

NABL Certificate No.CC-2879

Valid on : 26/10/2023 to 25/10/2025

Electrotechnical Scope Details

Discipline: Electrotechnical			Group: Direct Current (Measure)		Facility: Permanent & Site	
S.No	Lab scope S.No	Site scope S.No	Type of Instrument or Material to be Calibrated	Measurement Method & details of References	Measurement Range	CLAIMED CMC(±)
1	63	62	DC VOLTAGE	Precision Thermometer by Direct Method	0.1 mV to 115 mV	1.17% to 0.071%
2	62	61		Using 6½ Digit Multimeter by Direct Method	0.1 mV to 100 mV	4.65 % to 0.009 %
3	65	64		100 mV to 10 V	0.009 % to 0.003%	
4	64	63		10 V to 100 V	0.0034 % to 0.0047%	
5	66	65		100 V to 1000 V	0.005% to 0.006%	
6	52	51	DC HIGH VOLTAGE	Using High Voltage Probe With DMM by Direct Method	1 kV to 30 kV	7.02 %to 3.94 %
7	45	44	DC CURRENT	Using 6½ Digit Multimeter by Direct Method	1 µA to 100 µA	3.2 % to 0.09 %
8	48	47			100 µA to 400 mA	0.09 % to 0.65 %
9	51	50			400 mA to 1 A	0.065 % to 0.081%
10	46	45		1 A to 3 A	0.081 % to 0.14%	
11	50	49		3 A to 10 A	0.14 % to 0.33%	
12	46	46		Using 6½ Digit Multimeter With Shunt by V/I Method	10 A to 20 A	0.58 % to 0.3 %
13	49	48		20 A to 100 A	0.3 % to 0.18%	
14	54	53	DC Resistance	Precision Thermometer by Direct Method	0.005 Ω to 0.1 Ω	0.82% to 0.25%
15	56	55			0.1 Ω to 1 Ω	0.25% to 0.026%
16	55	54		0.1 Ω to 1 Ω	4.16 % to 0.36 %	
17	58	57		1 Ω to 10 Ω	0.36 % to 0.05%	
18	53	52		Using 6½ Digit Multimeter by Direct Method	10 Ω to 100 Ω	0.05 % to 0.016%
19	61	60		100 Ω to 1 MΩ	0.016 % to 0.013%	
20	57	56		1 MΩ to 10 MΩ	0.013 % to 0.049%	
21	59	58		10 MΩ to 100 MΩ	0.049 % to 0.94%	
22	60	59		100 MΩ to 1 GΩ	0.94% to 2.32%	



Electrotechnical Scope Details

Discipline: Electrotechnical			Group: Alternating Current (<1GHz)(Measure)		Facility: Permanent & Site	
S.No	Lab scope S.No	Site scope S.No	Type of Instrument or Material to be Calibrated	Measurement Method & details of References	Measurement Range	CLAIMED CMC(±)
23	11	10	AC Voltage (20 Hz to 10kHz) (10 kHz to 100 kHz) (20 Hz to 10kHz) (45 Hz to 10 kHz) (45 Hz to 10 kHz)	Using 6½ Digit Multimeter by Direct Method	1 mV to 100 mV 1 mV to 100 V 100 mV to 10 V 10 V to 100 V 100 V to 1000 V	5.7 %to 0.15 % 15.61 %to 0.78 % 0.15%to 0.27 % 0.27% to 0.13% 0.13 %to 0.1%
24	10	9				
25	12	11				
26	13	12				
27	14	13				
28	8	7	AC High Voltage @ 50Hz	Using High Voltage Probe With DMM by Direct Method	1 kV to 25 kV	8.81 %to 6.64 %
29	2	---	AC Current (20 Hz to 1 kHz) (20 Hz to 1 kHz) (20 Hz to 5 kHz) (45 Hz to 5 kHz) (45 Hz to 5 kHz)	Using 6½ Digit Multimeter by Direct Method	10 µA to 100 µA 1 mA to 10 mA 10 mA to 1 A 1 A to 3 A 3A to 10A	1.27 %to 1.2 % 0.28 %to 0.36 % 0.36 % to 0.53% 0.53% to 0.68% 0.68% to 0.58%
30	1	1				
31	3	2				
32	4	3				
33	5	4				
34	6	5	(5kHz to 10 kHz)		10 mA to 100 mA 100 mA to 1 A	1.24 %to 0.73 % 0.73 %to 1.54%
35	7	6				
36	17	16	Inductance (1 kHz)	Using Precision LCR Meter by Direct Method	10µH to 10H	0.51% to 1%
37	16	15	Capacitance (1 kHz)	Using Precision LCR Meter by Direct Method	100 pF to 100 µF	0.091% to 0.11%
38	9	8	AC RESISTANCE (1 kHz)	Using Precision LCR Meter by Direct Method	1 ohm to 10 Kohm	0.073% to 0.07%
Discipline: Electrotechnical			Group: Temperature Simulation (Measure)		Facility: Permanent & Site	
39	118	110	RTD	Precision thermometer by Direct Method	-200 °Cto 100 °C	0.07 °C
40	119	111			100 °C to 850 °C	0.07 °C
41	113	105	THERMOCOUPLE (TYPE E) (TYPE J) (TYPE K) (TYPE N) (TYPE S) (TYPE T) (TYPE B) (TYPE R)	Precision Thermometer by Direct Method	-200 °Cto 1000 °C	0.1 °C
42	114	106			-200 °Cto 1200 °C	0.12 °C
43	115	107			-200 °Cto 1350 °C	0.11 °C
44	116	108			-200 °C to 1300 °C	0.15 °C
45	120	112			0 °C to 1750°C	0.27°C
46	121	113			-200 °Cto 400 °C	0.09 °C
47	112	104			450 °Cto 1800 °C	0.24 °C
48	117	109			0 °C to 1750°C	0.28 °C



