

**DEPARTMENT OF BIOPHYSICS  
PANJAB UNIVERSITY, CHANDIGARH**

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**TENDER DOCUMENT FOR THE PURCHASE OF  
ATOMIC ABSORPTION SPECTROMETER**

Last Date for Receipt of Tender: **25th. Feb. 2011, 03:00 PM**

DATE & TIME OF OPENING: **25th. Feb. 2011, 03:30 PM**

**PRICE Rs. 500/-**

## SECTION – I

### PROCEDURE FOR SUBMISSION OF BIDS

1. There will be **Two bid system** for this Tender: *Techno-Commercial bid* and *Financial bid*.
2. The Techno-Commercial Bid of the Tender should be covered in one sealed cover superscribing the words “Techno-Commercial Bid”.

Likewise, the Financial Bid should also be covered in a **separate** sealed cover superscribing the words “Financial Bid”.

**The two documents viz., Techno-Commercial bid and Financial bid covers prepared as above should be enclosed in a single sealed cover marked as under:**

Tender for the supply of **Atomic Absorption Spectrometer**

Due on **25<sup>th</sup> February, 2011** (last date for submission).

Name & Address of the Tenderer.....

**Note: Price should not be indicated in the Techno-Commercial bid otherwise the Tender will be rejected**

3. Tenders received after the due date will not be accepted. If the last date for submission of Tender falls on any declared holiday in the University, the next working day will be considered as the last date for the same.
4. The bids prepared by the Tenderer and all correspondence and documents relating to the bids, shall be written in English language
5. The contract for the supply of the items is non-transferable.
6. Tender/Offer should be type written, otherwise the same will be rejected
7. Each page of the tender document should be signed by the authorized signatory.
8. Each offer should be complete in all respects.
9. Telegraphic/electronic/conditional offers will not be accepted.

## SECTION – II

### TERMS AND CONDITIONS

1. **Opening of bids:** Techno-Commercial bids will be opened by the Committee after the closing date and studied. The Tenderers will be invited for presentation and clarifications if needed. Financial bids of the Tenderers complying with the prescribed Techno-commercial specifications will be opened by the Committee. Tenderers or their authorized agents may be present if they so desire during opening of the Tenders.
2. **Rejection of bids:** The Committee reserves the right to reject any or all offers without assigning any reason.
3. **EMD:** The Tender bid should accompany an EMD of **Rs. 50,000**. The EMD should be made by means of an A/c payee **DD in favour of the Chairperson, Department of Biophysics, Panjab University, Chandigarh-160014** payable at Chandigarh. No interest is payable on EMD.
4. **Refund of EMD:** The EMD will be returned to unsuccessful Tenderer only after the Tenders are finalized. In case of successful Tenderer, it will be retained till the successful and complete installation of the equipment.
5. **CIF value and comparison of Financial bids:** CIF value upto *Department of Biophysics, Panjab University, Chandigarh (shipment by air upto Delhi and insured up to the installation site)* should be quoted and will be considered for comparison of bids. Bids quoted in foreign currency will be converted into Indian Currency at the exchange rate applicable on the day of opening of the financial bids for comparison purposes.
6. **Warranty Period:** The quoted instrument should carry a warranty for 15 months from the date of shipment of 12 months from the date of installation, whichever is earlier. 2 years free AMC after expiry of warranty period.
7. **PBG:** Tenderer selected for supply of equipment, will have to provide Performance Bank Guarantee (PBG) on any *scheduled bank situated in India, equivalent to 10 percent of the cost of the equipment* which should be valid until the expiry of the Warranty period. The PBG will be provided by the Company along with the letter of acceptance of the order by the Principals.
8. **Terms of Payment:** 100% Advance payment will be transferred to the Company via Swift/Wire Transfer.
9. **Delivery period:** Delivery should be made within *120 days* after advance payment of the amount.

