



National Accreditation Board for
Testing and Calibration Laboratories

CERTIFICATE OF ACCREDITATION

ELECTRONICS REGIONAL TEST LABORATORY (WEST)

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2017

**"General Requirements for the Competence of Testing &
Calibration Laboratories"**

for its facilities at

GOVERNMENT OF INDIA, MINISTRY OF ELECTRONICS & INFORMATION TECHNOLOGY, STQC
DIRECTORATE, PLOT NO. F-7&8, MIDC AREA, ANDHERI (EAST), MUMBAI, MAHARASHTRA, INDIA

in the field of

CALIBRATION

Certificate Number: CC-2031

Issue Date: 02/01/2022

Valid Until: 01/01/2024

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.
(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Name of Legal Identity : Electronics Regional Test Laboratory(West)

Signed for and on behalf of NABL



N. Venkateswaran
Chief Executive Officer



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name :

ELECTRONICS REGIONAL TEST LABORATORY (WEST), GOVERNMENT OF INDIA,
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S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
Permanent Facility					
1	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (10 Hz to 1kHz)	DMM /MTS /Standard Resistor /Direct Method	10 µA to 100 mA	0.015 % to 0.02 %
2	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (10 Hz to 1kHz)	DMM /MTS/Standard Resistor/ Transconductance Amplifier by Direct Method	10 A to 100 A	0.02 % to 0.05 %
3	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (10 Hz to 1kHz)	DMM /MTS /Standard Resistor/Direct Method	100 mA to 10 A	0.01 % to 0.043 %
4	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (1kHz to 5kHz)	DMM /MTS /Standard Resistor by Direct Method	10 µA to 100 µA	0.2 % to 0.05 %



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5	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Measure)	AC Current (1kHz to 5kHz)	DMM /MTS /Standard Resistor by Direct Method	100 μ A to 100 mA	0.05 % to 0.03 %
6	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Measure)	AC Current (1kHz to 5kHz)	DMM/MTS/Standard Resistor by Direct Method	100 mA to 20 A	0.03 % to 0.09 %
7	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Measure)	AC Current (50Hz)	CT/ Standard Resistor /DMM/by Direct Method	1 A to 3200 A	0.2%
8	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Measure)	AC High Voltage (50Hz)	HV divider Process /DMM /by Direct Method	1 kV to 35 kV	0.11 % to 0.5 %
9	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Measure)	AC High Voltage (50Hz)	HV divider Process /DMM/by Direct Method	35 kV to 50 kV	0.5 % to 1.6 %



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10	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Measure)	AC Resistance (1kHz)	AC/DC Standard Resistor/DMM /MTS/LCR Bridge//Precision component analyser /video bridge /Direct/Comparison	0.1 mohm to 100 mohm	0.02 % to 0.01 %
11	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Measure)	AC Resistance (1kHz)	AC/DC Standard Resistor/DMM /MTS /LCR Bridge/Precision component analyser/video bridge/Direct/Comparison	1 ohm to 10 kohm	0.004%
12	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Measure)	AC Resistance (1kHz)	AC/DC Standard Resistor/DMM /MTS/LCR Bridge//Precision component analyser /video bridge/Direct/Comparison	100 mohm to 1 ohm	0.01 % to 0.004 %
13	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Measure)	AC Voltage (10 Hz to 10 kHz)	DMM /MTS /by Direct Method	1 mV to 100 mV	0.2 % to 0.015 %



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14	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (10 Hz to 10 kHz)	DMM/MTS/by Direct Method	10 V to 1000 V	0.004 % to 0.013 %
15	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (10 Hz to 10 kHz)	DMM/MTS/by Direct Method	100 mV to 10 V	0.015 % to 0.004 %
16	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (10 kHz to 30 kHz)	DMM/MTS/by Direct Method	1 mV to 100 mV	0.24 % to 0.009 %
17	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (10 kHz to 30 kHz)	DMM/MTS/by Direct Method	10 V to 1000 V	0.005 % to 0.009 %
18	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (10 kHz to 30 kHz)	DMM/MTS/by Direct Method	100 mV to 10 V	0.009 % to 0.005 %



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19	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (100 kHz to 1MHz)	DMM/MTS/by Direct Method	1 mV to 10 V	1.4 % to 0.21 %
20	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (30 kHz to 100 kHz)	DMM/MTS/by Direct Method	1 mV to 100 mV	0.3 % to 0.0093 %
21	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (30 kHz to 100 kHz)	DMM/MTS/by Direct Method	10 V to 200 V	0.008 % to 0.09 %
22	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (30 kHz to 100 kHz)	DMM/MTS/by Direct Method	100 mV to 10 V	0.01 % to 0.005 %
23	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Capacitance (1kHz)	Capacitance measuring assembly/Std. Capacitors/Std Capacitors/by Direct Method	1 pF to 10 pF	0.02 % to 0.005 %



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24	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Measure)	Capacitance (100 Hz)	MFC/MTS/by Direct Method	10 mF to 1000 mF	0.05%
25	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Measure)	Capacitance (1kHz)	Video Bridge/MFC/MTS/by Direct Method	1 µF to 10 mF	0.01 % to 0.05 %
26	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Measure)	Capacitance (1kHz)	Capacitance measuring assembly/Std. Capacitors/by Direct Method	10 pF to 1000 pF	0.005%
27	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Measure)	Capacitance (1kHz)	Capacitance measuring assembly/Std. Capacitors/Std Capacitors	1000 pF to 1 µF	0.005 % to 0.011 %
28	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Measure)	CT Phase Angle(50Hz)	CT Test Bench & Std. CT / Direct	0 min to 360 min	3min



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29	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Measure)	CT Ratio(50Hz)	CT Test Bench & Std. CT / Direct	1 A to 3200 A/ 1A or 5 A	0.2%
30	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Measure)	Energy (Single Phase)-(40Hz to 70Hz) 30V to 500V/10mA 100A/0.1 to 1 PF(Lag/Lead)	Power Energy Standard by Direct Method	0.03 W to 50 kW	0.2 % to 0.02 %
31	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Measure)	Energy (Three Phase Active/Reactive)- (40Hz to 70Hz) 30V to 500 V/10mA to 100A /0.1 to 1 PF(Lag/Lead)	Power Energy Standard by Direct Method	0.04 W to 6.4 kW	0.2 % to 0.02 %
32	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Measure)	Energy (Three Phase/Active/Reactive)/ (40Hz to 70Hz)40V to 320V/10mA to 20A/0.1 to 1 PF(Lag/Lead)	Power Energy Calibrator by by Direct Method	0.04 W to 6.4 kW	0.038 % to 0.31 %
33	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Measure)	Inductance (1kHz)	Video Bridge/Component Analyser/Std Inductors/Direct/Comparison	100 μH to 100 H	0.038 % to 0.055 %



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34	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Measure)	Phase Angle (V-V/V-I)/(40Hz-70Hz)	Power Energy Standard /DMM/by Direct Method	+180° to -180° /(30V to 500V)/10mA to 100 A	0.0097°
35	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Measure)	Power (Single Phase)-(40Hz to 70Hz) 30V to 500V/10mA 100A/0.1 to 1 PF(Lag/Lead)	Power Energy Standard /by Direct Method	0.03 W to 50 kW	0.2 % to 0.02 %
36	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Measure)	Power (Three Phase Active/Reactive)- (40Hz to 70Hz) 30V to 500 V/10mA to 100A /0.1 to 1 PF(Lag/Lead)	Power Energy Standard by Direct Method	0.04 W to 6.4 kW	0.2 % to 0.02 %
37	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Measure)	Power Factor (Lead/Lag)-(40Hz to 70Hz)	Power Energy Standard/DMM/by Direct Method	0.05 PF to 1 PF /(30 V to 500 V/10 mA to 100 A)	0.0099°
38	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Measure)	PT Phase Angle(50Hz)	PT Test Bench & Std. PT / Direct	0 min to 360 min	3min



