National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name :	SIBALI INSTRUMENT WORKS, JAGACHA MAHIARY ROAD & A. T. GHOSH ROAD JUNCTION, HOWRAH, WEST BENGAL, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
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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 (50 Hz - 1 kHz)	Using 6½ Digit Digital Multimeter by Direct Method	1 mA to 100 mA	0.200 % to 0.176 %
2	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (50 Hz - 1 kHz)	Using 6½ Digit Digital Multimeter by Direct Method	100 µA to 1 mA	0.375 % to 0.20 %
3	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (50 Hz - 1 kHz)	Using 6½ Digit Digital Multimeter by Direct Method	100 mA to 10 A	0.176 % to 0.223 %
4	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC High Voltage @ 50Hz	Using High Voltage Probe with DMM By Comparison Method	1 kV to 30 kV	11.25 % to 3.07 %

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5	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (50 Hz - 1 kHz)	Using 6½ Digit Digital Multimeter by Direct Method	1 V to 10 V	0.08%
6	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (50 Hz - 1 kHz)	Using 6½ Digit Digital Multimeter by Direct Method	10 V to 100 V	0.08%
7	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (50 Hz - 1 kHz)	Using 6½ Digit Digital Multimeter by Direct Method	100 mV to 1 V	0.08%
8	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (50 Hz - 1 kHz)	Using 6½ Digit Digital Multimeter by Direct Method	100 V to 750 V	0.084%
9	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current (50 Hz)	Using 5½ digit Multi-Function Calibrator By Direct Method	100 mA to 2 A	0.36 % to 0.41 %

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10	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current (50 Hz)	Using 5 ½ digit Multi-Function Calibrator By Direct Method	2 A to 10 A	0.41 % to 0.33 %
11	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current (50 Hz)	Using 5½ digit Multi-Function Calibrator By Direct Method	200 µA to 100 mA	0.40 % to 0.36 %
12	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC High Current (50 Hz)	Using 5½ digit Multi-Function Calibrator & 100 turn Current Coil By Direct Method	10 A to 900 A	2.01 % to 0.98 %
13	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (50 Hz to 60 Hz)	Using 5½ digit Multi-Function Calibrator By Direct Method	100 mV to 100 V	1.91 % to 0.22 %
14	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (50 Hz to 60 Hz)	Using 5½ digit Multi-Function Calibrator By Direct Method	100 V to 1000 V	0.22 % to 0.20 %
15	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (50 Hz to 60 Hz)	Using 5½ digit Multi-Function Calibrator By Direct Method	5 mV to 100 mV	3 % to 1.91 %

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16	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	Capacitance (@1kHz)	Using Decade Capacitance Box By Direct Method	1 nF to 100 µF	1.20 % to 1.22 %
17	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	Inductance (@ 1 kHz)	Using Decade Inductance Box By Direct Method	100 µH to 100 mH	1.16%
18	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using 6½ Digit Digital Multimeter by Direct Method	1 A to 10 A	0.100 % to 0.163 %
19	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using 6½ Digit Digital Multimeter by Direct Method	1 mA to 100 mA	0.06%
20	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using 6½ Digit Digital Multimeter by Direct Method	10 µA to 100 µA	0.30 % to 0.06 %
21	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using 6½ Digit Digital Multimeter by Direct Method	100 µA to 1 mA	0.06%

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22	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using 6½ Digit Digital Multimeter by Direct Method	100 mA to 1 A	0.06 % to 0.10 %
23	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC High Voltage	Using High Voltage Probe with DMM By Comparison Method	1 kV to 30 kV	11.78 % to 4.19 %
24	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 6½ Digit Digital Multimeter by Direct Method	1 V to 1000 V	0.005 % to 0.006 %
25	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 6½ Digit Digital Multimeter by Direct Method	10 mV to 100 mV	0.44 % to 0.01 %
26	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 6½ Digit Digital Multimeter by Direct Method	100 mV to 1 V	0.01 % to 0.006 %
27	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance (2wire)	Using 6½ Digit Digital Multimeter by Direct Method	1 Mega ohm to 10 Mega ohm	0.015 % to 0.03 %

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28	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance (2wire)	Using 6½ Digit Digital Multimeter by Direct Method	10 Mega ohm to 100 Mega ohm	0.03 % to 0.38 %
29	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance (4 wire)	Using 6½ Digit Digital Multimeter by Direct Method	1 k ohm to 10 k ohm	0.011%
30	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance (4 wire)	Using 6½ Digit Digital Multimeter by Direct Method	10 k ohm to 100 k ohm	0.011%
31	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance (4 wire)	Using 6½ Digit Digital Multimeter by Direct Method	100 ohm to 1 k ohm	0.1 % to 0.006 %
32	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using 5½ digit Multi-Function Calibrator By Direct Method	0.2 mA to 100 mA	5.9 % to 0.15 %
33	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using 5½ digit Multi-Function Calibrator By Direct Method	1 A to 10 A	0.15 % to 0.23 %

