



**PONDICHERRY UNIVERSITY  
(A Central University)**

**Tender document for supply of  
Grazing Incidence –X Ray Diffraction System**

**Under DST FIST – II  
Department of Physics  
Pondicherry University**

**Note**

**The Tender document can be downloaded from the website**

**<https://eprocure.gov.in/eprocure/app>**

## CONTENTS

S.No	Content	Page No.
I	Terms and conditions under two bid system	2
II	Check list to be submitted along with the Technical bid	8
III	<u>Description &amp; Technical Specifications of Instrument</u> GI-XRD	9
IV	Annexure- I (Bidder's Warranty)	15
V	Annexure-II (Bank Guarantee)	16

**TERMS AND CONDITIONS (UNDER TWO BID SYSTEM)**

**I. Instructions to the Bidder: -**

**1. Purchase of Tender Document**

The Tender document can be either downloaded from the websites <https://eprocure.gov.in/eprocure/app>

**2. Tender Document fee and EMD to be submitted**

S.No	Equipment	Tender Document fee ₹	E.M.D ₹
1.	GI-XRD	2,500/-	3,25,000/-

**3. Last Date & Time for submission of Tender Documents**

18<sup>th</sup> July, 2019 at 2.00 p.m and they will be opened on 19<sup>th</sup> July 2019 at 3.00 p.m

**4. Submission of tender Document**

Tender (**technical bid and price bid separately**) must be submitted through CPP Portal addressed to “**The Head, Department of Physics, Pondicherry University, R.V.Nagar, Kalapet, Puducherry – 605 014, India**” positively before the scheduled time.

**5. Payment of EMD & Tender Document fee:**

The Tender must be accompanied with EMD (refundable) and Tender document fee (non-refundable), as stated above, by means of a separate Demand Drafts, in favour of the Finance Officer, Pondicherry University, payable at Puducherry.

**6. Quoting the Core price & Tax, Duties, Discount etc.**

The taxes / duties / discounts, if applicable, are to be explicitly and separately shown in the bid and under no circumstances these components shall be added to the basic price and shown as single price. All the components of taxes, if applicable, should be shown explicitly and separately.

**7. Electrical Power**

All equipment must operate at 230V/50 Hz single phase and / or equivalent three phase electrical power.

**8. The validity of the Quotation**

The validity of the quotation should be for at least 365 days from the opening date of the tender.

**9. Late Bids**

The offers will not be considered if received after the bid closing date and time.

**10. Invalid quotes**

The offers received through telex / tele-fax / e-mail/unsealed or open cover will not be accepted by the University under any circumstances.

**11. No unsolicited correspondence**

No unsolicited correspondence shall be entertained after the submission of the offer.

**12. Purchase Agreement**

If an order is placed with the firm, the purchase shall be governed by an agreement as per the University rules in force at the time.

**13. Additions in terms and conditions**

Additional terms and conditions will be incorporated in the purchase order, if needed, to safe guard the interests of the University.

**14. Non-transferable**

Tender is not transferable.

**15. Power to reject the offer**

Any offer containing incorrect and incomplete information shall be liable for rejection.

Pondicherry University reserves the right to accept / reject any offer in full or in part or accept any offer other than the lowest offer without assigning any reason thereof. *However, deficiencies on any one or, more of the following crucial criteria will be a material factor, for consideration other than the Lowest Quotation: -*

- a) Total Number of installations of the similar Equipment in the premier Research/Academic Institutes in India.*
- b) Availability of Service Network in India, especially in Chennai or Bengaluru.*
- c) Valuable feedback from the present users about the performance, service support, accuracy of result, etc.*
- d) Any other techno commercial information which is deemed fit to be important in the opinion of the University.*

**II. Price Schedule**

**16.** The bidder who is capable of supplying the entire solutions for the instrument quoted as per the list of ITEMS mentioned in the schedule, is alone need to submit their quotation.

**17.** The rates should be quoted for a single unit.

18. The price should include the delivery and installation at the Department of Physics, Pondicherry University, Puducherry and training charges (if any).
19. In price bid no other documents like technical manuals, number of installations, Customer list etc. must be there. All such documents must be enclosed in the technical bid.