Electrotechnical Scope Details

S.No	Lab Scope S.No	Site Scope S.No	Type of Instrument or Material to be Calibrated	Measurement Method & details of References	Measurement Range	CLAIMED CMC(±)
Discipline :Electrotechnical			Group: Time & Frequency (Measure)		Facility: Permanent & Site	
49	142	134	FREQUENCY	Using 6½ Digit Multimeter by Direct Method	3 Hz to 100 kHz	0.12% to 0.016%
50	141	133			100 kHz to 1000 kHz	0.016 % to 0.015%
51	143	135	TIME INTERVAL (Digital Timer ,Stop Watch , Analog,Timer)	Using Timer Calibrator By Comparison Method	1 s to 3600 s	0.11 s to 0.63 s
52	144	136			3600 s to 36000 s	0.63 sto 4.66 s
53	145	137			36000 s to 86400 s	4.66 s to 10.62 s
Discipline: Electrotechnical			Group: Direct Current (Source)		Facility: Permanent & Site	
54	92	90	DC VOLTAGE	Using Multiproduct Calibrator by Direct Method	0.1 mV to 1 mV	1.26 % to 0.18%
55	93	91			1mV to 10mV	0.18 % to 0.015%
56	94	92			10 mV to 3 V	0.015 % to 0.003%
57	95	93			3 V to 1000 V	0.003%
58	68	67	DC CURRENT	Using Multiproduct Calibrator by Direct Method	1 µA to 10 µA	2.33 %to 0.25 %
59	67	66			10 µA to 100 µA	0.25 %to 0.041%
60	70	69			100 µA to 3 mA	0.041 %to 0.02 %
61	74	73			3 mA to 2.99 A	0.02 % to 0.047%
62	72	71		2.99 A to 10 A	0.047 % to 0.066%	
63	69	68		10 A to 20 A	0.066 %to 0.13 %	
64	73	72		Using Multiproduct Calibrator with current coil by direct Method	20 A to 100 A	0.5 % to 0.23%
65	71	70		100 A to 1000 A	0.23 % to 0.2 %	
66	99	97	DC RESISTANCE(4 WIRE)	Using Micro ohm meter by Direct Method	0.2 mΩ	1.20%
67	101, 104,	99			1 mΩ	0.082%
68	102, 105, 103	100,101, 102 ,103			2,10,20,100 mΩ	0.06%