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34	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using 5½ digit Multi-Function Calibrator By Direct Method	100 mA to 1 A	0.14 % to 0.25 %
35	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC High Current	Using 5½ digit Multi-Function Calibrator & 100 turn Current Coil By Direct Method	10 A to 900 A	2.67 % to 0.81 %
36	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using 5½ digit Multi-Function Calibrator By Direct Method	0.5 mV to 100 mV	3.0 % to 1.2 %
37	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using 5½ digit Multi-Function Calibrator By Direct Method	100 mV to 100 V	0.12%
38	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using 6½ Digit Digital Multimeter by Direct Method	100 V to 1000 V	0.13%
39	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	High Resistance	Using High Resistance Jig By Direct Method	5 Mega ohm to 100 Giga Ohm	2.38 % to 5.78 %

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40	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Resistance	Using Decade Resistance Box By Direct Method	1 ohm to 10 ohm	0.86 % to 0.15 %
41	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Resistance	Using Decade Resistance Box By Direct Method	10 k ohm to 10 Mega ohm	0.12 % to 0.13 %
42	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Resistance	Using Decade Resistance Box By Direct Method	10 ohm to 10 kohm	0.15 % to 0.12 %
43	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Resistance	Using Decade Resistance Box By Direct Method	10 Mega ohm to 1000 Mega ohm	0.13 % to 2.48 %
44	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	B Type Thermocouple	Using Precision Digital Thermometer By Simulation Method	400 °C to 1800 °C	0.70°C
45	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	E Type Thermocouple	Using Precision Digital Thermometer By Simulation Method	-200 °C to 1000 °C	0.90°C

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46	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	J Type Thermocouple	Using Precision Digital Thermometer by Simulation Method	-200 °C to 1200 °C	0.1°C
47	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	K Type Thermocouple	Using Precision Digital Thermometer by Simulation Method	-200 °C to 1370 °C	0.13 °C
48	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	L Type Thermocouple	Using Precision Digital Thermometer by Simulation Method	-200 °C to 900 °C	0.81°C
49	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	N Type Thermocouple	Using Precision Digital Thermometer by Simulation Method	-200 °C to 1300 °C	0.08°C
50	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	R Type Thermocouple	Using Precision Digital Thermometer by Simulation Method	0 to 1750 °C	0.31°C
51	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	RTD PT 100	Using Precision Digital Thermometer By Simulation Method	-200 °C to 800 °C	0.94°C

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52	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	S Type Thermocouple	Using Precision Digital Thermometer by Simulation Method	0 to 1750 °C	0.31 °C
53	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	B Type Thermocouple (Temperature Indicator / controller / recorder)	Using Process Source By Simulation Method	600 °C to 1800 °C	1.83 °C
54	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	E Type Thermocouple (Temperature Indicator / controller / recorder)	Using Process Source By Simulation Method	-200 °C to 1000 °C	0.70°C
55	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	J Type Thermocouple (Temperature Indicator / controller / recorder)	Using Process Source By Simulation Method	-200 °C to 1200 °C	0.70°C
56	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	K Type Thermocouple (Temperature Indicator / controller / recorder)	Using Process Source by Simulation Method	-200 °C to 1370 °C	0.80 °C
57	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	L Type Thermocouple (Temperature Indicator / controller / recorder)	Using Process Source by Simulation Method	-200 °C to 900 °C	0.81°C

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58	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	N Type Thermocouple (Temperature Indicator / controller / recorder)	Using Process Source by Simulation Method	-200 °C to 1300 °C	1.29°C
59	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	R Type Thermocouple (Temperature Indicator / controller / recorder)	Using Process Source by Simulation Method	0 to 1750 °C	1.83°C
60	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	RTD PT 100 (Temperature Indicator / controller / recorder)	Using Process Source by Simulation Method	-200 °C to 800 °C	0.94 °C
61	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	S Type Thermocouple (Temperature Indicator / controller / recorder)	Using Process Source by Simulation Method	0 to 1750 °C	1.83°C
62	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	U Type Thermocouple (Temperature Indicator / controller / recorder)	Using Process Source by Simulation Method	-200 °C to 600 °C	0.81°C
63	ELECTRO-TECHNICAL-TIME & FREQUENCY (Measure)	Frequency	Using 6½ Digit Digital Multimeter by Direct Method	45 Hz to 1 kHz	0.13 % to 0.014 %

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64	ELECTRO-TECHNICAL-TIME & FREQUENCY (Measure)	Stop Watch/ Timer	Using Time Interval Meter by Comparison Method	5 s to 24 hr	2.69 % to 0.36 %
65	ELECTRO-TECHNICAL-TIME & FREQUENCY (Source)	Frequency	Using 5½ digit Multi-Function Calibrator By Direct Method	50 Hz to 1 kHz	0.30 % to 0.20 %
66	MECHANICAL-ACCELERATION AND SPEED	Digital Tachometer(Non-Contact Type)	Using Digital Tachometer with rpm source. As per Sanas TR-45-01 by Comparison Method:	100 rpm to 5000 rpm	2.1% rdg
67	MECHANICAL-ACCELERATION AND SPEED	RPM Meter/ Centrifuge / (Non-Contact Type)	Using Digital Tachometer as per Sanas TR-45-01 by Comparison Method	5000 rpm to 90000 rpm	0.40% rdg
68	MECHANICAL-ACCELERATION AND SPEED	RPM Meter/ Centrifuge / (Non-Contact Type)	Using Digital Tachometer as per Sanas TR-45-01 by Comparison Method	10 rpm to 100 rpm	6.0% rdg
69	MECHANICAL-ACCELERATION AND SPEED	Tachometer (Contact Type)	Using Digital Tachometer with rpm source. As per Sanas TR-45-01 by Comparison Method	10 rpm to 100 rpm	10% rdg