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39	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Measure)	PT Ratio(50Hz)	PT Test Bench & Std. PT / Direct/ Comparison	220V/110V ,63.5V to 33kV/110V, 63.5V	0.2%
40	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC CURRENT (10Hz to 1kHz)	MFC/MTS/DMM /Standard Resistor by Direct Method	10 µA to 100 mA	0.018%
41	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC CURRENT (10Hz to 1kHz)	MFC /Transconductance Amplifier/DMM /Standard Resistor by Direct Method	10 A to 100 A	0.02 % to 0.1 %
42	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC CURRENT (10Hz to 1kHz)	MFC /MTS/DMM / Standard Resistor by Direct Method	100 mA to 10 A	0.01 % to 0.02 %
43	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC CURRENT (1kHz to 5kHz)	MFC/DMM /MTS /Standard Resistor by Direct Method	10 µA to 100 µA	0.2 % to 0.05 %



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44	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC CURRENT (1kHz to 5kHz)	MFC /DMM /MTS /Standard Resistor /by Direct Method	100 μ A to 100 mA	0.05 % to 0.03 %
45	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC CURRENT (1kHz to 5kHz)	MFC /TRANCONDUCTANCE AMPLIFIER/MFC /DMM /MTS/Standard Resistor BY DIRECT METHOD	100 mA to 20 A	0.03 % to 0.09 %
46	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC Current,(50/60Hz) For clamp type meter	MFC/DMM/X10 & X50 turn coil/CT source/Direct	20 A to 3200 A	0.3%
47	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC HIGH VOLTAGE (50Hz)	HV SOURCE/Standard Resistor/DMM /DIRECT	1 kV to 35 kV	0.2%
48	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC Resistance (1kHz)	Standard Resistor/DMM/Direct Method	0.1 mohm to 1 mohm	0.015 % to 0.021 %



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49	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Resistance (1kHz)	Std Resistor (Discrete value) 1ohm,10ohm,100ohm,1kohm,10kohm) by Direct Method	1 ohm to 10 kohm	0.0008 % to 0.003 %
50	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Resistance (1kHz)	Standard Resistor/DMM/Direct	10 mohm to 100 mohm	0.012 % to 0.008 %
51	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC VOLTAGE (100kHz to 1MHz)	MFC/DMM/DIRECT/COMPARISON METHOD	1 mV to 10 V	1.3 % to 0.21 %
52	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC VOLTAGE (10Hz to 10 kHz)	MFC//DMM/MTS/DIRECT/COMPARISON METHOD	1 mV to 100 mV	0.29 % to 0.015 %
53	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC VOLTAGE (10Hz to 10kHz)	MFC/DMM/MTS /DIRECT/COMPARISON METHOD	10 V to 1000 V	0.004 % to 0.009 %
54	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC VOLTAGE (10Hz to 10kHz)	MFC/DMM/MTS/DIRECT/COMPARISON	100 mV to 10 V	0.015 % to 0.004 %



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55	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC VOLTAGE (10kHz to 30kHz)	MFC/DMM/MTS/DIRECT/COMPARISON METHOD	1 mV to 100 mV	0.16 % to 0.0092 %
56	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC VOLTAGE (10kHz to 30kHz)	MFC/DMM/MTS / DIRECT/COMPARISON	10 V to 1000 V	0.005 % to 0.009 %
57	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC VOLTAGE (10kHz to 30kHz)	MFC/DMM/MTS /DIRECT/COMPARISON METHOD	100 mV to 10 V	0.0092 % to 0.005 %
58	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC VOLTAGE (30kHz to 100kHz)	MFC/MTS/Direct/Comparison	1 mV to 100 mV	0.3 % to 0.0093 %
59	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC VOLTAGE (30kHz to 100kHz)	MFC/MTS/DIRECT/COMPARISON	10 V to 200 V	0.005 % to 0.009 %
60	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC VOLTAGE (30kHz to 100kHz)	MFC/MTS/DIRECT/COMPARISON	100 mV to 10 V	0.0093 % to 0.005 %



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61	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	Capacitance (100 Hz)	4 terminal std. Capacitance/Direct	10 mF to 1000 mF	1.11%
62	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	Capacitance (1kHz)	Std Capacitor/4 Terminal Capacitor/Direct	1 µF to 10 mF	0.011%
63	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	Capacitance (1kHz)	Std Capacitors/HAC	1 pF	0.042%
64	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	Capacitance (1kHz)	Std.Capacitors/(Discrete Values)	10 pF to 1000 pF	0.002 % to 0.001 %
65	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	Capacitance (1kHz)	Std.Capacitors/Direct Method	1000 pF to 1 µF	0.001 % to 0.011 %



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66	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	Energy (Single Phase Active/Reactive))- (40 to 70Hz) 30V to 500V/10mA 100A/ 0.1 to 1 PF(Lead/Lag)	Power Energy Calibration Calibrator/Direct	0.03 W to 50 kW	0.2 % to 0.021 %
67	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	Energy (Three Phase Active/Reactive))- (40Hz to 70Hz) 40V to 300 V/10mA to 100 A /0.1 to 1 PF (Lead/Lag)	Power Energy System/Direct	0.04 W to 30 kW	0.2 % to 0.027 %
68	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	Inductance (1kHz)	Std. Inductors/Direct	100 μH to 10 H	0.02 % to 0.052 %
69	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	Phase Angle- (V-V/V-I)(40-70Hz)	Power Energy Calibration System/Direct	+180 to -180° (30V to 500V/10mA to 100A)	0.017°
70	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	Power (Single Phase Active/Reactive))- (40 to 70Hz) 30V to 500V/10mA 100A/ 0.1 to 1 PF(Lead/Lag)	Power Energy Calibration Calibrator/Direct	0.03 W to 50 kW	0.2 % to 0.021 %



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71	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	Power (Three Phase Active/Reactive))-(40Hz to 70Hz) 40V to 300 V/10mA to 100 A /0.1 to 1 PF (Lead/Lag)	Power Energy System/Direct	0.04 W to 30 kW	0.2 % to 0.027 %
72	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	Power Factor(Lead/Lag)-(40Hz to 70Hz)	Power Energy Calibration Calibrator/Direct	0.1 PF to 1 PF/(30 V to 5 /10mA to 100 A)	0.013°
73	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Current	Standard Resistor, L & N/DMM/Indirect Method	1 A to 20 A	0.002 % to 0.006 %
74	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Current	Standard Resistor/L & N/Indirect Method	1 nA to 100 µA	0.003 % to 0.002 %
75	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Current	MFC/DMM/Standard Resistor/by Direct Method	100 µA to 1 A	0.002%



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76	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Standard Resistor/L&N/DMM/HP/Indirect Method	100 μ A to 100 mA	0.002 % to 0.001 %
77	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	DMM /AC/Shunt (DC Std. Resistance) /High Current Source/ Indirect Method	100 A to 500 A	0.01 % to 0.02 %
78	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Standard Resistor/L&N/DMM/HP/Indirect Method	100 mA to 1 A	0.001 % to 0.002 %
79	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Standard Resistor/Nano voltmeter/Indirect Method	100 pA to 1 nA	0.05 % to 0.003 %
80	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	DMM /HP /AC/DC Std Resistance /Indirect Method	20 A to 100 A	0.006 % to 0.01 %
81	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC High Voltage	HV divider/DMM/Direct	1 kV to 10 kV	0.01 % to 0.05 %



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82	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC High Voltage	HV divider Process Instrument 100/DMM/Direct	10 kV to 50 kV	0.05 % to 0.5 %
83	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Resistance	DCC Bridge/Standard Resistor/by Direct Method	0.1 mohm to 100 mohm	0.001%
84	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Resistance	MFC/DMM/Standard Resistor/IET-10M/10 0M/L&N/Direct	1 Gohm to 1 Tohm	0.001 % to 0.05 %
85	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Resistance	DMM/high R meter/MFC/Standard Resistor/DCC Bridge/by Direct Method	1 Mohm to 1 Gohm	0.0003 % to 0.001 %
86	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Resistance	DCC Bridge/Standard Resistor/ Direct Method	1 ohm to 1 Mohm	0.0003 % to 0.0003 %
87	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Resistance	DCC Bridge/Standard Resistor/by Direct Method	100 mohm to 1 ohm	0.001 % to 0.0003 %



