



**GOVT. OF ASSAM :: OFFICE OF THE PRINCIPAL**  
**JORHAT INSTITUTE OF SCIENCE AND TECHNOLOGY (JIST, ESTD. 2009)**  
**(FORMERLY SCIENCE COLLEGE, JORHAT, (SCJ, ESTD. 1971))**  
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No. JIST/Quotation/Spectrophotometer/2024-25/ 5457

Date: 20/03/2025

**Invitation of quotation for UV-visible Spectrophotometer**

Sealed Quotations are hereby invited by the undersigned for printing of fees receipt book of Jorhat institute of Science and Technology, Jorhat as per Annexure-I. The filled quotations along with all the required document must reach in the office of the undersigned on or before 12 noon 4<sup>th</sup> April 2025. The Envelope containing the quotation may be sealed and superscribed as under.

**Terms and conditions**

- 1) The quotations received after this deadline or in unsealed condition shall not be entertained under any circumstances. This Institute will not be responsible for any postal delay. The offer submitted by Fax/Email shall not be considered, and no correspondence will be entertained on this matter.
- 2) Quotations must be on the letter head of the contractor/firm duly signed by the contractor/Proprietor/Partner/Director or their authorized representative. In case of signing of quotation by the authorized representative, the letter of authorization must be attached with the quotation.
- 3) Rates must be quoted in Indian rupees (taxes extra, if any, must be written separately)
- 4) No overwriting or striking off is permitted on the rate. If found, the quotation shall be summarily rejected.
- 5) The rates quoted must be valid for a minimum of 60 days from the date of opening of the quotation and silence of any tender on this issue shall be treated as agreed upon with this condition.
- 6) Becoming L1 will not be the sole criteria for awarding of contract order unless the rates are reasonable & justified.
- 7) The contractor/firm/agency may satisfy the following conditions and attach self-attested copy of supporting documents with the quotation:
  - a) Firm shall be registered with the Government of Assam / Central Government.
  - b) The firm shall have valid GST/Other taxes and IT PAN.
  - c) The firm should not be blacklisted by any Govt. Agency/Dept. The firm should submit a self declaration to this effect.
- 8) Delivery period -- within 15 days from issue of supply order.
- 9) Payment Terms: Payment will be only after satisfactorily delivery / commissioning of material.
- 10) Bidder must quote the product as per specification provided in annexure-I.

  
Principal i/c

Jorhat Institute of Science and Technology,

Jorhat-10  
Principal (i/c)  
JIST, Jorhat-10



## Technical specifications of UV-visible spectrophotometer

**Preferred brand: Perkin Elmer/ Shimadzu/ Agilent**

Mobility	Benchtop
Optical System	Double Beam
Spectral Bandwidth	1 nm
Wavelength Range	190-1100 nm
Wavelength Accuracy	+/-0.3 nm
Wavelength Repeatability	+/-0.025 nm
Photometric Accuracy	+/- 0.0015
Lamp Type	Deuterium Lamp, Halogen Lamp
Wavelength range	190 to 1,100 nm
Spectral bandwidth	1 nm [190 to 1,100 nm]
Wavelength setting	0.1 nm increments [1 nm increments when setting scanning range]
Wavelength accuracy	$\pm 0.05$ nm at D2 peak 656.1 nm, $\pm 0.3$ nm for entire range
Wavelength repeatability	$\pm 0.025$ nm
Wavelength slew rate	Approx. 29,000 nm/min
Wavelength scanning speed	3,000 to 2 nm/min 29,000 nm/min when survey scanning
Lamp interchange wavelength	Automatic interchange linked to wavelength. The interchange wavelength can be set freely in the range of 295 to 364 nm [0.1 nm increments].
Stray light	Less than 0.004% at 220 nm [NaI] Less than 0.004% at 340 nm [NaNO <sub>2</sub> ] Less than 0.15% at 198 nm [KCl]
Photometric system	Double beam optics
Photometric range	Absorbance: -4 to 4 Abs Transmittance: 0% to 400%
Photometric accuracy	$\pm 0.0015$ Abs at 0.5 Abs $\pm 0.002$ Abs at 1.0 Abs



Photometric repeatability	Less than $\pm 0.00002$ Abs at 0.5 Abs Less than $\pm 0.00003$ Abs at 1 Abs Less than $\pm 0.00007$ Abs at 2 Abs
Baseline stability	Less than 0.0002 Abs/Hr [700 nm, one hour after light source turned ON]
Baseline flatness	Less than $\pm 0.0003$ Abs [1,100 to 190 nm, one hour after light source turned ON]
Noise level	Less than 0.00001 Abs [700 nm]
Light source	20- W halogen lamp and deuterium lamp 21- Built-in light source auto position adjustment
Monochromator	LO-RAY-LIGH grade blazed holographic grating in Czerny-Turner mounting
Detector	Silicon photodiode
Sample compartment	Internal dimensions: W110 $\times$ D250 $\times$ H115 mm Distance between light beams: 100 mm
PC compatibility	PC compatible UV-Vis software External control possible via USB.