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70	MECHANICAL-ACCELERATION AND SPEED	Tachometer (Contact Type)	Using Digital Tachometer with rpm source as per Sanas TR-45-01 by Comparison Method	100 rpm to 4000 rpm	2.2% rdg
71	MECHANICAL-ACOUSTICS	Sound Level Meter (Frequency- 1 kHz)	Using Sound Level calibrator by Comparison Method	114 dB	1.79dB
72	MECHANICAL-ACOUSTICS	Sound Level Meter(Frequency- 1 kHz)	Using Sound Level calibrator by Comparison Method	94 dB	1.76dB
73	MECHANICAL-DENSITY AND VISCOSITY	Density Hydrometer L.C.-0.001 g/ml	using standard density hydrometer as per comparison method procedure based on IS 3104 (Part-1)	0.650 g/ml to 1.000 g/ml	0.0114g/ml
74	MECHANICAL-DENSITY AND VISCOSITY	Density Hydrometer L.C.-0.001 g/ml	Using standard density hydrometer as per comparison method procedure based on IS 3104 (Part-1)	1.000 g/ml to 2.000 g/ml	0.015g/ml
75	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Bevel Protractor / Angular Protractor / Combination Set, L.C.-5 min	Using Profile Projector by Comparison Method	0 ° to 180 °	1.8min

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76	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Cube Mould (Diameter)	Using Digimetic Caliper by Comparison Method	Upto 150 mm	30 µm
77	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Depth Micrometer L.C.-0.01mm	Using Gauge Block Set Surface Plate By Comparison Method	0 to 150 mm	8.6µm
78	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Depth Vernier L.C.-0.02mm	Using Gauge Block Set Surface Plate By Comparison Method	0 to 300 mm	19.9µm
79	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Dial Gauge(Lever Type) L.C.-0.001 mm	Using ULM by comparison Method	0 to 0.14 mm	1.0µm
80	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Dial Gauge(Lever Type) L.C.-0.01 mm	Using ULM By Comparison Method	0 to 0.8 mm	5.8µm

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81	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Dial Indicator (Plunger Type) L.C.-0.001 mm	Using Gauge Block Set Surface Plate By Comparison Method	0 to 10 mm	5.47µm
82	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Dial Indicator (Plunger Type) L.C.-0.01 mm	Using Gauge Block Set Surface Plate By Comparison Method	0 to 50 mm	8.2µm
83	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Dial Indicator (Plunger Type) L.C.-0.01 mm	Using Gauge Block Set and Surface Plate by Comparison Method	0 to 25 mm	10.62µm
84	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Dial Thickness Gauge (Length) L.C.-0.01 mm	Using Gauge Block Set (“0” Grade) by comparison method	0 to 10 mm	12.4 µm
85	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Dial Thickness Gauge(Length) L.C.-0.001 mm	Using Gauge Block Set(“0” Grade) By Comparison Method	0 to 10 mm	10µm

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86	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Elongation Gauge/ Flankiness Gauge	Using digimatic caliper by Comparison Method	upto 100 mm	25µm
87	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	External Micrometer L.C.-0.001 mm	Using Gauge Block Set /Long Gauge Block set, Surface Plate, optical flat , set of 4 optical parallels by comparison method	0 to 150 mm	2.5µm
88	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	External Micrometer L.C.-0.001 mm	Using Gauge Block Set /Long Gauge Block set, Surface Plate, optical flat, set of 4 optical parallels by comparison method	150 mm to 300 mm	9.43µm
89	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	External Micrometer L.C.-0.01 mm	Using Gauge Block Set /Long Gauge Block set, Surface Plate optical flat , set of 4 optical parallels by comparison method	0 to 600 mm	11.7µm

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90	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Feeler Gauge	Using Digital Micrometer by comparison method	0.05 mm to 1 mm	8.89µm
91	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Height Gauge (Dial/Digital/Analog) L.C. 0.01mm	Using Gauge Block Set /Long Gauge Block set, Surface Plate by comparison method	0 to 600 mm	14.0µm
92	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Internal Micrometer/ Stick Micrometer L.C.-0.01 mm	Using Gauge Block Set, Surface Plate, Slip Gauge Accessory set By Comparison Method	5 mm to 1000 mm	11.2µm
93	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Measuring Pin/ Thread Measuring Pin (Actual diameter of individual wire, Uniformity of diameter)	Using ULM by Comparison Method	0.170 mm to 6.350 mm	1.5µm
94	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Measuring Tape L.C.-1 mm	Using Scale & Tape Calibrator by comparison method	0 to 50 m	289*SQRT Lµm (L is in m)

