

Laboratory **Shree Radhey Technology, S-19 & 20, RIICO Industrial Area, Bindayaka, Jaipur, Rajasthan**

Accreditation Standard **ISO/IEC 17025: 2005**

Certificate Number **CC-2779** (In lieu of C-0625, C-0741, C-0742) Page **1 of 13**

Validity **19.08.2018 to 18.08.2020** Last Amended on **-**

| Sl.                                         | Quantity Measured / Instrument                                              | Range/Frequency                                                                                                                                                                       | *Calibration Measurement Capability ( $\pm$ )                                                                           | Remarks                                                                                            |
|---------------------------------------------|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| <b><u>ELECTRO TECHNICAL CALIBRATION</u></b> |                                                                             |                                                                                                                                                                                       |                                                                                                                         |                                                                                                    |
| <b>I.</b>                                   | <b>SOURCE</b>                                                               |                                                                                                                                                                                       |                                                                                                                         |                                                                                                    |
| <b>1.</b>                                   | AC Voltage <sup>s</sup>                                                     | <b>50 Hz</b><br>10 mV to 1 V<br>1 V to 1000 V                                                                                                                                         | 1.05 % to 0.6 %<br>0.6 % to 0.3 %                                                                                       | Using 5½ Digit Digital Calibrator (Fluke 5080 A) by Direct Method                                  |
| <b>2.</b>                                   | AC Current <sup>s</sup>                                                     | <b>50 Hz</b><br>0.03 mA to 100 mA<br>100 mA to 1 mA<br>1 mA to 20 A<br>20 A to 1000 A                                                                                                 | 3.2 % to 0.5 %<br>0.9 %<br>0.9 % to 0.8 %<br>0.5 %                                                                      | Using 5½ Digit Digital Calibrator (Fluke 5080 A) & Current Coil By Direct Method                   |
| <b>3.</b>                                   | DC Voltage <sup>s</sup>                                                     | 1 mA to 1 V<br>1 V to 1000 V                                                                                                                                                          | 1.4 % to 0.11 %<br>0.11 % to 0.07 %                                                                                     | Using 5½ Digit Digital Calibrator (Fluke 5080 A) by Direct Method                                  |
| <b>4.</b>                                   | DC Current <sup>s</sup>                                                     | 10 $\mu$ A to 20 mA<br>20 mA to 20 A<br>20 A to 1000 A                                                                                                                                | 1.53 % to 0.4 %<br>0.4 to 0.60 %<br>0.62 %                                                                              | Using 5½ Digit Digital Calibrator (Fluke 5080 A) & Current Coil By Direct Method                   |
| <b>5.</b>                                   | Resistance <sup>#</sup><br>4 Wire<br><br><br><br><br><br><br><br><br>2 Wire | 1 m $\Omega$<br>10 m $\Omega$<br>100 m $\Omega$<br>1 $\Omega$<br>10 $\Omega$<br>100 $\Omega$<br>1 k $\Omega$<br>10 k<br>10 $\Omega$ to 2 k $\Omega$<br>1 M $\Omega$ to 210 G $\Omega$ | 0.24 %<br>0.28 %<br>0.23 %<br>0.24 %<br>0.23 %<br>0.23 %<br>0.23 %<br>0.23 %<br>0.23 %<br>6.92% to 0.2%<br>0.6% to 4.5% | Using Standard Resistance Box, Digital Calibrator (Masibus) & High Resistance Box by Direct Method |