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88	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	DMM/DC Ref. STD/MFC/Ref. div./Ref. Divider / Null Detector/ Direct/Null Method	1 mV to 100 mV	0.007 % to 0.0005 %
89	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Nanovoltmeter/MTS /by Direct Method	10 μ V to 1 mV	0.015 % to 0.007 %
90	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	DMM/DC Ref. STD/MFC/Ref. div./Ref. Divider/Null Detector/Direct/Null Method	100 mV to 1000 V	0.0005 % to 0.0003 %
91	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	MFC/DMM/Transconductance Amp/Standard Resistor/by Direct Method	1 A to 20 A	0.002 % to 0.006 %
92	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	MFC/DMM/R L&N/Indirect method	1 nA to 100 μ A	0.003 % to 0.002 %
93	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	DMM / Standard Resistor(Shunt)/ DC High Current Source by comparison method	100 A to 500 A	0.01 % to 0.039 %



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94	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	MFC/DMM/Standard Resistor/Comparison method	100 pA to 1 nA	0.05 % to 0.003 %
95	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	MFC/DMM/Transconductance/Standard Resistor/by Direct Method	20 A to 100 A	0.006 % to 0.01 %
96	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	MFC/DMM/CURRENT COIL/by Direct Method	20 A to 1000 A	0.2%
97	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC High Voltage	DC HV Source /HV Divider/PI-HV-100 /DMM/Direct	1 kV to 10 kV	0.01 % to 0.05 %
98	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC High Voltage	HV Source/HV Divider E & PI-HV-100/DMM/Direct	10 kV to 50 kV	0.05 % to 0.5 %
99	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Power (100 mV to 1000V&100 mA to 20 A)	Using MFC by Direct method	10 mW to 20 kW	0.025 % to 0.07 %



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100	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance	Standard Resistor/by Direct Method	0.1 mohm to 100 mohm	0.001%
101	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance	Standard Resistor / Std Resistance Box by Direct Method	1 Mohm to 10 Gohm	0.0005 % to 0.0038 %
102	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance	Standard Resistors by Direct Method	1 ohm to 1 Mohm	0.0002 % to 0.0005 %
103	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance	Standard Resistor Box/Direct	10 Gohm to 1 Tohm	0.001 % to 0.2 %
104	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance	Standard Resistors by Direct Method	100 mohm to 1 ohm	0.0002 % to 0.001 %
105	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	DMM/DC Ref. STD/MFC/Ref. div./Ref. Divider/Null Detector/Direct/Null Method	1 mV to 100 mV	0.002 % to 0.0005 %



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106	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	DMM/DC Ref. STD/MFC/Ref. div./Ref. Divider/Null Detector/Direct/Null Method	10 μ V to 1 mV	0.005 % to 0.002 %
107	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	DMM/DC Ref. STD/MFC/Ref. div./Ref. Divider/Null Detector/Direct/Null Method	100 mV to 1000 V	0.0005 % to 0.0003 %
108	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	DMM/DC Ref. STD/by Direct Method	1V V to 10 V	0.0002 % to 0.0001 %,
109	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope - Amplitude(Vertical Deflection factor)-1Mohm	MFC/DMM/by Direct Method	1 mV to 130 V	0.15%
110	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope - Amplitude(Vertical Deflection factor)-50 ohm	MFC/DMM/by Direct Method	1 mV to 6.5 V	0.1%
111	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope-Bandwidth	MFC/DMM/Signal Generator by Direct Method	10 Hz to 3 GHz	2 % to 5 %



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112	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope-Time Base	MFC/DMM/by Direct Method	2 ns to 5 s	0.0026 % to 0.00029 %
113	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	RF Level/Power -100kHz to 3 GHz	RF Level Meter /RF Power Meter by Direct Method	-50 dBm to 13 dBm	0.26 dB to 0.24 dB
114	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	RF Level/Power- 3 GHz to 18 GHz	RF Power Meter by Direct method	-50 dBm to 13 dBm	0.26 dB to 0.24 dB
115	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Source)	RF Level/Power - 3GHz to 18 GHz	Synthesized signal generators /RF Power Meter by Direct Method	-50 dBm to 13 dBm	0.24 dB to 0.25 dB
116	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Source)	RF Level/Power-10kHz to 3GHz	Synthesized signal generators/ RF Level Meter, RF Power Meter/ MFC by Direct Method	-50 dBm to 13 dBm	0.23 dB to 0.24 dB



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117	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	RTD - Pt 385, 100 ohm For Calibration of Temp. Indicator/controller/Indicator/Process Calibrator	DMM/Nono-volt/mico-ohm meter/Process calibrator/by Direct Method	-200 °C to 650 °C	0.01°C
118	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	RTD - Pt 385, 1000 ohm For Calibration of Temp. Indicator/controller/Indicator/Process Calibrator	DMM/Nono-volt/Micro-ohm meter/Process Calibrator/by Direct Method	-200 °C to 650 °C	0.01° C
119	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple type - B	Using DMM/Nonovoltmeter /by Direct Method	0 °C to 1800 °C	0.04°C
120	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple type - C	Using DMM/Nonovoltmeter /by Direct Method	0 °C to 2320 °C	0.25°C
121	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple type - E	DMM/Nonovoltmeter /by Direct Method	-270 °C to 1000 °C	0.012°C



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122	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple type - J	Using DMM/Nonovoltmeter /by Direct Method	-210 °C to 1200 °C	0.013°C
123	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple type - K	Using DMM/Nonovoltmeter /by Direct Method	-270 °C to 1372 °C	0.03°C
124	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple type - L	Using DMM/Nonovoltmeter /by Direct Method	-200 °C to 900 °C	0.04°C
125	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple type - N	Using DMM/Nonovoltmeter /by Direct Method	-270 °C to 1300 °C	0.025°C
126	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple type - R	Using DMM/Nonovoltmeter /by Direct Method	-50 °C to 1768 °C	0.035°C
127	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple type - S	Using DMM/Nonovoltmeter /by Direct Method	-50 °C to 1768 °C	0.043°C



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128	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple type - T	Using DMM/Nonovoltmeter /by Direct Method	-270 °C to 400 °C	0.038°C
129	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple type - U	Using DMM/Nonovoltmeter /by Direct Method	-200 °C to 600 °C	0.03°C
130	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	RTD-Pt 385,100 ohm For Calibration of Temp. Indicator/controller/Indicator/Process Calibrator	DMM/MFC/by Direct Method	-199 °C to 650 °C	0.043° C
131	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	RTD-Pt 385,1000 ohm For Calibration of Temp. Indicator/controller/Indicator/Process Calibrator	DMM/MFC/by Direct Method	-199 °C to 650 °C	0.03° C
132	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple type - E	DMM/MFC/by Direct Method	-270 °C to 1000 °C	0.11°C



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133	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple type - J	DMM/MFC/by Direct Method	-210 °C to 1200 °C	0.08°C
134	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple type - K	DMM/MFC/by Direct Method	-270 °C to 1372 °C	0.06°C
135	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple type - N	DMM/MFC/by Direct Method	-270 °C to 1300 °C	0.06°C
136	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple type - R	DMM/MFC/by Direct Method	-50 °C to 1768 °C	0.2°C
137	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple type - S	MFC/DMM/by Direct Method	-50 °C to 1768 °C	0.2°C
138	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple type - T	MFC/DMM/by Direct Method	-270 °C to 400 °C	0.09°C