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95	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Pie Tape	Using Scale & Tape Calibrator by comparison method	60 mm to 950 mm	560*sqrt L µm (L is in mtr)
96	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Plain Plug Gauge (Diameter at 4 position)	Using ULM and master Plug Gauge by Comparison Method	5 mm to 150 mm	2.5µm
97	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Plain Ring Gauge (Diameter at four position)	Using ULM and Master Ring Gauge by comparison method	5 mm to 100 mm	3µm
98	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Radius Gauge(concave and convex profiles) Radius	Using Profile Projector By c by comparison method	1.0 mm to 25 mm	231.26µm
99	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Snap Gauge/Gap Gauge (Diameter at 4 position)	Using ULM and Master Ring Gauge by comparison method	15 mm to 100 mm	1.2µm

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100	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Steel Scale L.C-1mm	Using Scale & Tape Calibrator by comparison method	0 to 1000 mm	356µm
101	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Test Sieves (Aperture size)	Using Profile Projector By Comparison Method	0.045 mm to 1 mm	8.86µm
102	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Test Sieves (Aperture size)	Using Profile Projector Digital Caliper By Comparison Method	1 mm to 25 mm	16.3µm
103	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Test Sieves (Aperture size)	Using Profile Projector Digital Caliper By Comparison Method	25 mm to 100 mm	21.6µm
104	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Thread Pitch Gauge (Pitch, Flank Angle)	Using Profile Projector By Comparison Method	0.4 mm to 6.0 mm	18.7µm

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105	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Thread Plug Gauge (Major Diameter effective diameter)	Using ULM and Measuring wire set By Comparison Method	5 mm to 100 mm	2.25µm
106	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Thread Ring Gauge (minor diameter effective diameter)	Using ULM and Master Ring Gauge By Comparison Method	5 mm to 100 mm	1.4µm
107	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Ultrasonic Thickness Gauge(Thickness/Height) L.C.-0.1 mm	Using Gauge Block set("0" Grade) by Comparison Method	0 to 100 mm	66.7µm
108	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Vernier Caliper (Dial/Digital/Analog) L.C.-0.01 mm	Using Gauge Block Set/Long Gauge Block Set, Surface Plate, Slip Gauge Accessory set By Comparison Method	0 to 300 mm	22µm
109	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Vernier Caliper (Dial/Digital/Analog) L.C.-0.02 mm	Using Gauge Block Set/Long Gauge Block Set, Surface Plate, Slip Gauge Accessory set By Comparison Method	0 to 1000 µm	20.7µm

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110	MECHANICAL-PRESSURE INDICATING DEVICES	Hydraulic Pressure gauge/ Pressure Transmitter /Pressure transducer/pressure switch. L.C.-0.01 bar	Using digital Hydraulic pressure gauge with Hydraulic Pressure comparator,and Indicating device digital multimeter-as per DKD-R-6-1 by comparison method	0 to 700 bar	0.13% rdg
111	MECHANICAL-PRESSURE INDICATING DEVICES	Pneumatic Pressure gauge/ Pressure Transmitter /Pressure transducer/pressure switch. L.C.-0.001 bar	Using digital Pneumatic pressure gauge with Pneumatic pump, digital multimeter as per DKD-R-6-1 by comparison method	0 to 7 bar	0.07% rdg
112	MECHANICAL-PRESSURE INDICATING DEVICES	Pneumatic Pressure gauge/Pressure Transmitter /Pressure transducer/pressure switch. L.C.-0.001 bar	Using digital Pneumatic pressure gauge with Pneumatic pump, digital multimeter as per DKD-R-6-1 by comparison method	7 bar to 35 bar	0.19% rdg
113	MECHANICAL-PRESSURE INDICATING DEVICES	Pressure Gauge L.C.-0.0001 bar	Using Dead Weight Tester. as per DKD R-6-1 by comparison method	3.5 bar to 35 bar	0.21% rdg
114	MECHANICAL-PRESSURE INDICATING DEVICES	Pressure Gauge L.C.-0.01 bar	Using Dead Weight Tester. as per DKD R-6-1 by comparison method	35 bar to 700 bar	0.18% rdg

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115	MECHANICAL-PRESSURE INDICATING DEVICES	Vacuum Gauge L.C.-0.0001 bar	Using Digital Vacuum Gauge with Hand Pump Comparator as per DKD R-6-2 by comparison method	-0.90 bar to 0 bar	0.3% rdg
116	MECHANICAL-TORQUE GENERATING DEVICES	Torque Wrench/ Torque Screw Driver(Type-I Class B,C,D & E and Type II Class A,B,D,E & G)	Using Torque sensor with indicator & Torque Wrench Calibration System based on IS 16906-2018 by Comparison Method	>100 Nm to 500 Nm	2.06%
117	MECHANICAL-TORQUE GENERATING DEVICES	Torque Wrench/ Torque Screw Driver(Type-I Class B,C,D & E and Type II Class A,B,D,E & G)	Using Torque sensor with indicator & Torque Wrench Calibration System based on IS 16906-2018 by Comparison Method	>500 Nm to 1380 Nm	4.29%
118	MECHANICAL-VOLUME	Glassware like Pipettes, Burettes, Measuring Cylinder, Density bottle, Volumetric Flask	Using Digital balance of 200 g with readability 0.1 mg & distilled water By gravimetric method based on IS/ISO 4787 by Comparison Method	1 ml to 100 ml	47µl