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| Sl. | Quantity Measured / Instrument                                           | Range/Frequency                                                  | *Calibration Measurement Capability ( $\pm$ ) | Remarks                                                                                                                                |
|-----|--------------------------------------------------------------------------|------------------------------------------------------------------|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
|     | 4 Wire<br>2 Wire                                                         | 1 $\Omega$ to 190 k $\Omega$<br>190 k $\Omega$ to 190 m $\Omega$ | 1.14 % to 0.05 %<br>0.05 % to 1.15 %          | Using 5½ Digit Digital Calibrator(Fluke 5080 A) by Direct Method                                                                       |
| 6.  | Temperature Simulation <sup>#</sup><br>(Indicator / Controller/Recorder) |                                                                  |                                               |                                                                                                                                        |
|     | RTD- Type                                                                | (-)200 °C to 790 °C                                              | 0.7 °C                                        | Using Digital calibrator (Masibus), 5½ Digit Digital calibrator (Fluke 5080 A) & 6½ Digit Digital DMM(Fluke 8846) by Simulation method |
|     | Thermocouple J - Type                                                    | 50 °C to 800 °C                                                  | 0.5 °C                                        |                                                                                                                                        |
|     | K - Type                                                                 | 50 °C to 1200 °C                                                 | 0.8 °C                                        |                                                                                                                                        |
|     | R - Type                                                                 | 100 °C to 1600 °C                                                | 2.7 °C                                        |                                                                                                                                        |
|     | S - Type                                                                 | 200 °C to 1600 °C                                                | 2.7 °C                                        |                                                                                                                                        |
|     | B - Type                                                                 | 500 °C to 1700 °C                                                | 2.7 °C                                        |                                                                                                                                        |
|     | E -Type                                                                  | (-)50 °C to 900 °C                                               | 1.65 °C                                       |                                                                                                                                        |
|     | T -Type                                                                  | (-)100 °C to 900 °C                                              | 2.5 °C                                        |                                                                                                                                        |
| 7.  | Frequency <sup>s</sup>                                                   | 45 Hz to 1000 Hz                                                 | 0.6 % to 0.3 %                                | Using 5½ Digit Digital Calibrator By Direct Method                                                                                     |
| 8.  | Capacitance <sup>#</sup>                                                 | 1 nF to 3 $\mu$ F                                                | 1.72 %                                        | Using Standard Capacitance Box By Direct Method                                                                                        |
| 9.  | Inductance <sup>#</sup>                                                  | 1 mH to 1 H                                                      | 1.63 %                                        | Using Standard Inductance Box By Direct Method                                                                                         |
| 10. | AC Active Power <sup>s</sup><br>1P2W                                     | 40 V to 600 V<br>1 A to 20 A<br>50 Hz, UPF<br>(0.004 to 12 kw)   | 1.8 %                                         | Using 5½ Digit Digital Calibrator(Fluke 5080 A) By Direct Method                                                                       |

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| 11.        | Power Factor <sup>s</sup>                   | $\pm$ 0.5 to UPF                                                                                                                                                                                 | 0.76 %                                                                                    | Using 5½ Digit Digital Calibrator(Fluke 5080 A) by Direct Method    |
| 12.        | Turn Ration Meter <sup>#</sup>              | 11 to 1900                                                                                                                                                                                       | 0.8 %                                                                                     | Using Standard Turn Ration Calibrator by Direct Method              |
| <b>II.</b> | <b>MEASURE</b>                              |                                                                                                                                                                                                  |                                                                                           |                                                                     |
| 1.         | AC Voltage <sup>s</sup>                     | <b>50 Hz</b><br>10 mV to 1000 mV<br>1 V to 1000 V                                                                                                                                                | 0.7 % to 0.2%<br>0.2 %                                                                    | Using Fluke 8846A, 6½ DMM By Direct Method                          |
| 2.         | AC Current <sup>s</sup>                     | <b>50 Hz</b><br>100 $\mu$ A to 10 A<br>10 A to 900 A                                                                                                                                             | 0.3 %<br>0.3 % to 1.5 %                                                                   | Using Fluke 8846A, 6½ DMM By Direct Method                          |
| 3.         | DC Voltage <sup>s</sup>                     | 10 mV to 1 V<br>1 V to 1000 V                                                                                                                                                                    | 0.42 % to 0.2 %<br>0.2 % to 0.1 %                                                         | Using Fluke 8846A, 6½ DMM By Direct Method                          |
| 4.         | DC Current <sup>s</sup>                     | 10 $\mu$ A to 10 A                                                                                                                                                                               | 0.2 %                                                                                     | Using Fluke 8846A, 6½ DMM By Direct Method                          |
| 5.         | Resistance <sup>s</sup><br>4 wire<br>2 wire | 1 m $\Omega$ to 10 $\Omega$<br>10 $\Omega$ to 100 $\Omega$<br>100 $\Omega$ to 1 k $\Omega$<br>1 k $\Omega$ to 10 k $\Omega$<br>10 k $\Omega$ to 100 k $\Omega$<br>100 k $\Omega$ to 1 G $\Omega$ | 1.02 % to 0.08 %<br>0.08 % to 0.3 %<br>0.3 % to 0.5 %<br>0.5 % to 1.5 %<br>1.5 %<br>3.0 % | Using Digital micro ohm meter, Fluke 8846A, 6½ DMM By Direct Method |
| 6.         | Frequency <sup>s</sup>                      | 50 Hz to 1000 Hz                                                                                                                                                                                 | 0.6 % to 0.3 %                                                                            | Using 6½ DMM By Direct Method                                       |
| 7.         | Capacitance <sup>s</sup>                    | <b>1 kHz</b><br>1 nF to 1 $\mu$ F                                                                                                                                                                | 4.79 %                                                                                    | Using LCR Meter By Direct Method                                    |