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139	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple Type-B	DMM/MFC/by Direct Method	0 °C to 1820 °C	0.07°C
140	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple Type-C	DMM/MFC/by Direct Method	0 °C to 2320 °C	0.09°C
141	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple Type-L	DMM/MFC/by Direct Method	-200 °C to 900 °C	0.02°C
142	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple Type-U	MFC/DMM/by Direct Method	-200 °C to 600 °C	0.02°C
143	ELECTRO-TECHNICAL-TIME & FREQUENCY (Measure)	Frequency	Rubidium Frequency counter/Frequency counter/MF/Direct	1 mHz to 18 GHz	5E-11
144	ELECTRO-TECHNICAL-TIME & FREQUENCY (Measure)	Time -Interval	Rubidium Frequency counter/Frequency counter/MF/Direct	100 ms to 10000 s	2 E-8 to 5 E-8



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145	ELECTRO-TECHNICAL-TIME & FREQUENCY (Measure)	Time-Period	Rubidium Frequency counter/Frequency counter HP/ MF/by Direct Method	3.3 ns to 1000 s	5E-11
146	ELECTRO-TECHNICAL-TIME & FREQUENCY (Source)	Frequency	Rubidium clock/Frequency counter with Signal Generators by Direct Method	1 mHz to 18 GHz	3 E-11
147	ELECTRO-TECHNICAL-TIME & FREQUENCY (Source)	Time-- Period	Rubidium clock/Frequency counter with Signal Generator by Direct Method	3.3 ns to 1000 s	3E-11
148	MECHANICAL-ACCELERATION AND SPEED	Tachometer (RPM Meter)(Contact)	Using Digital Tachometer Monarch & RPM generator(AC/DC Motor) by Direct/Comparison Method	50 rpm to 10000 rpm	1.54 % to 0.167 %
149	MECHANICAL-ACCELERATION AND SPEED	Tachometer (RPM Meter)(Non Contact)	Using Digital Tachometer Monarch & RPM generator(AC/DC Motor) by Direct/Comparison Method	30 rpm to 100000 rpm	1.67 % to 0.048 %



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150	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronic Weighing Balance $d \geq 0.002\text{mg}$	Class I weighing balances and coarser as per OIML R 76-1 E1 class standard weights 1 mg - 200 g	0 to 20 g	0.03mg
151	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronic Weighing Balance $d \geq 0.01\text{mg}$	Class I weighing balances and coarser as per OIML R 76-1 E1 class standard weights 1 mg - 200 g	>20 g to 200 g	0.14mg
152	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronic Weighing Balance $d \geq 0.1\text{g}$	Class II weighing balances and coarser as per OIML R 76-1 E1 class standard weights 1mg - 200 g & E2 class standard weights 500 g -10 kg	>200 g to 12 kg	61mg
153	MECHANICAL-WEIGHTS	Weights -1 mg of F2 Accuracy class and coarser as per OIML 111-1	using E1 class standard weights 1 mg - 200 g and Balances Cap. 205 g/ readability 0.01 mg by substitution Method based on ABBA cycles.	1 mg	0.004 mg



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154	MECHANICAL-WEIGHTS	Weights -100 mg of F1 class and coarser as per OIML 111-1	using E1 class standard weights 1 mg - 200 g and Balances Cap. 205 g/ readability 0.01 mg by substitution Method based on ABBA cycles.	100 mg	0.006mg
155	MECHANICAL-WEIGHTS	Weights -200 mg of F1 class and coarser as per OIML 111-1	using E1 class standard weights 1 mg - 200 g and Balances Cap. 205 g/ readability 0.01 mg by substitution Method based on ABBA cycles.:	200 mg	0.01mg
156	MECHANICAL-WEIGHTS	Weights -20mg of F2 class and coarser as per OIML 111-1	using E1 class standard weights 1mg-200g and Balances of 22g/0.002mg & 205g/0.01mg by substitution Method based on ABBA cycles.	20 mg	0.01mg



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157	MECHANICAL-WEIGHTS	Weights -2mg of F2 class and coarser as per OIML 111-1	using E1 class standard weights 1mg-200g and Balances of 22g/0.002mg & 205g/0.01mg by substitution Method based on ABBA cycles.	2 mg	0.01mg
158	MECHANICAL-WEIGHTS	Weights -50mg of F2 class and coarser as per OIML 111-1	using E1 class standard weights 1mg-200g and Balances of 22g/0.002mg & 205g/0.01mg by substitution Method based on ABBA cycles.	50 mg	0.01mg
159	MECHANICAL-WEIGHTS	Weights 100 g of E2 class and coarser as per OIML 111-1	using E1 class standard weights 1 mg - 200 g and Balances Cap. 205 g/ readability 0.01 mg by substitution Method based on ABBA cycles.	100 g	0.06mg



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160	MECHANICAL-WEIGHTS	Weights- 1 g of E2 class and coarser as per OIML 111-1	using E1 class standard weights 1 mg - 200 g and Balances Cap. 205 g/ readability 0.01 mg by substitution Method based on ABBA cycles.	1 g	0.012mg
161	MECHANICAL-WEIGHTS	Weights- 10 mg of F2 class and coarser as per OIML 111-1	using E1 class standard weights 1 mg - 200 g and Balances Cap. 205 g/ readability 0.01 mg by substitution Method based on ABBA cycles.	10 mg	0.004mg
162	MECHANICAL-WEIGHTS	Weights- 10g of E2 class and coarser as per OIML 111-1	using E1 class standard weights 1mg-200g and Balances of 22g/0.002mg & 205g/0.01mg by substitution Method based on ABBA cycles.	10 g	0.025mg



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163	MECHANICAL-WEIGHTS	Weights- 10kg of M2 class and coarser as per OIML 111-1	using E2 class standard weights 500g-10kg and Weighing Balance of 12kg/0.1g by substitution Method based on ABBA cycles.	10 kg	120mg
164	MECHANICAL-WEIGHTS	Weights- 1kg of M3 class and coarser as per OIML 111-1	using E2 class standard weights 500g-10kg and Weighing Balance of 12kg/0.1g by substitution Method based on ABBA cycles.	1 kg	120mg
165	MECHANICAL-WEIGHTS	Weights- 200 g of E2 class and coarser as per OIML 111-1	using E1 class standard weights 1 mg - 200 g and Balances Cap. 205 g/ readability 0.01 mg by substitution Method based on ABBA cycles.	200 g	0.12mg



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166	MECHANICAL-WEIGHTS	Weights- 20g of E2 class and coarser as per OIML 111-1	using E1 class standard weights 1mg-200g and Balances of 22g/0.002mg & 205g/0.01mg by substitution Method based on ABBA cycles.	20 g	0.03mg
167	MECHANICAL-WEIGHTS	Weights- 2kg of M3 class and coarser as per OIML 111-1	using E2 class standard weights 500g-10kg and Weighing Balance of 12kg/0.1g by substitution Method based on ABBA cycles.	2 kg	120mg
168	MECHANICAL-WEIGHTS	Weights- 500 g of M3 Accuracy class and coarser as per OIML 111-1	using E2 accuracy class standard weights 500 g - 10 kg and Weighing Balance of capacity 12 kg readability 0.1 g by substitution Method based on ABBA cycles.	500 g	120mg



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169	MECHANICAL-WEIGHTS	Weights- 500 mg of F1 class and coarser as per OIML 111-1	using E1 class standard weights 1mg-200g and Balances of 22g/0.002mg & 205g/0.01mg by substitution Method based on ABBA cycles.	500 mg	0.01mg
170	MECHANICAL-WEIGHTS	Weights- 5mg of F2 class and coarser as per OIML 111-1	using E1 class standard weights 1mg-200g and Balances of 22g/0.002mg & 205g/0.01mg by substitution Method based on ABBA cycles.	5 mg	0.01mg
171	MECHANICAL-WEIGHTS	Weights-2g of E2 class and coarser as per OIML 111-1	using E1 class standard weights 1mg-200g and Balances of 22g/0.002mg & 205g/0.01mg by substitution Method based on ABBA cycles.	2 g	0.014mg



