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Sl.	**Quantity Measured / Instrument**	**Range/Frequency**	***Calibration Measurement Capability (±)**	**Remarks**
	ELECTRO TECHNICAL CALIBRATION			
I.	**SOURCE**			
1.	Temperature Simulation[♣] Indicator / Controller/ Recorder)			Using Temperature Calibrator By Direct Method
	RTD (PT-100)	(-) 200 °C to 800 °C	0.36 °C to 0.93 °C	
	Thermocouple			
	J Type	(-) 200 °C to 1200 °C	0.81°C	
	T Type	(-) 250 °C to 400 °C	0.7 °C	
	K Type	(-) 200 °C to 1350 °C	1.04 °C	
	R Type	100 °C to 1767 °C	1.92°C	
	S Type	100 °C to 1767 °C	1.92 °C	
	E Type	(-) 200 °C to 1000 °C	0.7 °C	
	N Type	(-) 200 °C to 1300°C	0.81 °C	
	B Type	600 °C to 1800 °C	1.92 °C	

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Sl.	**Quantity Measured / Instrument**	**Range/Frequency**	***Calibration Measurement Capability (±)**	**Remarks**
II.	**MEASURE**			
1.	Temperature Simulation♣ (Indicator Controller/Recorder)			
	RTD (PT-100)	(-) 200 °C to 800 °C	0.32 ^{0}C	Using Temperature Calibrator By Direct Method
	Thermocouple			
	J Type	(-) 60 °C to 1100 °C	0.58 ^{0}C	
	T Type	(-) 100 °C to 400 °C	0.7 ^{0}C	
	K Type	(-) 100 °C to 1350 °C	0.59 ^{0}C	
	R Type	100 °C to 1750 °C	1.5 ^{0}C	
	S Type	100 °C to 1750 °C	1.5 ^{0}C	
	E Type	(-) 50 °C to 850 °C	1.74 ^{0}C	
	N Type	(-) 200 °C to 1300 °C	1.81 ^{0}C	
	B Type	600 °C to 1800 °C	2.5 ^{0}C	
2.	Stop Watch /Timer♣	1 sec to 10 hr 10 hr to 24 hr	0.15 sec to 16.1 sec 16.1 sec to 42.02 sec	Using Standard timer By Direct Method

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Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (±)	Remarks
	MECHANICAL CALIBRATION			
I.	**DIMENSION (BASIC MEASURING INSTRUMENTS, GAUGE ETC.)**			
1.	Caliper$ (Vernier/Dial/Digital) L.C.: 0.01 mm	0 to 600 mm	8.41 µm	Using Gauge Block and Caliper Checker
2.	Height Gauge$ (Vernier/Dial/Digital) L.C.: 0.01 mm	0 to 600 mm	8.84 µm	Using Gauge Block and Caliper Checker
3.	External Micrometer$ L.C.: 0.001mm	0 to 150 mm	1.64 µm	Using Gauge Block
4.	Internal Micrometer$ (Stick/Tubular Type) L.C.: 0.01 mm	0 to 150 mm	5.82 µm	Using Gauge Block and Lever Dial Gauge
5.	Depth Gauge$ (Vernier/Dial/Digital) L.C.:0.01mm	0 to 200 mm	6.85 µm	Using Gauge Block and Caliper Checker
6.	Plunger Dial Gauge$ (Digital/Dial) L.C.: 0.001 mm L.C.: 0.01 mm	0 to 1 mm 0 to 25 mm	1.61 µm 5.97 µm	Using Dial Calibration Tester

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Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (±)	Remarks
7.	Lever Dial Gauge$ (Dial/Digital) L.C.: 0.001 mm L.C.: 0.01 mm	 0 to 0.14 mm 0 to 1.6 mm	 1.52 µm 5.87 µm	Using Dial Calibration Tester
8.	Dial Thickness Gauge$ L.C.: 0.01 mm	 0 to 25 mm	 5.78 µm	Using Gauge Block
9.	Dial Bore Gauge$ Span dia.	1 mm (Transmission Error)	4.46 µm	Using Dial Calibration Tester And Dial Gauge
10.	LVDT / Electronic Probe With DRO $ L.C.:0.001mm	 0 to 150 mm	 1.82 µm	Using Gauge Block
11.	Feeler Gauge$	0.01 mm to 2 mm	2.31 µm	Using Digimatic Micrometer
12.	Comparator Stand$	300 mm X 300 mm	3.07 µm	Using Lever Dial Gauge
13.	Straight Edges$	Up to 1000 mm	12 µm	Using Gauge Block And Lever Dial Gauge
14.	Snap Gauge$	3 mm to 100 mm	3.12 µm	Using Gauge Block

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Sl.	**Quantity Measured / Instrument**	**Range/Frequency**	***Calibration Measurement Capability (±)**	**Remarks**
II.	**PRESSURE INDICATING DEVICES**			
1.	Pressure-Hydraulic Dial/Digital Pressure Gauges / Indicators, Pressure Transducers, Pressure Transmitter and Pressure Switches#	0 bar to 700 bar	0.09 % rdg.	Using Digital Pressure Gauge By Comparison Method based on DKD-R-6:1
2.	Pressure-Pneumatic Dial/ Digital Pressure Gauges / Indicators, Pressure Transducers, Pressure Transmitter and Pressure Switches#	0 bar to 70 bar	0.09 % rdg.	Using Digital Pressure Gauge by comparison method based on DKD-R6:1
3.	Pressure-Pneumatic Dial/ Digital Pressure Gauges / Indicators, Magnehelic Gauges & Manometers#	0 to 10 kpa	0.61 % rdg.	Using Differential Pressure Sensor By Comparison Method Based on DKD-R-6:1
4.	Vacuum Dial/Digital Vacuum Gauges/ Indicators, Vacuum Transmitter, Vacuum Transducers and Vacuum Switches#	(-) 0.9 bar to 0 bar	0.65 % rdg.	Using Digital Pressure Gauge By Comparison Method Based on ISO:3567 & ISO:27893

