

University of Delhi, South Campus  
Central Instrumentation Facility

No. UDSC/CIF/2022/FSSA

Date: 20.12.2022

Quotations are invited through GeM/ CPP portal (e-procurement) under 2-bid system for **Technical Specifications** with FOR destination price to be quoted in INR for University of Delhi, South Campus. The quote should be inclusive of all taxes and duties for supplying and installation of the item as described below.

Name of the equipment: Fluorescence Spectrometer with Stopped flow Accessory

Quantity: One

1.	<b>Light Source:</b>	150W Xenon Lamp- with shielded lamp house, Long life Type
2.	<b>Photometric System :</b>	Photometric ratio system using monochromatic light to monitor the intensity output of the xenon lamp.
3.	<b>Monochromator</b>	Holographic concave grating in modified Rowland mount
4,	<b>Wavelength Range:</b>	<b>200 to 850 nm</b> , and zero order light
5.	<b>Sensitivity (RMS)</b>	<b>8,500:1</b>
6.	<b>Bandwidth</b>	Both Ex & Em - <b>1, 2.5, 5, 10, 20, L5, L10 nm</b>
7.	<b>Resolution</b>	Both Ex & Em - <b>1nm</b>
8.	<b>Wavelength Accuracy</b>	<b>±1.0 nm (at 546.1 nm)</b>
9.	<b>Wavelength Repeatability</b>	<b>±0.3 nm</b> or better
10.	<b>Wavelength Scanning Speed</b>	10 to 60,000 nm/minute or better
11.	<b>Response</b>	10,20,50,100,200,500 msec, 1 2,4,8 sec
12.	<b>Detector</b>	Ex: Silicon photodiode, Em: PMT

13.	<b>Measurement modes</b>	Fluorescence, Phosphorescence and Luminescence
14.	<b>Photometric Range</b>	-10,000 to +10,000
15.	<b>Sensitivity selection</b>	High, Medium, Low, Very Low, Manual, Auto -SCS
16.	<b>Automatic Cut-Off Filter for High-Order Diffraction Light</b>	Should be Standard
17.	<b>Auto Gain :</b>	Should be Standard
18.	<b>Spectral Correction</b>	Should be Standard
19.	<b>Shutter Function</b>	Should be Standard
20.	<b>Sample Compartment</b>	10 mm rectangular cell holder, nitrogen purge able
21.	<b>Connectivity with PC</b>	Should be USB
22.	<b>Accessory Recognition</b>	Automatic
23.	<b>Software Functions</b>	: <b>Software</b> should be latest Windows base for control data acquisition, Spectra Measurement, graphical display, result presentation, prints, superimposition, spectral smoothing, peak search. Self Diagnosis.
24.	<b>Quartz Cuvette</b>	10 mm path length, Vol-3mL, 1ml and 600ul
25.	<b>Computer</b>	Relevant computer and software to run and control this machine
26.	<b>Power reequipments</b>	Relevant UPS for smooth running of equipment should be quoted

**Stopped flow Accessory Specification:-**

1.	<b>Number of Syringes:</b>	2
2.	<b>Control of each syringe</b>	Independent stepper-motor control of each syringe
3.	<b>Syringe Volume :</b>	10 ml standard syringe, Additional Syringes to accommodate volumes of 1 mL, 2.5 mL, 5 mL should be quoted. Multiple delay lines (50 $\mu$ L, 100 $\mu$ L, 500 $\mu$ L) should be quoted
4.	<b>Mixing Ratio:</b>	1:1 to 1:20
5.	<b>Cell</b>	2 mm light path length
6,	<b>Dead time:</b>	2.9 msec
7.	<b>Flow Rate:</b>	5 mL/sec (10 mL syringe)
8.	<b>PC Control Software</b>	Full system control
9.	<b>Installation of Cell holder</b>	Should be modular design allows the cell unit to be easily installed and removed from the standard sample compartment without alignment
10.	<b>Temperature control system :</b>	Heating / Cooling System utilizing Peltier effect
11.	<b>Peltier heat radiation:</b>	Water cooled
12.	<b>Temperature setting range:</b>	Cell : 10 to 80 C Syringe : 10 to 60 C
13.	<b>Temperature accuracy:</b>	0.5 C (Cell)

**Important information:**

1. The quotation should be addressed to the “Chief Executive Officer, Institute of Eminence, University of Delhi, Delhi-110007”. The quote should be submitted with all terms and conditions and necessary documents latest by end of tender date.
2. Quotations have to be submitted in a two-bid-system. The first part, Technical bid, should consist of all technical details and supporting documents with terms and conditions. The compliance sheet must be filled by the vendor.
3. The second part, Financial bid, should contain item-wise pricing of items mentioned in the Technical bid.
  - a. F.O.R. UDSC price to be quoted which includes clearance charges and transportation charges to site of installation and any other requirement for installation at site.
  - b. IGST/CDEC will be provided.
  - c. Payment will be made against successful installation.
4. Both the quotation documents/ bids are to be submitted through GeM/ CPP portal of the Government of India only (e-procurement). Hard copies of bid will not be accepted.
5. The successful bidder must provide a performance bank guarantee (PBG) as per Rule 171 GFR 2017 totaling 5% of the value of the main machine quoted with a validity of 60 days upon completion of the warranty period. The PBG should be in favour of “Chief Executive Officer, Institute of Eminence, University of Delhi, Delhi-110007”. PBG must be provided at the time of installation to avoid delay in payment release.
6. The bidder will have to quote all items together. Partial quotes will not be accepted. For each item, the make, model and technical specifications and quantity have to be mentioned clearly. Original brochure must be provided.
7. **Warranty /Comprehensive Maintenance**
  - a. Machine should be warranted for minimum 12 months from the date of installation.
  - b. AMC up to 5 years on the machine from date of installation after expiry of standard warranty should be quoted, year wise under optional items in the price bid.
  - c. Installation and commissioning to be completed up to the satisfaction level of the technical purchase committee followed by training and handling by the bidders
8. The quote should be valid for 90 days from the last date of submission of bid.