10. **Delayed delivery:** If the delivery is not made within the due date for any reason, the Committee will have the right to impose penalty as under:
  - i First extension for one month or part thereof @ 2%.
  - ii Second extension for an additional month or part thereof @ 3%
11. **Non delivery beyond extended period:** If the Tenderer fails to execute the order within the second extension mentioned above or mutually agreed time frame, the order will be cancelled and EMD forfeited by the Department. He/She will also be liable for all damages imposed by Department of Biophysics for non supply of equipment including the liability to pay the difference between the price accepted by him and those ultimately paid by the Department of Biophysics for the equipment. Such damages will be assessed by the Committee for the purchase of Atomic Absorption Spectrometer.
12. Increased statutory levies and duties above the rate quoted in the offer will not be an excuse for the Tenderer to delay the supply beyond the date specified in the Tender.
13. **Validity of rates:** Rates quoted should be valid for at least *4 months* from the closing date of the tenders.
14. **Consistent pricing:** The rates quoted for the Equipments by the supplier shall in no case exceed the lowest price at which the supplier of this Equipments of identical description made to any other person/organization/Institution during the above said period and should attach an undertaking in this regard.
15. **Installation requirements:** The Supplier will clearly mention installation requirements on our part in the *Techno-Commercial bid*.
16. **Installation time:** The Company must install the equipment *within a period of two months* of the date of delivery of the equipment at Department of Biophysics, Chandigarh.
17. **Free Installation:** The equipment and software should be installed and tested to the specifications *free of cost*.
18. **Supporting Equipment:** The Tenderer will provide all requisite supporting equipments like air compressor, acetylene gas cylinder & regulator, nitrous oxide gas cylinder with regulator, Argon Gas Cylinder with regulator, fume hood, computer & printer etc.
19. **Licenced Software and its upgradation:** *Two user licences* for analysis software should be provided. The certified/licensed software and programs should be the part of the supplies. There should be *free upgradation of software upto 5 year*.
20. **Factory Acceptance Data:** Proposed acceptance criteria for the equipment should be provided by the supplier in order to compare the performance against the quoted specifications. *Manufacturer's test certificate along with test conditions and results* is to be supplied along with the equipment.

21. Tenderers are advised to study all technical aspects and terms & Conditions, of the Tender documents. Submission of Tender shall be deemed to have been done after careful study and examination of the Tender Document with understanding of its implications.
22. **Only Manufacturers or Authorized dealers to bid:** The offering firm should clearly mention whether they are the manufacturer or authorized agent/dealer of the manufacturer. In case of agent for overseas manufacturer, a letter of authorization from the manufacturer should be submitted along with the offer. The Tenderer can also enclose the rates on the letterhead of the manufacturer if he has been authorized to do so by the manufacturer.
23. **Descriptive literature:** A set of specifications, description and illustrated literature of the equipment and related peripherals *should accompany the Techno-Commercial bid.*
24. **User and Service Manuals:** A set of User's manuals and Service manuals of the main instrument, attachments and related equipment (water chiller etc.) should be supplied with the equipment
25. **Equipment must be new:** The Tenderer must ensure that the equipment being offered is a new one and not refurbished or repaired one.
26. **Defective Equipment:** If any of the equipment supplied by the Tenderer is found to be substandard, refurbished, unmerchantable or not in an accordance with the description /specification or otherwise faulty, the committee will have the right to reject the equipment or its part. The prices of such equipment shall be refunded by the Tenderer with 18% interest if such payments for such equipment have already been made to him.
27. All damaged or unapproved goods shall be returned at suppliers cost and risk and the incidental expenses incurred thereon shall be recovered from the supplier. Defective part in equipment, if found before installation and/or during warranty period, shall be replaced within 45 days on receipt of the intimation from this office at the cost and risk of supplier including all other charges.
28. **Damage during transit:** In case of any mishappening/damage to equipment and supplies during the carriage of supplies from the origin of equipment to the installation site, the supplier has to replace it with new equipment/supplies immediately at his own risk. Supplier will settle his claim with the insurance company as per his convenience. The Department of Biophysics will not be liable to any type of losses in any form.
29. **Legal jurisdiction:** Any dispute in this regard of any term of the offer and on the supply of equipment is subject to *Chandigarh jurisdiction* only.
30. **Training** Two weeks training should be provided free of charge at the premises of Department of Biophysics out of which one week should be on equipment usage & software and one week in maintenance.