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172	MECHANICAL-WEIGHTS	Weights-5 kg of M2 accuracy class and coarser as per OIML 111-1	using E2 Accuracy class standard weights 500 g - 10 kg and Weighing Balance of capacity 12 kg readability 0.1 g by substitution Method based on ABBA cycles.	5 kg	120mg
173	MECHANICAL-WEIGHTS	Weights-50 g of E2 accuracy class and coarser as per OIML 111-1	using E1 class standard weights 1 mg - 200 g and Balances Cap. 205 g/ readability 0.01 mg by substitution Method based on ABBA cycles.	50 g	0.039mg
174	MECHANICAL-WEIGHTS	Weights-5g of E2 class and coarser as per OIML 111-1	using E1 class standard weights 1mg-200g and Balances of 22g/0.002mg & 205g/0.01mg by substitution Method based on ABBA cycles.	5 g	0.02mg



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175	THERMAL-SPECIFIC HEAT & HUMIDITY	RH & Temperature Indicator with Inbuilt or External sensors, Thermo-hygrometer	Specific heat & Humidity. RH & Temperature indicator with Inbuilt or External sensor, Thermohygrometer, Comparison calibration method using RH/Temperature indicator with sensor & Chamber, Temperature range of calibration	20 %rh to 95 %rh @25°C to 55°C	1%rh
176	THERMAL-SPECIFIC HEAT & HUMIDITY	RH & Temperature Indicator with Inbuilt or External sensors, Thermo hygrometer	RH & Temperature Indicator with sensor, Chamber by comparison method	20 %rh to 95%rh @25°C, 40°C & 55°C	1 %rh
177	THERMAL-SPECIFIC HEAT & HUMIDITY	RH & Temperature Indicator with Inbuilt or External sensors, Thermohygrometer	RH & Temperature Indicator with sensor, Chamber by comparison method	25°C to 55°C @20 %RH to 95 %RH	0.2°C
178	THERMAL-TEMPERATURE	Boiling point of liquid Nitrogen (LN2)	Liquid Nitrogen apparatus, SPRT, AC Thermometry Bridge, DTI by comparison method:	-196 °C	7.04 m°C



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179	THERMAL-TEMPERATURE	Boiling point of liquid Nitrogen (LN2)	Comparator bath,SPRT & AC Thermometry bridge by comparison method:	-196°C	7.04 m°C
180	THERMAL-TEMPERATURE	Digital temperature indicator of Chamber, Bath, (Single point)	PRT Dry block furnace, DTI by comparison method	250 °C to 600 °C	0.10 °C
181	THERMAL-TEMPERATURE	Digital temperature indicator of Chambers, Baths	PRT, Thermocouple, Dry block, Baths, DTI by comparison method	250°C to 600°C	0.1°C
182	THERMAL-TEMPERATURE	Digital temperature indicator of Chambers, Freezers, Bath, (Single point calibration)	PRT, Dry block furnace, DTI by comparison method	-80 °C to 250 °C	0.05 °C
183	THERMAL-TEMPERATURE	Digital temperature indicator of Chambers, Freezers, Baths	PRT, Thermocouple, Dry block, Bath, DTI by comparison method	-80 °C to 250°C	-0.05 °C
184	THERMAL-TEMPERATURE	Fixed point cell (Melting point of Zinc)	Zinc cell (Mini), SPRT, AC Thermometry bridge & Furnace by comparison method:	419.527 °C	6.32 °C



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185	THERMAL-TEMPERATURE	Liquid in glass thermometer	Oil bath, Cold bath (Methanol), PRT, DTI by comparison method	-80 °C to 250 °C	0.14 °C
186	THERMAL-TEMPERATURE	Liquid in Glass Thermometer	Oil bath,Cold bath (Methanol),PRT & DTI by comparison method	-80°C to 250°C	0.14°C
187	THERMAL-TEMPERATURE	Melting point of Aluminium, Fixed point calibration method	Aluminium cell (Mini), SPRT, AC Thermometry bridge & Furnace by comparison method:	660.323°C	9.78 m°C
188	THERMAL-TEMPERATURE	Melting point of Aluminium, using Fixed point cell (mini)	SPRT, AC Thermometry bridge, DTI by comparison method:	660.323 °C	7.5 m°C
189	THERMAL-TEMPERATURE	Melting point of Gallium using Fixed point cell	Gallium cell (Mini),SPRT, AC Thermometry bridge & Furnace by comparison method:	29.7646°C	5 m°C
190	THERMAL-TEMPERATURE	Melting point of gallium using Fixed point cell (mini)	SPRT, AC thermometry bridge, DTI by comparison method:	29.7646 °C	5 m°C
191	THERMAL-TEMPERATURE	Melting point of Tin using Fixed point calibration method	Tin cell(Mini),SPRT, AC Thermometry bridge & Furnace by comparison method:	231.928°C	5.5 m°C



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192	THERMAL-TEMPERATURE	Melting point of Tin using fixed point cell (mini)	SPRT, AC Thermometry bridge, DTI by comparison method:	231.928 °C	5.5 m°C
193	THERMAL-TEMPERATURE	Melting point of Zinc using Fixed point cell (mini)	SPRT, AC Thermometry bridge, DTI by comparison method:	419.527 °C	5.5 m°C
194	THERMAL-TEMPERATURE	RTD with or without indicator, Data logger, Scanner	Oil bath, Dry block, PRT, DTI by comparison method	250 °C to 600 °C	0.16 °C
195	THERMAL-TEMPERATURE	RTD with or without indicator, Data logger, Scanner	Oil bath, Cold bath (Methanol) Dry block, PRT, DTI by comparison method	-80 °C to 250 °C	0.07 °C
196	THERMAL-TEMPERATURE	RTD with or without indicator, Data logger, Scanners.	Oil bath(Methanol), Dry block furnace, PRT DTI by comparison method	250 °C to 600 °C	0.16 °C
197	THERMAL-TEMPERATURE	RTD with or without indicator, Data logger, Scanners.	Oil bath, Cold bath, Dry block furnace, PRT, DTI by comparison method	-80 °C to 250 °C	-0.07 °C
198	THERMAL-TEMPERATURE	Thermocouples with or without indicator, Data logger, Scanner	PRT/ S type Thermocouple, Dry block furnace, DTI by comparison method	300 °C to 1000 °C	1.30 °C



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199	THERMAL-TEMPERATURE	Thermocouples with or without indicator, Data logger, Scanner	PRT, S type Thermocouple, Dry block furnace, DTI by comparison method	300 °C to 1100 °C	1.36 °C
200	THERMAL-TEMPERATURE	Thermocouples with or without indicator, Data logger, Scanner	PRT, Thermocouple, Dry block furnace, DTI by comparison method	50 °C to 600 °C	0.16 °C
201	THERMAL-TEMPERATURE	Thermocouples with or without indicator, Data loggers, Scanner.	PRT/ S Type Thermocouple, Dry block furnace, DTI by comparison method	50 °C to 600 °C	0.16 °C
202	THERMAL-TEMPERATURE	Triple point of Mercury using Fixed point calibration method	Mercury cell (Mini), SPRT, AC Thermometry bridge & Furnace by comparison method:	-38.8344 °C	5.90 °C
203	THERMAL-TEMPERATURE	Triple point of Mercury using Fixed point cell (mini)	SPRT, AC Thermometry bridge, DTI by comparison method:	-38.8344 °C	5.5 °C
204	THERMAL-TEMPERATURE	Triple point of water using Fixed point cell	SPRT, AC Thermometry bridge, DTI by comparison method	0.01 °C	4.5 m°C



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205	THERMAL-TEMPERATURE	Triple point of water using Fixed point cell	Fixed point cell(Mini), SPRT, AC Thermometry bridge & Furnace by comparison method	0.01 °C to	5.82 m°C