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| 8.  | Inductance <sup>s</sup>                           | 1 kHz<br>1 mH to 1 H                                                                | 3.2 %                                         | Using LCR Meter By Direct Method                          |
| 9.  | Time (Stop Watch / Timer/Hour/Meter) <sup>#</sup> | 1 s. to 12 hr                                                                       | 2 % to 0.5 %                                  | Using Digital Timer and Stop Watch By Comparison Method   |
| 10. | AC Active Power/ Energy <sup>#</sup>              | 230V to 300 V<br>2A to 120 A<br>50 Hz<br>Power factor:<br>0.5 lag – Upf<br>0.5 lead | 2.8 %                                         | Using Digital Energy Logger (Fluke 1730) by Direct Method |
| 11. | Power Factor <sup>s</sup>                         | $\pm$ 0.5 to UPF                                                                    | 0.57 %                                        | Using Digital Energy Logger (Fluke 1730) By Direct Method |
| 12. | AC High Voltage <sup>*</sup>                      | 50 Hz<br>1 kV to 100 kV                                                             | 4.6 % to 4.1 %                                | Using H.V. Probe with Multimeter By Comparison Method     |
| 13. | DC High Voltage <sup>*</sup>                      | 1 kV to 5 kV                                                                        | 3.34 %                                        | Using H.V. Probe with Multimeter By Comparison Method     |

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| <b><u>MECHANICAL CALIBRATION</u></b> |                                                                    |                            |                                                                   |                                                                    |
| <b>I.</b>                            | <b>DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)</b>          |                            |                                                                   |                                                                    |
| 1.                                   | Vernier Caliper <sup>s</sup><br>L.C.: 0.01 mm<br>L.C.: 0.02 mm     | 0 to 300 mm<br>0 to 600 mm | 15 $\mu$ m<br>19 $\mu$ m                                          | Using Caliper Checker/<br>Slip Gauge Set by<br>Comparison Method   |
| 2.                                   | Micrometer <sup>s</sup><br>L.C.: 0.001 mm<br>L.C.: 0.01 mm         | 0 to 25 mm<br>0 to 200 mm  | 3 $\mu$ m<br>16.3 $\mu$ m                                         | Using Slip Gauge Set<br>By Comparison Method                       |
| 3.                                   | Dial/Digital Gauge <sup>s</sup><br>L.C.: 0.001 mm<br>L.C.: 0.01 mm | 0 to 25 mm<br>0 to 100 mm  | 5 $\mu$ m<br>17 $\mu$ m                                           | Using Slip Gauge Set &<br>Comparator Stand By<br>Comparison Method |
| 4.                                   | Height Gauge <sup>s</sup><br>L.C.: 0.01 mm                         | 0 to 600 mm                | 20 $\mu$ m                                                        | Using Caliper Checker<br>by Comparison Method                      |
| 5.                                   | Feeler Gauge <sup>s</sup>                                          | Up to 1 mm                 | 4 $\mu$ m                                                         | Using Digital Micrometer<br>By Comparison Method                   |
| 6.                                   | Depth Gauge <sup>s</sup><br>L.C. : 0.01 mm                         | Up to 300 mm               | 11.3 $\mu$ m                                                      | Using Slip Gauge Set<br>By Comparison Method                       |
| 7.                                   | Measuring Tap/<br>Pi-Tap <sup>s</sup><br>L.C. : 0.5 mm/1mm         | 0 to 50000 mm              | 116 $\sqrt{L}$ $\mu$ m<br>(Where L is Length of<br>Tape in Meter) | Using Scale and Tape<br>Measuring Machine                          |
| 8.                                   | Steel Scale <sup>s</sup><br>L.C.: 0.5 mm/1mm                       | 0 to 1000 mm               | 116 $\mu$ m                                                       | Using Scale And Tape<br>Measuring Machine By<br>Comparison Method  |

