



Guru Gobind Singh Indraprastha University

Sector 16C, Dwarka, New Delhi -110078

Website: <http://ipu.ac.in>

Dated: 09.10.2015

TENDER NO. 10/PUR/GGSIPU/2015-16

E-TENDER (NIT)

Registrar, Guru Gobind Singh Indraprastha University invites item rate e-tenders from reputed and eligible contractors/firms in two bid system (Technical & Financial) for the **Supply and Installation of Lab Equipment (Nano Science & Technology) under DST project** for USBAS, Sector 16C, Dwarka, New Delhi-110078. Tender document can also be downloaded from Delhi Govt. e-procurement website i.e. www.govtprocurement.delhi.gov.in. The tender document can also be viewed on University website i.e. www.ipu.ac.in.

1.	Name of work	Supply and Installation of Lab Equipment (Nano Science & Technology) under DST project for USBAS at Guru Gobind Singh Indraprastha University, Sector 16 C, Dwarka, New Delhi – 110078
2.	Last date, time and venue for submission of EMD and Technical bids documents	09.11.2015 Upto 02.00 p.m. in the office of Dy. Registrar (Purchase), Ground Floor, Library Block, GGSIPU, Sector 16 C, Dwarka, New Delhi – 110078
3.	Date and time for opening of Technical bid	09.11.2015 at 02.30 p.m.
4.	EMD	Item wise EMD mentioned in the Annexure-G In favour of Registrar, GGSIP University payable at Delhi,
5.	Cost of Works	Rs.73 Lacs (approximately)
6.	The bids shall be submitted in two stages viz.(i) <i>Technical bid</i> (ii) <i>Financial bid</i> . Detailed specification of the item(s) to be supplied is placed at Section-III Annexure-G . The Technical & Financial bid should also be uploaded on e-procurement website i.e. www.govtprocurement.delhi.gov.in	
7.	Financial bid shall be opened after evaluation of technical bid/time notified thereafter on e-tender website www.govtprocurement.delhi.gov.in	

(REGISTRAR)



GURU GOBIND SINGH
INDRAPRASTHA
UNIVERSITY

TENDER DOCUMENT

FOR

Supply & installation of Lab Equipments (Nano Science & Technology) under DST project for USBAS

AT

Guru Gobind Singh Indraprastha University
[A state University under Govt. of NCT of Delhi]
Sector 16 C, Dwarka, New Delhi 110 078

Dy. Registrar (Purchase)
Room No. L 010, Ground Floor, Library Block,
GGSIPIU, Sector 16C, Dwarka, New Delhi 110078
Contact Nos.011 25302149-150
Email :purchaseipu@gmail.com.

NOTICE INVITING TENDER

TENDER NO. /PUR/GGSIPU/2014-15

Registrar, Guru Gobind Singh Indraprastha University (GGSIPU) invites item rate e-tender (in two bid system – Part I & II) from reputed and experienced contractors/suppliers for the following stores on Supply & installation basis:

1. **Particulars of Items:** Details of the items with specification is mentioned at annexure-G
2. **Quantity:** Quantity is mentioned at annexure-G
3. **Earnest Money Deposit (EMD) in the form of DD/FDR:** The details of the item wise EMD is mentioned at annexure-G.
4. **Completion period:** Supply within 90 days from the date of issue of award of the tender/issue of Letter of Credit, whichever is later and installation within 30 days' after the receipt of material at University.
5. **Availability of Tender Document:** Tender Documents with detail terms & conditions can be downloaded from Delhi govt. e-procurement website.
6. **Qualification of the Tenderer:** To qualify for award of the work, the intending tenderer must have in its name as a supplier/prime contractor experience of having successfully completed at least three similar nature of works in public sector undertaking, Govt. department, Educational Institutions, Research Institutional or in reputed private sector in India during last 3 (three) years. "Similar nature of work" means execution of supply and Installation of Lab Equipments – mentioned at annexure-G as the case may be as per specification given in this tender document. Issuance of tender document does not mean that the parties are considered qualified. After opening of part-I of the offer, the same will be scrutinized for eligibility / qualification.
7. **Validity Period of Offer:** The rates offered in Part II (Financial bid) should be valid for one hundred and eighty (180) days from the date of opening of Part I (Technical bid) of the Tender.
8. **Receipt and opening of Tenders:** The Technical bid along with EMD should reach to this office on or before 09.11.2015 before 02.00 PM. The Technical Bid will be opened on the same day at 02.30 pm.
9. The required EMD (**separate for each bid**) as mentioned at Annexure-G in the form of DD or FDR must be enclosed with the technical bid failing which the offer will be treated as non-responsive.
10. GGSIPU reserve the right to accept or reject any or all the tenders wholly or partially without assigning any reason thereof.

INSTRUCTIONS TO BIDDERS

11.0 Scope

The work consists of:

11.1 **Supply and Installation of Lab Equipment (Nano Science & Technology) under DST project for USBAS** at University Campus at Sector-16C, Dwarka, New Delhi as per specification in **Section-III, Annexure-G**.

11.2 Comprehensive on-site **warranty** for a period of **12 months** from the last date of completion/ installation for all the items supplied as certified by the University.

12.0 Definitions:

12.1 **GGSIPIU** means Guru Gobind Singh Indraprastha University, Delhi

12.2 **University** means Guru Gobind Singh Indraprastha University, Delhi

12.3 **Employer** means the Registrar, GGSIPU and his successor

12.4 **Bidder** means the Manufacturer or his direct authorized distributor (dealing at first point), proprietary firm, partnership firm, limited company private or public or corporation

12.5 **“Year”** means “Financial year” unless stated otherwise.

13.0 Who can apply:

13.1 If the bidder is a proprietary firm, the application shall be signed by the proprietor with his full typewritten name and the full name of his firm with its current address, contact details etc.

13.2 If the bidder is a firm in partnership, the application shall be signed by all partners of the firm with their full typewritten names and current addresses, or alternatively, by a partner holding power of attorney for the firm. In the latter case a certified copy of the power of attorney should accompany the application. In both cases, a certified copy of partnership deed and current address of all the partners of the firm should accompany the application.

13.3 If the bidder is a limited company or a corporation, the application shall be signed by a duly authorized person holding power of attorney for signing the application accompanied by a certified copy of the power of attorney. The bidder should also furnish a certified copy of the Memorandum and Articles of Association duly attested by a Public Notary.

