Tender Document for the Purchase of Rotational Viscometer:

Enquiry No: IITK/CHE/2021-2022/3/UGLAB-VISCOMETER

Bid Start Date: 1st Feb, 2022 Bid End Date: 10th Feb, 2022

Sealed quotations (Technical and Commercial in separate sealed envelopes) are invited for procurement of Rotational Viscometer with the specifications mentioned below. Technical as well as commercial quotations must be sent separately in properly sealed envelopes to the address mentioned below before 5:00pm of the due date. Quotations received after that time or in non-sealed envelopes will not be considered. Terms and conditions as well as detailed specifications are given below. Please contact us in case of doubts/clarifications.

Contact Details:

Dr. Rahul Mangal/ Dr. Naveen Tiwari Department of Chemical Engineering, IIT Kanpur Email: mangalr@iitk.ac.in, naveent@iitk.ac.in Telephone No: +91-512-6792002, +91-512-6796751

Postal Address:

FB-451, IIT Kanpur Uttar Pradesh-208016

Rotary Viscometer Specifications:

- 1) Desirable Viscosity range: (1.5-6000000) mPas or better.
- 2) The device should have touch screen TFT display for Viscosity, Temperature, Shear Rate and Torque Information or better.
- 3) The rpm of instrument must be 0.1-200 rpm (or better) with stepless speed adjustment.
- 4) The device should have the facility for single and multiple point viscosity measurement.
- 5) Device should be supplied with 4 standard spindle set, temperature sensor, stand to mount the viscometer, AC power adaptor with power cable and all basic accessories for proper functioning of the instrument.
- 6) Spindle material should be SS 304, AISI 316 or better.
- 7) Viscosity Accuracy: +/- 1 % of full-scale range or better
- 8) Viscosity Repeatability: +/- 0.2 % of full scale range or better.

- 9) Basic Container Volume (without low volume adaptor) should be mentioned very clearly.
- 10) Desirable range for low viscosity adaptor: 1.5 mPas -26,000 mPas (or better)
- 11) Desirable range for lower sample volume adaptor: (5 ml -15 ml)
- 12) Timed stop feature to measure viscosity at precise user specified time interval.
- 13) Programming and ramping feature should be available in the device so that temperature control options can be added to the viscometer in future.
- 14) Device should have the option to view graph on Viscometer screen.
- 15) Device should have RS 232 and USB interface for PC connectivity.
- 16) There should be provision to control and connect the device with the software compatible to the viscometer. The software should be quoted as **optional**.
- 17) A spare set of spindle should also be quoted as **optional.**
- 18) The measurement system and adaptor should be designed in a way to maintain the sample temperature correctly.
- 19) Power Supply: 230V, 50 Hz
- 20) Calibration standards should be supplied and quoted along with the instrument.
- 21) Detailed instruction manual should be supplied along with the instrument.
- 22) Three years of warranty from the date of installation.
- 23) Essential items to be quoted: Main Viscometer, Adaptor for low sample volumes and low viscosity & Calibration Standard
- 24) Optional Items to be quoted: **Software compatible with the Viscometer & Spare set of Spindle**

Terms and Conditions:

- 1. All equipment must be compatible with Indian electrical standards and codes. Engineering documentation on the physical sizes and weights of all major and minor components must be submitted.
- 2. IIT Kanpur is fully exempted from payment of GST on Imported Goods against our DSIR certificate.
- 3. IIT Kanpur is partially exempted from payment of Customs Duty (We will provide Custom Duty Exemption Certificate).

- 4. The Institute reserves the right of accepting or rejecting any/all quotations without assigning any reason thereof.
- 5. Prices should be Ex-Works/FCA country of origin/CIF New Delhi separately
- 6. Payments terms: As per IIT Kanpur Norms.
- 7. The bidder should be either OEM or his authorized dealer/distributor having its registered office in India to provide sales, 24x7 support.
- 8. Compliance sheet should be filled up and submitted along with other tender documents & deviations from floated specifications must be highlighted clearly.
- 9. Equivalent (or better) hardware/software can be allowed at the discretion of IIT Kanpur. However, in such cases, the bidder must provide sufficient justification for the deviation from the specifications given here.
- 10. Terms and conditions should be clearly mentioned in the technical bid. The deviations should be clearly stated with proper justifications with the signature of the responsible person.
- 11. IIT Kanpur has the right to accept the whole or any part of the tender or portion of the quantity offered or reject it in full without assigning any reason.
- 12. Upon request, the bidder must provide contact details of in charges of at atleast five laboratories in India or abroad where they have supplied an identical system. Bid may be disqualified if a positive feedback is not received from some/all of the provided contacts.
- 13. Maximum educational discount should be offered and mentioned.
- 14. Quotations should be valid for a minimum period of 3 months.