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119	MECHANICAL-VOLUME	Glassware like Pipettes, Burettes, Measuring Cylinder, Density bottle, Volumetric Flask	Using Digital balance of 5000 g with readability 10 mg & distilled water By gravimetric method based on IS/ISO 4787 by Comparison Method	100 ml to 2000 ml	0.5ml
120	MECHANICAL-VOLUME	Micropipette	Using Digital Balance up to 80g / 200g readability 0.01 mg, distilled water of known density By gravimetric method as per ISO/TR 20461 by Comparison Method	100 µl to 1000 µl	3µl
121	MECHANICAL-WEIGHTS	Weight M1 Class and coarser	Using E1 Class weights & balance of readability 0.01 mg. Procedure based on OIML R 111-1.by comparison method	1 g	0.052mg
122	MECHANICAL-WEIGHTS	Weight M1 Class and coarser	Using E1 Class weights & balance of readability 0.01. Procedure based on OIML R 111-1 by comparison method	1 mg	0.06mg

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123	MECHANICAL-WEIGHTS	Weight M1 Class and coarser	Using E1 Class weights & balance of readability 0.01 mg. Procedure based on OIML R 111-1 by comparison method	10 g	0.5mg
124	MECHANICAL-WEIGHTS	Weight M1 Class and coarser	Using E1 Class weights & balance of readability 0.1 mg. Procedure based on OIML R 111-1 by comparison method	100 g	1mg
125	MECHANICAL-WEIGHTS	Weight M1 Class and coarser	Using E1 Class weights & balance of readability 0.01 mg. Procedure based on OIML R 111-1.by comparison method	100 mg	0.09mg
126	MECHANICAL-WEIGHTS	Weight M1 Class and coarser	Using E1 Class weights & balance of readability 0.01 mg. Procedure based on OIML R 111-1 by comparison method	2 g	0.2mg
127	MECHANICAL-WEIGHTS	Weight M1 Class and coarser	Using E1 Class weights & balance of readability 0.01mg. Procedure based on OIML R 111-1 by comparison method	2 mg	0.06mg

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128	MECHANICAL-WEIGHTS	Weight M1 Class and coarser	Using E1 Class weights & balance of readability 0.01 mg. Procedure based on OIML R 111-1 by comparison method	20 g	0.42mg
129	MECHANICAL-WEIGHTS	Weight M1 Class and coarser	Using E1 Class weights & balance of readability 0.01 mg. Procedure based on OIML R 111-1. by comparison method	20 mg	0.09mg
130	MECHANICAL-WEIGHTS	Weight M1 Class and coarser	Using E1 Class weights & balance of readability 0.1 mg. Procedure based on OIML R 111-1 by comparison method	200 g	0.21mg
131	MECHANICAL-WEIGHTS	Weight M1 Class and coarser	Using E1 Class weights & balance of readability 0.01 mg. Procedure based on OIML R 111-1 by comparison method	200 mg	0.017mg
132	MECHANICAL-WEIGHTS	Weight M1 Class and coarser	Using E1 Class weights & balance of readability 0.01 mg. Procedure based on OIML R 111-1 by comparison method	5 g	0.3mg

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133	MECHANICAL-WEIGHTS	Weight M1 Class and coarser	Using E1 Class weights & balance of readability 0.01mg. Procedure based on OIML R 111-1 by comparison method	5 mg	0.06mg
134	MECHANICAL-WEIGHTS	Weight M1 Class and coarser	Using E1 Class weights & balance of readability 0.01mg. Procedure based on OIML R 111-1 by comparison method	50 g	0.20mg
135	MECHANICAL-WEIGHTS	Weight M1 Class and coarser	Using E1 Class weights & balance of readability 0.01mg. Procedure based on OIML R 111-1 by comparison method	500 mg	0.051mg
136	MECHANICAL-WEIGHTS	Weight M2 Class and coarser	Using F1 Class weights & balance of readability 10 mg. Procedure based on OIML R 111-1 by Comparison Method	1000 g	21.2mg
137	MECHANICAL-WEIGHTS	Weight M2 Class and coarser	Using F1 Class weights & balance of readability 10 mg. Procedure based on OIML R 111-1 by Comparison Method	2000 g	13.6mg

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138	MECHANICAL-WEIGHTS	Weight M2 Class and coarser	Using F1 Class weights & balance of readability 10 mg. Procedure based on OIML R 111-1 by Comparison Method	500 g	24.1mg
139	MECHANICAL-WEIGHTS	Weight M2 Class and coarser	Using F1 Class weights & balance of readability 10 mg. Procedure based on OIML R 111-1 by Comparison Method	5000 g	40.6mg
140	MECHANICAL-WEIGHTS	Weight M1 Class and coarser	Using E1 Class weights & balance of readability 0.01/0.1 mg. Procedure based on OIML R 111-1 by Comparison Method	10mg	0.07mg
141	MECHANICAL-WEIGHTS	Weight M1 Class and coarser	Using E1 Class weights & balance of readability 0.01mg. Procedure based on OIML R 111-1 by comparison method	50 mg	0.042mg
142	THERMAL-SPECIFIC HEAT & HUMIDITY	Humidity Sensor / Transducer/Transmitter with Indicator @ Temperature 25°C	Using Digital Thermo Hygrometer with Sensor, Humidity Chamber By Compression Method	40 % RH to 85 %RH	2.72%RH