13.4 Joint Venture/ Consortiums are not accepted.

14.0 Sealing and Marking of Bids

14.1 Technical Bid shall be submitted for each item along with EMD.

14.2 The bidder shall place two separate envelopes (called inner envelopes) marked **“Technical Bid”** and **“Earnest Money Deposit”** in one outer envelope. The inner envelopes will have marking as follows:-

- a) Technical Bid
- b) Earnest Money Deposit (EMD)

14.3 The sealed inner and outer envelopes containing the technical bid and EMD shall be addressed to Dy. Registrar (Purchase), Guru Gobind Singh Indraprastha University, Sector 16C, Dwarka, New Delhi – 110078.

- 14.4 The sealed tender shall bear the name and identification number of the Tender on the cover of the Envelope(s).
- 14.5 In addition to the identification required as above, **each** of the envelopes shall indicate the name and address of the bidder to enable the bid to be returned unopened in case it is declared late or is declared non-responsive.
- 15.0 **Bid Submission:**
- 15.1 The envelop named “**Technical Bid**” shall comprise of all documents as per **Clause-16 (Separate bid for each item)**. All the documents as per the Clause-16 must also be uploaded on the e-tender website.
- 15.2 The “**Financial Bid**” shall comprise of the price bids should be uploaded on e-tender website i.e. www.govtprocurement.delhi.gov.in only (Not to be submitted in hard copy).
- 15.3 Each page of the Technical Bid, Tender Document must be sealed and signed by the authorized signatory of the bidder.
- 15.4 Duly signed tender document along with all corrigenda, addendum issued, if any, should also be sealed as part of technical bid.
- 15.5 Conditions other than those laid down in the Tender document will not be entertained.

16.0 Eligibility Criteria for Technical Bid

All eligibility documents with EMD must also be submitted in hard copy as per the date and time mentioned above.

The formats/Annexure for the documents to be submitted, with Technical bids are placed at **Section –II (Annexure – A, A1, A2, A3 to Annexure E)**:

16.1	Letter of Transmittal	Annexure – A
	Declaration by Bidder	Annexure – A1
	Compliance to Bid Requirement	Annexure – A2
	A declaration by the manufacturer as to the probable date of manufacture of the item for which financial bid has been made.	Annexure – A 3
16.2	Organizational Structure: - Legal status of the company/ organization with legal proof along with certified copies.	Annexure - B
16.3*	Income Tax Registration (PAN No.),	Attach certified copies
	Service Tax Registration,	
	DVAT Registration/ TIN Number	
16.4	Average financial turnover of Rupees One Crore during the immediate last three consecutive financial years, duly audited, signed & stamped by a Chartered Accountant.	Annexure C
	The bidder should not have incurred losses in more than two years in the last 3 consecutive financial years, duly certified by Chartered Accountant, along with copies of audited profit and loss account of last three years	
16.5	Firm should have executed atleast one of the following in the last three years: One single order of similar kind or equivalent Lab Equipment having value of 80% of the estimated cost of the item. OR Two order of similar kind or equivalent Lab Equipment having value of 60% of the estimated cost of the item. OR Three order of similar kind or equivalent Lab Equipment having value of 40% of the estimated cost of the item. Explanation:	Annexure D

	Similar kind or equivalent lab equipment means the work of supply and installation of similar or equivalent lab equipments mentioned at Annexure-G in public sector undertaking, Govt. department, Educational Institutions, Research Institutional or in reputed private sector. This should be certified by an authorized officer of the client organization on its letter-head.	
16.6	That the bidder/ organization has not been blacklisted/debarred by any of the government/ public sector agencies in India in the last 3 years. A declaration of fair business practice by the Bidder.	Annexure – E
16.7	The intending bidder must submit compliance report of the each item of the bid.	
16.8	The Manufacturer should have a authorized service centre in India only	Attach copy of proof
16.9	Printed and proper circulated catalog for the quoted similar items be submitted along with the tender document	Attach copy of proof
16.10	User list with supply/purchase order of the similar field in the Govt./ reputed organization	Attach copy of proof

* Wherever applicable.

17.0 Opening of Technical Bids & Evaluation:-

- 17.1 The details submitted by the bidders will be evaluated in the following manner:
- 17.2 The “initial eligibility criteria” prescribed in para 17.1 to 17.10 above in respect of experience in similar class of works completed, financial turnover, profitability and valid registrations will first be scrutinized.
- 17.3 Examination of the specification of all the items will be done by Technical Committee.
- 17.4 Even though any bidder may satisfy the above requirements, he/she would be liable to disqualification if he/she has:-
- 17.5 Made misleading or false representation or deliberately suppressed the information in the forms, statements and enclosures required in the eligibility criteria document.
- 17.6 Record of poor performance such as abandoning work, not properly completing the contract, or financial failures/weaknesses etc.

18 Opening of Financial bid and evaluation:

After the Technical evaluation of the bids, the University will open the ‘Financial Bids’ of all the bidders who have qualified in the technical evaluation of the specification criteria as per Clause 18.3 and eligibility criteria as per Clause 16, at notified time, date and place, if any. The lowest financial bidder shall only be considered for award of work.

19.0 Earnest Money Deposit:

- 19.1 The Earnest Money Deposit (EMD) must be attached with the technical bid. The Earnest money shall be accepted in the following forms and shall be in favour of “Registrar, GGSIPU”, payable at Delhi:-
1. Fixed deposit receipt (FDR)
 2. Bank Draft /Demand Draft
- 19.2 Tender(s) with no earnest money deposit will summarily be rejected. In case of successful bidder of the financial bids, the earnest money will be returned after obtaining the required 10% Performance Security in the form of FDR/BG (FDR/BG should be valid for a period of 18 months from the date of installation). However, the successful bidders will provide the Comprehensive Irrecoverable Warrantee of 12 months from the date of final installation of the product.
- 19.3 In the case of unsuccessful bidders, the Earnest Money Deposit will be refunded without any interest.

20.0 Financial Bid:

20.1 The bidder shall quote unit item rates in INR/USD/British Pound/Euro etc., as the case may be, both in words and figures in the Financial Bid only. Exchange Rate on the date of opening of financial bid will be taken into account for evaluation purpose only. No alterations in the form of tender, in the schedule of quantities or additions (Financial Bid) etc. shall be permitted. In case of difference between the rates of items written in figures and in words, the rates of items written in words shall be taken as correct. No changes in unit rates shall be allowed. The rates quoted in schedule of quantity (Financial Bid) are for finished and completed items and no extra amount for cartage or transporting material, labour etc. shall be paid. The rates should be inclusive of all loads and lifts for all materials for the completed items and also include all taxes, insurance, royalties etc. as applicable. Indian Supplier has to quote the all inclusive of rate product i.e. freight, insurance, packing, handling, assembling, installation, commissioning upto the University or as given in the work order.

