



हर कदम, हर डगर  
किसानों का हमसफर  
भारतीय कृषि अनुसंधान परिषद  
*Agrisearch with a human touch*



Indian Council of Agricultural Research  
Indian Institute of Vegetable Research  
Post Bag No. 01, Post Office Jakhini,  
Shahanshapur, Varanasi-221 305, U. P.

F. No: 1-436/2016/Adm.III

Dated: 19<sup>th</sup> December, 2016

**INVITATION TO TENDER AND INSTRUCTIONS CONTAINING THE TERMS AND  
CONDITIONS GOVERNING THE PROCUREMENT OF EQUIPMENT  
AT ICAR – IIVR, VARANASI**

- A** Kindly go through each and every Terms and Conditions and requirements of the Tender. Non-compliance of any such requirement shall lead to non-consideration of the Bid.
- B** Cost of the Tender Form: **Rs. 3,000/- (Rupees Three Thousand only, Non – Refundable)** in the form of Demand Draft / Banker's Cheque, payable to the **ICAR UNIT, IIVR, Varanasi**.
- C** Last date of the receipt of the Tenders in the Office is **10<sup>th</sup> January, 2017 up to 2.00 P.M.** Tenders received after the due date and time, shall not be considered under any circumstances.
- D** Tenders shall be opened at **2.05 P.M. on 10<sup>th</sup> January, 2017**.
- E** The Complete Tender document is also available on our website: **www.iivr.org.in**

**NOTE:**

- 1** Director, Indian Institute of Vegetable Research, Varanasi, may, at his discretion, extend this date by a fortnight and such extension shall be binding on Bidders.
- 2** If the date up to which the Tender is open for acceptance is declared to be a holiday, the Tenders shall be deemed to remain open for acceptance till the next working day. Similarly, the Tenders will be opened on the next working day following the holiday, but there will be no change in the time for opening the Tender, as indicated above.
- 3** Before filling up the Tender Papers, firms/ agencies are advised to go through the Tender Paper thoroughly and accordingly fill up the contents thereof, as per the norms of Tender. After submission of the Tender, no request for any alteration is permissible. Non-compliance of any of the Terms & Conditions of the Tender shall make the Bid liable to be rejected, calling for no exception/ further request in this regard.
- 4** Firms seeking exemptions, if any, under any clause should submit updated admissible documentary proofs for the same.
- 5** All communications must be addressed to the Director, ICAR-Indian Institute of Vegetable Research, P.B. No.1, P.O. Jakhini (Shahanshapur), Varanasi – 221305, Uttar Pradesh, INDIA.
- 6** In compliance to GFR 2005, Rule 160(ii), enquires/ queries may be made by the bidders/ prospective bidders from the office for any issue related to bidding condition, rejection/ award of bids etc.



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भारतीय कृषि अनुसंधान परिषद

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**TECHNICAL BID**  
Indian Council of Agricultural Research  
Indian Institute of Vegetable Research  
Post Bag No. 01, Post Office Jakhini,  
Shahanshapur, Varanasi-221 305, U. P.

F. No: 1-318/2016/Adm.III

Dated: 19<sup>th</sup> December, 2016

**INVITATION TO TENDER AND INSTRUCTIONS CONTAINING THE TERMS AND  
CONDITIONS GOVERNING THE PROCUREMENT OF EQUIPMENT  
AT ICAR – IIVR, VARANASI**

- 1 Sealed Tenders are hereby invited on the behalf of the Director, Indian Institute of Vegetable Research, Varanasi for **PROCUREMENT OF EQUIPMENT AT THE INDIAN INSTITUTE OF VEGETABLE RESEARCH (I.I.V.R.), VARANASI**. The terms and conditions of the Tender which will govern any contract made are those contained in the General conditions of contract applicable to the contracts placed by the ICAR and by the Research Institutes of the Council and the special terms and conditions are detailed in the tender forms and its schedules. Please submit your rates in the tender form if you are in a position to supply the Equipment in accordance with the requirements stated in the attached schedules.
- 2 **An earnest money of Rs. 10,000/- for Sl. No. 1 – 3; Rs. 20,000/- for Sl. No. 4 – 6 and Rs. 30,000/- for Sl. No. 7 – 9 for each equipment must be deposited in the form of FDR/ BG/ DD/ BC payable to ICAR UNIT, IIVR Varanasi. The particulars of the earnest money deposited must also be super scribed on the top of the envelope containing the Technical Bid by indicating the draft/ pay order number and date, failing which the tender will not be opened. The tender will not be considered if earnest money is not deposited with the tender. The EMD should be valid for a period of forty-five days beyond the final bid validity period.**
- 3 The tenderer is being permitted to give tenders in consideration of the stipulations on his part that after submitting his tenders, he will not resale from his offer or modify the terms and conditions thereof. If the tenderer fails to observe and comply with the foregoing stipulation, the aforesaid amount of EMD will be forfeited by the Institute. In the event of the offer made by the tenderer not being accepted, the EMD deposited by the tenderer shall be refunded back at the earliest after expiry of the final bid validity and latest on or before the 30th day after the award of the contract.
- 4 **The Schedules of the tender form should be returned intact and pages should not be detached. In the event of the space provided on the schedule form being insufficient for the required purpose, additional pages may be added. Each additional page must be numbered consecutively and be signed in full by the tenderer. In such cases reference to the additional pages must be made in the tender form. If any modification of the schedule is considered necessary it should be communicated by means of a separate letter along with the tenders. Overwriting/ erasing in rates to be quoted by the tenderer will not be allowed otherwise the tender may be rejected.**
- 5 The tenders are liable to be ignored if complete information as required is not given therein or if the particular asked for in the schedules to the tenders is not fully filled in. Individual signing the tenders or other documents connected with the contract may specify whether he signs it in the capacity of (i) a sole proprietor of the firm or constituted attorney of such sole proprietor, or

