Laboratory	**Sri Chakra Scientific Services, 8-4-16/18, Sri Sai Enclave, Old Bowenpally, Secunderabad, Telangana**			
Accreditation Standard	**ISO/IEC 17025: 2005**			
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Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (±)	Remarks
	MECHANICAL CALIBRATION			
I.	**PRESSURE INDICATING DEVICES**			
1.	Pneumatic Pressure Pressure Gauges, Switches, Indicators, Calibrators, Sensors, Transducers[#]	0 to 40 bar 0 to 100 m bar	0.020 bar 0.076 mbar	Using Digital Pressure Standards by Comparison method based on DKD-R-6-1
2.	Hydraulic Pressure Pressure Gauges, Switches, Indicators, Calibrators, Sensors, Transducers[#]	0 to 700 kg/cm²	0.28 kg/cm^2	Using Digital Pressure Standards by Comparison method based on DKD-R-6-1
3.	Absolute Pressure Barometer[$]	200 hpa to 1000 hpa	3.5 hpa	Using Digital Barometer Standard by Comparison method based on DKD-R-6-2
4.	Pneumatic Pressure Pressure Transmitter, Transducers[♣]	0 to 40 bar	0.06 bar	Using Digital Pressure Standards and DMM by Comparison method based on DKD-R-6-1
5.	Vacuum Vacuum Gauges, Switches, Indicator, Calibrators, Sensor, Transducer[#]	(-)950 to 0 mbar	0.063 mbar	Using Digital Vacuum Standards by Comparison method based on DKD-R-6-2

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6.	Pneumatic Pressure Differential Pressure Transmitter♣	0 to 100 mbar	0.076 mbar	Using Digital Pressure Standards and DMM by Comparison method based on DKD-R-6-1
7.	Vacuum Transmitter♣	(-)950 to 0 mbar	0.63 mbar	Using Digital Pressure Standards and DMM by Comparison method based on DKD-R-6-2
8.	Indicators, Pressure Gauges, Switches, Calibrators, Sensors, Transducers♣	0 to 40 bar 0 to 100 mbar	0.03 bar 0.23 mbar	Using Digital Pressure Standards by Comparison method based on DKD-R-6-1
II.	**ACCELERATION AND SPEED**			
1.	Speed RPM#	60 rpm to 100000 rpm	1.40 rpm to 2.90 rpm	Using SANAS TR45-01 By Comparison Method
III.	**VOLUME**			
1.	Micro Pipette$	1 µl to 10 µl >10 µl to 100 µl >100 µl to 200 µl >200 µl to 1000 µl >1000 µl to 10000 µl	0.01 µl 0.023 µl 0.043 µl 0.22 µl 2.30 µl	Using Digital Micro balance upto 21 g readability 0.001 mg and distilled water of known density as per ISO 8655 Part 6 & ISO/TR 20461

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Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (±)	Remarks
2.	Glass Burettes[$]	0.1 ml to 5 ml >5 ml to 10 ml >10 ml to 25 ml >25 ml to 50 ml >50 ml to 100 ml	2.43 µl 4.87 µl 12.18 µl 24.37 µl 48.74 µl	Using As per IS 4787 & ISO/TR 20461
	Glass Pipettes & Synergies (Graduated / Non Graduated) [$]	0 ml to 1 ml >1 ml to 2 ml >2 ml to 5 ml >5 ml to 10 ml >10 ml to 20 ml >20 ml to 50 ml	0.49 µl 0.97 µl 2.44 µl 4.87 µl 9.74 µl 24.36 µl	
3.	Measuring Cylinders, Syringes, Measuring Flasks, Jars, Density measuring glassware and Beaker[$]	0 to 1 ml >1 ml to 2 ml >2 ml to 5 ml >5 ml to 10 ml >10 ml to 25 ml >25 ml to 50 ml >50 ml to 100 ml >100 ml to 250 ml >250 ml to 500 ml >500 ml to 1000 ml >1000 ml to 2000 ml	0.49 µl 0.97 µl 2.44 µl 4.87 µl 12.18 µl 24.37 µl 48.74 µl 0.12 ml 0.24 ml 0.49 ml 0.97 ml	Using As per IS 4787 & ISO/TR 20461