Electrotechnical Scope Details

S.No	Lab scope S.No	Site scope S.No	Type of Instrument or Material to be Calibrated	Measurement Method & details of References	Measurement Range	CLAIMED CMC(±)
69	96	94	DC RESISTANCE(4 WIRE)	Using High	0.001Ω to 0.01 Ω	5.8% to 2.3%
70	97	95		Precision Decade	0.01Ω to 0.1 Ω	2.3% to 0.58%
71	98	96		Resistance Box: by	0.1Ω to 1 Ω	0.58% to 0.06%
72	100	98		Direct Method	1 Ω to 100 kΩ	0.059 %to 0.057 %
73	86	71	DC RESISTANCE(4 WIRE)	Using Multiproduct Calibrator by Direct Method	1 Ω to 10 Ω	0.12 % to 0.02 %
74	88	86			10 Ωto 30 Ω	0.02 % to 0.009%
75	90	88			30 Ω to 1 kΩ	0.009 % to 0.007%
76	84	82			1 kΩ to 1 M Ω	0.007 % to 0.013%
77	85	83			1 M Ω to 10 M Ω	0.014 % to 0.022%
78	87	85			10 M Ω to 100 M Ω	0.022 % to 0.1%
79	89	87			100 M Ω to 300 M Ω	0.1 % to 0.4 %
80	91	89			300 M Ω to 1000 M Ω	0.4 % to 1.89 %
81	78	-	DC RESISTANCE (2 Wire Discrete values)	Using High Precision By Direct Method	100 kohm	0.58%
82	77	76			1 Mohm	0.88%
83	79	77			10 Mohm	1.38%
84	80	78			100 Mohm	1.17%
85	81	79			1 Gohm	2.75%
86	82	80			10 Gohm	2.85%
87	83	81			100 Gohm	2.59%
88	75	74	DC Power (1V to 1000V)	Using Multiproduct Calibrator	0.1 W to 100 W	0.087 % to 0.034%
89	76	75	(0.1A to 20A)	by Direct Method	100 W to 20000 W	0.034 % to 0.21%
Discipline: Electrotechnical			Group: Alternating Current(<1GHz) (Source)			Facility: Permanent & Site
90	32	31	AC Voltage (20 Hz to 1 kHz)	Using Multiproduct Calibrator by Direct Method	1 mV to 30 mV	0.94 % to 0.17%
91	31	30			30 mV to 30 V	0.17 % to 0.38%
92	33	32	AC Voltage (50 Hz to 10 kHz)		1 mV to 30 mV	0.85 % to 0.77%
93	35	34			30 mV to 100 V	0.77 % to 0.073%
94	34	33	100 V to 1000 V		0.072 % to 0.04%	
95	36	35	AC Voltage (50 Hz to 100kHz)		1 mV to 30 mV	1.81 % to 0.9 %
96	37	36			30 mV to 30 V	0.9 %to 0.13 %
97	38	37			30 V to 100 V	0.13 %to 0.3 %



Electrotechnical Scope Details

S.No	Lab scope S.No	Site scope S.No	Type of Instrument or Material to be Calibrated	Measurement Method & details of References	Measurement Range	CLAIMED CMC(±)
98	22	21	AC Current (20 Hz to 1 kHz)	Using Multiproduct Calibrator by Direct Method	30 µA	0.64%
99	24	23	AC Current		30 µA to 300 µA	0.57 % to 0.27%
100	25	24	(50 Hz to 1kHz)		300 µA to 3 mA	0.27 % to 0.15 %
102	28	27			3 mA to 2.9 A	0.15 %to 0.086 %
103	27	26			2.9 A to 10 A	0.086 % to 0.14 %
104	26	25			10 A to 20 A	0.14 % to 0.21 %
105	20	19	AC Current (1 kHz to 10kHz)		10 mA to 1 A	0.29 % to 3.46%
106	21	20	AC Current (1 kHz to 5kHz)	2.9 A to 20A	0.62% to 3.58%	
107	29	28	AC Current	Using Multiproduct Calibrator with current coil by direct Method	20 A to 100 A	0.32% to 0.28%
108	23	22	(50Hz)		100 A to 1000 A	0.28 % to 0.33%
109	18	17	AC Power single phase (@50 Hz) (± 0.25 to UPF) (40V to 300V) (0.1A to 20A)	Using Multiproduct Calibrator by Direct Method	4 W to 6 kW	0.12% to 0.27%
110	17	18	Power factor single phase (@50 Hz) (240V) (2A)	Using Multiproduct Calibrator by Direct Method	0.2 PF(Lead/Lag) to UPF	0.075 to 0.083
111	44	43	Inductance (1 kHz)	Using Decade Inductance Box by Direct Method	100 µH to 10 H	1.67% to 1.30%
112	42	41	Capacitance (1 kHz)	Using Decade Capacitance Box by Direct Method	100 µH to 10 H	1.67% to 1.30%
113	43	42	Capacitance (1 kHz)	Using Multiproduct Calibrator by Direct Method	220 pF to 0.5 nF	5.83 %to 3 %
114	39	38			0.5 nF to 10 nF	3 %to 1.46%
115	41	40			10 nF to 10 µF	1.46 %to 0.58 %
116	40	39			10 µF to 100 µF	0.58 %to 0.68 %
117	30	29	AC RESISTANCE (1 kHz)	Using High Precision Decade Resistance Box:	1 ohm to 10 Kohm	0.21 % to 0.59%