- (ii) a partner of the firm if it be partnership in which case he must have authority to refer to arbitration dispute concerning the business of the partnership whether by virtue of the partnership agreement or power of attorney or (iii) constituted attorney of firm if it is a company.
- 6 If the tenderer does not accept the offer, after issue of letter of award by Institute within 15 days, offer made shall be deemed to be withdrawn & earnest money forfeited.
  - 7 **In case of partnership firms, where no authority has been given to any partner to execute the contract/ agreement concerning the business of the partnership, the tenders and all others related documents must be signed by every partner of the firm. A person signing the tender form or any other documents forming part of the contract on behalf of another shall be deemed to warranty that he has authority to bind such other and if, on enquiry it appears that the persons so signing had no authority to do so, the Institute shall without prejudice to other civil & criminal remedies cancel the contract & hold signatory liable for all costs & damages.**
  - 8 **The original copy of the tender is to be placed in sealed double cover. The Tenderer shall place two sealed envelopes for each item clearly marked TECHNICAL BID and FINANCIAL BID separately. Both these should be placed in one Main Outer Cover, which should be super scribed with Tender no. & date and “PROCUREMENT OF EQUIPMENT AT I.I.V.R., VARANASI.” with address of this office on the right hand side and that of the tenderer on the left hand bottom side. Right is reserved to reject outstation tenders. All tenders should be sent by Registered Post. Tenders to be hand delivered should be put in the tender box kept in the Administration Wing, IIVR, not later than 10<sup>th</sup> January, 2017 up to 2.00 P.M.**
  - 9 **The technical bid shall consist of all technical details including detailed specifications, technical literature, brand name, model and make, catalogue, authorization letter, dealership certificate, users list, turnover, experience certificates, registration copies, tender cost, EMD etc. *Submission of catalogue containing details with full specifications of the item quoted is a must for technical comparison.* Only the rates quoted along with their break-ups, taxes, rates, etc. should be kept in the Financial Bid. Only those firms will be considered for opening of the financial bid which will qualify in the technical bid.**
  - 10 **Rates quoted should be all inclusive i.e. all taxes, packaging & forwarding, insurance, etc. and must be specifically provided with detailed break-ups. No payment over & above the quoted rates shall be made under any circumstances.**
  - 11 **The rates quoted by each firm in tender should be typed written both in words and figures. There should not be any cutting/ overwriting in the rates. Tenderer is at liberty to be present or to authorize a representative to be present at the time of opening of the tenders. The name and address of the representative who would be attending the opening of the tenders on tenderer’s behalf should be indicated in the tender.**
  - 12 **No interest on Performance Guarantee Deposit or E.M.D. shall be paid by the Institute to the tenderer, under any circumstances.**
  - 13 **The Institute is not bound to accept the lowest or any other tenders and also reserve to itself the right of accepting the tenders in whole or in part. The Tenderer is, however, at liberty to tender for the whole or any portion of the Tender. Conditional tenders imposing a condition which is detrimental to the Interest of the Institute or for effective utilization of the Govt. fund will not be accepted.**