**III. Eligibility:**

20. The firm must have the requisite domain expertise with regard to supply, installation and post-sale service of the items they are quoting.
21. The firm should have been in existence for at least **six years** as on the date of this document and must have sufficient number of installations at least three orders of the similar equipment in the premiere Research/academic institutes in India.
22. The firm should have nation-wide Service Network all over India, especially in Chennai or Bengaluru.
23. The feedbacks from the present users of the similar equipment about the performance, service support, accuracy of result, etc. are to be submitted along with the Tender Document.
24. Any other techno commercial information, pertaining to this particular Equipment, principal suppliers, technical background and capability, local agents' background on Scientific Equipment Business, etc. may also be appended along with testimonials and documentary proof.

**IV. Conditions of Contract: -**

25. The offer must be in English. The rates should be indicated both in figures and words against item specified in the given Annexure. It is preferable that the price be quoted in Indian Rupees or in US Dollars or in major foreign currencies.
26. **The total cost should be quoted for FOB as well as CIF – Pondicherry University, Puducherry.**
27. The price quotes under FOB and CIF should also include the expected installation cost in the University Laboratory at Puducherry and also cost of consumables which are required for the main equipment for initial operation upto a reasonable period.
28. In case of the Principal supplier of Foreign country unable to meet the conditions stated at para no.4, the local agent / dealer should fulfil the above said conditions in respect of Local Insurance, Freight, safety transport and installation, etc.
29. The prices quoted shall remain firm until equipment is supplied to the Department of Physics, Pondicherry University, Puducherry.
30. The University has been granted the benefit of exemption from the payment of the Central Excise Duty and Customs Duty by the Department of Scientific and Industrial

Research (DSIR), India, vide their Notification No. 10/97 dt.01-03-1997 and 51/96 dt. 23.07.96 respectively.

**In respect of**

- a. Scientific and technical instruments, apparatus, equipment including computers.
- b. Accessories and spare parts of goods specified in (a) above and consumables.
- c. Computer software, compact disks, CD ROM, Recording magnetic tapes, microfilms, micro-chips etc.
- d. Prototypes.

Customs duties at Indian port, if any, will be to the account of the University.

31. Infra-structural, power and any other requirement for satisfactory installation and commissioning of the whole system must be provided, at least 120 days in advance of the installation to be commenced. All drawing for electrical connections, electrical safety items piping work etc. must be provided in detail.
32. Complete technical specifications and literature, including process flow, to be included with the quotation. Manufacturers of various major parts/equipment must be mentioned explicitly.
33. A clear statement regarding availability of after-sales service and availability of spare-parts for next 10 years should be included.
34. Please give a recent customer list (within last five years) with contact details including email address.
35. If the tenderer have an authorized representative/agency in India, the technical ability of the agency to take care of the problems in the system, if developed later within the warranty and outside the warranty period has to be provided clearly. The responsibility of the Indian agent also must be clearly specified.
36. The bidder from abroad shall obtain, if required, export permission from the appropriate authorities in his country or the country of origin for items to be shipped to India in case of items to be imported. The University shall provide necessary information if required for this purpose.
37. The bidder from within India shall obtain the requisite approval for Imports etc., if required.
38. **Warranty:** The material covered under the purchase order, when installed, shall be warranted for the quality, workmanship, trouble free operation and performance for a period of **at least 36 months from the date of installation and the system into operation** at the Pondicherry University, or at least 42 months from the date of receipt of the last lot of the consignment in India. (A signed Bidder's Warranty as per Annexure – I has to be submitted along with the Bid Document)

If any item covered under warranty fails, the same shall be replaced free of cost including all the applicable charges including shipping cost both ways.

- 39. Payments terms:** Normally a Letter of Credit will be opened for 100% FOB/CIF price on receipt of order acknowledgement. However, 90% of the LC amount will be paid after receipt of the proof of the shipment of the consignment with necessary documents as per the purchase order.

Balance of 10% of the LC amount shall be made after satisfactory installation and commissioning and against submission of the Installation & Commissioning certificate, duly accepted by the purchaser, and **a performance bond of 10% of the total contract / purchase value in the form of bank guarantee (obtained from Nationalized Bank of India) for the duration of the Warranty period.** (Refer Annexure – II for Bank Guarantee Format)

Bank charges in India shall be borne by the purchaser and outside India shall be borne by the contractor / supplier.