31. **Availability of Spares:** The Tenderer must assure the availability of spares for servicing of equipment *for at least 10 years*. Supplier should give an undertaking that spares parts will be supplied within the specified periods as and when ordered.
32. **Department of Biophysics Infrastructure:** Department of Biophysics will provide required air conditioned space, *single phase power supply* with required electricity outlets.
33. **Clearance:** The Principals will do all types of clearance work to deliver the equipment at the site of installation. Department will provide all types of documentary support including Customs Duty Clearance. Principals will themselves have to procure any requisite permission from the Govt. of country of origin of equipment.
34. **Agency Commission:** Agency commission, if any, should be clearly mentioned by the Principals in the form of a certificate and will be paid in Indian Currency.
35. **Bank Charges:** Bank charges in India will be borne by the Panjab University and Bank charges abroad will be borne by the suppliers.
36. **Similar Models installed:** The Tenderer must mention in the *Techno-Commercial bid* the similar model of equipment installed in India *during the last five years* and the *addresses of contact persons at these places*.
37. **Application Specialist:** The Tenderer should mention in the *Techno-Commercial bid* the availability and *names* of *Application Specialist* and *Service Engineers* in the nearest regional office.
38. **Response Time:** The Tenderer should mention in the *Techno-Commercial bid* the response time for attending to a complaint about the equipment.
39. **Change of Indian Representatives:** The original manufacturer/Principals should give an undertaking that the aforementioned warranty and availability of spares clauses will be valid even in the case of change of their representatives in India.

## Specification of Atomic Absorption Spectrophotometer

<p>The fully PC controlled AAS System with integrated Graphite furnace required to analyse maximum elements in periodic table in low concentration in various types of samples. The system should be equipped with all the accessories required for the above application. Wave length range 190 –900 nm with PMT Detector</p>
<p>The system should have integrated furnace and flame atomizer for easy and fast operation</p>
<p>Optics :-Double beam optics and the system should have Echelle/holographic monochromator</p>
<p>Lamp Turret :- The system should be fitted with six/eight lamp carousal preferably with individual power supply and should be auto aligned and optimized through software.</p>
<p>Background correction :- The system should have zeeman and D2 background correction in graphite furnace and D2 in flame mode to correct background signals.</p>
<p>Slit :-The system should have slit width in steps of 0.2nm, 0.5nm, 1nm(or better) It should be automatic controlled or selectable through PC .</p>
<p>The Gas control box should be fully automatic It should have all necessary safety interlocks. The burner adjustment should be through software</p>
<p>The system should have safety features like automatic flame ignition, software control automatic fuel gas boost on oxidant change over, automatic flame shut down, burner type sensor spray chamber overpressure protection</p>
<p>The system have burner with slot design giving high solid handling and low carbon build up. The burner height is automatically adjustable.</p>
<p>The inert nebuliser with a PT/IR capillary and PTFE ventury in standard.</p>
<p>The system should have provision for data coded lamps.</p>
<p>Graphite Furnace: Graphite Furnance should have 20 ramps temp range ambient to 3000°C in 1°C increments.The furnace should come with furnace autosampler with 60 or more sample position. water chiller for graphite furnace should be supplied through the manufacturer and not through local source.</p>
<p>Coded hollow cathode lamps: Cu, Fe, Al, Mg, Mn, Zn, Ca, Na, K, Pb, As, Se, Hg, Cd, P and Li</p>
<p>Element Standards: 1000ppm concentration, 100ml for all the above mentioned elements.</p>
<p>Installation and Training : The installation of the instrument should be done at the site by service engineers free of charge. Two weeks training should be provided free of charge at the premises of Department of Biophysics out of which one week should be on equipment usage &amp; software and one week on maintenance.</p>

The quoted instrument should carry a warranty for 15 months from the date of shipment of 12 months from the date of installation, whichever is earlier. 2 years free AMC after expiry of warranty period with extended warranty at low cost

#### Local accessories

- 1) Fume hood
- 2) Suitable UPS with half an hour back up for entire system
- 3) Branded PC with laser jet printer
- 4) Air acetylene and N<sub>2</sub>O cylinder with regulator.
- 5) Oil free Air compressor

#### Optional items

- 1) Mercury Hydride system: automated Continuous Flow Vapour Generation Mercury hydride system for the high sensitivity determination of Mercury and Metallic hydride forming elements such as Bi, As, Sb, Sn, Se, and Hg. The system should perform automatic function and should provide full auto sampling operation with a flame autosampler.
- 2) Flame Auto Sampler – Random access flame autosampler with 24-150 sample capacity