- 14 An amount equivalent to 5% of the approved quoted rates for each implement in the form of D.D./ B.G./ F.D.R. shall have to be deposited by the selected agency/successful tenderer as a Performance Guarantee Deposit after receiving a communication from the Institute, which should remain valid for a period of sixty days beyond the date of completion of all contractual obligations of the supplier including warranty obligations. In the event of non-deposition of the same, the earnest money shall be forfeited. Any non-compliance of the Contract/ Guarantee/ Warrantee clauses, etc. the P. G. Deposit shall be forfeited and no request in this regard shall be considered.
- 15 In case of submission of Bank Guarantees for Performance Guarantee Deposit, the B.G.s should be send to IIVR, Varanasi directly by the issuing bank under Registered Post (A.D.). However, if the B.G. is deposited directly by the firm to IIVR, in that case, the issuing Bank should mandatory forward an unstamped duplicate copy of the B.G. directly to IIVR under Registered Post (A.D.) with a covering letter to compare with the original B.G. This shall be the duty & obligation of the selected/ successful agency/ firm.
- 16 **As per the CVC guidelines, in the Tender, either the Indian Agent on behalf of the Principal/ OEM or the Principal/ OEM itself can bid, but both cannot bid simultaneously for the same item/product in the same tender. Also, if an agent submits on behalf of the Principal/OEM, the same agent shall not submit a bid on behalf of another Principal/OEM in the same tender for the same item/product.**
- 17 The decision of the Director, IIVR, Varanasi, shall be final for any aspect of the Tender/ Contract and binding on the Tenderer. Disputes arising, if any, on the Tender will be settled at Institute level and in case of failure of settlement, dispute shall be referred to the sole arbitrator to be appointed by the Director, IIVR, Varanasi. The decision of the sole arbitrator so appointed shall be final and binding on the parties. Arbitration proceedings shall be governed by the Arbitration and Conciliation Act, 1996.
- 18 **The tenderer should mandatory provide its full bank details (a/c holder name; a/c no.; name of the Bank & Branch; IFS Code, etc.) along with the Tender document for enabling the payments by e-mode. No payment above Rs.25,000/- shall be paid other than e-mode under any circumstances, as has been made mandatory by G.O.I., Min. of Fin. vide letter F. No. 1(1)/2011/TA/291 dated 31.03.2012.**
- 19 As per the new Public Procurement Policy for Micro & Small Enterprises, effective from 1st April, 2012, 20% of the procurement of annual requirement of goods and services will be from the micro and small enterprises, with a sub-target of 4% from MSEs owned by SC/ ST Entrepreneurs. If the tenderer falls under the category of Micro & Small Enterprises, it should be specifically informed along with documentary proof/ certificate issued by the competent authority.
- 20 **The Tenderer should attach financial statements (Trading/ Profit & Loss account as well as Balance Sheet) for the A.Y. 2015-16 duly certified by a C. A. to corroborate their claim of turnover.**
- 21 **There should be no legal suit/criminal case pending or contemplated against the Proprietor/ Partners of the Firm or any of its Directors (in the case of Pvt. Ltd. Company) on grounds of moral turpitude or for violations of any of the laws in-force. Also, the firms should not have been Black Listed by any Govt. Department. The Tenderer must enclose this declaration at the time of submission of bid.**

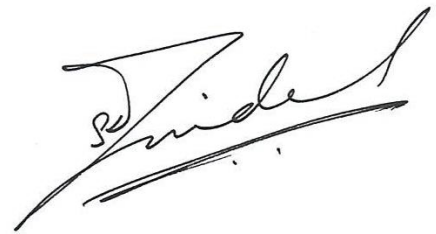
- 22 Any legal/ financial complication on account of infringement of any Patent/ Copyright/ Trademark, etc. or on account of any other factor, due to an act of commission or omission on the part of the Tenderer/ Firm/ Manufacturer shall be the sole responsibility of the Tenderer/ Firm/ Manufacturer and the Institute shall be indemnified from any such pecuniary loss. A certificate to this effect should be mandatory provided.**
- 23 Last 2-3 years continued experience of the Tenderer in the business/ supply of equipment to Central Govt. establishments/ Autonomous bodies of Govt. of India/Corporations of Govt. of India/ reputed public or private organizations. The details along with documentary proof viz. copies of Supply Orders, etc. should be provided by the Tenderer.**
- 24 The supply should be made within the time frame mentioned in the supply order. In case of any extension, prior approval of the office shall have to be taken. In case, the supply is not completed within the time limit, the supply order shall stand cancelled and the bid security would stand forfeited.
- 25 The firms which are ISO/ ISI/ BIS certified may be given preference.
- 26 Indian Institute of Vegetable Research, Varanasi, being a Scientific and Research Organization, is exempted from payment of Excise Duty (Certificate to this effect, if required, shall be provided on request). The Institute is registered with the D.S.T., New Delhi for claiming exemption of Excise duty as per the G.O.I. Notification No. 10/97- Central Excise dtd. 1.3.1997. Excise duty will not be paid. However, percentage of excise duty payable on basic process must be indicated in each offer.
- 27 The supply is affected at DGS&D Rate Contract, wherever applicable.
- 28 Payment shall be made only on actual delivery in good condition and successful installation & demonstration (which should be free of cost & must be completed before payment). No advance or part payment request shall be made/ considered under any circumstances. Institute is not responsible for payment of transit insurance charges.
- 29 Legal jurisdiction for all disputes shall be within the purview of the Varanasi Court.
- 30 As per Council's instructions vide F. No. 8-15/2012-IC.II dated 1st August, 2012, if there is any in-built provision for training abroad, in that case the tenderer should clearly and separately mention the cost of the Implement, various taxes thereon and the cost of the visit of the Scientist/s, if required. The cost inclusive quotations for training visits shall not be accepted and will be disqualified. If training abroad in any equipment is required, the Tenderer should specifically mention the detailed and justified reasons for it, informing therein as to whether any such equipment is installed anywhere in India or not. If installed, then why training cannot be done on already installed implement in India. They should also specifically provide the likely period of such training. However, the Training abroad shall ordinarily not be considered, until and unless duly approved by the Council.**
- 31 The guarantee/ warrantee should be from the date of installation. All guarantee/ warranty services should be attended within a maximum limit of 15 days, failing which, proportionate deductions from the P. G. may be made at the discretion of the Institute.
- 32 All bidders shall give an undertaking that they fully and unconditionally agree to abide by all the terms and conditions which, if needed, may be modified at the discretion of the Competent Authority, in supply order, for which confirmation from the supplier shall be taken or else they should sign on every page of the Tender Document, which would show their unconditional acceptance of all the terms and conditions of the Tender Document.**