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143	THERMAL-TEMPERATURE	Liquid in Glass Thermometer/ Dial Thermometer/ Digital Thermometer	Using master RTD sensor Pt100 (accuracy class-DIN 1/10) with Digital High accuracy thermometer, Liquid bath by comparison method	-20 °C to 50 °C	0.21 °C
144	THERMAL-TEMPERATURE	Liquid in Glass Thermometer/ Dial Thermometer/ Digital Thermometer	Using master RTD sensor Pt100 (accuracy class-DIN 1/10) with Digital High accuracy thermometer, Liquid bath(Range -20°C to 50 °C, Resolution-0.1°C) by comparison method	50 °C to 250 °C	1.16°C

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145	THERMAL-TEMPERATURE	RTD sensor / Thermocouple with or without Indicator, Temperature Transmitter/Transducer with or without Indicator	Using master RTD sensor Pt100 (accuracy class-DIN 1/10) with Digital High accuracy thermometer, Dry Bath (Range--35 deg C to 100 deg C) & temperature calibrator (Range 50 °C – 650 °C), read out unit Digital thermometer and Digital Multimeter by comparison method	-20 °C to 250 °C	0.56°C
146	THERMAL-TEMPERATURE	Thermocouple with or without Indicator, Temperature Transmitter/Transducer with or without Indicator	Using master R-Type Thermocouple with Digital high accuracy thermometer, read out unit Digital thermometer and Digital Multi meter & Dry Block Furnace (range up to 1200 °C) by comparison method	250 °C to 1200 °C	1.88 °C

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Site Facility					
1	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (50 Hz - 1 kHz)	Using 6½ Digit Digital Multimeter by Direct Method	1 mA to 100 mA	0.200 % to 0.176 %
2	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (50 Hz - 1 kHz)	Using 6½ Digit Digital Multimeter by Direct Method	100 µA to 1 mA	0.375 % to 0.20 %
3	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (50 Hz - 1 kHz)	Using 6½ Digit Digital Multimeter by Direct Method	100 mA to 10 A	0.176 % to 0.223 %
4	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC High Voltage @ 50Hz	Using High Voltage Probe with DMM By Comparison Method	1 kV to 30 kV	11.25 % to 3.07 %

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5	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (50 Hz - 1 kHz)	Using 6½ Digit Digital Multimeter by Direct Method	1 V to 10 V	0.08%
6	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (50 Hz - 1 kHz)	Using 6½ Digit Digital Multimeter by Direct Method	10 V to 100 V	0.08%
7	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (50 Hz - 1 kHz)	Using 6½ Digit Digital Multimeter by Direct Method	100 mV to 1 V	0.08%
8	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (50 Hz - 1 kHz)	Using 6½ Digit Digital Multimeter by Direct Method	100 V to 750 V	0.084%
9	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current (50 Hz)	Using 5½ digit Multi-Function Calibrator By Direct Method	100 mA to 2 A	0.36 % to 0.41 %

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10	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current (50 Hz)	Using 5 ½ digit Multi-Function Calibrator By Direct Method	2 A to 10 A	0.41 % to 0.33 %
11	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current (50 Hz)	Using 5½ digit Multi-Function Calibrator By Direct Method	200 µA to 100 mA	0.40 % to 0.36 %
12	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC High Current (50 Hz)	Using 5½ digit Multi-Function Calibrator & 100 turn Current Coil By Direct Method	10 A to 900 A	2.01 % to 0.98 %
13	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (50 Hz to 60 Hz)	Using 5½ digit Multi-Function Calibrator By Direct Method	100 mV to 100 V	1.91 % to 0.22 %
14	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (50 Hz to 60 Hz)	Using 5½ digit Multi-Function Calibrator By Direct Method	100 V to 1000 V	0.22 % to 0.20 %
15	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (50 Hz to 60 Hz)	Using 5½ digit Multi-Function Calibrator By Direct Method	5 mV to 100 mV	3 % to 1.91 %

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16	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using 6½ Digit Digital Multimeter by Direct Method	1 A to 10 A	0.100 % to 0.163 %
17	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using 6½ Digit Digital Multimeter by Direct Method	1 mA to 100 mA	0.06%
18	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using 6½ Digit Digital Multimeter by Direct Method	10 µA to 100 µA	0.30 % to 0.06 %
19	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using 6½ Digit Digital Multimeter by Direct Method	100 µA to 1 mA	0.06%
20	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using 6½ Digit Digital Multimeter by Direct Method	100 mA to 1 A	0.06 % to 0.10 %
21	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC High Voltage	Using High Voltage Probe with DMM By Comparison Method	1 kV to 30 kV	11.78 % to 4.19 %