Electrotechnical Scope Details

S.No	Lab scope S.No	Site scope S.No	Type of Instrument or Material to be Calibrated	Measurement Method & details of References	Measurement Range	CLAIMED CMC(±)
Discipline: Electrotechnical			Group: Temperature Simulation (Source)			Facility: Permanent & Site
118	134	126	RTD	Using Multiproduct	-200 °C to 200 °C	0.12 °C
119	135	127		Calibrator	200 °C to 600 °C	0.14 °C
120	136	128		by Direct Method	600 °C to 800 °C	0.25 °C
121	124	116	Thermocouple (Type E)	Using Multiproduct Calibrator by Direct Method	-200 °C to 1000 °C	0.46 °C
122	122	114	Thermocouple (Type B)		600 °C to 800 °C	0.49 °C
123	123	115			800 °C to 1800 °C	0.4 °C
124	126	118	Thermocouple (Type J)		-200 °C to -100 °C	0.24 °C
125	125	117			-100 °C to 1200 °C	0.22 °C
126	127	119	Thermocouple (Type K)		-200 °C to 100 °C	0.3 °C
127	128	120			100 °C to 1000 °C	0.23 °C
128	129	121			1000 °C to 1340 °C	0.35 °C
129	130	122	Thermocouple (Type N)		-200 °C to 400 °C	0.42 °C
130	131	123			400 °C to 1300 °C	0.27 °C
131	132	124	Thermocouple (Type R)		0 °C to 1000 °C	0.57 °C
132	133	125			1000 °C to 1750 °C	0.38 °C
133	137	129	Thermocouple (Type S)		0 °C to 1400 °C	0.56 °C
134	138	130			1400 °C to 1750 °C	0.42 °C
135	140	132	Thermocouple (Type T)		-200 °C to -150 °C	0.56 °C
136	139	131			-150 °C to 400 °C	0.22 °C
Discipline: Electrotechnical			Group: Time & Frequency (Source)			Facility: Permanent & Site
137	146	138	FREQUENCY	Using Multiproduct	1 Hz to 10 Hz	0.17 % to 0.017%
138	147	139		Calibrator	10 Hz to 1000 kHz	0.017 % to 0.073%
139	148	140		by Direct Method	1000 kHz to 1100 MHz	0.073% to 0.0003%



Electrotechnical Scope Details

S.No	Lab scope S.No	Site scope S.No	Type of Instrument or Material to be Calibrated	Measurement Method & details of References	Measurement Range	CLAIMED CMC(±)
Discipline: Electrotechnical			Group: Electrical equipment (Source)			Facility: Permanent
140	111	–	Oscilloscope Amplitude (Vertical Axis Deflection Factor) DC @ 1 Mohm	Using Multiproduct Calibrator by Direct Method	1 mV to 25 V	5 % to 1.8 %
141	110	–	Oscilloscope Amplitude (Vertical Axis Deflection Factor) AC:1 kHz Square Wave @ 1 Mohm	Using Multiproduct Calibrator by Direct Method	1 mV to 25 V	5.17 % to 0.4 %
142	107	–	Oscilloscope - Bandwidth	Using Multiproduct Calibrator	50 kHz to 300 MHz	5.55%
143	106	–		by Direct Method	300 MHz to 600 MHz	7.69%
144	108	–		600 MHz to 1.1 GHz	8.50%	
145	109	–	Oscilloscope - Time Base (Horizontal Axis Deflection Factor)	Using Multiproduct Calibrator by Direct Method	1 ns to 5 s	0.2 % to 0.14 %