- 40.** In case of any dispute in respect of the tender, all legal matters shall be instituted within the jurisdiction of the place where the purchaser ordinarily resides.
- 41.** No Agency commission will be paid to any authorized agent in India.
- 42.** Liquidated damages: Timely supply of the ordered items, installation, commissioning (wherever is applicable) and training etc. is the essence of the contract. In case of failure to supply within the time specified in the Purchase order, a penalty/LD of 0.5% of the total value per week or a part thereof shall be levied subject to a maximum of 7.5% in respect of items which are not supplied. The decision of Pondicherry University shall be final in this regard.
- 43.** The training should be provided by the firm on the specimen and operation of the equipments for a minimum period of three weeks from the date of installation with an expert team for two persons.

For any clarification with respect to technical specifications, please contact Prof. V.V. Ravi Kanth Kumar, Head, Department of Physics, Pondicherry University, Puducherry.

Email: [head.phy@pondiuni.edu.in](mailto:head.phy@pondiuni.edu.in)

[hodphyspu@gmail.com](mailto:hodphyspu@gmail.com)

Tel : 0413-2654402

Cell : +91 94874 36539

For CPPP Portal clarification,  
eProcurement Cell, Chief Secretariat,  
Puducherry – 605 001  
Tel : 0413-2233262 / 2220225

Tender document for supply of GI-XRD, Department of Physics, Pondicherry University

**Checklist is to be submitted along with the Technical bid**

		<b>To be submitted by the firm</b>	<b>To be verified by the Pondicherry University</b>
1	Name of the firm and address		
2	Two sealed covers (Technical bid / Commercial bid)		
3	Earnest Money Deposit (EMD)	Name of the bank:	
		Amount:	
		Date:	
4	Tender Document Fee	Name of the bank:	
		Amount:	
		Date:	
5	GST Registration Copy		
6	Income Tax Returns details for the last three years.		
7	Letter of Authorization from the Original Equipment Manufacturer (OEM) Distributor		
8	Tenderer should be in the business of similar products atleast for 6 years as on the date of submission of the bid. Proof to be submitted		
9	A list of customers with contact details to whom supply were made during last 3 years may be furnished		
10	Name of the service engineer to be deployed and his Contact No.	1. Name & Cell No.	

**Signature of the authorized person of the firm**

**Committee Members:**



## II. Descriptions & Technical Specifications of Instruments required

### Item 1: GI-XRD

#### Technical specifications of Grazing Incidence-X-Ray Diffraction (GI-XRD) system

S.No	Specifications
1.	<p><b>System Description</b></p> <ul style="list-style-type: none"><li>Supply, installation and performance demonstration of floor mounted, automated <b>Grazing Incidence X-Ray Diffraction (GI-XRD)</b> system for analysing powder samples, polycrystalline and epitaxial thin films, X-Ray reflectivity, stress and texture for thin films with necessary hardware and software at the <b>Department of Physics, Pondicherry University, Puducherry</b>. The system must be capable to upgrade for future developments to be used in the applications mentioned in the tender document without compromising efficiency and resolution.</li></ul>
2.	<p><b>X-ray generator</b></p> <ul style="list-style-type: none"><li>Output power : 3.0 kW or better</li><li>Cu anode (sealed tube X-ray source)</li><li>It should have necessary Ni filter (<math>K_{\beta}</math> elimination)</li><li>Necessary monochromators at the source and the detector for fluorescence minimization and <math>K_{\beta}</math> elimination.</li></ul>
3.	<p><b>Goniometer</b></p> <ul style="list-style-type: none"><li>High resolution automated stepper or continuous motor controlled goniometer.</li><li>Horizontal/vertical type theta-theta (<math>\theta</math>-<math>\theta</math>) geometry based on position sensing system.</li><li>Fully automated alignment for mounting and demounting of other accessories like high temperature attachment or capillary sample stage, detectors, monochromators etc.,</li><li>Horizontal/vertical goniometer with variable measuring circle diameter for high intensity and better resolution.</li></ul> <p>The goniometer should have the following features:</p>