- 33 All bidders should be mandatory give an index of all documents attached along with page no. thereof. All the conditions and documents as sought under point no. 2,4,7, 8, 9, 10, 16, 18, 20, 21, 22, 23, 30, 32 & 33 (in bold) are mandatory for technical qualification of a firm. Non-submission of these documents/ non-compliance of these conditions shall make the firm liable not to be considered. The format is provided below:**

<b>Sl. No.</b>	<b>Document particulars</b>	<b>Page No.</b>
<b>1</b>	Processing fees of bid document/Tender Cost	
<b>2</b>	Earnest Money Deposit	
<b>3</b>	Signed Tender document or Undertaking for unconditional acceptance of terms & conditions	
<b>4</b>	Two Bid System	
<b>5</b>	Technical literature including catalogue, CST/VAT/PAN, etc.	
<b>6</b>	Authorization/ Dealership Certificate	
<b>7</b>	User list/client list along with the order copies of last 2-3 years	
<b>8</b>	Bank details	
<b>9</b>	Financial Statements (A.Y. 2015-16)	
<b>10</b>	No legal case certificate as in item no.21 of tender	
<b>11</b>	Non infringement certificate as in item no.22 of tender	
<b>12</b>	Copy of ISO/IST/BIS Certificate or any other certification, if any	

- 34 Liquidated Damages Clause:** Except as otherwise as mentioned above, if the supplier fails to deliver any or all of the goods or perform the services within the time period (s) specified in the contract, the Institute shall, without prejudice to its other remedies under the contract, deduct from the contract price, as liquidated damages, a sum equivalent to 0.5% (half percent) of the delivered price of the delayed goods or unperformed services for each week of delay or part thereof until actual delivery or performance, up to a maximum deduction of 10% (ten per cent) of the delayed goods' or services' contract price. Once the maximum is reached, the purchaser may consider termination of the contract, if the same have not been terminated already. Further, during the above mentioned delayed period of supply and/or performance, the supplier, notwithstanding any stipulation in the contract for increase in price for any ground, shall not be entitled to any increase in price and cost, whatsoever, which take place during the period of delay. But, nevertheless, the purchaser shall be entitled to the benefit decrease in price and cost on any ground during that period of delay.
- 35 Force Majeure:** Except as otherwise as mentioned above, the supplier shall not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that its delay in performance or other failure to perform its obligations under the contract is the result of an event of Force Measure. For purposes of this clause, "Force Measure" means an event beyond the control of the supplier and not involving the supplier's fault or negligence and not foreseeable. Such events may include, but are not restricted to, acts of the purchaser in its sovereign capacity wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes. If a Force Measure situation arises, the supplier shall promptly notify the purchaser in writing of such conditions and the cause thereof. Unless otherwise directed by the purchaser in writing, the supplier shall continue to perform its obligations under the contract as far as reasonably practical & shall seek all reasonable alternative means for performance not prevented by Force Majeure event.

- 36 Termination for insolvency:** If the supplier becomes bankrupt or otherwise insolvent, the purchaser may terminate the contract by giving written notice to the supplier, without any compensation to the supplier, provided, that such termination will not prejudice or affect any right of action or remedy which has accrued and/or will accrue thereafter to the purchaser.
- 37 Termination for convenience:** The purchaser, by written notice sent to the supplier, may terminate the contract, in whole or in part, at any time for its convenience, the notice of termination shall specify that the termination is for purchaser's convenience, the extent to which performance of the supplier under the contract is terminated and the date with effect from which such termination becomes effective. The goods that are complete and ready for shipment within 30 (thirty) days after the supplier's receipt of notice of termination shall be accepted by the purchaser at the contract terms and prices. For the remaining goods, the purchaser may elect:
- (a) To have any portion completed & delivered at the contract terms and prices; and/or
  - (b) To cancel the remainder and pay to the supplier an agreed amount for partially completed goods and services and for materials and parts already procured by the supplier for fulfilling the contractual obligations.
- 38** Any other terms and conditions, which may be updated/ modified from time to time, on the basis of the GOI policies/ instructions or for the optimal utilization of the Govt. fund, shall be applicable and binding on the tenderer.

