamabad
35	Gauges Blocks (per piece)	225 - 300mm	8000	10 days	NPSL, Islamabad
36	Ring Gauge (per piece)	Diameter = 25 to 50mm	20000	10 days	NPSL, Islamabad
37	Tesa Tronic Amplifier	(-) 500µm to (+)500 µm	20000	10 days	NPSL, Islamabad
38	Dial Comparator /DTI Testing Machine	0 to 10 mm	20000	10 days	NPSL, Islamabad
<b>Temperature Metrology</b>					
39	Liquid-in-glass thermometer (Res. 1 °C)	-35 to 400 °C	10000	15 days	NPSL, Islamabad
40	Liquid-in-glass thermometer (Res. 1 °C)	-35 to 400 °C	10000	15 days	NPSL, Islamabad
41	Thermocouple (J,K,T,R &E type)	-80 to 1100 °C	20000	15 days	NPSL, Islamabad
42	Digital Readout / Thermometer	-250 to 2400°C	20000	15 days	NPSL, Islamabad
43	Resistance Thermometer	-200 to 1000 °C	20000	15 days	NPSL, Islamabad
44	Oven/Furnace/Water Bath/Refrigerator/Incubator/Auto Clave	Upto 500°C	12000	15 days	NPSL, Islamabad
45	Furnace	Upto 1000°C	30000	15 days	NPSL, Islamabad
46	Calibrator	Source/measuring mode	30000	15 days	NPSL, Islamabad
47	Hygrometer	Humidity/temperature	12000	15 days	NPSL, Islamabad
Note: The above rates are for up to seven calibration points. Pak rupees 1000 per point will be charge for additional points.					
<b>Mass Metrology</b>					
48	Balance	Upper 5 kg	20000	10 days	NPSL, Islamabad
49	Weight / Mass (F1 &F2 Class)	1 mg to 20 kg	6000	10 days	NPSL, Islamabad
50	Weight / Mass (E1 &E2 Class)	1 mg to 20 kg	10000	10 days	NPSL, Islamabad
51	Torque Wrench / Meter	Upto 500 Nm	12000	10 days	NPSL, Islamabad
52	Micro Pipette (A Class)	100 µl – 1000 µl	20000	10 days	NPSL, Islamabad
53	Micro Pipette (B Class)	100 µl – 1000 µl	10000	10 days	NPSL, Islamabad
54	Cylinder /Flask/Beaker (A Class)	1 ml – 20 litre	12500	10 days	NPSL, Islamabad
55	Cylinder /Flask/Beaker (B Class)	1 ml – 20 litre	10000	10 days	NPSL, Islamabad
56	Hydrometer	0.600 – 2.000 g/cm3	7500	10 days	NPSL, Islamabad
57	Density Measurement	0.600 – 2.000 g/cm3	1200	10 days	NPSL, Islamabad
<b>Pressure Metrology</b>					
58	Hydraulic Pressure Gauge	10 to 18000 psi	12000	10 days	NPSL, Islamabad
59	Pneumatic Pressure Gauge	-1 bar to 20 bar	12000	10 days	NPSL, Islamabad
60	Pneumatic Pressure Calibrator	-1 bar to 20 bar	20000	10 days	NPSL, Islamabad
61	Hydraulic Pressure Calibrator	upto 18000 psi	20000	10 days	NPSL, Islamabad
62	Dead Weight Tester	upto 18000 psi	40000	10 days	NPSL, Islamabad
63	Barometer	10-16 psi	20000	10 days	NPSL, Islamabad
<b>Time &amp; Frequency Metrology</b>					

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64	Standard/Calibrator	Generator---- 2.4 GHz Counter----18 GHz	37000 25000	08 days	NPSL, Islamabad
65	Oscilloscope (Digital)	100 MHz	24000	08 days	NPSL, Islamabad
66	Frequency Counter	2.4 GHz	36000	08 days	NPSL, Islamabad
67	Frequency Generator	18 GHz	36000	08 days	NPSL, Islamabad
68	Stopwatch	05 min	6000	08 days	NPSL, Islamabad
69	Signal Generator Up to 18 GHz	DC ~ 2 GHz Upto 4 Hz Upto 8 GHz Upto 12 GHz Upto 18 GHz With other parameters (Freq or/ and Time Period) Only Time Base For 6 test frequency For 12 test frequency	20000 24000 28000 23000 26000 4000 10000 12000 20000	8 days	NPSL, Islamabad
70	Frequency / Universal Counters up to 2.4 GHz	Upto 100 GHz 300 MHz 500 MHz 1.5 GHz 2.4 GHz 0.01 us to 10 s (100 MHz) 3.33 ns (300 MHz) 2 ns (500 MHz)	20000 24000 28000 32000 36000 16000 20000 24000	8 days	NPSL, Islamabad
71	Oscilloscopes (2GHz)	0.64 ns (1.5 GHz) For 20 MHz For 40 MHz For 100 MHz For 500 MHz Voltage, Amplitude Complete	28000 20000 24000 28000 32000 6000	8 days	NPSL, Islamabad
72	Sound Level Meter / Calibrator	Lump slum	20000	8 days	NPSL, Islamabad
73	Frequency Standards	Complete	40000	8 days	NPSL, Islamabad
74	Watches Timers up to 24 hrs.	30 minutes 2 hrs. 4 hrs. 6 hrs. 24 hrs.	6000 8000 10000 12000 16000	8 days	NPSL, Islamabad
75	Tachometers (120,000 RPM)	60000 120,000	16000 16000	8 days	NPSL, Islamabad
76	Oscilloscopes (2 GHz)	20 MHz 40 MHz 100 MHz 500 MHz	20000 24000 28000 32000	8 days	NPSL, Islamabad
<b>Chemical Metrology Calibration of Equipment</b>					

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77	Viscometer	0.1 to 1,00,000 Centistokes	20000	8 days	NPSL, Islamabad
78	Ford Cup Viscometer	0.1 to 100,000 Centistokes	20000	8 days	NPSL, Islamabad
79	pH, TDS and Conductivity Meters	–	16000	8 days	NPSL, Islamabad
80	UV Spectrophoto Meter Calibrations	–	20000	8 days	NPSL, Islamabad
81	Refractrometer	1.32000 to 1.70000 95%	20000	8 days	NPSL, Islamabad