	<ul style="list-style-type: none"> <li>• Scanning range : <math>2\theta</math> from <math>-10^\circ</math> to <math>160^\circ</math> or better</li> <li>• Scan speed : <math>0.001^\circ/\text{sec}</math> to <math>0.8^\circ/\text{sec}</math> or better</li> <li>• Slew speed : <math>15^\circ/\text{sec}</math> or better</li> <li>• Minimum step size : <math>0.0002^\circ</math> or better</li> <li>• Angular reproducibility (<math>2\theta</math>) : <math>0.0001^\circ</math> or better</li> <li>• Theta (<math>\theta</math>) / <math>2\theta</math> accuracy : <math>\pm 0.003^\circ</math> or better</li> <li>• Goniometer accuracy : <math>0.0001^\circ</math> or better</li> <li>• Linearity: <math>\leq 0.01^\circ</math> for <math>2\theta</math> using standard sample (eg. LaB<sub>6</sub>)</li> </ul>
<p><b>4.</b></p>	<p><b>Optics / Slits</b></p> <ul style="list-style-type: none"> <li>• X-ray diffractometer should have optics where different optical components such as slit assemblies, monochromators to eliminate <math>K_\beta</math>, <math>K_{\alpha 2}</math> &amp; fluorescence for Cu target, sample stages, etc, compatible for different desired applications.</li> <li>• All necessary slits, filters and optics systems to be included in the basic system. Optics should include computer controlled (with automatic variability, alignment and systematic error corrections) divergence slits, receiving slits and anti-scatter slits.</li> <li>• Optics/slits should be capable of operating with Bragg-Berntano geometry and parallel beam geometry.</li> <li>• Gobel mirror / parabolic mirrors for glancing incidence data along with suitable slits, masks, soller slits, anti-scatter components, filters and collimators etc.</li> <li>• Minimum incidence angle: <math>0.1^\circ</math> or better</li> <li>• All necessary hardware and software for grazing incidence diffraction (GID) application must be offered as part of the basic system.</li> <li>• The necessary primary and secondary side optical components for a good quality texture work.</li> <li>• The system should have easy changeover from one configuration to another without the need of realignment.</li> </ul>
<p><b>5.</b></p>	<p><b>Sample Stage and Sample Holders</b></p> <ul style="list-style-type: none"> <li>• Rotational sample stage: Rotating sample stage with facility to control the rotation from 0 to 60 rpm.</li> </ul>

	<ul style="list-style-type: none"> <li>• Operation modes: Continuous speed rotation, oscillation sample in plane rotation scan, continuous step and minimum step width: 0.1°.</li> <li>• The sample stage for mounting powder samples should be provided.</li> <li>• The sample stage should have necessary facilities for texture, epitaxial, residual stress and reflectivity analysis of thin films.</li> <li>• Sample holders for powder samples (Minimum 10 Nos.).</li> <li>• Low background sample holders (Minimum 3 Nos.).</li> </ul> <p><b>Standard sample for calibration</b></p> <ul style="list-style-type: none"> <li>• The NIST standard sample for periodic checking of system alignment to be included.</li> </ul>
<p><b>6.</b></p>	<p><b>Detector</b></p> <ul style="list-style-type: none"> <li>• FAST Linear detector (semiconductor based solid state detector) for collecting quality data for powder samples and thin films.</li> <li>• The detector should be capable of working with samples which exhibit high fluorescence (samples containing Fe and Co).</li> <li>• It should have a high resolution and precession with low dead time. The vendor should specify the best available pixel size.</li> <li>• The detector should be compatible with the scan angles mentioned earlier.</li> </ul>
<p><b>7.</b></p>	<p><b>Computer System and UPS</b></p> <ul style="list-style-type: none"> <li>• A branded desk-top computer with Intel® i7 or better processor, ≥ 3.0GHz speed, 8 GB RAM, 1TB, DVD writer, 27” wide LED monitor and the required graphic adaptor card with latest licensed windows operating system. A branded high quality laser colour printer should be provided.</li> <li>• Online UPS of suitable power rating with minimum of 30 minutes backup for the complete XRD system.</li> </ul>
<p><b>8.</b></p>	<p><b>Software</b></p> <ul style="list-style-type: none"> <li>• All the necessary software for aforementioned applications. The system should have provision for simultaneous data collection and analysis.</li> <li>• The software should have options to do background subtraction, smoothing, <math>K_{\alpha 1}</math>, <math>K_{\alpha 2}</math> separation / elimination, peak search, multiple peak separation, stack plotting.</li> <li>• The output data in standard formats (ASCII / CSV) and exportable to</li> </ul>

