## Department of Chemistry, University of Kerala, Kariavattom <u>OUOTATION NOTICE</u>

Sealed competitive quotations are invited from reputed firms/manufacturers for the following equipments in the Department of Chemistry, University of Kerala, Kariavattom, Thiruvananthapuram.

Tender Notification Date: 13/03/2021

Last Date of Receiving Tender/Bid Closing: 28/12/2021, 4.00 pm

Date and Time of Opening Tender: 29/12/2021, 3.00 pm

## Description:

Sl.No.	Item	Unit	Specification
1	Abbe Refractometer	5 Nos.	<ul> <li>Refractive index (nD): 1.3000 to 1.7000         Brix: 0.0 to 95.0%     </li> <li>Minimum Scale: Refractive Index (nD): 0.0001         Brix: 0.5%     </li> <li>Accuracy: Refractive index (nD): ±0.0002     </li> <li>Brix: ±0.1%</li> </ul>
2	Conductivity meter with cell	5 Nos.	<ul> <li>Manual instrument, Convenient for routine analysis</li> <li>Source frequency (100 Hz or 1 KHz)</li> <li>Cond. Range &gt; 0 μS to 20 mS with 0.1 cell, 0 μS to 200 mS with 1 cell</li> <li>Cond. Resolution 0.01 μS</li> <li>Temperature range 0 °C to 100 °C</li> <li>LED display (read out 3 digits)</li> </ul>

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3	Potentiometer	5 Nos.	<ul> <li>3½ Digits LED Display (2000 counts FS)</li> <li>Dual Slope Integration A/D Converter System</li> <li>Basic DC Voltage Accuracy of ±0.05%</li> <li>True RMS AC Measurement</li> <li>Continuity Test facility</li> <li>All Ranges are Fully Overload Protected</li> <li>Frequency Measurement upto 200KHz</li> <li>Automatic Polarity Indication</li> <li>dB measurement</li> </ul>
4	Electronic weighing balance	2 Nos	<ul> <li>Large stainless steel plate</li> <li>Readability with 0.01 digit precision</li> <li>Accurate to within +/- division at full load</li> <li>Overload protection, auto zero tracking and automatic external calibration</li> </ul>
5	Electronic weighing balance	1 No	<ul> <li>Large stainless steel plate</li> <li>Readability with 0.0001 digit precision</li> <li>Accurate to within +/- division at full load</li> <li>Overload protection, auto zero tracking and automatic external calibration</li> </ul>
6	Oil Bath	3 Nos	1L 165 x 90mm  Temperature +5 to +200°C by separate temperature control unit with +/-1.0°C, suitable for heating RB flasks, Input 230V AC, 50Hz)
7	Magnetic Stirrer with hot plate	1 No	<ul> <li>Magnetic Stirrer with hot plate and Digital Speed Indicator, Capacity: 2 Litres</li> <li>Compact model with stainless steel top</li> <li>PMDC motor for higher torque even at low speeds</li> <li>Digital Speed Indicator for display of stirring speed, variation upto 1200 rpm</li> <li>Designed for use even in corrosive atmosphere</li> <li>Input Voltage: 230 V AC, 50 Hz</li> </ul>
8	Magnetic Stirrer	5 Nos	<ul> <li>Magnetic Stirrer with Digital Speed Indicator,         Capacity: 2 Litres</li> <li>Compact model with stainless steel top</li> <li>PMDC motor for higher torque even at low speeds</li> </ul>

			<ul> <li>Digital Speed Indicator for display of stirring speed, variation upto 1200 rpm</li> <li>Designed for use even in corrosive atmosphere</li> <li>Input Voltage: 230 V AC, 50 Hz</li> <li>Magnetic Stirrer with Digital Speed Indicator, Capacity: 1 Litre</li> </ul>
9	Magnetic Stirrer	2 Nos	<ul> <li>Compact model with stainless steel top</li> <li>PMDC motor for higher torque even at low speeds</li> <li>Digital Speed Indicator for display of stirring speed, variation upto 1200 rpm</li> <li>Designed for use even in corrosive atmosphere</li> <li>Input Voltage: 230 V AC, 50 Hz</li> </ul>
10	Refrigerator for laboratory purpose	1 No	<ul> <li>Upto 12 Hours Cooling Retention Even During Power cuts</li> <li>Capacity-245275 L</li> <li>No. of doors- 2</li> <li>Type- Top freezer</li> <li>Energy Efficiency- Minimum 3 stars</li> <li>High Freezer Capacity</li> <li>Installation Type- Freestanding</li> <li>Special Features- Inverter, Stabilizer Free Operation, Door Lock</li> <li>Voltage- 230 Volts</li> <li>Defrost System- Frost Free</li> </ul>
11	UV Chamber	2 Nos	<ul> <li>for viewing TLC plate under UV light of different wavelengths</li> <li>Wavelengths required: Short and Long (254nm and 365nm), White light</li> <li>UV Light Source: 3 Nos (254 and 365nm, white light)</li> <li>Independent controls: Provided at the tops</li> <li>Size: 30cm x 25cm x 26cm or larger</li> <li>Construction material: Metal, Mild steel powder coated</li> <li>View Piece: Aluminium casting with Eye protection</li> </ul>