A handwritten signature in black ink, appearing to read 'Sumit Kumar Jindal', written over a horizontal line.

**(Sumit Kumar Jindal)**  
**Senior Admn.Officer**

## QUESTIONNAIRE

BIDDERS SHOULD FURNISH SPECIFIC ANSWERS TO ALL THE QUESTIONS GIVEN BELOW. IN CASE A QUESTION DOES NOT APPLY TO A BIDDER, THE SAME SHOULD BE ANSWERED WITH THE REMARK "NOT APPLICABLE."

1. Name & address of manufacturer:

2. Station of Manufacture:

3. P.A.N. details:

4. Status:

(a) Are you currently registered with the Directorate General of supplies & Disposals (DGS&D) for the item (s) quoted? If so, indicate the date up to which you are registered and whether there is any monetary limit on your registration.

(b) Are you a small scale unit currently registered with the National small industries Corporation (NSIC) under single point Registration Scheme for the item (s) quoted? If so, indicate the date up to which you are registered and whether there any monetary limit on your registration.

(c) If you are registered either with NSIC or DGS&D, please state whether you are currently registered with Directorate of industries of the State Government concerned. If so, indicate the date up to which you are registered and whether there is any monetary limit on your registration.

(d) Are you registered under the Indian Companies Act, 1956 or any other Act?



5. Please provide:

Full Bank details for e-payment:

Address of your Banker (s):

6. State whether business dealings with you have been currently banned by any Ministry/ Deptt. Of Central Govt. or any State Govt.

Signature of Witness

Signature of Authorized Person

Name & address of Witness

Full name, designation & address of the person signing above

For and on behalf of Messer's

(Name and address of the bidding firm)

**PROFORMA FOR BANK GUARANTEE FORM FOR BID SECURITY (if required)**

Whereas.....[name of bidder] [hereinafter called “the bidder”] has submitted his bid dated.....[date] for the supply of ..... (brief description of the relevant goods and services) (Hereinafter called “the bid”)

KNOW ALL PEOPLE by these presents that WE..... (name of the bank ) having registered office at.....(full address) (hereinafter called “the bank”) are bound unto.....(name of the purchaser) (hereinafter called “the purchaser”) in the sum of ..... (Amount in figures and in words) for which payment well and truly to be, made to the said purchaser, the bank binds itself, its successors and assigns by these presents.

Sealed with common seal of the said bank this..... Day of.....20.....

THE CONDITIONS of this obligation are:

If the bidder

- (i) withdraws its bid during the period of bid validity specified by the bidder on the bid form; or
- (ii) does not accept the correction of errors in accordance with the Instruction to Bidders

OR

2. If the bidder, having been notified of the acceptance of its bid by the purchaser during the period of bid validity.

- (i) Fails or refuses to execute the contract form, if required; or
- (ii) Fails or refuses to furnish the performance security, in accordance with the instructions to Bidders;

We undertake to pay to the purchaser up to the above amount upon receipt of its first written demand, without the purchaser having to substantiate its demand, provided that in its demand the purchaser will note that amount claimed by it is due to it, owing to the occurrence of one or both of the above mentioned two conditions, specifying the occurred or conditions.

This guarantee will remain in force up to and including 60 (sixty) days after the period of bid validity and any demand in respect thereof should reach the bank not later than the above date.

Date:

Place:

.....  
Signature of the Bank

SEAL of the Bank

**MANUFACTURER'S AUTHORISATION FORM**

TO

.....  
.....

(Name and address of the purchaser)

Dear Sir,

Ref: Your Bidding Documents No.....

We..... who are established and reputable manufactures of .....(name and description of the goods offered in the bid) having factories at..... hereby authorize Messrs.....(name and address of the agent) to submit a bid, negotiate(as and if necessary) and conclude the contract with you against your above mentioned Bidding Documents for the above goods manufactured by us.

No company or firm individual other than Messrs..... (name and address of the above agent) is authorized to bid, negotiate and conclude the contract against this specific Bidding Documents for the above mentioned goods manufactured by us.

We hereby extend cur full guarantee and warranty as per clause 15 of the General conditions of Contract, read with modification, if any, in the Special Conditions of contract for the goods and services offered for supply against this Bidding Document by the above firm.

Yours faithfully

[Signature, name and designation

for and on behalf of Messrs.....

[Name & address of the manufacturers]

Note: This letter of authorization should be on the letter head of the manufacturing firm and should be signed by a person competent and having the power of attorney to legally bind the manufacturer.

**PROFORMA FOR BANK GUARANTEE FORM FOR PERFORMANCE SECURITY**

(if required)

To,

.....  
.....