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Site Facility					
1	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (50Hz to 5kHz)	DMM / Standard Resistor/ V/I method	100 mA to 1 A	0.04 % to 0.08 %
2	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC CURRENT (50Hz to 1KHz)	DMM / Standard Resistor/by Direct Method	20 A to 100 A	0.05%
3	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC CURRENT (50Hz to 5KHz)	Direct/DMM/Standard Resistor/by Direct Method	1 A to 20 A	0.05% to 0.08%
4	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC HIGH VOLTAGE (50Hz)	HV Probe/ DMM /by Direct Method	1 kV to 5 kV	0.70%



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5	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC HIGH VOLTAGE (50Hz)	HV Probe/DMM /by Direct Method	5 kV to 28 kV	0.7 % to 2.3 %
6	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Resistance (1KHz)	Precision Component Analyser by Direct Method	1 ohm to 5 Mohm	0.02 % to 0.1 %
7	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (10kHz to 30kHz)	DMM/by Direct Method	10 mV to 100 mV	0.07 % to 0.034 %
8	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (10kHz to 30kHz)	DMM/by Direct Method	100 mV to 1000 V	0.034 % to 0.022 %
9	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (30kHz to 100kHz)	DMM by Direct Method	10 mV to 100 mV	0.17 % to 0.08 %



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10	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (30kHz to 100kHz)	DMM/by Direct Method	100 mV to 100 V	0.08 % to 0.06 %
11	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (50Hz to 10kHz)	DMM/by Direct Method	10 mV to 100 mV	0.03 % to 0.012 %
12	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (50Hz to 10kHz)	DMM/by Direct Method	100 mV to 1000 V	0.012 % to 0.01 %
13	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Capacitance (1kHz)	Precision Component Analyser/by Direct Method	10 pF to 1 mF	0.05 % to 0.2 %
14	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Energy (Single Phase Active/Reactive)-(40 Hz to 70Hz) 40V to 320V/ 10mA to 20A/0.1 to 1 PF(lag/Lead)	Power Energy Calibrator/ Reference meter/Direct	0.04 W to 6.4 kW	0.038%



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15	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Measure)	Inductance (1kHz)	Precision Component Analyser/by Direct Method	10 μH to 100 H	0.05 % to 0.2 %
16	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Measure)	Phase Angle/PF-(V-I)/(40Hz to 70Hz)	POWER ENERGY CALIBRATION SYSTEM/Direct	-180 to +180 40V to 320V/5mA to 20 A	0.028°
17	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Measure)	Power (Single Phase Active/Reactive)-(40 Hz to 70Hz) 40V to 320V/ 10mA to 20A/0.1 to 1 PF(lag/Lead)	Power Energy Calibrator / Reference Meter/by Direct Method	0.04 W to 6.4 kW	0.038%
18	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Measure)	Power (Three Phase/Active/Reactive) (40Hz to 70Hz)40V to 320V/10mA to 20A/0.1 to 1 PF(Lag/Lead)	Power Energy Calibrator/by Direct Method	0.04 W to 6.4 kW	0.038 % to 0.31 %
19	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC CURRENT (1kHz TO 5kHz)	MFC/DMM/by Direct Method	1 A to 20 A	0.7 % to 3.2 %



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20	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC CURRENT (1kHz TO 5kHz)	MFC/DMM/by Direct Method	1 mA to 10 mA	0.22 % to 0.1 %
21	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC CURRENT (1kHz TO 5kHz)	MFC/DMM/by Direct Method	10 mA to 100 mA	0.1 % to 0.15 %
22	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC CURRENT (1kHz TO 5kHz)	MFC/DMM/by Direct Method	100 µA to 1 mA	0.45 % to 0.22 %
23	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC CURRENT (1kHz To 5kHz)	MFC/DMM/by Direct Method	100 mA to 1 A	0.15 % to 0.7 %
24	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC CURRENT (50Hz TO 1kHz)	MFC/DMM/DIRECT METHOD	1 A to 10 A	0.06 % to 0.08 %
25	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC CURRENT (50Hz TO 1kHz)	MFC/DMM/by Direct Method	1 mA to 10 mA	0.12 % to 0.06 %



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26	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC CURRENT (50Hz TO 1kHz)	MFC/DMM/DIRECT Method	10 A to 20 A	0.08 % to 0.15 %
27	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC CURRENT (50Hz TO 1kHz)	MFC/DMM/by Direct Method	10 mA to 1 A	0.06%
28	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC CURRENT (50Hz TO 1kHz)	MFC/DMM/by Direct Method	100 µA to 1 mA	0.23 % to 0.12 %
29	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC CURRENT (50Hz/60Hz)	MFC/Current Coil X10 & X50 /DIRECT:	20 A to 1000 A	0.3%
30	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC RESISTANCE (1kHz)	Standard Resistor/DMM/by Direct Method	1 ohm,10 ohm,100 ohm,1 kohm to 10 kohm	0.004%
31	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC RESISTANCE (1kHz)	Standard Resistor/DMM/by Direct Method	10 mohm to 100 mohm	0.012%



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32	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC VOLTAGE (100 kHz to 500 kHz)	MFC/DMM/DIRECT METHOD	1 mV to 10 V	5.8 % to 0.25 %
33	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC VOLTAGE (10kHz TO 30kHz)	MFC/DMM/DIRECT METHOD	1 mV to 10 mV	0.7 % to 0.11 %
34	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC VOLTAGE (10kHz TO 30kHz)	MFC /DMM/DIRECT METHOD	10 mV to 100 mV	0.11 % to 0.036 %
35	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC VOLTAGE (10kHz TO 30kHz)	MFC/DMM/DIRECT	10 V to 100 V	0.03 % to 0.036 %
36	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC VOLTAGE (10kHz TO 30kHz)	MFC/DMM/DIRECT METHOD	100 mV to 10 V	0.036 % to 0.030 %
37	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC VOLTAGE (30 kHz TO 100 kHz)	MFC/DMM/DIRECT METHOD	1 mV to 10 mV	1.5 % to 0.5 %



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38	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC VOLTAGE (30 kHz TO 100kHz)	MFC/DMM/DIRECT METHOD	10 mV to 100 mV	0.5 % to 0.083 %
39	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC VOLTAGE (30 kHz TO 100kHz)	MFC/DMM/DIRECT METHOD	10 V to 100 V	0.041 % to 0.25 %
40	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC VOLTAGE (30 kHz TO 100kHz)	MFC/DMM/DIRECT METHOD	100 mV to 10 V	0.083 % to 0.041 %
41	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC VOLTAGE (50 Hz TO 10kHz)	MFC/DMM/DIRECT METHOD	1 mV to 10 mV	0.62 % to 0.075 %
42	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC VOLTAGE (50 Hz TO 10kHz)	MFC/DMM/DIRECT METHOD	10 mV to 100 mV	0.075 % to 0.025 %
43	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC VOLTAGE (50 Hz TO 10kHz)	MFC/DMM/DIRECT METHOD	10 V to 1000 V	0.021 % to 0.031 %



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44	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC VOLTAGE (50 Hz TO 10kHz)	MFC/DMM/DIRECT METHOD	100 mV to 10 V	0.025 % to 0.021 %
45	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	Capacitance (1kHz)	Std Capacitors IET/Direct Method	1 pF	0.04%
46	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	CAPCITANCE (100Hz)	4 TERMINAL CAPACITOR/DMM/Direct Method	10 mF to 1000 mF	0.10 % to 1.11 %
47	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	CAPCITANCE (1kHz)	4 TERMINAL CAPACITOR/DMM/Direct	1 µF to 10 mF	0.02 % to 0.1 %
48	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	CAPCITANCE (1kHz)	STD CAPACITORS/STD CAPACITORS/(DISCRETE VALUES)/Direct	10 pF to 1 µF	0.02%