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			<ul><li>Tube size: 30cm (12") or higher</li><li>Voltage: 230V</li></ul>
12	Hot air oven	2 Nos	<ul> <li>Memmert (3-side heating) with digital display temperature controller and air circulation fan</li> <li>Internal Dimensions: 30x30x30 cm, 2-Shelves, 1000 Watts</li> <li>Capacity: Approx.28L</li> <li>Outer body: M.S. sheet, powder coated; Inner chamber: Stainless steel</li> <li>Temperature Range: ambient +5° to 200°C</li> <li>Accuracy: ±1°C at higher temperature.</li> </ul>
13	Heating mantle	2 Nos	250 ml with energy regulator
14	Digital pH meter	1 No	<ul> <li>3½ Digit Red LED Seven segment with automatic polarity and decimel point</li> <li>pH Range: 0 to 14 pH</li> <li>millivolt: 0 to 1999 mV</li> <li>Resolution: 0.01 pH; 1Mv in mV range</li> <li>Manual Temp. Compensation: 0 to 100°C</li> </ul>
15	Digital Centrifuge	1 No	<ul> <li>Models Medico Plus Capacity: 300 ml</li> <li>Max. Speed 4000 rpm</li> <li>Max. RCF;2350g</li> <li>W X D X H: 325 x 370 x 280 mm</li> </ul>
16	Centrifuge machine(3500rpm)	1. No	<ul> <li>Rotor Capacit (ml):  4x15 ml</li> <li>Type of Head: Swing Out Head</li> <li>No. of Tubes: 4</li> <li>Max. Speed (RPM): 3500rpm</li> </ul>
17	Micro pippete(100- 1000μL)	1No	<ul> <li>Capacity: 5 μl</li> <li>Increment: 1000 μl,500 μl,100 μl</li> <li>Test volume: ± 0.60 %,± 0.70 %,± 2.00 %</li> <li>Inaccuracy: ± 6 μl,± 3.50 μl,± 2 μl</li> <li>Imprecision: ± 0.20 %,± 0.25 %,± 0.70 %</li> </ul>

1 No Increment: 1.0 μl  • Test volume: 100 μl,50 μl,10 μl  • Inaccuracy: ± 0.80 %,± 1.00 %,± 3.00 %  • Imprecision: ± 0.80 μl,± 0.50 μl,± 0.30 μl
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## **Terms and Conditions**

Kindly quote the price in Indian rupees by separately mentioning the taxes, cost of supply at the site, warranty and installation charges etc.

The Bid will be valid for 90 days from its date of opening.

Incomplete & conditional quotations and quotations received after the due date will be summarily rejected without assigning any reasons thereof

If any of the components is found to be defective during the warranty period, the vendor has to replace the defective item immediately at their own cost.

Supplier authorization letter and specification compliance sheet to be provided along with the quotation.

Supplier should mention their details of service setup and manpower in Trivandrum who are responsible for after sales service.

Those firms who are interested to quote more than one instrument should send individual quotations for each item separately.

The undersigned reserves the right to reject or accept the quotation without assigning any reason

The item should be delivered and installed in 4 weeks of receiving the purchase order. All incidental expenses should be borne by the supplier.

The quotations should be submitted or send in sealed cover to The Head, Department of Chemistry, University of Kerala, Kariavattom, PIN-695581 on or before 28<sup>th</sup> December 2021.

UNIVERSITOR CHEMISTRY

Assistant professor & Head

ASSISTANT PROFESSOR AND HEAD DEPARTMENT OF CHEMISTRY
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