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Sl.	**Quantity Measured / Instrument**	**Range/Frequency**	***Calibration Measurement Capability (±)**	**Remarks**
III.	**WEIGHING SCALE AND BALANCE**			
1.	Calibration of Electronic Weighing Balance♣			
	Readability = 0.1 mg Readability = 2 g Readability = 10 g Readability = 50 g	Up to 200 g 200 g to 30 kg 30 kg to 100 kg 100 kg to 300 kg	1.5 mg 35 g 58 g 0.12 kg	Using F1 Class Standard Weights as per OIML-R-76 Using F1 & M1 Class Standard Weights as per OIML-R-76
IV.	**ACOUSTICS**			
1.	Sound Level Meter$	30 dB to 130 dB	1.1 dB	Using Sound Level Calibrator as per OIML- R-58
V.	**ACCELERATION & SPEED**			
1.	Non Contact Type Tachometer & RPM Indicator$	100 rpm to 90,000 rpm	1.34 % rdg to 0.65 % rdg.	Using Digital Tachometer
2.	Non Contact Type RPM Indicators, Centrifuges♣	100 rpm to 10,000 rpm	0.65 % rdg.	Using Digital Tachometer

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Sl.	**Quantity Measured / Instrument**	**Range/Frequency**	***Calibration Measurement Capability (±)**	**Remarks**
		THERMAL CALIBRATION		
I.	**TEMPERATURE**			
1.	Liquid-In-Glass Thermometers$	(-) 80 °C to 50 °C 50 °C to 250 °C	0.62 °C 0.66 °C	Using SSPRT, High Precision Thermometer, Ultra low temperature bath, & Oil Bath By Comparison Method
2.	RTD's, Thermocouple With & Without Indicator/Controller, Temperature Indicator With Sensor, Recorders With Probes, Data Logger, Digital Thermometers with Sensor, Temperature Gauges, Temperature Transmitter, Temperature Transducer$	(-) 80 °C to 50 °C 50 °C to 250 °C 250 °C to 1200 °C	0.27 °C 0.3 °C 1.8 °C	Using SSPRT, S-Type Thermocouple, High Precision Thermometer, Ultra low temperature bath, Oil Bath & Dry Bath By Comparison Method

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Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (±)	Remarks
4.	RTD's, Thermocouple With & Without Indicator / Controller, Temperature Indicator With Sensor, Recorders With Probes, Data Logger, Digital Thermometers with Sensor, Temperature Gauges, Temperature Transmitter, Temperature Transducer♣	50 °C to 250 °C 250 °C to 1200 °C	0.22 °C 1.8 °C	Using 4 -Wire RTD, R-Type Thermocouple, Temperature Calibrator, Oil Bath & Dry Bath By Comparison Method
5.	Temperature Indicator with sensor of Equipments eg: Thermal Chambers /Furnaces/ Ovens / Incubators(Non-Medical Applications)/ Dry Block Furnace / Water Bath / Deep, Autoclaves , Freezers♣	(-) 80 °C to 300 °C 50 °C to 1200 °C	0.3 °C 1.8 °C	Using Temperature calibrator with 4-Wire RTD Sensor By Comparison Method Using Temperature calibrator with R-Type Sensor By Comparison Method Single Position Calibration

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Sl.	**Quantity Measured / Instrument**	**Range/Frequency**	***Calibration Measurement Capability (±)**	**Remarks**
7.	Temperature Indicator with sensor of equipments eg: Thermal Chambers /Furnaces / Ovens / Incubators (Non-Medical Applications)/ Dry Block Furnace / Water Bath / Deep, Autoclaves (Non-Medical Applications), Freezers ♣	(-) 80 °C to 300 °C 50 °C to 1200 °C	0.91 °C 3.45 °C	Using RTD Sensor with Multi Channel Temperature Recorder Using Thermocouple Type – N & Multi Channel Temperature Recorder Multi Position Calibration
II.	**SPECIFIC HEAT AND HUMIDITY**			
1.	Analog / Digital Thermo Hygrometers, Thermo Hygrographs / Humidity Sensors / Data Loggers / Transmitters$	20% RH to 95% RH @ 20 °C to 60 °C	2.55% RH 1.05 °C	Using Digital Temperature & RH Indicator with sensor and humidity chamber By Comparison Method
2.	Humidity & Temperature Indicator of Environmental Chambers / Humidity Chambers♣	20% RH to 95% RH @ 20 °C to 60 °C	2.37% RH 0.85°C	Using Digital Temperature & RH Indicator with Sensor Single Position Calibration

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Sl.	**Quantity Measured / Instrument**	**Range/Frequency**	***Calibration Measurement Capability (±)**	**Remarks**
3.	Indicators of Humidity Chambers / Environmental Chambers /Climatic Chambers♣	20% RH to 95% RH @ 20 °C to 60 °C	2.7% RH 1.82°C	Using RH & Temperature Data loggers Multi Position Calibration

*** Measurement Capability is expressed as an uncertainty (±) at a confidence probability of 95%**
$Only in Permanent Laboratory
♣Only for Site Calibration
 # The laboratory is also capable for site calibration however, the uncertainty at site depends on the prevailing actual environmental conditions and master equipment used.

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