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22	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 6½ Digit Digital Multimeter by Direct Method	1 V to 1000 V	0.005 % to 0.006 %
23	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 6½ Digit Digital Multimeter by Direct Method	10 mV to 100 mV	0.44 % to 0.01 %
24	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 6½ Digit Digital Multimeter by Direct Method	100 mV to 1 V	0.01 % to 0.006 %
25	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance (2wire)	Using 6½ Digit Digital Multimeter by Direct Method	1 Mega ohm to 10 Mega ohm	0.015 % to 0.03 %
26	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance (2wire)	Using 6½ Digit Digital Multimeter by Direct Method	10 Mega ohm to 100 Mega ohm	0.03 % to 0.38 %
27	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance (4 wire)	Using 6½ Digit Digital Multimeter by Direct Method	1 k ohm to 10 k ohm	0.011%

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28	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance (4 wire)	Using 6½ Digit Digital Multimeter by Direct Method	10 k ohm to 100 k ohm	0.011%
29	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance (4 wire)	Using 6½ Digit Digital Multimeter by Direct Method	100 ohm to 1 k ohm	0.1 % to 0.006 %
30	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using 5½ digit Multi-Function Calibrator By Direct Method	0.2 mA to 100 mA	5.9 % to 0.15 %
31	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using 5½ digit Multi-Function Calibrator By Direct Method	1 A to 10 A	0.15 % to 0.23 %
32	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using 5½ digit Multi-Function Calibrator By Direct Method	100 mA to 1 A	0.14 % to 0.25 %
33	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC High Current	Using 5½ digit Multi-Function Calibrator & 100 turn Current Coil By Direct Method	10 A to 900 A	2.67 % to 0.81 %

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34	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using 5½ digit Multi-Function Calibrator By Direct Method	0.5 mV to 100 mV	3.0 % to 1.2 %
35	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using 5½ digit Multi-Function Calibrator By Direct Method	100 mV to 100 V	0.12%
36	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using 6½ Digit Digital Multimeter by Direct Method	100 V to 1000 V	0.13%
37	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Resistance	Using Decade Resistance Box By Direct Method	1 ohm to 10 ohm	0.86 % to 0.15 %
38	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Resistance	Using Decade Resistance Box By Direct Method	10 k ohm to 10 Mega ohm	0.12 % to 0.13 %
39	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Resistance	Using Decade Resistance Box By Direct Method	10 ohm to 10 kohm	0.15 % to 0.12 %

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40	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Resistance	Using Decade Resistance Box By Direct Method	10 Mega ohm to 1000 Mega ohm	0.13 % to 2.48 %
41	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	B Type Thermocouple (Temperature Indicator / controller / recorder)	Using Process Source By Simulation Method	600 °C to 1800 °C	1.83 °C
42	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	E Type Thermocouple (Temperature Indicator / controller / recorder)	Using Process Source By Simulation Method	-200 °C to 1000 °C	0.70°C
43	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	J Type Thermocouple (Temperature Indicator / controller / recorder)	Using Process Source By Simulation Method	-200 °C to 1200 °C	0.70°C
44	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	K Type Thermocouple (Temperature Indicator / controller / recorder)	Using Process Source by Simulation Method	-200 °C to 1370 °C	0.80 °C
45	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	L Type Thermocouple (Temperature Indicator / controller / recorder)	Using Process Source by Simulation Method	-200 °C to 900 °C	0.81°C

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46	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	N Type Thermocouple (Temperature Indicator / controller / recorder)	Using Process Source by Simulation Method	-200 °C to 1300 °C	1.29°C
47	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	R Type Thermocouple (Temperature Indicator / controller / recorder)	Using Process Source by Simulation Method	0 to 1750 °C	1.83°C
48	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	RTD PT 100 (Temperature Indicator / controller / recorder)	Using Process Source by Simulation Method	-200 °C to 800 °C	0.94 °C
49	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	S Type Thermocouple (Temperature Indicator / controller / recorder)	Using Process Source by Simulation Method	0 to 1750 °C	1.83°C
50	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	U Type Thermocouple (Temperature Indicator / controller / recorder)	Using Process Source by Simulation Method	-200 °C to 600 °C	0.81°C
51	MECHANICAL-ACCELERATION AND SPEED	Digital Tachometer(Non-Contact Type)	Using Digital Tachometer with rpm source. As per Sanas TR-45-01 by Comparison Method:	100 rpm to 5000 rpm	2.1% rdg

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52	MECHANICAL-ACCELERATION AND SPEED	RPM Meter/ Centrifuge / (Non-Contact Type)	Using Digital Tachometer as per Sanas TR-45-01 by Comparison Method	5000 rpm to 90000 rpm	0.40% rdg
53	MECHANICAL-ACCELERATION AND SPEED	RPM Meter/ Centrifuge / (Non-Contact Type)	Using Digital Tachometer as per Sanas TR-45-01 by Comparison Method	10 rpm to 100 rpm	6.0% rdg
54	MECHANICAL-ACCELERATION AND SPEED	Tachometer (Contact Type)	Using Digital Tachometer with rpm source. As per Sanas TR-45-01 by Comparison Method	10 rpm to 100 rpm	10% rdg
55	MECHANICAL-ACCELERATION AND SPEED	Tachometer (Contact Type)	Using Digital Tachometer with rpm source as per Sanas TR-45-01 by Comparison Method	100 rpm to 4000 rpm	2.2% rdg
56	MECHANICAL-ACOUSTICS	Sound Level Meter (Frequency- 1 kHz)	Using Sound Level calibrator by Comparison Method	114 dB	1.79dB
57	MECHANICAL-ACOUSTICS	Sound Level Meter(Frequency- 1 kHz)	Using Sound Level calibrator by Comparison Method	94 dB	1.76dB