In case of foreign manufacture, supplying the equipment through its authorized agent in India CIP Delhi Airport will be considered in financial bids. However, custom duties as applicable against production of custom duty exemption certificate will be borne by the University including the transportation and insurance charges, if any. However, the handling of the equipment will be strictly in the supervision of authorized agent in India. No liability in case of any damage, miss handling will be accepted by the University in any case.

21.0 General:

- 21.1 All information called for in the enclosed forms should be furnished against the relevant places in the forms. If for any reason, information is furnished on a separate sheet, this fact should be mentioned against at the relevant place. Even if no information is to be provided in a column, a "Nil" or "No Such Case" entry should be made in that column. If any particular/query is not applicable in case of the bidder, it should be stated as "not applicable". The bidders are cautioned that incomplete information called for in the tender document or deliberate suppression of any information may result in the bid being summarily disqualified. Bids received after the expiry of the stipulated date and time mentioned in the tender document will not be entertained.
- 21.2 The bid document should be legibly written and serially numbered with proper tagging and binding. The bidder should sign each page of the bid.
- 21.3 Overwriting should be avoided. Correction, if any, should be made by neatly crossing out, initialing with date and rewriting. Pages of the eligibility criteria document are to be numbered. Additional sheets, if any added by the bidder, should also be numbered. Bid should be submitted as a package with signed letter of transmittal.
- 21.4 References, information and certificates from the respective clients certifying suitability, technical knowledge or capability of the bidder should be signed by officer of the client organization with name & designation.
- 21.5 The bidder may furnish any additional information which he thinks is necessary to establish his capabilities to successfully complete the envisaged work. He is, however, advised not to furnish superfluous information. No information shall be entertained after submission of tender document unless it is called for by the University.
- 21.6 Any information furnished by the bidder found to be incorrect either immediately or at a later date, would render him liable to be debarred from tendering/taking up of any work in GGSIPU **which may also result in forfeiture of EMD/performance security.**
- 21.7 The successful bidder shall have to work in co-ordination and co-operation with any other agencies appointed by the University to work simultaneously in the same or adjoining area. The decision of the University in case of any dispute between the different agencies appointed by the University shall be final and a binding.

- 21.8 Income tax, Works Contract Tax and any other tax at the rates in force during the progress of contract / **award of work** that will be in force from time to time shall be recovered / deducted from the released payment amount.
- 21.9 Sales Tax, purchase Tax, turnover tax or any other tax on material applicable on the date of submission of bid in respect of this contract shall be payable by the contractor and University will not entertain any claim whatsoever in respect of the same.
- 21.10 The bidder shall have to make his own arrangement at no extra cost to the University for water Supply & Installation, sanitation and electric Supply & Installation etc. at the site of work.
- 21.11 On acceptance of the tender, the name of the accredited representative(s) of the contractor who would be responsible for taking instructions from the University shall be communicated in writing to the Registrar.
- 21.12 The contractor shall furnish a list of University employees related to him, if any in the “Technical Bid”.
- 21.13 If the bidder shall obtain a contract with GGSIPU as a result of wrong tendering or other non-bonafide methods of competitive tendering, the University reserves the right to terminate the contract without any liability to the contractor, which may also result to forfeiture of EMD/performance security.
- 21.14 Without prejudice to any of the rights or remedies under this contract if the contractor dies, the University shall have the option of terminating the contract **without** compensation to the legal heir of the contractor.
- 21.15 Escalation: Increase in rates of material / Labour shall not be payable on any account. Price quoted shall be firm and no escalation will be allowed on any account.

22.0 Scope of Works

The Scope of work shall consist, Supply & Installation, erection and placing in position at site, complete in all respects, and its maintenance during warranty period for items mentioned at Annexure-G as per specification given under Section III.

22.1 Specification for Work and Quality

The procurement of various materials shall be either from the manufacturers or their main authorized dealers to ensure that no duplicate/spurious makes are used in the works. The entire work shall be warranted for a period of **12 months** against defective material with liability of replacement or to the satisfaction of the University.

22.2 Safety and Security

Safety and Security of workers/staff, material, equipments, etc. will be the responsibility of the contractor. The university will not be held responsible on this account

22.3 The University reserves the right, without being liable for any damages or obligation to inform the bidder, to:

- (a) Amend the scope and value of contract to the bidder.
- (b) Reject any or all the applications without assigning any reason.

22.4 Any effort on the part of the bidder or his agent to exercise influence or to pressurize the University would result in rejection of his bid. Canvassing to any kind is prohibited.

23.0 Final decision making authority

The University reserves the right to accept or reject any bid and to annul the process and reject all bids at any time, without assigning any reason or incurring any liability to the bidders. No claim whatsoever will be entertained / paid by the university to the bidder (s).

24.0 Summary Rejection of tender:

24.1 The tenders not accompanied with Earnest Money Deposit shall be summarily rejected. Similarly, if the bidder proposes any alternation in or additions to the prescribed form of tender or decline to carry out any work of the tender document; or any conditions mentioned, etc., his tender is liable to be rejected.

25.0 Particular provisions

25.1 The University reserves the right to execute the work or reject the tender without assigning any reason or incurring any liability to the bidder.

25.2 The University has the power to make alteration in, omission from, addition of or substitution for the original specifications, drawings, designs.

27.0 Amendment of tender document:

27.1 Before the deadline for submission of tender, the University may modify the tender document by issuing addenda.

27.2 Any addendum thus issued shall be a part of the tender document and shall be uploaded on the e-procurement website (www.govtprocurement.delhi.gov.in). Prospective bidders must visit the website before filling and submission of Tender Document for such information.

28.0 Validity of Tender:

One hundred and Eighty days from the date of opening of **Financial Bid** of the tender. During this period no bidder shall be allowed to modify/withdraw his tender. In case of withdrawal, the EMD submitted by the bidder shall be forfeited and no claim shall be entertained in this regard.

29.0 Performance Guarantee:

29.1 The successful bidder shall be required to furnish a Performance Guarantee of 10% of the total tendered value after successful installation of the product at site. The Performance Guarantee should be valid up to 18 months. The Performance Guarantee shall be accepted in the following form and shall be in favour of "Registrar, GGSIPU", payable at Delhi with a validity of months as under:-

- i. Fixed deposit receipt (FDR) of a nationalized bank (18 months validity)
- ii. Bank Guarantee (As per Annexure-F) (18 months validity)

29.2 Performance Guarantee will be refunded after completion of the warranty period as per clause 30.

29.3 In case of non submission of Performance Guarantee within specified time, the earnest money will be forfeited and the University may consider to black list/de-bar the contractor.

29.4 In case a fixed deposit receipt/ Bank Guarantee of any bank is furnished by the contractor to the University as part of the Performance Guarantee and the Bank is unable to make payment against the said instrument, The loss caused thereby shall fall on the supplier and the supplier shall forthwith on demand furnish additional security to the University to make good the deficit.

