



DEPARTMENT OF BIOTECHNOLOGY
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Professor and Head

Date: 28.12.2015

Ref: BT/ANJU/2015/028/SPL

Dt. 28.12.15

Due Dt.08.01.16

1. Quotations are invited in duplicate for the various items shown below/overleaf/ enclosed list.
2. The quotations duly sealed and super scribed on the envelope with the reference No. and due date, should be addressed to the undersigned so as to reach him on or before the due date stipulated above.
3. The quotations should be valid for 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, Rate Contract Number 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. If so, please send copy of the R.C. (Please note that we are not Direct Demanding Officers).
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 are for Ex-Godown, delivery charges should be indicated separately.
7. **Firms outside Chennai:** Quotations should be for F.O.R Chennai. If F.O.R. Consigner stationer freight charges by passenger train/lorry transport must be indicated. If Ex-Godown, Packing, forwarding and freight charges must be indicated.
8. The rates 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 certificates will be issued at the time of final settlement of the bill.**
9. Goods should be supplied carriage paid and insured.
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.

SPECIFICATIONS FOR PC-BASED FTIR SPECTROMETER

INSTRUMENT SPECIFICATIONS:

WAVELENGTH RANGE: 7800 – 350 cm^{-1}

EXTENDABLE WAVELENGTH RANGE: 15,000 to 220 cm^{-1}

RESOLUTION : 0.4 cm^{-1}

INTERFEROMETER: 45° Michelson interferometer with corner cube mirror with mechanical bearing electromagnetic drive

BEAM SPLITTER : Ge Coated KBr substrates

LIGHT SOURCE : High intensity ceramic

DETECTOR : DLATGS Detector with Peltier temperature control

S/N RATIO : 35,000:1

100 % T Line flatness: within +/- 1% T

SOFTWARE SPECIFICATIONS:

Data Processing through 32 bit powerful windows based software capable of controlling and analysing data files of various instruments like FTIR , UV VIS NIR, FLUORESCENCE , etc.,

Fully featured data analysis including peak detection, difference spectra, KK and KM conversion, curve fitting and deconvolution, intuitive graphical user interface.

ADDITIONAL:

- The interface between FTIR and PC should be through USB port for fast data acquisition.
- Auto alignment of fixed mirror through the software should be provided.
- Should provide automatic validation through software.

- Should have optional rapid scan facility with 10 Hz.
- Auto recognition accessories feature should be provided to recognize various accessories like DR, ATR, etc.,
- The tutorial software to explain measurement methods should be provided in the CD – ROM.
- A library with 10000 spectra as standard for lifetime validity should be provided along with the instrument.

ACCESSORIES :

1. Fixed thickness with CaF₂ windows - 1 No. and NaCl windows – 1 No.
2. PC , Printer and UPS – 1 Set
3. ATR with ZnSe Crystal
4. Solid sampling accessories such as Hydraulic press, KBr, Pellet holder, Die set, Agate mortar and pestle – 1 set

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