	<p>popular platforms.</p> <ul style="list-style-type: none"> <li>• Search-match software for qualitative phase estimation based on ICDD database. Automatic phase identification – the software should ‘accept’ the most likely combination of candidate phases automatically after the search-match process.</li> <li>• Software for crystallography analysis, Rietveld analysis, quantification of different phases, indexing, overlapping peak separation, lattice constant determination, degree of crystallization of a mixture of crystalline and amorphous substance.</li> <li>• Software for thin film analysis: Reflectivity data analysis and fitting, rocking curve data analysis.</li> </ul>
<b>9.</b>	<p><b>Chiller and Circulator</b></p> <ul style="list-style-type: none"> <li>• Suitable external closed loop water chiller of reputed manufacturer to support the XRD system and all standard accessories such as pumps, insulated pipe lines of required length, etc.</li> <li>• Suitable external filters for dust and related particulate matter.</li> </ul>
<b>10.</b>	<p><b>Tool-kits and Spare Parts</b></p> <ul style="list-style-type: none"> <li>• A set of tool-kits for maintenance of GI-XRD system.</li> <li>• Vendor should quote the price for spare and consumables required for the period of 5 years after the warranty.</li> </ul>
<b>11.</b>	<p><b>Safety, Installation, Training and Documentation</b></p> <ul style="list-style-type: none"> <li>• The system should conform to Indian and International safety standards and regulations pertaining to X-ray radiation and other hazards.</li> <li>• The complete system along with accessories specified in this tender document must be installed free at the Department of Physics, Pondicherry University, Puducherry.</li> <li>• Comprehensive and satisfactory training for faculty, staff and research scholars regarding the safety, operation and maintenance of the GI-XRD and accessories should be provided.</li> <li>• All documentation shall be in English language. In addition to hard copies, soft copies of manuals shall be submitted. a) System Operational Manual in print and CD. b) System maintenance manual in print and CD. c) Calibration procedure manual in print and CD and d) Test reports for all the</li> </ul>

	mode of operations.
<b>12. Warranty</b>	<p>a) <b>Five Years</b> onsite comprehensive warranty (Inclusive of service, spares and related items. During the warranty period, replacement of parts or rectification of defects will be free of cost).</p> <p>b) After the warranty period is over, the instrument maintenance charges, terms and conditions for Annual Maintenance Contract (AMC) / Comprehensive Maintenance Contract (CMC) for five years should be quoted. The AMC / CMC charges will be included as part of the total cost of the equipment. It may be noted that the AMC / CMC charges shall also be considered along with the cost of equipment for the financial evaluation of the bids.</p>
<b>13. Shifting &amp; Reinstallation</b>	<ul style="list-style-type: none"> <li>• Vendor/manufacturer has to take all the responsibilities for shifting and reinstallation of the equipment from one building to another if required. This responsibility has to be provided in writing by the vendor/manufacturer. All terms and conditions remain same at the new site.</li> </ul>
<b>14. Optional Accessories</b>	<p><b>(a) Spare X-ray tube (Cu)</b></p> <p><b>(b) High Temperature Attachment</b></p> <ul style="list-style-type: none"> <li>• High temperature attachment for operating XRD up to 800° C</li> <li>• Temperature accuracy should be <math>\pm 1^\circ</math> C or better.</li> <li>• The device must have a provision to ramp the sample temperature at rates including 1° C/min, over the entire range of operation.</li> <li>• User should be able to programme <math>\geq 20</math> steps of temperature profile and acquire XRD data at each step.</li> <li>• Options to introduce inert gas or vacuum should be provided.</li> </ul> <p><b>(c) RSM and Rocking curve measurement attachment</b></p> <ul style="list-style-type: none"> <li>• All required attachments to measure the reciprocal space mapping and rocking curve measurements should be included.</li> </ul>