30.0 Warranty

The bidder shall provide comprehensive on-site **warranty** for a period of **12 months** for all items from the last date of completion / installation as certified by the University and shall be responsible for any defects that develop in the item. They shall also replace any defective part of the product supplied and other accessories, without any exception and recourse, free of cost.

The bidder is responsible for all packing, unpacking, assembly, installation of units. The bidder will test the products and accomplish the adjustments necessary for successful and continuous operation of the products supplied at all installation sites and shall ensure maintenance of the supplied products during the warranty period. All the repairing / replacing of defects shall be done by the bidder totally free of cost.

31.0 Duration

The items covered under this tender are required to be delivered and installed in the University Campus at Sector 16C, Dwarka, New Delhi **within 120 days**, as specified in delivery schedule submitted by bidder.

32.0 Payment Terms

- 32.1 100% irrevocable & confirmed Letter of Credit will be opened in the bank, LC will issued only incase of foreign suppliers. However, incase of material manufactured indigenously in India, the payment will be released after complete installation, training and receipt of performance guarantee of the product.
- 32.2 Each invoice should be submitted in duplicate clearly specifying contract no, goods description, quantity, unit price, total amount along with warranty certificate, etc.
- 32.3 No advance payment will be made under any circumstances.

33.0 Delay and Non Conformance

- 33.1 If the bidder fails to Install the Equipment with in the period specified in the Purchase Order, University shall without prejudice to its other remedies under the Purchase Order, deduct from the contract price, as liquidated damages, a sum equivalent to 1% (one percent) of the contract price of the delayed goods weekly or part thereof of delay until actual delivery. The penalties will be maximum of 10% of the contract amount / awarded value.
- 33.2 In case of extraordinary delay or beyond 90 days of stipulated delivery period, University reserves the right to terminate the contract, without any liability to cancellation charges, forfeit/en-cash the submitted Performance Guarantee and blacklist/debarred the defaulting firm.

34.0 Services during warranty period

- 34.1 The maximum response time for maintenance complaint during warranty period (i.e. time required for bidder's maintenance engineer to report at the installation after a request call/telegram is made or letter is written) shall not exceed 07 days.
- 34.2 The period for correction of defects in warranty period is 30 days.
- 34.3 In case an item is not useable beyond the stipulated maximum downtime the contractor will be required to arrange for an immediate replacement.
- 34.4 In case the rectification of defects is not carried out within 30 days and replacement of defective items are not provided, a penalty of sum equivalent to 5% per week of the delivered price of that defective item(s) shall be levied. This penalty is applicable up to a maximum of 4 weeks (maximum 10%)

35.0 Packing and Marking

- 35.1 All packing should be strong enough to withstand rough handling during loading/ unloading and transporting. Fragile articles should be packed with special precaution and should bear the marking like Fragile, handle with care, This side up etc.

36.0 Substitution and Wrong Supplies

Unauthorized substitution or materials delivered in error of wrong description or quality or supplied in excess quantity or rejected goods shall be returned to the contractor at contractor's cost and risk.

37.0 Insurance, Freight and Deliveries

- 37.1 The supplier shall make his own arrangements towards safe and complete delivery including insurance, freight, state level permits etc. as applicable at the designated locations indicated by University in the Purchase Order. However additional actual cost toward applicable custom duty against exemption

certificate, local freight, transportation from Airport to GGSIP University shall be borne by the University but the handling the product under the guidance/supervision by the manufacturer.

37.2 The contractor will keep University informed about changes, if any, in various stages of deliveries, installation.

38.0 Arbitration and Settlement of Disputes:

38.1 University and the contractor shall make every effort to resolve amicably by direct information negotiation by difference or dispute arising between them under or in connection with the University order.

38.2 If after thirty (30) days from the commencement of such informal negotiations, University and the supplier are unable to resolve amicably the dispute, either party may require that the dispute be referred for resolution to the formal mechanisms as specified hereunder:

38.2.1 Any dispute or differences whatsoever arising between the parties out of or relating to the manufacturing, meaning, scope, operation or effect of this contract or the validity or the breach thereof shall be settled by arbitration in accordance with the provisions of the Arbitration & Conciliation Act, 1996 and the award made in pursuance thereof shall be binding on the parties. The sole arbitrator shall be appointed by the Vice Chancellor, GGS Indraprastha University.

38.2.2 The performance under this contract shall not stop for any reason whatsoever during the said dispute/proceedings, unless the contractor is specifically directed by University to desist from working in this behalf.

38.2.3 The venue of arbitration shall be Delhi/ New Delhi. The language of proceedings shall be English. The Law governing the substantive issues between the parties shall be the Laws of India. All disputes are subject to the jurisdiction of the Delhi Courts only

38.2.4 It is also a term of that if any fees are payable to the arbitrator, these shall be paid equally by both the parties. It is also a term of the contract that the arbitrator shall be deemed to have entered on the reference on the date he issues notice to both the parties calling them to submit their statement of claims and counter statement of claims.

39.0 Force Majeure For purpose of this Clause, Force Majeure shall mean fires, floods, natural disasters or other acts, that are unanticipated or unforeseeable, and not brought about at the instance of the party claiming to be affected by such event, or which, if anticipated or foreseeable, could not be avoided or provided for, and which has caused the non-performance or delay in performance, such as war, turmoil, strikes, sabotage, explosions, quarantine restriction beyond the control of either party. A party claiming Force Majeure shall exercise reasonable diligence to seek to overcome the Force Majeure event and to mitigate the effects thereof on the performance of its obligations under this Supply Order.

If a Force Majeure situation arises, the supplier shall promptly notify the University in writing of such conditions and the cause thereof. Unless otherwise directed by the University in writing, the Supplier shall continue to perform its obligations under the Purchase Order as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

SECTION II

INFORMATION REGARDING TECHNICAL ELIGIBILITY
(Annexure A, A1, A2, A3 to E)

(Separate information for each items of tender is be given)

LETTER OF TRANSMITTAL
(separate for each bid)

From:

To

The Registrar
GGS IPU
Sector 16C, Dwarka,
Delhi

Sub: Submission of Tender Document for the work of “**Supply and Installation of Lab Equipment (Nano Science & Technology) under DST project**” at GGSIPU Campus, Sector 16C, Dwarka, New Delhi”.

Sir,

Having examined the details given in Tender document for the above work, I/we hereby submit the relevant information:-

1. I/we hereby certify that all the statement made and information supplied in the enclosed annexure / forms accompanying statement are true and correct.
2. I/we have furnished all information and details necessary for eligibility and have no further pertinent information to Supply & Installation.