Thermal Scope Details

S.No	Lab scope S.No	Site scope S.No	Type of Instrument or Material to be Calibrated	Measurement Method & details of References	Measurement Range	CLAIMED CMC(±)
Discipline: Thermal			Group: Specific Heat & Humidity			Facility: Permanent
146	229	-	RELATIVE HUMIDITY / TEMPERATURE METER	Digital Temperature/ Humidity Indicator	10 to 95% RH@25 °C	0.46%RH
147	232	-		, Humidity Chamber	5%rh @23°C	0.42%RH
148	231	-		by	5%rh @25°C	1.22%RH
149	233	-		Comparison Method	5.8 to 69.5 °C@ 50 %RH	0.23°C
150	230	-			12.2 to 90.5%RH @10 to 60°C	0.74%RH
151	234	-	DEW POINT METER (10 to 95%RH)	Digital Temperature / Humidity / Dew Point Meter, Multi-function calibrator and Humidity Chamber by Comparison method	-20 to 50 °C	0.92°C
Discipline: Thermal			Group: Temperature			Facility: Permanent & Site
152	254	201	RTD / ThermoCouple / Temperature Indicator with sensor	By using SSPRT ,	-100°C to -30 °C	0.12°C
153	255	202		R-Type Thermocouple	-30°C to 100 °C	0.09°C
154	235	178		Dry block Calibrator ,	100 °C to 300 °C	0.13°C
155	256	203		Precision Thermometer	300 °C to 600 °C	0.16°C
156	258	206		(milliK) by Comparison Method:	600 °C to 1200 °C	1.45°C
157	257	-			1200 °C to 1500 °C	Facility: Permanent 3°C
158	245	191	Indicator with sensor of Temperature Baths	By using SSPRT ,	-100°C to -30 °C	0.12°C
159	246	192		R-Type Thermocouple	-30°C to 100 °C	0.1°C
160	247	193		Precision Thermometer	100 °C to 300 °C	0.16°C
161	248	194		(milliK) by Comparison Method:	300 °C to 600 °C	0.18°C
162	244	190			600 °C to 1200 °C	1.45°C
163	243	189			1200 °C to 1500 °C	3°C
164	250	196	NON CONTACT Pyrometer	By using Standard	-30 to -15°C	2.62°C
165	249	195		Noncontact IR Pyrometer	-15 to 0°C	2.62°C
166	251	197		with indicator, Multi Function	0 °C to 100 °C	1.85°C
167	252	198		Calibrator Black body	100 °C to 500 °C	2.62°C
168	236	179		source(Emissivity :0.95) by Comparison Method:	500 °C to 1200 °C	3.64°C
169	253	-			1200 °C to 1500 °C	Facility: Permanent 3.96°C

Thermal Scope Details

S.No	Lab scope S.No	Site scope S.No	Type of Instrument or Material to be Calibrated	Measurement Method & details of References	Measurement Range	CLAIMED CMC(±)
170	239	-	Indicator with Sensor of BLACK BODY SOURCE	By using Standard	-30 to -15°C	2.64°C
171	238	183		Noncontact IR Pyrometer	-15 to 0°C	2.62°C
172	240	184		with indicator,	0 °C to 100 °C	1.85°C
173	237	182		(Emissivity :0.95) by	100 °C to 500 °C	2.62°C
174	242	186		Comparison Method:	500 °C to 1200 °C	3.71°C
175	241	185			1200 °C to 1500 °C	3.90 °C
Discipline: Thermal			Group: Specific Heat & Humidity			Facility: Site
176	-	176	Indicator with sensor of Temperature & Humidity chamber (Single Position)	Digital Temperature / Humidity Indicator	10 to 95% RH@25°C	0.8%RH
177	-	177		with Sensor	5°C to 60 °C @25°C	0.38°C
178	-	175		by Comparison Method	20%RH to 95%RH @20 to50°C	1.53%RH
179	-	174			5 @ 25 °C	1.21%RH
180	-	173	Indicator with sensor of Dew Point Chamber, (10 %RHto 95 %RH) (Mapping) (Single Position Calibration) (10 to 95%RH)	Digital Temperature / Humidity/ Dew Point Meter by Comparison	-20 to 50°C	0.92°C
181	-	169	Humidity /Temperature Chamber (Mapping) (Multi Position)	Digital Temperature	10 to 95%RH @25°C	0.83%RH
182	-	172		/Humidity Indicator with	5 to 60 °C @50%RH	0.59°C
183	-	170		sensor by comparison	20 to 95%RH @20 to 50°C	1.93 %RH
184	-	171		method	5%RH @ 23°C	0.68 %RH
Discipline: Thermal			Group: Temperature			Facility: Site
185	-	188	Indicator with sensor of Temperature Chamber (Mapping) (Single Position)	Using standard RTD , Multi	-80°C to 50°C	0.36°C
186	-	204		Function Calibrator by	50°C to 200°C	0.29°C
187	-	205		Comparison Method:	200°C to 600°C	1.99°C
188	-	181	Temperature Chamber (Mapping) (Multi Position)	Using Standard RTD,	-80 °C to 50 °C	0.9°C
189	-	180		Thermocouple and Data	50 °C to 200 °C	0.39°C
190	-	199		Logger By Comparison	200°C to 600 °C	2.07°C
191	-	200		Method:	600°C to 1200 °C	3.07°C