	<p><b>(d) Software</b></p> <ul style="list-style-type: none"><li>• ICDD data base and peak fitting ICDD PDF4+ (latest available) with 5 years validity upgradable to 10 years from the date of registration, ICSD database. Licenses to five users for all the databases.</li><li>• Software to do measurement mode for pole figure, data display mode, correction for random sample, correction for pole figure data, 3-D display mode, data conversion to ODF, ODF calculation, Inverse pole figure calculations.</li></ul>
<p><b>15. Acceptance</b></p>	<ul style="list-style-type: none"><li>• The supplier shall install and commission all the accessories covered under this tender.</li><li>• The supplier shall demonstrate performance and quality parameters of the complete system (including all the accessories / attachments) as per this tender.</li><li>• The supplier shall demonstrate the performance of the system using NIST standard samples. The standard sample performance is to be included in the scope of supply.</li><li>• The supplier shall demonstrate all the features of the software.</li></ul>

**ANNEXURE - I**

**BIDDER'S WARRANTY**

The Registrar, Pondicherry University, Puducherry invited Bid Document for Supply of Sophisticated Instruments at Department of Physics, Pondicherry University and M/s. \_\_\_\_\_

Thereinafter referred to as "The Bidder" having carefully studied all the bid documents, Specifications, etc. accompanying the tender for supply of the \_\_\_\_\_ (Name of the Instrument) and desirous to submit the bids as per the Tender Document advertised vide Notification-TenderNo. /..... **dated**.....

**DO HEREBY WARRANTY THAT**

1. The bidder is familiar with all the requirements of the bid documents.
2. The bidder has investigated the site and satisfied, he regarding the character and scope of the work and local conditions that may affect the supply or it's Performance.
2. The bidder is satisfied that the supply can be performed and completed as required in the contract.
4. The bidder accepts all risk directly or indirectly connected with the performance of the contract.
5. The bidder has had no collusion with other contractors, with any of the men of Pondicherry University, Puducherry, or with any other person in preparation of the bid.
6. The bidder has not been influenced by any statement or promise of the Officials of Pondicherry University, Puducherry but only by the bid documents.
7. The bidder is financially solvent.
8. The bidder is experienced and competent to perform the contract to the satisfaction of the Co-ordinator, Central Instrumentation Facility, Pondicherry University, Puducherry.
9. The statements submitted with the bid are true.
10. The contractor is familiar with all general and special laws, acts, ordinances, rules and regulations of the Municipal, District, State and Central Government that may affect the work, its performance or personnel employed therein.
11. All the terms & conditions of the Supply Order will bind the bidder once his quote is accepted and supply order issued.

**Signature of the Bidder**

ANNEXURE - II

**BANK GUARANTEE**

Pondicherry University  
Bharat Ratana Dr. B R Ambedkar Administrative Building  
R Venkataraman Nagar  
Puducherry 605 014

This guarantee made on this \_\_\_\_\_ day of \_\_\_\_\_ 201\_ by \_\_\_\_\_ Bank having its Registered Office at \_\_\_\_\_ and one of its branches at \_\_\_\_\_ (hereinafter referred to as “the Guarantor” which expression shall, unless it be repugnant to the subject, meaning or context thereof, be deemed to mean and include its successors and assigns) in favour of the Pondicherry University, Puducherry 605 014 represented by its Registrar, having his office at R. Venkataraman Nagar, Kalapet hereinafter referred to as the “University” which expression shall include his successors in office for an amount not exceeding Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) at the request of M/s. \_\_\_\_\_ (more fully described hereunder)

2. Whereas the University has placed work Order No: PU/ \_\_\_\_\_ dated \_\_\_\_\_ for \_\_\_\_\_ with M/s. \_\_\_\_\_ having its office at \_\_\_\_\_ and hereinafter referred to as the “Contractor” which expression shall include their successors and assigns.

3. And whereas the Contractor has accepted and agreed to execute the work as per the work order as per undertaking / agreement dated \_\_\_\_\_ within the time stipulated and in the manner specified therein.

4. And whereas the University has called upon the Contractor to furnish Bank Guarantee for the sum of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) for fulfilment of the said work as specified in the work order and as agreed to by the Contractor.