Name & Signature(s) of Bidder(s) with seal

DECLARATION BY THE BIDDER
(separate for each bid)

We _____ (Name of the Bidder) hereby represent that we have gone through and understood the Bidding Document (which in two parts) in Part-I (Commercial Section & Technical Section) and Part-II (Schedule of Quantities) and that our Bid has been prepared accordingly in compliance with the requirement stipulated in the said documents.

We are submitting a copy of Bidding Document marked “Original” as part of our Bid duly signed and stamped on each page in token of our acceptance. We undertake that Part-I and Part-II of the Bidding Document shall be deemed to form part of our bid and in the event of award of work to us, the same shall be considered for constitution of Contract Agreement. Further, we shall sign and stamp each page of this Part-I and Part-II as a token of Acceptance and as a part of the Contract in the event of award of Contract to us.

We further confirm that we have indicated prices in Schedule of Quantities and submitted in Price Bid in separately sealed envelope. We confirm that rate quoted by us includes price for all works/activities/supply etc. as mentioned in item description of the items in Schedule of Quantities.

SIGNATURE OF BIDDER : _____

NAME OF BIDDER : _____

COMPANY SEAL : _____

Note : This declaration should be signed by the Bidder’s representative who is signing the Bid.

COMPLIANCE TO BID REQUIREMENT
(separate for each bid)

We hereby agree to fully comply with, abide by and accept without variation, deviation or reservation all technical, commercial and other conditions whatsoever of the Bidding Documents and Addendum to the Bidding Documents, if any, for subject work issued by GGSIPU.

We hereby further confirm that any terms and conditions if mentioned in our bid (Un-priced as well as Priced Part) shall not be recognized and shall be treated as null and void.

SIGNATURE OF BIDDER : _____

NAME OF BIDDER : _____

COMPANY SEAL : _____

DECLARATION BY THE BIDDER
(separate for each bid)

We _____ (Name of the Bidder) hereby declare that the lab item for which we have quoted our price in the Financial Bid would not be an item used so far for demo/any other purposes and will be unused (brand new).

SIGNATURE OF BIDDER : _____

NAME OF BIDDER : _____

COMPANY SEAL : _____

Note: This declaration should be signed by the Bidder's representative who is signing the Bid.

ORGANISATION STRUCTURE

(Separate for each bid)

1. Name & Address of the Bidder :
2. Telephone No./Fax No./ e-mail :
3. Legal status of the Bidder (attach copies of original document defining the legal status)
 - a) An Individual
 - b) A proprietary firm
 - c) A firm in partnership
 - d) A limited company or Corporation
 - e) A Public Sector Undertaking
4. Particulars of registration with various Government Bodies (Attach attested Photo Copy)
Organization /Place of registration Registration No
5. A. PAN No. -----
B. DVAT No. -----
C. Service T No. -----
6. Names and Titles of Directors & Officers with designation to be concerned with this work. :
7. Name & Designation of individuals authorized to act for the organization :
(Pl attach power of attorney in favour of authorized representative duly signed by authorized signatory)
8. Has the Bidder ever required to suspend work for a period of more than six months continuously after you commenced the business? If so, give the name of the project and reasons of suspension of work. :
9. Has the Bidder, or any constituent partner in case of partnership firm, ever abandoned the awarded work before its completion? If so, give name of the project and reasons for abandonment. :
10. Has the Bidder, or any constituent partner in case of partnership firm, ever been debarred/ black listed for tendering in any organization at any time? If so, give details. :
11. Has the Bidder, or any constituent partner in case of partnership firm, ever been convicted by a court of law? If so, give details. :
13. Any other information considered necessary but not included above. :

(Stamp, Name & Signature of Bidder)

DETAILS OF ANNUAL TURNOVER

(separate for each bid)

A. FINANCIAL DETAILS

Financial Years	Gross Annual Turnover (In Lakhs)	Profit/Loss (In Lakhs)
2014-2015		
2013-2014		
2012-2013		

B. Audited balance sheet and profit & loss account for above three years to be submitted. Must be attested by the Chartered Accountant.

Signature & stamp by Chartered Accountant

(Stamp, Name & Signature of Bidder)

**DETAILS OF SUPPLY OF LAB ITEMS (AS PER SPECIFICATION GIVEN IN SECTION III
BELOW) IN LAST 03 (THREE) YEARS**
(separate for each bid)

S. No.	POSTAL ADDRESS OF CLIENT WITH CONTACT NUMBERS	STARTING DATE	SCHEDULED COMPLETION DATE	ACTUAL COMPLETION DATE	REASONS FOR DELAY, IF, ANY

(Stamp, Name & Signature of Bidder)

DECLARATION FOR FAIR BUSINESS BY THE BIDDER
(separate for each bid)

This is to certify that We, M/s _____ in submission of this offer confirm that:-

- i) We have not made any misleading or false representation in the forms, statements and attachments in proof of the qualification requirements;
- ii) We do not have records of poor performance such as abandoning the work, not properly completing the contract, inordinate delays in completion, litigation history or financial failures etc.
- iii) Business has not been banned with us by any Central / State Government Department/ Public Sector Undertaking or Enterprise of Central / State Government.
- iv) We have submitted all the supporting documents and furnished the relevant details as per prescribed format.
- v) The information and documents submitted with the tender by us are correct and we are fully responsible for the correctness of the information and documents submitted by us.
- vi) We understood that in case of any statement/information/document furnished by us or to be furnished by us in connection with this offer is found to be incorrect or false, our EMD in full will be forfeited and business dealings will be banned.
- vii) We have not been punished / penalized by way of imprisonment in last three years.
- viii) We have not been blacklisted/debarred by any of the Government/Public Sector Agency in last three years.

SEAL, SIGNATURE & NAME OF THE BIDDER

Signing this document

CHECK LIST FOR SUBMISSION OF BID
(separate for each bid)

Bidder is requested to fill this check list and ensure that all details/documents have been furnished as called for in the Bidding Document along with duly filled in, signed & stamped checklist **with each copy of the "Un-priced bid (Part – I)"**.

Please tick the box and ensure compliance:

- 1 EMD
- 2 Bid Forwarding Letter
- 3 Power of Attorney in Favour of the person who has signed the bid on stamp paper of Appropriate value.
- 4 Partnership Deed in case of partnership firm and Article of Association in case of limited company.
- 5 Compliance to Bid Requirement
- 6 Declaration by the bidder
- 7 All pages of the bid have been page numbered in sequential manner.
- 8 Annexure(s) – A, A1, A2, A3 to E
- 9 Valid, PAN, DVAT, Service Tax, Excise Registration

SIGNATURE OF BIDDER : _____

NAME OF BIDDER : _____

COMPANY SEAL : _____

**Form of Performance Guarantee
Bank Guarantee Bond**

1. In consideration of the GGSIPU (hereinafter called “The University”) having offered to accept the terms and conditions of the proposed agreement between ----- and ----- (hereinafter called “the said Contractor(s)”) for the work ----- (hereinafter called “the said agreement”) having agreed to production of a irrevocable Bank Guarantee for Rs.----- (Rupees ----- only) as a security/guarantee from the contractor(s) for compliance of his obligations in accordance with the terms and condition in the said agreement.

