



DEPARTMENT OF BIOTECHNOLOGY
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Date: 06.12.2019

Ref: BT/SS/2019/012/SPL

Dt. 06.12.19

Due Dt. 27.12.19

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.

SPECIFICATION FOR DOUBLE BEAM SPECTROPHOTOMETER (PC BASED)

Optical System : Rowland off- circle arrangement, Single Monochromator, Double beam

Light Source : D2 Lamp: 190 to 350nm
Halogen Lamp: 330 to 1100nm

Light source

Exchange Wavelength: user selectable within a range of 330 to 350nm

Detector : Silicon photodiode

Wavelength Range : 190 - 1100nm

W.L.Accuracy : +/-0.2nm

W.L.Repeatability : +/-0.1nm

Scanning Speed : 10 to 8000nm/min

Slew Speed : 24,000nm/min

Spectral Bandwidth : 1.0nm fixed

Photometric Range : -3 to 3Abs

Photometric Accuracy: +/-0.0015Abs (0 - 0.5Abs),
+/-0.0025Abs (0.5 - 1Abs),
+/-0.3%T

Stray Light :0.1% (198nm KCL 12 g/L aqueous solution)
0.02% (220nm NaI 10 g/L aqueous solution)
0.02 % (340nm NaNO₂ 50 g/L aqueous solution)
0.02 % (370nm NaNO₂ 50 g/L aqueous solution)

Baseline Stability : +/-0.0004Abs/hour

Baseline Flatness : +/-0.0005Abs

RMS Noise : 0.00004 Abs

Measurement Modes: Quantitative Analysis

Wavelength scan : (Abs, %T, %R, sample reference)

Time scan : (Abs, %T, %R, sample reference)

Fixed Wavelength : (up to 8 wavelength)

Abs/%T monitor

Data Processing : peak picking, peak height , peak area, peak width , Derivatives, smoothing, Data Transaction, Arithmetic , Base line connection, subtraction, Deconvolution, vertical axis conversion , horizontal axis conversion.

Other standard functions: validation software, Enzyme activity calculation, film thickness measurement, color analysis

Instrument should be upgradable to be used with Micro volume of samples less than 1 μ l.

Should quote the following items along with the instrument:

1. Quartz Cuvettes, 10mm - 1 Pair
2. Peltier thermostatted cell holder (Temp.Range : 0 – 100^oC) - 1No.
3. Water Circulator for Peltier – 1 No.

All the vendors are requested to submit quotation in two bid system.