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49	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	Energy (Single Phase Active/Reactive)- (40-70Hz) 40V To 320V/10mA To 20A/0.1 to 1 PF(Lag/Lead)	POWER ENERGY CALIBRATION SYSTEM/Direct	0.04 W to 6.4 kW	0.038 % to 0.31 %
50	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	Inductance (1kHz)	STD INDUCTOR	100 μH to 10 H	0.052 % to 0.05 %
51	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	Phase Angle/P.F.-(V-I)/(40Hz to 70Hz)	POWER ENERGY CALIBRATION SYSTEM/Direct	-180 to+180 40V to 320V/(5mA to 100 A)	0.02°
52	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	Power (Single Phase Active/Reactive)- (40-70Hz) 40V To 320V/10mA To 20A/0.1 to 1 PF(Lag/Lead)	POWER ENERGY CALIBRATION SYSTEM/Direct	0.04 W to 6.4 kW	0.038 % to 0.31 %
53	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Current	DMM/by Direct Method	10 mA to 100 mA	0.003 % to 0.004 %



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54	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	DMM by Direct Method	100 μ A to 10 mA	0.003%
55	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	DMM/by Direct Method	100 mA to 1 A	0.004 % to 0.012 %
56	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC High Voltage	DMM/HV Probe/Direct	1 kV to 5 kV	0.2%
57	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC High Voltage	DMM/HV Probe/Direct	5 kV to 40 kV	0.2 % to 1 %
58	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Resistance	High Resistance Meter /Direct method (V/I) method	1 Gohm to 100 Gohm	0.012 % to 0.04 %
59	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Resistance	Micro ohm meter/DMM/by Direct Method	1 ohm to 10 ohm	0.0075 % to 0.001 %



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60	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Resistance	DMM/High Resistance Meter/by Direct Method	10 ohm to 100 Mohm	0.001 % to 0.002 %
61	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Resistance	High Resistance Meter / by V/I method	100 Gohm to 1 Tohm	0.04 % to 0.25 %
62	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Resistance	Micro ohm meter by Direct Method	100 mohm to 1 ohm	0.01 % to 0.0075 %
63	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Resistance	DMM/High Resistance Meter/Direct	100 Mohm to 1 Gohm	0.002 % to 0.012 %
64	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	DMM/Nano Voltmeter /by Direct Method	1 mV to 10 mV	0.007 % to 0.0055 %
65	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	DMM/Nano Voltmeter/by Direct Method	10 mV to 100 mV	0.0055 % to 0.0008 %



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66	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	DMM/Nano Voltmeter/by Direct Method	100 mV to 1000 V	0.0008 % to 0.0012 %
67	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	MFC/DMM/by Direct Method	1 A to 20 A	0.025 % to 0.11 %
68	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	MFC/DMM/by Direct Method	1 mA to 100 mA	0.017 % to 0.013 %
69	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	MFC/DMM/by Direct Method	100 μ A to 1 mA	0.04 % to 0.017 %
70	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	MFC/DMM/by Direct Method	100 mA to 1 A	0.013 % to 0.025 %
71	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	MFC/DMM/CURRENT COIL 10X&50X/by Direct Method	20 A to 1000 A	0.3%



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72	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Power (1V to 1000V & 100 mA to 20 A)	Using MFC by Direct method	10 mW to 20 kW	0.025 % to 0.07 %
73	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance	Decade Resistance Box by Direct Method	1 Gohm to 1 Tohm	0.05 % to 0.4 %
74	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance	Shunt /Standard Resistor by Direct Method	1 mohm to 10 kohm	0.001 % to 0.001 %
75	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance	Decade Resistance Box by Direct Method	1 Mohm to 10 Mohm	0.001 % to 0.005 %
76	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance	Shunt/ Standard Resistor/Decade Resistance Box by Direct Method	10 kohm to 1 Mohm	0.001 % to 0.001 %
77	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance	Decade Resistance Box by Direct Method	10 Mohm to 1 Gohm	0.005 % to 0.050 %



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78	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	MFC/DMM/by Direct Method	1 mV to 100 mV	0.1 % to 0.003 %
79	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	MFC/DMM/by Direct Method	100 mV to 1000 V	0.003 % to 0.002 %
80	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope - Bandwidth	DMM/Signal generator SMT 06/6/MFC/by Direct Method	10 Hz to 3 GHz	2 % to 5 %
81	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope - Time Base	MFC/DMM/by Direct Method	2 ns to 5 s	0.0026 % to 0.00029 %
82	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope - Amplitude(Vertical Deflection Factor)-1Mohm	MFC/DMM/by Direct Method	1 mV to 130 V	0.46%
83	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope - Amplitude(Vertical Deflection Factor)-50 ohm	MFC/DMM/by Direct Method	1 mV to 6.5 V	0.46%



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84	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	RF Level/Power -100kHz to 3 GHz	RF Level Meter / RF Power Meter /by Direct Method	-50 dBm to 13 dBm	0.26 dB to 0.24 dB
85	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	RF Level/Power-3GHz to 18GHz	RF Power Meter by Direct Method	-50 dBm to 13 dBm	0.26 dBm to 0.24 dBm
86	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Source)	RF Level/Power -3GHz to 18GHz	SYNTHESIZED SIGNAL GENERATOR /RF POWER METER by Direct Method	-50 dB to +13 dB	0.27 dB to 0.25 dB
87	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Source)	RF LEVEL/POWER-10kHz to 3GHz	SYNTHESIZED SIGNAL GENERATOR/ RF LEVEL METER /RF POWER METER by Direct Method	-50 dB to +13 dB	0.23 dB to 0.24 dB
88	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	RTD - Pt385, 100 ohm For Calibration of Temp. Indicator/controller/ Indicator/Process Calibrator	DMM/Nono-Volt/Micro-ohm Meter/Process Calibrator/by Direct Method	-199°C to 800°C	0.04°C



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89	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	RTD - Pt385, 1000ohm For Calibration of Temp. Indicator/controller/Indicator/Process Calibrator	DMM/Nono-volt/Micro-ohm Meter/Process Calibrator/by Direct Method	-199°C to 800°C	0.04°C
90	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple TYPE-B For Calibration of Temp. Indicator/controller/Indicator/Process Calibrator	DMM/Nono-Volt/Micro-Ohm Meter/Process Calibrator/by Direct Method	600 ° C to 1800 ° C	0.04°C
91	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple TYPE-C For Calibration of Temp. Indicator/controller/Indicator/Process Calibrator	DMM/Nono-Volt/Micro-Ohm Meter / Process Calibrator / by Direct Method	0 ° C to 2300 ° C	0.9° C
92	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple TYPE-E For Calibration of Temp. Indicator/controller/Indicator/Process Calibrator	DMM/Nono-Volt/Micro-Ohm Meter/Process Calibrator/by Direct Method	-250 ° C to 1000 ° C	0.053°C
93	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple TYPE-J For Calibration of Temp. Indicator/controller/Indicator/Process Calibrator	DMM/Nono-Volt/Micro-Ohm Meter/Process Calibrator/by Direct Method	-200 ° C to 1200 ° C	0.08° C



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94	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple TYPE-K For Calibration of Temp. Indicator/controller/Indicator/Process Calibrator	DMM/Nono-Volt/Micro-Ohm Meter/Process Calibrator/by Direct Method	-200 °C to 1350 °C	0.12°C
95	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple TYPE-L For Calibration of Temp. Indicator/controller/Indicator/Process Calibrator	DMM/Nono-Volt/Micro-Ohm Meter/Process Calibrator/by Direct Method	-200 °C to 900 °C	0.4°C
96	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple TYPE-N For Calibration of Temp. Indicator/controller/Indicator/Process Calibrator	DMM/Nono-Volt/Micro-Ohm Meter/Process Calibrator/by Direct Method	-200 °C to 1300 °C	0.025°C
97	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple TYPE-R For Calibration of Temp. Indicator/controller/Indicator/Process Calibrator	DMM/Nono-Volt/Micro-ohm Meter/Process Calibrator/by Direct Method	0 °C to 1750 °C	0.035°C
98	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple TYPE-S For Calibration of Temp. Indicator/controller/Indicator/Process Calibrator	Using MFC/DMM/Process calibrator/by Direct Method	0 °C to 1750 °C	0.15°C