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58	MECHANICAL-PRESSURE INDICATING DEVICES	Hydraulic Pressure gauge / Pressure Transmitter /Pressure transducer/pressure switch. L.C.-0.01 bar	Using digital Hydraulic pressure gauge with Hydraulic Pressure comparator,and Indicating device digital multimeter-as per DKD-R-6-1 by comparison method	0 to 700 bar	0.2% rdg
59	MECHANICAL-PRESSURE INDICATING DEVICES	Hydraulic Pressure gauge/ Pressure Transmitter /Pressure transducer/pressure switch. L.C.-0.01 bar	Using digital Hydraulic pressure gauge with Hydraulic Pressure comparator,and Indicating device digital multimeter-as per DKD-R-6-1 by comparison method	0 to 700 bar	0.13% rdg
60	MECHANICAL-PRESSURE INDICATING DEVICES	Pneumatic Pressure gauge/ Pressure Transmitter /Pressure transducer/pressure switch. L.C.-0.001 bar	Using digital Pneumatic pressure gauge with Pneumatic pump, digital multimeter as per DKD-R-6-1 by comparison method	0 to 7 bar	0.07% rdg

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61	MECHANICAL-PRESSURE INDICATING DEVICES	Pneumatic Pressure gauge/Pressure Transmitter /Pressure transducer/pressure switch. L.C.-0.001 bar	Using digital Pneumatic pressure gauge with Pneumatic pump, digital multimeter as per DKD-R-6-1 by comparison method	7 bar to 35 bar	0.19% rdg
62	MECHANICAL-PRESSURE INDICATING DEVICES	Vacuum Gauge L.C.-0.0001 bar	Using Digital Vacuum Gauge with Hand Pump Comparator as per DKD R-6-2 by comparison method	-0.90 bar to 0 bar	0.3% rdg
63	MECHANICAL-UTM, TENSION CREEP AND TORSION TESTING MACHINE	Uni-axial Static Testing Machine / UTM, CTM, (Compression Mode)	Using Proving ring as per IS 1828 (Part-1) by Comparison Method	1000 kN to 2000 kN	0.76%
64	MECHANICAL-UTM, TENSION CREEP AND TORSION TESTING MACHINE	Uni-axial Static Testing Machine / UTM, CTM,(Compression Mode)	Using Proving ring as per IS 1828 (Part-1) by Comparison Method	100 kN to 1000 kN	0.8%
65	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronic Weighing Balance (Class IIII and coarser) Readability: 10 g	Using M1 Class weights as per OIML R-76-1 by comparison method	50 kg to 100 kg	43g

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66	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronic Weighing Balance (Class IIII and coarser) Readability: 5 g	Using M1 Class weights as per OIML R-76-1 by comparison method	100 g to 50 kg	7g
67	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronic Weighing Balance (Class-I and coarser of readability 0.01 mg/ 0.1 mg)	Using E1 Class weights as per OIML R-76-1 by comparison method	1 mg to 200 g	0.25mg
68	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronic Weighing Balance (Class-II and coarser of readability 0.01 g)	Using F1 Class Standard Weights >200g to 6 kg as per OIML R-76-1 by comparison method	200 g to 5000 g	0.29g
69	THERMAL-SPECIFIC HEAT & HUMIDITY	Indicator of Humidity Chamber	Using digital thermo hygrometer with sensor by comparison method	40 %RH to 85 %RH	3.05%RH

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70	THERMAL-TEMPERATURE	RTD sensor / Thermocouple with or without Indicator, Temperature Transmitter/Transducer with or without Indicator	Using master RTD sensor Pt100 (accuracy class-DIN 1/10) with Digital High accuracy thermometer, Dry Bath (Range--35 deg C to 100 deg C) & temperature calibrator (Range 50 °C – 650 °C), read out unit Digital thermometer and Digital Multimeter by comparison method	-20 °C to 250 °C	0.56°C
71	THERMAL-TEMPERATURE	Temperature Indicator with sensor of Muffle Furnance, Oven	Using master R-Type Thermocouple with Digital thermometer by comparison method	250 °C to 1200 °C	2.24 °C
72	THERMAL-TEMPERATURE	Temperature Indicator with sensor of Liquid Bath	Using master RTD sensor Digital thermometer, by comparison method	-20 °C to 25 °C	0.42 °C
73	THERMAL-TEMPERATURE	Temperature Indicator with sensor of Liquid Bath, Oven	Using master RTD sensor Digital thermometer, by comparison method	25 °C to 250 °C	0.30°C

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74	THERMAL-TEMPERATURE	Thermocouple with or without Indicator, Temperature Transmitter/Transducer with or without Indicator	Using master R-Type Thermocouple with Digital high accuracy thermometer, read out unit Digital thermometer and Digital Multi meter & Dry Block Furnace (range up to 1200 °C) by comparison method	250 °C to 1200 °C	1.88 °C

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