We, ----- (indicate the name of the Bank) ----- (hereinafter referred as “the Bank”) hereby undertake to pay to the University an amount not exceeding Rs.----- (Rupees ----- only) on demand by the University.

2. We, ----- (indicate the name of the Bank) do hereby undertake to pay the amounts due and payable under this guarantee without any demure, merely on a demand from the University stating that the amount claimed is required to meet the recoveries due or likely to be due from the said contractor(s). Any such demand made on the bank shall be conclusive as regards the amount due and payable by the bank under this Guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs.----- (Rupees ----- only).
3. We, the said bank further undertake to pay the University any money so demanded notwithstanding any dispute or disputes raised by the contractor(s) in any suit or proceeding pending before any court or Tribunal relating thereto, our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the Contractor(s) shall have no claim against us for making such payment.
4. We, ----- (indicate the name of the Bank) further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of the University under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged or till Project-in-Charge on behalf of the University certified that the terms and conditions of the said agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee.
5. We, ----- (indicate the name of the Bank) further agree with the University that the University shall have the fullest liberty without our consent and without affecting in any manner our obligation hereunder to vary any of the terms and conditions of the said agreement or to extend time of performance by the said Contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the University against the said contractor(s) and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor(s) or for any forbearance, act of omission on the part of the University or any indulgence by the University to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.
6. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s).
7. We, ----- (indicate the name of the Bank) lastly undertake not to revoke this guarantee except with the previous consent of the University in writing.
8. This guarantee shall be valid upto ----- unless extended on demand by the University. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs.----- (Rupees ----- only) and unless a claim in writing is lodged with us within six months of the date of expiry or the extended date of expiry of this guarantee all our liabilities under this guarantee shall stand discharged.

Dated the ----- day of ----- for ----- (indicate the name of the Bank)

SECTION III

TECHNICAL SPECIFICATIONS

S. No.	Specification/ Description	Qty.	Estimated cost (in Lacs)	EMD Amount in Rs.
1.	<p>High Temperature Furnace:-USBAS needs a high temperature furnace for M.Tech (Nanoscience and Technology) under DST funding for special purpose of Chemical vapour deposition of different thin film and nanostructure growth. For this purpose, the structure of the high temperature furnace needs to be horizontal tubular split-hinge type, enabled with controlled gas flow through quartz tube. Multiple quartz tubes are needed for growing different nanomaterials and thin films. Adequate fittings are needed for these quartz tubes for in-flow and out-flow of gas and creating a vacuum of 10^{-5} Torr or better. The vacuum pump needs to be oil free in order to avoid contamination. The details of this high temperature furnace given below:</p> <p><u>Tube Furnace</u> <u>Key Features:</u></p> <ul style="list-style-type: none"> • Horizontal Split-Hinge type. • Single heating zone. • Furnace should be equipped with independent programmable controller having a programming option to set (1) single or multiple set points, (2) variable ramping rate and (3) overtemperature protection. • Safety switch for power disconnection when furnace is in opened condition. • Type K long-life thermocouple or better. • SiC / Tungsten molybdate heating elements • Quartz tube with insulation plugs, gas tight end seals and vacuum connections should be provided. At least 5 Quartz tubes (length: 1 meter or more) are required for different material growth. Multiple Steel based flanges/couplers along with proper rubber gasket is need for withstanding the vacuum requirement (4 sets). Additional Quartz based flanges/couplers for annealing and other purposes (1 set) is also needed. • Vacuum level required is 10^{-5} Torr or better. The vacuum pump should be oil free (Optional: See below). <p><u>Parameters:</u></p> <p>Temperature range: 100 to 1100 °C Accuracy: ± 2 °C Display: LED Control: Digital Process tube diameter (OD): 2 inch Heated zone/Length of the Furnace: 12 inch or more (However, not more than 24 inch) Electrical requirements: 220 V</p> <p style="text-align: center;"><u>Mass Flow Controller</u></p> <p><u>Key Features:</u></p> <ul style="list-style-type: none"> • PID control with digital display. Should be able to operate at standalone mode without any computer. • On-board user selectable gas calibrations. Gases: Air, Argon, Nitrogen, Hydrogen, Oxygen, Butane, Carbon Monoxide, Carbon Dioxide, Methane, Acetylene • Multiple parameter measurements: mass flow, volumetric flow 	01	13	30,000/-

	<p><u>Parameters:</u></p> <p>Controllable flow range: 500 sccm or more Operating range/ Turndown ration: 0.5% to 100% full scale Maximum controllable flow rate: 102% full scale or better Accuracy: $\pm 0.5\%$ of reading Response time: 100 ms or better Warm-up time: 1 second or less Operating Temperature: 0 to 50 °C Operating Pressure: 145 psig (Max) Humidity range: 0 to 100% (non-condensing)</p> <p><u>Others:</u></p> <ol style="list-style-type: none"> Operating manuals in both print and soft copies required. Warranty for 1 year. Installation and Training. List of installations in India and abroad with contact details. Minimum 3 similar system order copies with customer details to be provided as a part of technical evidence. <p><u>Optional:</u></p> <ol style="list-style-type: none"> Quote for Vacuum System: Vacuum production based on turbomolecular or diffusion pump of reputed make such as Edwards/Pfeiffer/Varian/HHV/ Leybolds (650 ltrs/sec or better with 6" butterfly valve high vacuum port and cryo trap), with rotary pump backing, capable of reaching a vacuum better than 10^{-5} Torr or better, in less than 60 minutes under operating conditions. Quote for Vacuum Gauges: Digital Pirani and Penning Gauges with independent displays to monitor vacuum production up to $\sim 10^{-7}$ Torr. Quote for 5 year AMC beyond the warranty. Quote for essential spares for 5 years. Quote for any advanced Model of the above equipment. 			
2.	<p align="center"><u>TECHNICAL SPECIFICATIONS FOR AUTOMATED SORPTION SYSTEM- SURFACE AREA ANALYSER</u></p> <p>1. OBJECTIVE: The instrument is required to be carry out Physisorption and Micropore (< 2nm pore size) analyses. Following general features are the minimum necessary requirements for the instrument :</p> <p>2. DEGASSING SYSTEM:</p> <ol style="list-style-type: none"> Number of ports: Atleast 2 (TWO) integrated in the main instrument Automation: Totally automated, programmable through the main instrument software Degassing parameters are to be specified in the sample analysis file and to be made available on the analysis report. Temperature: <ul style="list-style-type: none"> Ambient to 400° C or more , should be programmable Deviation less than $\pm 8^{\circ}$ C of set point of thermocouple or better Vacuum: A dedicated vacuum pump for degassing capable of generating vacuum not less than 5×10^{-3} mmHg . This should be integrated in the main unit. The degas vacuum should not be shared by analysis ports. It should be possible to transfer the sample from degassing station to analysis station under vacuum. <p>3. ANALYSIS SYSTEM:</p> <ol style="list-style-type: none"> Number of ports: 1 (ONE) Vacuum pump capability: Between 3.5×10^{-9} mmHg to 5×10^{-9} mmHg ; dedicated, no sharing with the degas stations. Transducers: 3 (Three) transducers should be provided to cover the entire range of pressure measurement <p>RESOLUTION:</p>	01	26	55,000/-

