

# CHEMISTRY LAB Instruments (Package – II)

Sl. No.	Item Name	Specification	Qty.
1	Hot air Oven –	<ul style="list-style-type: none"> <li>• Internal chamber is made up of high grade stainless steel SS – 304,</li> <li>• Inner size 355 x 355 x 355 mm.</li> <li>• Outer chamber is made up of epoxy coated mild steel.</li> <li>• Tray is also supplied to make the shelves inside the chamber.</li> <li>• Glass Wool Insulation: reduce heat losses in cabinet for better sensitivity and economical Operations with minimal impact on the environment.</li> <li>• Forced air circulation in the chamber by a blower ensures uniform temperature and humidity inside the chamber.</li> <li>• Door – is provided with magnetic door closer and its outer body is made of powder coated MS.</li> <li>• Heating is done with ISI marked strip type heaters placed around the inner chamber. The warm air is evenly distributed throughout the chamber through efficient motor fans ensuring very good temperature sensitivity.</li> <li>• <b>Heating Elements:</b> on three sides.</li> <li>• <b>Temperature control:</b> The temperature inside our chambers is controlled through Digital temperature controller.</li> <li>• Temperature Range: ambient to 250° C.</li> <li>• <b>Temperature Sensitivity:</b> Temperature inside our environmental chamber is controlled with a sensitivity of + 0.5° c or better.</li> <li>• <b>Air Circulation:</b> Circulated by ISI mark silicon winded motors which are connected to balanced blowers.</li> </ul>	1
2	ORSAT apparatus –	With three absorption pipettes of two compartment type, 100 ml. Gas Burette with outer jacket, manifold with Stopcocks and aspirator bottle for the analysis of CO, O <sub>2</sub> , CO <sub>2</sub> particularly in fuel and furnace gases, Complete in wooden cabinet with sliding doors.	2
3	Ostwald Viscometer –	Viscometer College Pattern, Ostwald 80 – 100 seconds, Viscometer Stand - Base Cast iron Size 12" x 7" x 36", with Burette clamp	50
4	Polarimeter – Research Model half shade for 200mm tube –	<ul style="list-style-type: none"> <li>• Sensitivity rotating half shade device.</li> <li>• Having angular and sugar scale from 0° to 360° and +130° to -30° I.S.S. Sub divided into 0.10 micrometer drum enable to read upto 0.05° by estimate workable for use with polarimeter tube 200 mm.</li> <li>• Analyser: Glans Thompson Prism.</li> <li>• Arrangement for 350W sodium lamp light source, input 220 V ± 10% VAC</li> <li>• Borosil glass tube 200 mm.</li> <li>• Plywood storage cabiate, instruction manual, dust cover supplied.</li> </ul>	1
5	Water Bath –	Double walled, Outer Mild Steel Sheet, Epoxy coated, Inner chamber of Stainless Steel, Temperature is controlled by Digital temp. Controller cum indicator 95° C, ± 1° C. Fitted with on/off switch, supplied with concentric rings and a cord. <b>Inner chamber Size –</b> 300 x 250 x 100 mm <b>No. of Holes --</b> 06	4

