

Indian Institute of Technology Madras

I.I.T.P.O., MADRAS-600 036

DEPARTMENT OF CIVIL ENGINEERING

Form for Inviting Quotations

Ref.No.CIE/INDU/2017/ UV- Visible Spectrophotometer

Date: 06/11/2017 SPEED POST

To

As per list enclosed

Dear Sirs,

DUE DATE: 21/11/2017

- 1. Quotations are invited in duplicate for the various item/ s shown below/overleaf/enclosed
- 2. The Quotations duly sealed and superscribed on the envelope with the reference No. and due date, should be addressed to the undersigned and contain in 2 bid system i.e. Technical bid and commercial bid in two separate envelopes should be enclosed in a single envelope only so as to reach on or before the due date stipulated above.

3. The Quotations should be valid for (60) Sixty days from the due date and the period of

delivery required should also be clearly indicated.

- 4. If the item is under DGS&D Rate contract No. and the price must be mentioned. It may also please be indicated whether the supply can be made direct to us at the Rate contract price (Please note that we are not Direct Demanding Officers). If so please send copy of the RC.
- 5. Relevant literature pertaining to the items quoted with full specifications(and drawing, if any) should be sent along with the Quotations, wherever applicable. Samples if called for, should be submitted free of charges, and collected back at the supplier's expenses.

6. Local Firms: Quotations should be for free delivery to this Institute. If Quotations for Ex-

Godown delivery charges should be indicated separately.

7. Firms Outside Madras: Quotations should be for F.O.R. Madras. If F.O.R. consignor station, freight charges by passenger train / lorry transport must be indicated. If Ex-Godown, packing, farwarding and freight charges must be indicated.

- 8. The rate of sales / General Taxes and the percentage of such other taxes legally leviable and intended to be claimed should be distinctly shown along with the price quoted. Where this is not done, no claim for Sales / General Taxes will be admitted at any stage and on any ground whatsoever. The taxes leviable should take into consideration that we are entitled to have concessional Sales Tax applicable to non Government Educational Institutions run with no profit motive for which a concession. Sales Tax Certificate will be issued at the time of final settlement of the bill.
- 9. Goods should be supplied carriage paid and insurred.

10. Goods shall not be supplied without an official supply order.

11. Payment: Every attempt will be made to make payment within 30 days from the date of receipt of bill / acceptance of goods, whichever is later

Details as per enclosed list.

INDUMATHI M NAMBI

Note: (i) Quotation should be sent by SPEED POST only or to be delivered directly concerned (ii) Firms are requested to submit the specifications of their product along with supporting technical Documentation/brochure instead of reproducing the specifications sent by us.

TECHNICAL SPECIFICATION FOR UV-VISIBLE SPECTROPHOTOMETER

PC controlled double beam UV-Visible Spectrophotometer for liquid sample analysis in transmission and absorbance mode should be quoted with below mentioned specifications:-

- 1. Source: Tungsten & Deuterium lamp with automatic changeover.
- **2. Monochromator:** Blazed holographic grating with 1200lines/mm, Czerny- Turner with 0.2 m focal length.
- 3. Detector: Stable Si diodes Sample and Reference
- 4. Photometric System : Double beam optics
- 5. Wavelength range: 190-1100 nm
- 6. Spectral Bandwidth: 1nm
- 7. Wavelength Accuracy: +/- 0.1 nm at D2 peak @ 656.1 nm, +/- 0.3 nm for entire range
- 8. Wavelength Repeatability: +/- 0.1 nm
- 9. Photometric Range: -4 to +4 / Transmittance: 0 to 400%
- **10. Photometric Accuracy :** +/- 0.002A (0.5 Abs) and +/- 0.004A (1 Abs)
- 11. Photometric Reproducibility: +/-0.001 Abs @ 0.5 Abs
- 12. Stray light : < 1.0% (198 nm KCL) , <0.02% (220 nm Nal) and <0.02% (340 nm NaNO $_2$)
- 13. Baseline Stability: < 0.0003 Abs/h (700nm, after One hour warm up)
- **14. Baseline Flatness:** +/- 0.001Abs (After one hour warmup)
- **15. Photometric Noise**: < 0.00005 Abs or better
- 16. Maximum Scan Rate: 3000 nm/min or better
- 17. Maximum Slew Rate: 6000 nm/min or better
- 18. Environmental Requirement: Temperature: 15- 35° C and Humidity: 30-80%
- 19. Software: System compatible original Licensed Software should be quoted with following capabilities:
 - a. Multi-component measurement: Software should measure absorbance & transmittance at the full or selected Wavelength with real-time spectral displays and live instrument and accessory status bar.
 - b. Software should have facility to export data to Clip board, CSV file, Excel file, BMP file, ASCII file, JCAMP file Zoom In / Out, Add / Edit Labels.

- c. Software should have facility for fully integrated Scan, Kinetic, and Wavelength program data collection mode.
- 20. Warranty- 1 year as standard warranty.

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