## INSTRUMENT SOFTWARE SPECIFICATIONS

Instrument software should be compatible with latest Operating systems having facility to measure photometric measurement at single as well as multiple wavelengths.

Spectrum measurement over entire range. Quantitation with manual curve & multiple standard sample curve. Kinetics as well as time scan study.

Various data processing like, derivatization, Reciprocal, Log, Addition, Subtractions etc.

Customized report formatting suitable for publishing data.

### Mandatory accessories:

- (1) compatible PC for instrument operations along with online 2KVA UPS (minimum 30 min back up)
- (2) 10 mm rectangular quartz Cuvettes -02 pair (cuvette with lid). (each 3.5 ml capacity)



**The following terms and conditions should be included in the document.**

**1. Supplier should have the experience of supplying such items in reputed national research laboratories and universities.**

**2) Training/installation:**

a) **Installation testing:** suppliers of the instrument must provide free installation, commissioning and testing of the equipment in the laboratory.

b) Comprehensive training of faculty & staff after installation should be provided after installation and an update in every six months for the first two years and every year (1 week) for the next three years.

**3) Post warranty, AMC rates:**

At least for 5 years after warranty with 2 (two) preventive and 1 (one) breakdown visit for each year should be mentioned in the offer but it will not be taken for price comparison and decision for AMC will be taken afterwards.

**4) Performance Security:**

Performance Security will Be required @3% of Order/Contract value valid for a period of warranty period plus two months (i.e. 3 years + 2 months)

**5) Availability of spare parts & Consumables:**

A declaration to be submitted that the Spare Parts & Consumables for the item will be available for a period of at least 10 years All hardware & software including drivers, device interface cards/network adaptor card must be pre-installed & pre- configured in the computer /equipment provided. Licensed version of system software should be provided in CD (with up-gradable version).

**6) Manual -** Hard copies of instruction/operation/service manuals should be supplied

List of important Consumable/ Spares and parts having sufficient shelf life for trouble free operation of three years should also be provided.

**7) Warranty:**

a) **Three Year** on site comprehensive warranty with the statement of availability of spares for at least 5 years from the date of the installation of Goods against any manufacturing defects and also give the warranty declaration that everything to be supplied by us hereunder shall be free from all defects and faults in material, workmanship, transportation hazards, and shall be of the highest quality and material of the type ordered, shall be in full conformity with the specifications. During the warranty period, replacement of any part of equipment's or rectification of defects of works will be free of cost. Regular upgrades to all software during the entire warranty period.



b) Any deviation in the material and the specifications from the accepted terms may liable to be rejected and the bidders need to supply all the goods in the specified form to the satisfaction / specifications specified in the order / contract and demonstrate at their own cost. The payments shall be made only after receiving the material in the required specifications and quality to the satisfaction of the University authorities.

c) **Downtime:** During warranty period not more than 5% downtime will be permissible. For downtime exceeding penalty equivalent to 0.50% of the F.O.R. value of the equipment for every week or part thereof may be imposed. Downtime will be counted from the date and time of the filing of complaints within the business hours of the tenderer.

d) The Vendor warrants that any Material supplied hereunder shall conform to the generally recognized manufacturing and safety standards of the Vendor's industry as per Indian Standard Institution (ISI) or similar standard. The Vendor's specifications on performance as detailed in the Vendor's brochures, sales literature and other specifications as may be available to the university.

In addition to any other express or implied warranties, the Vendor warrants that the material furnished pursuant to this order will be:

(a) Free from defects in design except to the extent that such items comply with detailed designs provided by the university; of merchantable quality and suitable for the purposes, if any, which are stated in the tender/quotation.

(b) Vendor should provide insurance up to the delivery point (on-site and not up to the nearest international airport) and until the time of installation.

This warranty provision shall survive any inspection, delivery, acceptance, payment, expiration or earlier termination of this order and such warranties shall be extended to the employees, students, and users of the material.

(c) **Site preparation:** The supplier shall inform the Institute about the site preparation, if any, needed for installation, immediately after receipt of the supply order. Suppliers must provide complete details regarding space and all infrastructural requirements needed for the equipment, which the institute should arrange before the arrival of equipment to ensure its early installation and smooth operation thereafter. The supplier may offer his advice and render assistance to the institute in the preparation of the site and other pre-installation requirement.