(Name and address of the purchaser)

WHEREAS.....(name and address of the supplier)  
(hereinafter caller “the supplier”) has taken, in pursuance of contract  
No.....dated.....to supply ..... (Description  
of goods and services) (hereinafter called “the contract”)

AND WHEREAS it has been stipulated by you in the said contract that the supplier shall you with a bank guarantee by a recognized bank acceptable to you, for the sum specified therein as security for compliance with its (supplier’s) obligations in accordance with the contract:

AND WHEREAS we have agreed to give the supplier such a bank guarantee;

NOW THEREFORE we hereby affirm that we are guarantors and responsible to you, on behalf of the supplier, up to a total of ..... [Amount of the guarantee in words and figures], such sum being payable in the types and proportions of currencies in which the contract price is payable and we undertake to pay you, upon your first written demand declaring the supplier to be in default under the contract and without cavil or argument, any sum or sums within the limits of [amount of guarantee] as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

We further undertake to pay you the sum so demanded notwithstanding any dispute or disputes raised by the supplier in any suit or proceedings pending before any court or tribunal relating thereto liability under this present being absolute and univocal.

We also hereby waive the necessity of your demanding the said amount from the supplier before presenting us with the demand.

We further agree that you 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 contract or to extend the time of performance by the supplier from time to time or to postpone for any time or from time to time any of the powers exercisable by you against the supplier and to forbear or enforce any of the terms and conditions relating to the contract and we shall not be relieved from our liability under this guarantee.

This guarantee shall be valid and remain in force until .....day of .....20.....

Dated the.....day of .....20

For.....

(Name of the Bank)

Signature.....

Name of the officer.....

(in block letters)

Designation of the officer.....

Code No.....

Name of the Bank and full address

**Specifications for Supply and Installation of Equipment****(At par or Higher Specifications may also be quoted)**

<b>Item No.</b>	<b>Name of the Item</b>
<b>1.</b>	<p><b>Low temperature deep freezer (-20°C)</b></p> <ul style="list-style-type: none"><li>• Upright Freezers equipped with digital display and alarm features for safe sample storage</li><li>• Fully programmable microprocessor controlled with membrane keypad and eye level control panel.</li><li>• Quick freezing function</li><li>• Sealed drawers - prevent frost loss from open door</li><li>• Solid state digital temperature controller with alarms</li><li>• Adjustable baskets / shelves</li><li>• Low energy consumption and noise levels</li><li>• Size minimum: 340 liter</li><li>• Cabinet Material Scratch-resistant painted</li><li>• Corrosive resistant chamber</li><li>• With the minimum of 3-4 adjustable racks</li><li>• Freezer must use CFC-FREE, HCFC-FREE non-flammable refrigerants, and refrigeration system must be energy efficient and hermetically sealed cascade refrigeration system. Compressor should be capable to run any voltage between 190 – 270V. Freezer must have ISO 9001- safety requirements and IEC 61010 Electrical safety CE certified.</li><li>• A suitable voltage stabilizer to be provided by the supplier.</li><li>• Optional: 2 yrs. Manufacturer warranty.</li></ul>
<b>2</b>	<p><b>Incubator (Isothermal temp standard)</b></p> <ul style="list-style-type: none"><li>• Stackable Incubator Shaker with in-built refrigeration magnetically driven on permanent Magnets.</li><li>• Refrigerated Incubator Shaker with temperature control range from 15°C below ambient to 60°C, control accuracy ±0.1°C.</li></ul>

- Shaking speed from 50 – 400 rpm with control accuracy of  $\pm 2$  rpm
- It should have acceleration/deceleration circuit prevent sudden starts/stops to eliminate flask closure wetting which would otherwise interfere with oxygen transfer.
- It should have timer atleast ranging from 10 mins to 96 hrs.
- It should have large easy to read bright display screen clearly indicates speed, running time, alarm condition and temperature character height 9/16”
- It should be noise free, vibration free and reliable operation at higher loads and speeds.
- It should have audible and visible alarms alert when deviate speed and temperature from set points with mute facility.
- System should have the option of future up gradation of CO<sub>2</sub> control and humidity control.
- The system should have port for Data Logging.
- The system should have facility to calibrate the temperature and speed via keypad.
- Electronic and mechanical components should be enclosed, protected from accidental spills.
- It should have automatic restart after power interruption with non-volatile memory.
- It should have open lid cut-out switch stop agitation when chamber is open.
- It should come with Universal Platform of 40-50 cm x 40-50 cm size having capacity to holds assortment of various size of flask sizes upto 2 Ltrs., capable to hold 20-24 flasks of 125ml, 15-20 flasks of 250ml, 10-15 flasks of 500ml, 5-10 flasks of 1L, 3-5 flasks of 2L and test tube racks.
- System should be supplied with clamps for 250ml, 500ml, 1.0 l and 2.0 l conical flasks
- Inside and outside of the incubator made up of metal/stainless steel.
- Clamps for test tube racks of various sizes should be provided (optional).
- It should meet CSA, UL & CE standards.
- Machine to be provided with a suitable Voltage Stabilizer
- Optional: 5 Years Manufacture warranty.