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (±)	Remarks
IV.	**WEIGHTS**			
1.	Mass / Weights[$]	1 mg 2 mg 5 mg 10 mg 20 mg 50 mg	0.0013 mg 0.0013 mg 0.0013 mg 0.0013 mg 0.0013 mg 0.0013 mg	Using For Calibration of E1 class and Coarser Using ABBA Method as per OIML R – 111
		100 mg 200 mg 500 mg 1 g 2 g 5 g 10 g 20 g 50 g 100 g 200 g	0.0013 mg 0.0013 mg 0.0016 mg 0.0031 mg 0.0036 mg 0.0041 mg 0.0106 mg 0.0114 mg 0.0132 mg 0.0217 mg 0.0311 mg	
		500 g 1 kg 2 kg 5 kg 10 kg 20 kg	0.791 mg 0.889 mg 1.333 mg 8.288 mg 13.064 mg 19.103 mg	Using For Calibration of F1 class and Coarser Using ABBA Method as per OIML R – 111
V.	**WEIGHING SCALE AND BALANCE**			
1.	Mass Electronic Weighing Balance[#]	1 mg to 2.1g d ≥ 0.0001mg	0.004 mg	Using For Calibration of Class I Weighing Balances and Coarser as per OIML –R-76-1
		>1 mg to 21 g d ≥ 0.001mg	0.004 mg	
		>21 g to 200 g	0.032 mg	

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (±)	Remarks
		d ≥ 0.01mg d ≥ 0.1mg		
		>200 g to 2.1 kg d ≥ 1 mg	1.20 mg	Using Calibration of Class II weighing balances and Coarser as per OIML R-76-1
		>2.1 kg to 5.2 kg d ≥ 10 mg	7.87 mg	
		>5.2 kg to 30 kg d ≥ 100 mg	117.87 mg	Calibration of Class III weighing balances and coarser as per OIML R-76-1
		>30 kg to 100 kg d ≥ 1 g	1.08 g	
		>100 kg to 150 kg d ≥ 100 g	57.96 g	

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (±)	Remarks
		THERMAL CALIBRATION		
I.	**TEMPERATURE**			
1.	Liquid in Glass Thermometer[$]	(-) 80 ^{o}C to 250 ^{o}C	0.68 °C	IS 2848, OIML R 133 By Comparison Method
2.	RTD, Thermocouple, Temperature indicator / Transmitter with sensor, Temperature of Bath / Oven / Furnace / Incubator / Dry block calibrator, Freezers, BOD Incubators, Refrigerators, Cold rooms, Mantles, Hot Plates, Shakers, gauges / Switches, Data Loggers, Wet & dry Thermometers, Controller with Sensor, Recorders[#]	(-) 80 ^{o}C to 650 ^{o}C 650 °C to 1000 °C 1000 °C to 1200 °C	0.28 °C 2.08 °C 2.53 °C	IS 2848, OIML R 133 By Comparison Method Euramet cg-08 By Comparison Method
3.	RH Indicator, RH Sensors, Loggers, Transmitters, Hygrometers[$]	15% to 95% RH @25°C 0^{o}C to 60^{o}C @ 50%	1.33 % RH 0.38 °C	IEC 60068-3 – 5 by Comparison Method

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4.	Freezers, Chambers, Ovens, Incubators, BOD Incubators, Water Baths, Autoclaves, Cold Rooms♣	(-) 80 ^{o}C to 300 ^{o}C	0.68°C	IEC 60068-3-5 by Mapping Method
5.	Temperature & RH Sensors with / Without indicator♣	15% to 95% RH @25°C 0°C to 60°C @ 50%	1.35% RH 0.42°C	IEC 60068-3-5 by Comparison Method
II.	**SPECIFIC HEAT AND HUMIDITY**			
1.	Humidity Chambers, Walk-in Chambers, Environmental Chambers, Rooms, Cold Rooms, Germinators♣	15% to 95% RH @ 25°C 5°C to 50°C @ 50%	2.56% RH 0.84°C	IEC 60068-3-5 by Mapping Method

*** 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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