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|-----|-------------------------------------------------------------|----------------------------------------|-----------------------------------------------|-----------------------------------------------------------------------|
| 9.  | Ultra Sonic Thickness Gauge <sup>§</sup><br>L.C.: 0.1 mm    | 0 to 100 mm                            | 20.3 $\mu$ m                                  | Using Slip Gauge Set By Comparison Method                             |
| 10. | Coating Thickness Gauge <sup>§</sup><br>L.C.: 0.1 $\mu$ m   | Up to 1 mm                             | 13.2 $\mu$ m                                  | Using Standard Foil By Comparison Method                              |
| 11. | Bevel Protector / Combination Set <sup>§</sup><br>L.C. : 5' | 0° - 180°                              | 3.3'                                          | Using Angle Gauge By Comparison Method                                |
| 12. | Radius Gauge <sup>§</sup>                                   | Up to 25 mm                            | 7.0 $\mu$ m                                   | Using Profile Projector By Comparison Method                          |
| 13. | Test Sieves <sup>§</sup>                                    | 32 $\mu$ m to 10 mm<br>10 mm to 150 mm | 5.4 $\mu$ m<br>217.8 $\mu$ m                  | Using Profile Projector/<br>Dig. Vernier Caliper By Comparison Method |
| 14. | Flakiness Gauge <sup>§</sup>                                | Up to 100 mm                           | 20 $\mu$ m                                    | Using Digital Vernier Caliper by Comparison Method                    |
| 15. | Elongation Gauge <sup>§</sup>                               | Up to 100 mm                           | 20 $\mu$ m                                    | Using Digital Vernier Caliper by Comparison Method                    |
| II. | <b>ACOUSTICS</b>                                            |                                        |                                               |                                                                       |
| 1.  | Sound Level Meter <sup>#</sup><br>L.C.: 0.1 dB              | 1 kHz<br>94 dB<br>114 dB               | 1.88 dB<br>1.97 dB                            | Using Sound Level Generator By Direct Method                          |

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|------|----------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| III. | <b>ACCELERATION AND SPEED</b>                                                                      |                                                                                                                                                                                                         |                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                 |
| 1.   | Tachometer,<br>Centrifuge, Vibrating<br>Machine & RPM<br>Measurement <sup>#</sup><br>L.C.: 0.1 rpm | 10 rpm to 1000 rpm<br>>1000 rpm to 30000 rpm                                                                                                                                                            | 1.18 % of rdg.<br>0.82 % of rdg.                                                                                                                                                                                                                      | Using Tachometer with<br>Source By Comparison<br>Method                                                                                                                                                                                                                                         |
| IV.  | <b>WEIGHTS</b>                                                                                     |                                                                                                                                                                                                         |                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                 |
| 1.   | Weights Calibration<br>of Weights of Class<br>F-1 Accuracy and<br>Coarser <sup>\$</sup>            | 1 mg<br>2 mg<br>5 mg<br>10 mg<br>20 mg<br>50 mg<br>100 mg<br>200 mg<br>500 mg<br>1 g<br>2 g<br>5 g<br>10 g<br>20 g<br>50 g<br>100 g<br>200 g<br><br>500 g<br>1 kg<br>2 kg<br><br>5 kg<br>10 kg<br>20 kg | 0.01 mg<br>0.01 mg<br>0.01 mg<br>0.01 mg<br>0.01 mg<br>0.01 mg<br>0.01 mg<br>0.02 mg<br>0.02 mg<br>0.03 mg<br>0.04 mg<br>0.05 mg<br>0.06 mg<br>0.08 mg<br>0.10 mg<br>0.16 mg<br>0.33 mg<br><br>1 mg<br>2 mg<br>3 mg<br><br>0.33 g<br>0.33 g<br>0.33 g | Using E-2 Class<br>Weights and Balance<br>of readability 0.01 mg<br>and 0.1 mg as per<br>OIML R-111<br><br><br><br><br><br><br><br><br><br><br><br><br>Using E-2 Class Weights<br>and Balance of<br>readability 1 mg<br><br><br>Using E-2 Class Weights<br>and Balance of<br>readability 100 mg |