3

Gel-electrophoresis system with accessories

- Horizontal electrophoresis systems should be able to run the gel of different sizes with the sample through put from 1-100 samples with safety lid.
- System should include UV transparent gel tray with integrated fluorescent ruler.
- System should include tape free gel casting module for leak free operations.
- System should include casting gates to allow hassle free casting of gels directly in the electrophoresis cells for variable size of gels.
- System should include 1.5mm thick for 7-10, 13-16 & 20-26 well-fixed height combs.
- Should be supplied with minimum two sets of combs for each size
- System should have the option for adjustable height combs with comb holders.
- Migration rate of Bromophenol Blue dye should be similar to 4.5cm/hr (at 75 V).
- System should have a lock-in design to run precast ready agarose gels.
- Supplied with buffer tank of variable capacity from 300-1000ml capacity (Mini, medi and large sized tanks)
- Volume of each well should accommodate 10-25µl volume.
- Should have replaceable electrodes for longer life of equipment

Instrument should be supplied with power pack with following specifications

- The power supply should be capable to operate four electrophoresis units simultaneously for identical runs with LED display.
- Output range Voltage:10-300V ,Current: 4-400mA ,Power: 75W
- 4 recessed sets in parallel
- Type of output – constant voltage and constant current
- Pause resume function must be their
- Auto power up after failure No load detection, sudden load change detection, short circuit detection
- Timer 1-999 min; Display: 3-digit LED
- Safety regulatory EN 61010, CE
- Optional: 5 yrs. additional manufacturer's warranty.



<p><b>4</b></p>	<p>Vacuum drier</p> <ul style="list-style-type: none"> <li>• Refrigerated centrifugal concentrator to concentrate heat sensitive samples such as RNA and proteins with microprocessor controlled cooling and heating form -4° C to +60°C in one degree increment, sensor to reads internal chamber temperature, programming to holds two temperature and times.</li> <li>• LCD for display of program number, set point and temperature</li> <li>• Control panel with RUN/STOP button, PREHEAT/COOL button, set point SELECT button, increase/decrease buttons, pump and emission condenser</li> <li>• Complete system with built-in diaphragm, pump and emission condenser</li> <li>• Fixed angle rotor with 48 places for the centrifuge tubes with the volume of 1.5 / 2.0 ml,</li> <li>• Instrument with 230 V 50 / 60 Hz</li> <li>• Sandwich use of fixed angle rotors for increased capacity of 96 or 144 samples</li> <li>• Chemical resistant, stainless steel chamber</li> <li>• Instrument should be supplied with variable tube connection</li> <li>• Instrument should be amenable to Easy upgradation</li> <li>• Free diaphragm with inner PTFE- coating for easy maintenance</li> <li>• Pump capacity: 1.6 – 1.8 m3/h</li> <li>• Low noise level: complete system &lt; 70 dB (A)</li> <li>• Emission condenser provided cleans outgoing air up to 75% to protect against unpleasant vapors</li> <li>• Fixed Rotational Speed: 1,200 - 1600 rpm</li> <li>• Max. Vacuum: &lt; 20 h Pa (&lt; 20 mbar)</li> <li>• Should be supplied with Fixed Angle Rotor for 15/20mLTubes with 6-8 places</li> <li>• Optional: 5 yrs. manufacturer’s warranty.</li> </ul>
<p><b>5</b></p>	<p>Incubator (Imported)</p> <ul style="list-style-type: none"> <li>• Chamber Size : Inside : W 570 mm X D 550 mm H 875 mm</li> <li>• Capacity – 280 ltrs (10 cu. Ft )</li> <li>• Super Deluxe Automatic BOD incubator with interior illumination with 3</li> </ul>

	<p>number fluorescent tubes of 60 cm length placed vertically along the back wall.</p> <ul style="list-style-type: none"> <li>• Separate on/off switch for tube and minimum temperature can be obtained from 100C to 600C, when all the tubes are on.</li> <li>• BOD incubator incorporated with timer 0 – 24 h for regulating cyclic illumination condition fixed on the side of the chamber.</li> <li>• Stainless steel shelves (2-4 qualities) inside the chamber</li> </ul>
<p><b>6</b></p>	<p>Ultra low temperature Deep freezer (-80oC)</p> <ul style="list-style-type: none"> <li>• Fully programmable microprocessor controlled with membrane keypad and eye level control panel.</li> <li>• Upright -80 C Deep Freezer with capacity of 400 L or more</li> <li>• System should have 304L grade stainless steel interior and tough, powder coated exterior finish constructed on steel gauge of 18g ZINTEC 1.2 min.</li> <li>• Freezer should have insulated doors having adjustable shelves with 4 – 5 compartments.</li> <li>• Freezer should hold minimum of 200 no's of 2"boxes &amp; 20,000 no's of 2" vials per freezer.</li> <li>• Freezers should have heated air vent and air filter panel.</li> <li>• Heavy duty lockable castors and lockable outer doors and lids.</li> <li>• Freezer must have battery back-up and 4 PIN security lock for unauthorized tempering.</li> <li>• Freezer must have RS 485 interface data logging port &amp; on board diagnostic software on control panel.</li> <li>• Audible and visible alarms for temperature, power failure, system failure, battery low etc. and it also have remote alarm port for connection to and auto dialler.</li> <li>• Freezer must use CFC-FREE, HCFC-FREE non-flammable refrigerants, and refrigeration system must be energy efficient and hermetically sealed cascade refrigeration system. Compressor should be capable to run any voltage between 190 – 270V. Freezer must have ISO 9001- safety requirements and IEC 61010 Electrical safety CE certified.</li> <li>• Freezer must have washable condenser filter indication which should keep</li> </ul>