Dimension Scope Details

Discipline : Dimension			Group: Basic Measuring Instrument, Gauge etc.			Facility: Permanent
S.No	Lab scope S.No	Site scope S.No	Type of Instrument or Material to be Calibrated	Measurement Method & details of References	Range	CLAIMED CMC(±)
192	181	-	THICKNESS GAUGE (DIAL / DIGITAL) L.C.0.001 mm	Using Gauge Blocks by Comparison Method	0 to 25 mm	0.6 µm
193	163	-	DIAL CALIPER GAUGE (INT / EXT) L.C. 0.01 mm	Using Gauge Blocks by Comparison method	2.5 mm to 100 mm	7.78 µm
194	183	-	WIDTH GAUGE	Using Dial comparator, Dial comparator stand and gauge block set by Comparison method	> 0.5 mm to 20 mm	1.89 µm
195	182	-	THREAD MEASURING WIRES	Using Gauge Blocks and Digital Comparator by Comparison Method as per IS 6311	1 mm to 6.35 mm	1.81 µm
196	169	-	LEVER TYPE DIAL GAUGE L.C. 0.001mm L.C. 0.01 mm	UsingDial Calibration Tester by Comparison Method as per IS11498	0 to 0.8 mm	4.35 µm
197	159	-	CALIPERS L.C : 0.01mm	Using Caliper Checker & Gauge Blocks by Comparison Method as per IS 16491 Part 1	0 to 600 mm	11.54 µm
198	158	-	BORE GAUGE (Only Transmission error)L.C: 0.1 mm	Using Dial Calibration Tester by Comparison Method	0 to 1.2 mm	1.16 µm
199	161	-	DEPTH GAUGES L.C.0.01 mm	Using Gauge Blocks by Comparison Method as per IS4213	0 to 300 mm	6.54 µm
200	162	-	DEPTH MICROMETER L.C. 0.001 mm	Using Gauge Blocks by Comparison method	0 to 300 mm	3.91 µm
201	165	-	EXTERNAL MICROMETER L.C . 0.001mm	Using Gauge Blocks by Comparison Method as per IS2967	0 to 200 mm	4.12 µm
202	164	-	EXTERNAL MICROMETER L.C . 0.001mm	Using Gauge Blocks by Comparison Method as per IS2967	>200 mm to 300mm	4.53 µm
203	166	-	FEELER GAUGE	Using Dial comparator and Dial comparator stand as per IS3179	0 to 2 mm	3.42 µm
204	167	-	HEIGHT GAUGE L.C.0.01 mm	Using Dial Calibration Checker & Gauge Blocks by Comparison Method as per IS2921	0 to 600 mm	12.22 µm
205	168	-	INTERNAL MICROMETER L.C.0.01 mm	Using Gauge Blocks & Gauge Block Accessories set by Comparison Method as per IS 2966	> 50 mm to 300 mm	7.61 µm



Dimension Scope Details

S.No	Lab scope S.No	Site scope S.No	Type of Instrument or Material to be Calibrated	Measurement Method & details of References	Range	CLAIMED CMC(±)
206	170	–	LEVER TYPE DIAL GAUGE L.C. 0.001mm	Using Dial Calibration Tester by Comparison Method as per IS11498	0 to 0.14 mm	2.6 µm
207	172	–	MEASURING PIN	Using Gauge Blocks and Digital Comparator by Comparison Method as per IS 11103	0.5 mm to 25 mm	2.75 µm
208	175	–	MICROMETER SETTING STAND	Using Gauge Blocks and Digital Comparator by Comparison Method	> 200 mm to 300mm	4.38 µm
209	176	–			0 to 200 mm	3.45 µm
210	177	–	PISTOL CALIPER L.C : 0.1 mm	Using Gauge Blocks by Comparison Method	0 to 50 mm	57.82 µm
211	178	–	PLAIN PLUG GAUGE	Using Gauge Blocks and Digital Comparator by Comparison Method	3 mm to 100 mm	1.95 µm
212	179	–	PLUNGER DIAL GAUGE L.C . 0.001mm	Using Dial Calibration Tester /Gauge Blocks by Comparison Method as per IS 2092	0 to 25 mm	2.58 µm
Discipline : Dimension			Group: Basic Measuring Instrument, Gauge etc.			Facility: Permanent
213	180	–	SNAP GAUGE	Using Gauge Blocks by Comparison Method as per IS 3455	> 3 mm to 100 mm	1.40 µm
214	171	–	Master Foils	Using Dial comparator and Dial comparator stand	0.01to 3 mm	1.82 µm
215	174	–	Measuring Tape/PieTape,L.C.0.5mm	Measuring Tape/ PieTape,L.C.0.5mm	0to 30 m	62 µm sqrt (L/1000)µm (where L in mm)
216	173	–	Measuring Scale L.C.0.5 mm	Using Scale & Tape Calibrator by Comparison Method	0to 1000 mm	62 µm
217	160	–	Coating Thickness Gauge L.C : 0.0001 mm	Using Master Foils by Comparison Method	0to 2.0 mm	2.52 µm