6	<b>Digital pH meter</b>	<p>Type Table-Top</p> <p>Range -2.00 to 16.00 pH</p> <p>pH Resolution 0.01 pH</p> <p>Accuracy <math>\pm 0.01</math> pH</p> <p>Calibration Points up to 3 points</p> <p>pH Buffer options USA (pH4.01/7.00/10.01) or NIST (pH4.01/6.86/9.18)</p> <p>mV Range +1999 mV</p> <p>Accuracy <math>\pm 1</math> mV</p> <p>Resolution 1mV</p> <p>Range 0 to 105°C</p> <p>Accuracy <math>\pm 0.5</math>°C</p> <p>Resolution 0.1°C</p> <p>Temperature Compensation 0~100°C, Manual / Automatic</p> <p>Hold Function Available</p> <p>Auto Off Function Available</p> <p>Connector BNC</p> <p>Display LCD (135x 75mm)</p> <p>Power Requirements DC9V, using AC adapters, 220VAC/50Hz</p> <p>Dimensions ( L x W x H ) 210 x 205 x 75 mm</p>	4
7	<b>Digital Conductivity Meter</b>	<p>Range 0~20.00, 200.0, 2000<math>\mu</math>S/cm, 20.00, 200.0mS/cm ( 5 auto ranges)</p> <p>Accuracy <math>\pm 1\%</math> F.S</p> <p>Resolution 0.01, 0.1, 1</p> <p>Calibration Points up to 3 points</p> <p>Conductivity Buffer Option 10<math>\mu</math>S/cm, 84<math>\mu</math>S/cm, 1413<math>\mu</math>S/cm, 12.88mS/cm, 111.8mS/cm ( any three )</p> <p>Temperature Compensation 0~100°C, 32~212°F, Manual or Automatic</p> <p>Temperature Coefficient 0.0~10.0%/°C</p> <p>Cell Constant K=0.1, 1, 10</p> <p>Normalization Temperature 25°C</p> <p>Range 0~10ppt (Max. 200 ppt, depending on factor setting &amp; conductivity range)</p> <p>Accuracy <math>\pm 1\%</math> F.S</p> <p>TDS Factor 0.1 to 1.0 (Default 0.5)</p> <p>Temperature Range 0 to 105°C</p> <p>Accuracy <math>\pm 0.5</math>°C</p> <p>Resolution 0.1°C</p> <p>Hold Function Available</p> <p>Auto Off Function Available</p> <p>Connector 6-pin Mini Plug</p> <p>Display LCD</p> <p>Power Requirements DC9V, using AC adapters, 220VAC/50Hz</p> <p>Dimensions LxWxH 210 x 205 x 75mm</p>	4
8	<b>Digital Potentiometer</b>	<p><b>Input Configuration:</b> Bipolar</p> <p><b>Range:</b> 0 to +/- 1999 V</p> <p>resolution: 1 mv</p> <p><b>Control:</b></p> <p>Set Zero Range : 0 to +/- 1500 Mv input</p> <p>Stirrer Speed: 0 to full speed</p> <p>Switch: Hold reading when pressed</p> <p><b>Polarization Current:</b> 10 Micro Ampere for metal to metal electrode</p> <p><b>Input Impedance:</b> 10<sup>9</sup> ohms</p> <p><b>Polarity:</b> Automatic</p> <p><b>Over Range:</b> Last 3 digit blinking</p> <p><b>Magnetic Stirrer:</b> In built with variable control</p> <p><b>Display:</b> 3 ½ digit led</p> <p><b>Power:</b> 230V AC <math>\pm 10\%</math> , 50 Hz</p> <p><b>With all accessories.</b></p>	4
9	<b>Digital Weighing Balance</b>	<p>Capacity 220 g</p> <p>Readability 0.001 g (1mg)</p> <p>Repeatability (<math>\pm</math>) 0.001 g</p> <p>Linearity (<math>\pm</math>) 0.002 g</p> <p>Pan Size 80 <math>\varnothing</math> mm</p> <p>Display LCD</p> <p>Calibration Automatic External</p>	2

		<p>Tare Range Full  Operating Temperature 15°C to 30 °C  Power Supply AC 220V / 50-60 Hz  Dimension (LxWxH) mm 360 x 220 x 345  Interface RS232C  Data Output Mode Command and continuous Output  Class I  Density YES  Baudrate 1200, 2400, 4800, 9600</p>	
<b>10</b>	<b>UV chamber</b>	<p>Material: Stainless Steel  Usage/Application: Laboratory  Phase: Single  Brand: Bharat Scientific World  Grade: SS 304  Shape: Rectangular</p>	<b>2</b>
<b>11</b>	<b>Vacuum Pump</b>	<p>Material: Cast Iron  Supply Air Pressure: 300  Max Vacuum Level: 760  Power: 1 HP  Oil Change In L: 7  Motor Speed: 800 RPM</p>	<b>2</b>