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99	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple TYPE-S For Calibration of Temp. Indicator/controller/Indicator/Process Calibrator	DMM/Nono-Volt/Micro-Ohm Meter/Process Calibrator/by Direct Method	0 °C to 1750 °C	0.043°C
100	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple TYPE-T For Calibration of Temp. Indicator/controller/Indicator/Process Calibrator	DMM/Nono-Volt/Micro-Ohm Meter/Process Calibrator/by Direct Method	-250 °C to 400 °C	0.038°C
101	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple TYPE-U For Calibration of Temp. Indicator/controller/Indicator/Process Calibrator	DMM/Nono-Volt/Micro-Ohm Meter/Process Calibrator/by Direct Method	-200 °C to 600 °C	0.6°C
102	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	RTD-Pt 385,100 ohm,1000 Ohm For Calibration of Temp. Indicator/controller/Indicator/Process Calibrator	Using MFC/DMM/Process calibrator/by Direct Method	-199 °C to 800 °C	0.03°C
103	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple TYPE-C For Calibration of Temp. Indicator/controller/Indicator/Process Calibrator	using MFC/DMM/Process calibrator/by Direct Method	0 °C to 2300 °C	0.9°C



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104	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple TYPE-E For Calibration of Temp. Indicator/controller/Indicator/Process Calibrator	using MFC/DMM/process calibrator/by Direct Method	-250 °C to 1000 °C	0.25°C
105	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple TYPE-J For Calibration of Temp. Indicator/controller/Indicator/Process Calibrator	Using MFC/DMM/Process calibrator/by Direct Method	-200 °C to 1200 °C	0.08°C
106	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple TYPE-K For Calibration of Temp. Indicator/controller/Indicator/Process Calibrator	MFC/DMM/Process calibrator/by Direct Method	-200 °C to 1350 °C	0.11°C
107	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple TYPE-L For Calibration of Temp. Indicator/controller/Indicator/Process Calibrator	using MFC/DMM/Process calibrator/by Direct Method	-200 °C to 900 °C	0.4°C
108	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple TYPE-N For Calibration of Temp. Indicator/controller/Indicator/Process Calibrator	using MFC/DMM/Process calibrator/by Direct Method	-200 °C to 1300 °C	0.1°C



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109	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple TYPE-R For Calibration of Temp. Indicator/controller/Indicator/Process Calibrator	Using MFC/DMM/Process calibrator/by Direct Method	0 °C to 1750 °C	0.15°C
110	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple TYPE-U For Calibration of Temp. Indicator/controller/Indicator/Process Calibrator	Using MFC/DMM/Process calibrator/by Direct Method	-200 °C to 600 °C	0.6°C
111	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple TYPE-B For Calibration of Temp. Indicator/controller/Indicator/Process Calibrator	Using MFC/DMM/Process Calibrator/by Direct Method	600 °C to 1800 °C	0.15°C
112	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple TYPE-T For Calibration of Temp. Indicator/controller/Indicator/Process Calibrator	Using MFC/DMM/Process calibrator/by Direct Method	-250 °C to 400 °C	0.13°C
113	ELECTRO-TECHNICAL-TIME & FREQUENCY (Measure)	Frequency	Freq. Counter MF/by Direct Method	1 Hz to 18 GHz	3E-8



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114	ELECTRO-TECHNICAL-TIME & FREQUENCY (Measure)	Frequency	Signal Generator by Direct Method	1 Hz to 6 GHz	3E-8
115	ELECTRO-TECHNICAL-TIME & FREQUENCY (Measure)	Time -- Interval	Direct/ Freq. Counter	100 ms to 10000 s	0.007%
116	ELECTRO-TECHNICAL-TIME & FREQUENCY (Measure)	Time Period	Frequency Counter by Direct Method	1µs to 1000 s	1E-8
117	ELECTRO-TECHNICAL-TIME & FREQUENCY (Source)	Time -Period	FREQ COUNTER/FUNCTION GEN/TIMER/by Direct Method	1 µs to 1000 s	3E-8
118	MECHANICAL-ACCELERATION AND SPEED	Tachometer (RPM Meter) (Contact)	Using Digital Tachometer Monarch & RPM generator(AC/DC Motor) by Direct/Comparison Method	50 rpm to 10000 rpm	1.57 % to 0.167 %



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119	MECHANICAL-ACCELERATION AND SPEED	Tachometer (RPM Meter) (Non Contact)	Using Digital Tachometer Monarch & RPM generator(AC/DC Motor) by Direct/Comparison Method	30 rpm to 100000 rpm	1.67 % to 0.048 %
120	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronics Weighing Balance $d \geq 0.002$ mg	Calibration of Class I Weighing balances and coarser as per OIML R-76-I / E1 Class Standard Weights 1 mg - 200 g	0 to 20 g	0.03 mg
121	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronics Weighing Balance $d \geq 0.01$ mg	Calibration of Class I Weighing balances and coarser as per OIML R-76-I / E1 Class Standard Weights 1mg - 200g	>20 g to 200 g	0.14 mg
122	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronics Weighing Balance $d \geq 0.1$ g	Calibration of Class II Weighing balances and coarser as per OIML R-76-I / E1 Class Standard Weights 1 mg - 200 g & E2 class standard weights 500 g to 10 kg	>200 g to 12 kg	61 mg



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123	THERMAL-SPECIFIC HEAT & HUMIDITY	RH & Temperature Indicators of Chambers	RH & Temperature indicator with sensor	20 %rh to 95%rh @ 25 °C, 40 °C & 55 °C	1.5%rh
124	THERMAL-SPECIFIC HEAT & HUMIDITY	RH & Temperature Indicator with Inbuilt or External sensors, Thermo-hygrometer	RH & Temperature indicator of Chamber, Single position comparison calibration using RH/Temperature indicator with sensor & Chamber, Calibration range	20 %rh to 95%rh @25°C to 55°C	1.5 %rh
125	THERMAL-TEMPERATURE	RTD, Temperature indicator with sensor	PRT, Dry block calibrator, DTI by comparison method	-25 °C to 600 °C	0.2 °C
126	THERMAL-TEMPERATURE	RTD, Temperature Indicator with sensor	PRT, Dry block furnace, DTI by comparison method	-25 °C to 600 °C	0.2 °C
127	THERMAL-TEMPERATURE	Temperature Indicator with sensor of Ovens, baths, Chambers	PRT, Thermocouple Type `S', Dry block furnace, DTI by comparison method	300 °C to 1100 °C	1.39 °C
128	THERMAL-TEMPERATURE	Temperature indicator with sensor of Oven, Chamber, (Single position)	RTD/PRT, DTI by comparison method	200 °C to 1000 °C	1.39 °C



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129	THERMAL-TEMPERATURE	Temperature indicator with sensor of Oven, Deep freezer & chamber (Single position)	RTD/PRT, DTI by comparison method	-25 °C to 600 °C	0.2 °C
130	THERMAL-TEMPERATURE	Temperature indicator with sensor of Oven, Deep freezer, Chamber, (Multi position)	RTD, DTI by comparison method	-80 °C to 200 °C	0.5 °C
131	THERMAL-TEMPERATURE	Temperature Indicator with sensor of Oven,Deep freezers, & Chamber	Five, Nine, Fifteen Class `A' PT 100 sensors,PRT, DTI by comparison method	-80 °C to 200 °C	0.5 °C
132	THERMAL-TEMPERATURE	Temperature Indicator with sensor of Ovens,baths,Deep freezers,Chambers	PRT, Thermocouple Type `S',Dry block furnace, DTI by comparison method	-25 °C to 600 °C	0.2 °C

* CMCs represent expanded uncertainties expressed at approximately the 95% level of confidence, using a coverage factor of k = 2.