5. And whereas the Contractor has requested the Guarantor herein to furnish an irrevocable and unconditional Bank Guarantee in favour of the University for an amount of Rs. \_\_\_\_\_ as guarantee towards execution of the work as agreed to by the contractor to the University.

6. Now, therefore, we \_\_\_\_\_ Bank, the Guarantor herein, do hereby irrevocably and unconditionally Guarantee the payment to the University the sum not exceeding Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) in the event of any breach, failure, neglect or inability on the part of the Contractor in the execution of the said work, on demand without reference of the matter to the Contractor and without any prior consent of the Contractor, at all times throughout the period of execution of the work, without demur, cavil or argument or delay.

7. The Guarantor agrees and undertakes that the decision of the University as to whether the contractor has committed any breach of the obligation with respect to the work to be executed, and the quantum of amount therefore payable by the Contractor to the University in



that regard, shall be final, binding and conclusive as against the Guarantor and the Guarantor shall make payment accordingly, on demand by the University.

8. The Guarantor further agrees and undertakes to pay to the University the amount demanded by the University irrespective of and notwithstanding any dispute raised by the Contractor in any suit or proceeding before any judicial forum relating to the Contracted work and the Guarantor's liability under this Guarantee shall be absolute and unequivocal.

9. This Guarantee is issued subject to the condition that the liability of this Guarantor under this guarantee is limited to the maximum of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) and the guarantee shall remain in full force up to \_\_\_\_\_ and cannot be invoked otherwise than by a written demand or claim by the University for the payment of the said amount by the Guarantor on or before \_\_\_\_\_ or any extended date as decided by the University.

10. This University shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the contracted work or to extend time for performance of the work by the Contractor. Any change to the contracted work shall not in any way release the Bank (Guarantor) from liability under this Guarantee and we waive notice of any such change. The University shall have full liberty to forbear or enforce any of the terms and conditions of the contracted work.

11. This Guarantee shall not be affected by any legal limitation, disability or other circumstances relating to the Contractor or the Guarantor.

12. This Guarantee shall be valid for the period upto \_\_\_\_\_ and shall extend further and beyond \_\_\_\_\_ for such period as determined by the University.

13. The Guarantor undertakes not to revoke this guarantee except with the previous consent of the University in writing.

14. Notwithstanding anything contained herein:

- Our liability under this guarantee shall be limited to Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only)
- This guarantee shall be valid upto \_\_\_\_\_ and for such further period as determined by the University for fulfilment of the contract.
- We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before \_\_\_\_\_ or such extended period / date.

In witness whereof, this Guarantee has been executed by \_\_\_\_\_ for an on behalf of the Bank (Guarantor) on the day, month and year first above written.

**SIGNATURE AND SEAL**

**NAME OF THE BANK (GUARANTOR):**  
**ADDRESS:**

CORRIGENDUM

**Item 1: GI-XRD**

**Technical specifications of Grazing Incidence-X-Ray Diffraction (GI-XRD) system**

S.No	Specifications
12.	<p><b>Warranty</b></p> <p>e) <del>Five years onsite comprehensive warranty (Inclusive of service, spares and related items. During the warranty period, replacement of parts or rectification of defects will be free of cost).</del></p> <p>d) <del>After the warranty period is over, the instrument maintenance charges, terms and conditions for Annual Maintenance Contract (AMC) / Comprehensive Maintenance Contract (CMC) for five years should be quoted. The AMC / CMC charges will be included as part of the total cost of the equipment. It may be noted that the AMC / CMC charges shall also be considered along with the cost of equipment for the financial evaluation of the bids.</del></p>
12.	<p><b>Warranty</b></p> <p>a) <b>Three years</b> onsite comprehensive warranty (Inclusive of service, spares and related items. During the warranty period, replacement of parts or rectification of defects will be free of cost).</p> <p>b) After the warranty period is over, the instrument maintenance charges, terms and conditions for Annual Maintenance Contract (AMC) / Comprehensive Maintenance Contract (CMC) for five years should be quoted. The AMC / CMC charges will be included as part of the total cost of the equipment. It may be noted that the AMC / CMC charges shall also be considered along with the cost of equipment for the financial evaluation of the bids.</p>

**Note: The details regarding the warranty period of GI XRD, stated under serial no.12 in page 12 of Tender Document is changed as shown above.**