	<p>a. 0.1 mmHg Transducer: better than 10^{-6} mmHg b. 0 to 10 mmHg Transducer: better than 10^{-4} mmHg c. 0 to 1000 mmHg Transducer: 10^{-3} mmHg or better ACCURACY (ANALYSIS SYSTEM): a. 1000 mmHg range: within 0.2% or better of reading b. 10 mmHg range: within 0.15% or better c. 1 mmHg range: within 0.15% or better Same transducer should be used for all measurements namely, manifold, sample and saturation pressure. 4. CRYOGENIC SYSTEM: Dewar capacity: 3 Litres which should provide atleast 60 hours of unattended analysis. Coolant level control: Should be available with a warranty of 10 years or more. 5. GAS INLETS: At least five inlets for Physisorption. Must include atleast one separate inlet each for Vapour, He gas and for degas back fill respectively. Software control selection of gases should be possible. 6. SAMPLE TUBES: Standard sample tubes with & without 9cc bulb to be provided for Physisorption and Micropore analysis. 7. SOFTWARE REQUIREMENTS: Windows interface to control the analysis, with features to allow cut and paste graphics scalable and editable graphs and customized reports. The software should be compatible with online and offline user-friendly requirements. 8. ANALYSIS REPORTS: The instrument should have the capability to generate report with various standard and relevant Surface Area analyses, such as, • Single- and Multi- point BET surface area. • Adsorption and Desorption Isotherms. • Langmuir surface area • BJH Mesopore volume and Mesopore area distribution • Deconvolution by model fitting. • Freundlich and Temkin isotherms. • Density functional theory to generate: - Porevolume and Surface area distribution of poresizes 9. OTHERS : e) Operating manuals in both print and soft copies required. f) Warranty for 1 year. g) Installation and Training. h) List of installations in India and abroad with contact details. Minimum 3 similar system order copies with customer details to be provided as a part of technical evidence. 10. OPTIONAL: a) Quote for essential spares and consumables for 5 years. b) Quote for 2 year AMC beyond the warranty. c) Quote for any advanced Model of the above equipment.</p>			
3.	<p style="text-align: center;">Technical Specifications for High Speed Refrigerated benchtop Centrifuge</p> <p>University School of Basic and Applied Sciences, Guru Gobind Singh Indraprastha University needs a High Speed Refrigerated benchtop Centrifuge for M.Tech. (Nanoscience and Technology) program under DST funding.</p> <p>The required specifications of the above centrifuge system are:</p> <ol style="list-style-type: none"> 1) Maximum RPM: 30,000 2) Rotors: a) (25 to 40) ml capacity Tubes X 6 Nos. with maximum RPM with sample between 22,000 to 27000 ; b) (8 to 12) ml capacity ml Tubes X 6 Nos. 	01	5	10,000/-

	<p>maximum RPM with samples between 22,000 to 27000</p> <p>3) Run Programmes : 6 programmes or more plus atleast 1 pre-cooling programme</p> <p>4) Control System: Microprocessor Controlled</p> <p>5) Max Noise level: <65 dB</p> <p>6) Speed Accuracy: less than ± 100 rpm</p> <p>7) Temperature range: -10°C or less to 40°C</p> <p>8) Power input should be compatible with Indian power system and the system should work with 230 V AC and 50 Hz single phase supply.</p> <p>Others:</p> <p>a) Operating manuals in both print and soft copies required.</p> <p>b) Warranty for 1 year.</p> <p>Optional:</p> <p>a) Quote for essential spares and consumables for 5 years.</p> <p>b) Quote for 2 year AMC beyond the warranty.</p> <p>c) Quote for any advanced Model of the above equipment.</p>			
4.	<p>Technical Specifications for RF/DC Magnetron Sputtering System</p> <p>University School of Basic and Applied Sciences, Guru Gobind Singh Indraprastha University needs a RF/DC Magnetron Sputtering system for M.Tech. (Nanoscience and Technology) under DST funding for preparing nanostructured thin films and nanocomposite coatings. The technical specifications of the system are as below:</p> <p>1) Vacuum Chamber: Vacuum chamber should be a rectangular or D-shaped box, made up of SS 304 or better grade stainless steel, with front opening door. The approximate size of this box should be ~ 400 mm (W) x 400 mm (H) x 400 mm (D) to accommodate the necessary view ports and all the essential modules.</p> <p>2) Vacuum System: Vacuum production based on turbomolecular or diffusion pump of reputed make such as Edwards/Pfeiffer/Varian/HHV/Leybolds (650 ltrs/sec or better with 6" butterfly valve high vacuum port and cryo trap), with rotary pump backing, capable of reaching a vacuum better than 10^{-6} Torr in less than 60 minutes. Ultimate vacuum achievable should be $\sim 10^{-7}$ Torr.</p> <p>3) Vacuum Gauges: Digital Pirani and Penning Gauges with independent displays to monitor vacuum production up to $\sim 10^{-7}$ Torr.</p> <p>4) Gas feeding: 2 No. of needle valves with necessary pipelines to feed Argon, Oxygen / Nitrogen gases during sputtering and 2 No. of Mass Flow Controllers (MFC) of reputed make (such as MKS/BK) for Argon and Oxygen/ Nitrogen with PID controller should be supplied. Option should be there to add one more MFC for future upgradation.</p> <p>5) Digital Thickness Monitor: RF compatible, electronically controlled Quartz crystal based digital thickness monitor with necessary electronic modules, feedthroughs and arrangements with some spare crystals (at least 5 crystals) should be provided.</p> <p>6) Magnetron Sources: 2 No. of indirect water cooled 2" diameter Magnetron sources mounted in angle should be supplied. 2 No. of source shutters should be provided.</p> <p>7) Power Supplies: RF power supply of 300 W (or close) of Seren/Advanced Energy/RFVII/Huttinger/TC make with auto matching network and digital display. DC power supply of Seren/AE/HHV/TC make supplying 1kW power with adjustable current. The system should be suitable</p>	01	22.5	45,000/-