Mechanical Scope Details

S.No	Lab scope S.No	Site scope S.No	Type of Instrument or Material to be Calibrated	Measurement Method & details of References	Measurement Range	CLAIMED CMC(±)
Discipline : Mechanical			Group: Acceleration and Speed			Facility: Permanent/Site
218	155	147	RPM NON - CONTACT	Digital Tachometer ,RPM Source by 'Comparison Method 'as per SANAS TR- '45-02	6 rpm to 100 rpm	2.19%
219	153	145			100 rpm to 1000rpm	0.33%
220	154	146			1000 rpm to 10000rpm	0.08%
221	152	144			10000 rpm to 60000rpm	0.015%
222	156	148			60000 to 99950 rpm	0.013%
223	151	143	RPM CONTACT	Digital Tachometer ,RPM Source by 'Comparison Method 'as per SANASTR- '45-02	6 rpm to 100 rpm	2.17%
224	149	141			100 rpm to 1000rpm	0.33%
225	150	142			1000 rpm to 10000 'rpm	0.15%
Discipline : Mechanical			Group: Acoustics			Facility: Permanent
226	157	-	Sound Level Meter	Sound level calibrator as per OIML R 58 calibrator as per OIML R 58	94dB,114 dB @ 1kHz	0.21 dB
Discipline : Mechanical			Group: Pressure Indicating Devices			Facility: Permanent & Site
227	186	150	Low Pressure	Digital pressure Calibrator by Comparison Method as per DKD -R-6-1	±200 mbar	0.093 mbar
228	187	152			± 25 mbar	0.03 mbar
229	189	154	Pressure (Absolute)		0.1 bar to 3 bar(Abs)	0.00046 bar
230	194	159	VACUUM		- 0.1 bar to -1.00 bar	0.00015 bar
231	193	158			- 0.1 bar to -0.9 bar	0.00016 bar
232	192	157	Pressure (Pneumatic)		0.1 bar to 2 bar	0.00029 bar
233	184	149			1 bar to 35 bar	0.0032 bar
234	190	155	Pressure (Hydraulic)		0 to 200 bar	0.022 bar
235	191	156			0 to 1000 bar	0.1 bar



Mechanical Scope Details

S.No	Lab scope S.No	Site scope S.No	Type of Instrument or Material to be Calibrated	Measurement Method & details of References	Measurement Range	CLAIMED CMC(±)
Discipline : Mechanical			Group: Volume			Facility: Permanent
236	201	-	MICRO PIPETTE (Readability:1 µg)		1 µl to 10 µl	0.043 µl
237	198	-	MICRO PIPETTE (Readability:1 µg)	Using Electronic Weighing Balance	>10 µl to 50 µl	0.12µl
238	200	-	MICRO PIPETTE (Readability:1 µg & 0.01 mg)	with Distilled Water by Gravimetric Method	>50 µl to 100µl	0.26µl
239	199	-	MICRO PIPETTE (Readability:0.01 mg)	As per ISO 8655 part - 6:	>100 µl to 1000µl	0.67µl
240	202	-	MICRO PIPETTE (Readability:0.01/0.1 mg)		>1 ml to 10 ml	0.83 µl
241	203	-	Pipette , Burette, Volumetric Flask, Measuring Cylinder (Readability:0.1mg &0.001 g)	Using Electronic Weighing Balance with Distilled Water as per ISO 4787 by Gravimetric Method:	>10 ml to 100ml	3.4 µl
242	195	-	Measuring Cylinder & Volumetric Flask (Readability:0.001g)		>100 ml to 500ml	0.01 ml
243	197	-	Measuring Cylinder & Volumetric Flask (Readability:0.001g and 0.01g)	Using Electronic Weighing Balance with Distilled Water as per ISO 4787 by Gravimetric Method:	>500 ml to 2000 ml	0.22 ml
244	196	-	Measuring Cylinder & Volumetric Flask (Readability:0.01g)		>2000 ml to 5000ml	0.26 ml
245	204	-	Pipette , Burette, Volumetric Flask, Measuring Cylinder Balance (0.01mg &0.1 g)		1 ml to 10 ml	1.3 µl
Discipline : Mechanical			Group: Weights			Facility: Permanent
246	212	-	E2 Class & Coarser (Readability: 1 µg)		1 mg	0.002 mg
247	217	-	E2 Class & Coarser (Readability: 1 µg)	Using E1 Class Weights& Electronic Balance as per OIML R	2 mg	0.002 mg
248	207	-	E2 Class & Coarser (Readability: 1 µg)		5 mg	0.002 mg
249	214	-	E2 Class & Coarser (Readability: 1 µg)		10 mg	0.002 mg