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|            | Calibration of Weights of Class M-2 Accuracy and Coarser <sup>s</sup>                         | 50 kg                                                                       | 2 g                                           | Using M1 Class Weights and Balance of readability 1 g as per OIML R-111                                                              |
| <b>V.</b>  | <b>VOLUME</b>                                                                                 |                                                                             |                                               |                                                                                                                                      |
| 1.         | Micro-Pipette <sup>s</sup>                                                                    | 10 $\mu$ l to 100 $\mu$ l<br>100 $\mu$ l to 1000 $\mu$ l                    | 1.1 $\mu$ l<br>1.1 $\mu$ l                    | Using Weighing Balance of 82 g Capacity and 0.01 mg Readability and Distilled Water (Gravimetric Method Based on ISO 8655 part 6)    |
| 2.         | Glassware, Pipettes, Burettes, Measuring Cylinder, Beaker, Volumetric Flask etc. <sup>s</sup> | 1 ml to 10 ml<br>>10 ml to 100 ml<br>>100 ml to 2000 ml<br>>2000 ml to 10 l | 1.2 $\mu$ l<br>7.7 $\mu$ l<br>1ml<br>8 ml     | Using Weighing Balance of 220 g Capacity and 0.01 mg and 0.1 mg Readability and Distilled Water Gravimetric Method Based on ISO 4787 |
| <b>VI.</b> | <b>WEIGHING SCALE AND BALANCE</b>                                                             |                                                                             |                                               |                                                                                                                                      |
| 1.         | Weighing Balance <sup>s</sup><br>Readability: 0.01 mg<br>Readability: 0.1 mg                  | Up to 82 g<br>>82 g to 220 g                                                | 0.08 mg<br>1.2 mg                             | Using Electronic Weighing Balance of Class I and Coarser as per OIML R-76-1                                                          |
|            | Readability: 1 mg<br>Readability: 10 mg<br>Readability: 100 mg                                | Up to 1000 g<br>Up to 3 kg<br>Up to 20 kg                                   | 5 mg<br>20 mg<br>200 mg                       | Using Electronic Weighing Balance of Class II and Coarser as per OIML R-76-1                                                         |

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|              | Readability: 1 g<br>Readability: 20 g                                                  | Up to 50 kg<br>Up to 200 kg | 2 g<br>20 g                                   | Using Electronic Weighing Balance of Class III and Coarser as per OIML R-76-1                        |
| <b>VII.</b>  | <b>DENSITY &amp; VISCOSITY</b>                                                         |                             |                                               |                                                                                                      |
| 1.           | Density Hydrometer <sup>s</sup>                                                        | 0.6 g/ml to 1.8 g/ml        | 0.003 g/ml                                    | Using Reference Standard Hydrometer by Comparison method based on IS 3104                            |
| <b>VIII.</b> | <b>PRESSURE INDICATING DEVICES</b>                                                     |                             |                                               |                                                                                                      |
| 1.           | Hydraulic Pressure: Pressure Gauge/ Pressure Transmitter (Digital/Analog) <sup>#</sup> | 0 to 700 bar                | 0.7 % rdg                                     | Using Digital Pressure Gauge & Comparator (Hydraulic Oil Pump) by Comparison method as per DKD R-6-1 |
| 2.           | Pneumatic Pressure: Pressure Gauge/ Pressure Transmitter (Digital/Analog)              | 0 to 10 bar                 | 0.5 % rdg                                     | Using Digital Pressure Gauge & Comparator (Pneumatic Type ) by Comparison method as per DKD R-6-1    |
| 3.           | Vacuum Gauge (Digital/Analog)                                                          | (-) 0.9 bar to 0 bar        | 0.5 % rdg                                     | Using Digital Gauge Comparator (Pneumatic Type ) by Comparison method as per DKD R-6-1               |

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| <b>IX.</b> | <b>UTM, TENSION CREEP AND TORSION TESTING MACHINE</b> |                                                             |                                               |                                                                     |
| 1.         | Uniaxial Static Testing Machine* (UTM, CTM, TTM)      | 10 N to 500 kN (Tension)<br>0.2 kN to 3000 kN (Compression) | 0.58 %<br>0.60 %                              | Using Load Cell and Force Proving Ring As per IS:1828(part-1): 2015 |
| <b>X.</b>  | <b>HARDNESS TESTING MACHINE</b>                       |                                                             |                                               |                                                                     |
| 1.         | Rockwell Hardness Tester*                             | HRC                                                         | 0.72 HRC                                      | Using Standard Test Block as per IS:1586(part-2) by Indirect method |
| <b>XI.</b> | <b>DUROMETER</b>                                      |                                                             |                                               |                                                                     |
| 1.         | Durometer <sup>s</sup><br>Shore-A<br>Shore-D          | 0 to 100 Shore A<br>0 to 100 Shore D                        | 2.1 Shore A<br>2.1 Shore D                    | Using Digital Weighing Balance as per ASTM D 2240-2015              |