	<p>for running both the supplies simultaneously for co-sputtering.</p> <p>8) Substrate Holder Shutter and Heater: Substrate holder, which can hold a substrate maximum 2” in diameter and up to 4 substrates of 1” diameter as well as of smaller size (1 cm), equipped with heater for heating the substrates up to 400°C during sputter deposition of film and PID controller should be provided. The provision for substrate rotation for upgradation should be there.</p> <p>9) Safety devices: All the necessary safety devices and interlocks such as circuit breakers, emergency power off switch, water flow switches, thermostat switch, safety panel switch, vacuum switch and overload protection for rotary pump should be part of the system.</p> <p>10) Water Chiller: An appropriate compact water chiller of with suitable pipelines and water flow switch supplying water (10-15 lit/min. at about 20°C) should be part of the supplied system.</p> <p>11) Power input should be compatible with Indian power system and the system should work with 230 V AC and 50 Hz single phase supply.</p> <p>12) Process: The vendor needs to demonstrate reactive sputter deposition of at least one of the oxides of Al, Ti and Hf at GGS Indraprastha University, New Delhi on 2” substrates below 50 nm thickness with uniformity better than 4%. Demonstration of DC sputtering for one of the metals: Au, Al, Cu with uniformity better than 4% on 2” substrates.</p> <p>13) Other:</p> <ol style="list-style-type: none"> Operating manuals in both print and soft copies required. Warranty for 1 year. All the tools, spares and gaskets necessary for the system. Installation and Training. List of installations in India and abroad with contact details. Minimum 3 similar system order copies with customer details to be provided as a part of technical evidence. <p>14) Options:</p> <ol style="list-style-type: none"> Quote for 5 year AMC beyond the warranty. Quote for the essential spares for 5 years 			
5.	<p style="text-align: center;">Technical Specifications for Thermal Evaporation System</p> <p>University School of Basic and Applied Sciences, Guru Gobind Singh Indraprastha University needs a Thermal Evaporation system for M.Tech. (Nanoscience and Technology) program under DST funding for preparing nanostructured thin films.</p> <p>Thermal Evaporation system should be capable of depositing metals (Al, Cr, Ni, Cu, Ag, Au etc.) with uniform film thickness ($\pm 5\%$) over 4 x 4 inch² area. The specifications of the system are:</p> <p>1) Main Chamber: Appropriately sized Vacuum chamber made up of SS 304 or better grade stainless steel suitably polished to reduce degassing for achieving ultimate vacuum better than 1×10^{-7} Torr with necessary accessories for high vacuum sealing. All necessary feed throughs and arrangements for electrodes, pump, load lock, gauges, air inlet, view ports, thickness monitor etc. should be provided.</p> <p>2) Vacuum System: Vacuum production based on diffusion pump of reputed make such as Edwards/Pfeiffer/Varian/HHV/Leybolds (650 ltrs/sec or better with 6” butterfly valve high vacuum port and cryo trap), with rotary pump backing, capable of reaching a vacuum better than 10^{-6} Torr in less than 60</p>	01		15,000/-

	<p>minutes.</p> <ol style="list-style-type: none"> 3) Vacuum Gauges: Digital vacuum Gauges with independent displays to monitor vacuum production up to $\sim 10^{-7}$ Torr. 4) Gas feeding: port with Needle valve with necessary pipelines to feed Oxygen / Argon gas during evaporation. 5) Digital Thickness Monitor: Electronically controlled Quartz crystal based digital thickness monitor with necessary electronic modules, feedthroughs and arrangements should be provided. 6) Power Supply: HT power supply: 5 kV DC LT power supply: 3 sources with 200 A power supply. LT/ HT control for varying output power and digital panel meters for monitoring the LT/HT current should be provided. 7) Evaporator electrode assembly: <ol style="list-style-type: none"> a) Water cooled electrodes for 150-200 A for 3 boats/ filaments b) Compatible variac, transformer and cables for evaporation of two materials at one time. c) Mechanical change over switch for using third electrode. 8) Substrate Holder and Shutter: The substrate holder should be equipped with facility for heating the substrates upto 500°C. A manually operated source shutter with rotary shaft seal, to cover the evaporation source should be part of the system. 9) Safety devices: All the necessary safety devices and interlocks such as water flow switches, thermostat switch, safety panel switch, vacuum switch, electrical overload switch in LT/RH power supply line, and overload protection for rotary pump should be part of the system. 10) Power input should be compatible with Indian power system and the system should work with 230 V AC and 50 Hz single phase supply. 11) Others: <ol style="list-style-type: none"> i) Operating manuals in both print and soft copies required. j) Warranty for 1 year. k) Installation of system and demonstration of thin film deposition at user's site. l) All the tools and gaskets necessary for the system. m) Tungsten Helicals (20 no.), Tungsten Baskets (10 no.), Molybdenum Boats 200 A (20 no.) and 10 spare Quartz Crystals for the Digital Thickness Monitor should be provided. n) List of installations with contact details. Minimum 3 similar system order copies with customer details to be provided as a part of technical evidence. 12) Optional: <ol style="list-style-type: none"> d) Quote for an appropriate compact Water Chiller with suitable pipelines and water flow switch supplying water (7-8 lit/min. at 20-25°C) to the system. e) Quote for essential spares and consumables for 5 years. f) Quote for 2 year AMC beyond the warranty. 			
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SECTION IVFINANCIAL BIDSUPPLY AND INSTALLATION OF LAB EQUIPMENT (NANO SCIENCE & TECHNOLOGY)
UNDER DST PROJECT FOR USBAS

S. No.	Description	Qty.	Unit Cost	Total Amount in word	Total Amount in figure
1	High Temperature Furnace As per the specification mentioned in the tender document at Annexure-G	01			
2.	AUTOMATED SORPTION SYSTEM-SURFACE AREA ANALYSER As per the specification mentioned in the tender document at Annexure-G	01			
3.	High Speed Refrigerated benchtop Centrifuge As per the specification mentioned in the tender document at Annexure-G	01			
4.	RF/DC Magnetron Sputtering System As per the specification mentioned in the tender document at Annexure-G	01			
5.	Thermal Evaporation System As per the specification mentioned in the tender document at Annexure-G	01			
6.	All Taxes (including insurance, freight and packing) if any				
Total Amount in Rs. (inclusive all taxes) & CIP New Delhi					

(SEAL, SIGNATURE & NAME OF THE BIDDER)