Mechanical Scope Details

S.No	Lab scope S.No	Site scope S.No	Type of Instrument or Material to be Calibrated	Measurement Method & details of References	Measurement Range	CLAIMED CMC(±)
250	219	–	E2 Class & Coarser (Readability:1 µg)	Using E1 Class Weights & Electronic Balance as per OIML R	20 mg	0.003 mg
251	222	–	E2 Class & Coarser (Readability:1 µg)		50 mg	0.003 mg
252	216	–	E2 Class & Coarser (Readability:1 µg)		100 mg	0.003 mg
253	205	–	E2 Class & Coarser (Readability:1 µg)		200 mg	0.003 mg
254	209	–	E2 Class & Coarser (Readability:1 µg)		500 mg	0.002 mg
255	211	–	E2 Class & Coarser (Readability:1 µg)		1 g	0.006 mg
256	210	–	E2 Class & Coarser (Readability:1 µg)		2 g	0.007 mg
257	207	–	E2 Class & Coarser (Readability:1 µg)	Using E1 Class Weights & Electronic Balance as per OIML R	5 g	0.008 mg
258	213	–	E2 Class & Coarser (Readability: 0.01 mg)		10 g	0.013 mg
259	218	–	E2 Class & Coarser (Readability: 0.01 mg)		20 g	0.025 mg
260	206	–	E2 Class & Coarser (Readability: 0.01 mg)		50 g	0.028 mg
261	215	–	E2 Class & Coarser (Readability: 0.01 mg)		100 g	0.05 mg
262	220	–	E2 Class & Coarser (Readability: 0.1 mg)		200 g	0.1 mg
263	228	–	F2 Class & Coarser (Readability: 0.001 g)	Using F1 Class & Electronic Balance as per OIML R	500 g	3 mg
264	223	–	F2 Class & Coarser (Readability: 0.001 g)		1 kg	3.2 mg
265	208	–	F2 Class & Coarser (Readability:0.01 g)		2 kg	10 mg



Mechanical Scope Details

S.No	Lab scope S.No	Site scope S.No	Type of Instrument or Material to be Calibrated	Measurement Method & details of References	Measurement Range	CLAIMED CMC(±)
266	226	-	F2 Class & Coarser (Readability: 0.01 g)	Using F1 Class & Electronic Balance as per OIML R	5 kg	12mg
267	224	-	F2 Class & Coarser (Readability: 0.01 g)		10 kg	0.05 g
268	225	-	F2 Class & Coarser (Readability: 0.1 g)		20 kg	0.2 g
269	227	-	M1 Class & coarser (Readability: 0.1 g)		50 kg	1 g
Discipline : Mechanical			Group : Weighing Scale and Balance			Facility: SITE
270	---	161	WEIGHING SCALE AND BALANCE (Readability : 0.001mg) (Class - I)	Using E1 Class Weights as per OIML R 76 - 1	Upto 5g	0.013 mg
271	---	160	WEIGHING SCALE AND BALANCE (Readability : 0.001mg) (Class - I)		Upto 20g	0.011 mg
272	---	167	WEIGHING SCALE AND BALANCE (Readability : 0.01mg) (Class- I)		Upto 220g	0.1 mg
273	---	163	WEIGHING SCALE AND BALANCE (Class - II) (Readability : 1mg)	Using F1 Class Weights as per OIML R 76 - 1	Upto 1Kg	0.003 g
274	---	164	WEIGHING SCALE AND BALANCE (Class - II) (Readability : 10mg)		Upto 10Kg	0.05 g
275	---	162	WEIGHING SCALE AND BALANCE (Class - II) (Readability : 0.1g)		Upto 20kg	0.1 g
276	---	165	WEIGHING SCALE AND BALANCE (Class - III) (Readability : 1g)		Upto 50kg	1 g
277	---	166	WEIGHING SCALE AND BALANCE (Class - III) (Readability : 10g)	Using M1 Class Weights as per OIML R 76 - 1	Upto 200kg	10 g
278	---	168	WEIGHING SCALE AND BALANCE (Class - III) (Readability : 20g)		Upto 300kg	20 g