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| <b><u>THERMAL CALIBRATION</u></b> |                                                                                                                                                                                           |                    |                                               |                                                                                               |
| <b>I.</b>                         | <b>TEMPERATURE</b>                                                                                                                                                                        |                    |                                               |                                                                                               |
| 1.                                | RTD/Thermocouple with or without Indicator, Digital Temperature Controller/Indicator/ Temperature Data Logger With Sensor/ Liquid Glass Thermometer/ Temperature Transmitter <sup>#</sup> | (-) 30 °C to 50 °C | 0.25 °C                                       | Using RTD & Digital Indicator (Fluke) and Negative Bath by Comparison Method                  |
| 2.                                | RTD/Thermocouple With or Without Indicator, Digital Temperature Controller/Indicator/ Temperature Data Logger With Sensor/ Liquid Glass Thermometer/ Temperature Transmitter <sup>#</sup> | >50 °C to 300 °C   | 0.4 °C                                        | Using RTD & Digital Indicator (Fluke) and Dry Block Furnace, Liquid Bath By Comparison Method |

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**Accreditation Standard** ISO/IEC 17025: 2005

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| Sl. | Quantity Measured / Instrument                                                                                                                                                         | Range/Frequency     | *Calibration Measurement Capability ( $\pm$ ) | Remarks                                                                                                                               |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| 3.  | RTD/ Thermocouple With or Without Indicator, Digital Temperature Controller/Indicator/ Temperature Data Logger With Sensor/ Temperature Transmitter <sup>#</sup>                       | >300 °C to 600 °C   | 1.0 °C                                        | Using S-Type Thermocouple & Digital Indicator (Tempsens) and Dry Block Furnace By Comparison Method                                   |
| 4.  | Thermocouple With or Without Indicator, Digital Temperature Controller/Indicator/ Temperature Data Logger With Sensor/ Liquid Glass/ Thermometer/ Temperature Transmitter <sup>#</sup> | >600 °C to 1200 °C  | 2.5 °C                                        | Using S-Type Thermocouple & Digital Indicator (Tempsens) and Dry Block Furnace. By Comparison Method                                  |
| 5.  | Temperature Indicator with Sensor of Deep Freezer/Incubator (for all non –medical applications/ BOD/Water Bath/Cold Chamber/Liquid Bath/ Oven Conditioning Chamber etc. <sup>#</sup>   | (-) 80 °C to 100 °C | 2.6 °C                                        | Using Single & Multi Position (Except Incubator (for all non-medical applications) for Multi Position) & Thermocouple and Data Logger |
| 6.  | Temperature Indicator with Sensor of Oven/ Dry Block/CBC/ Autoclave/Furnace etc. <sup>#</sup>                                                                                          | >50 °C to 500 °C    | 4.3 °C                                        | Using Thermocouple and Data Logger Single & Multi Position                                                                            |

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| Sl. | Quantity Measured / Instrument                                                                          | Range/Frequency                           | *Calibration Measurement Capability ( $\pm$ ) | Remarks                                                                                                      |
|-----|---------------------------------------------------------------------------------------------------------|-------------------------------------------|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| 7.  | Temperature Indicator with Sensor of Dry Block Furnace etc. #                                           | >500 °C to 1200 °C                        | 8.0 °C                                        | Using Thermocouple and Data Logger Single & Multi Position (Except Autoclave for Multi Position) Calibration |
| 8.  | Humidity & Temperature Indicators of Humidity Chamber, Conditioning Chamber etc. #                      | 25% RH to 95% RH @ 25 °C<br>0 °C to 50 °C | 2.84 % RH<br>1.1 °C                           | Using Single & Multi Position Calibration                                                                    |
| 9.  | Humidity Controller/ Indicator/Digital Hygro Thermometer/ Dial Hygrometer/ Wet & Dry Blub Thermometer # | 25% RH to 95% RH @ 25°C<br>0 °C to 50 °C  | 1.9 % RH<br>1.1 °C                            | Using Humidity Chamber By Comparison Method                                                                  |
| 10. | Infrared Temperature Indicator/Thermal Imager/Pyrometer <sup>§</sup>                                    | 50 °C to 300 °C<br>>300 °C to 1200 °C     | 2.5 °C<br>3.8 °C                              | Using with Black Body Source By Comparison Method                                                            |

\* Measurement Capability is expressed as an uncertainty ( $\pm$ ) 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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