	<p>fins free of dust to maintain peak cooling efficiency.</p> <ul style="list-style-type: none"> <li>• Racks, divider and boxes etc. should be provided for the sample storage.</li> <li>• A suitable voltage stabilizer to be provided by the supplier.</li> <li>• Optional: 5 yrs manufacturer's warranty</li> </ul>
7	<p>Fluorescence microscope with phase contrast and micro photographic accessories</p> <ul style="list-style-type: none"> <li>• Frame: Rigid and vibrations free frame</li> <li>• System: System must be a single compact integrated unit including: cell imaging system, digital camera, computer and high power fluorescence lighting system</li> <li>• Illuminator : Precentered high intensity white LED illuminator with built in eye lens for eco-illumination</li> <li>• System must include 3 independent high output LED illuminators with integrated hard coated fluorescence band pass excitation and emission filters for each cube</li> <li>• System must automatically recognize which cube is installed and adjust the software configuration accordingly</li> <li>• System must be able to simultaneously accommodate 4 fluorescent LED light cubes, System must be supplied with Light cube for DAPI, GFP &amp; RFP Applications</li> <li>• Instrument should have hard coated filter set and should be based upon fluorescent light cubes. Different contrast settings like Epifluorescence and transmitted light (brightfield and phase contrast) can be adjusted.</li> <li>• Stage: universal holder to accept all types of specimen with transparent stage ring.</li> <li>• Filter - GIF (Green interference)</li> <li>• Eyepiece lens-10x with both side diopter adjustments</li> <li>• Condenser- condenser with non centrable phase slider and phase rings ph1, ph-1 &amp; ph-2.</li> <li>• Objectives: The objectives should be capable for Brightfield, Phase Contrast</li> </ul>

& Fluorescence:-Achromat Flat Field 4x, Achromat ADL 10x, Achromat LWD ADL 20XF, Super plan fluor E LWD 40X, Plan fluorite 60x, Plan fluor 100x oil

- System must include manual cell counting capability
- Computer must be automatic update, USB and port DVI port
- Instrument should have Mechanical “glide” stage with X-Y axis fine-positioning controls Interchangeable vessel holders. Instrument should allow analysis and imaging of samples in range of vessels, including T-Flasks, Petri dishes, Multiwell plates, Microscopic slides and different culture systems.
- Fluorescence attachment: 120 to 130W mercury illumination should hold three fluorescence filter pre-centered light with filter block
- DIGITAL CAMERA SYSTEM:
- Digital color camera capable of handling bright field, fluorescence, phase contrast images /3” high density CCD chip, at least 5.0 million pixel resolution or better.
- Live display mode
- FIRE-WIRE port for attaching camera onto desktop/laptop through single wire.
- Microscope, camera and image analysis software
- Image Analysis Software should be with following features:
- Documentation software 3D capability
- Measurement modules (Interactive measurement should be related to nematode length, width, shape, point count and no. of nematodes etc) & image annotation
- 3D capability
- Image Acquisition
- live-stream(video recording) capture,
- Live Image capture

	<ul style="list-style-type: none"> <li>• Time Lapse Imaging</li> <li>• Data Collection and processing unit: Branded i5 processor, 4 GB RAM, DVD Writer, 500 GB or higher, HDD, 18.5”TFT Monitor, Key board, Mouse along with UPS.</li> </ul>
<p style="text-align: center;"><b>8</b></p>	<p>High Speed Centrifuge</p> <ul style="list-style-type: none"> <li>• High Centrifugation Speed up to 14000 -16000rpm (20000 xg -22000xg</li> <li>• Centrifuge should be floor model refrigerated</li> <li>• Should reach its maximum speed less than one minute</li> <li>• Temperature range -9 to 40oC.</li> <li>• Variable speed, brushless motor</li> <li>• Speed can be set in rpm/rcf with capacity up to 3 L.</li> <li>• Fixed angle Rotor for 30 -36 places of 1.5/2ml</li> <li>• Fixed angle Rotor of 4-8 places for 15 and 50ml with 10000 rpm - 13000rpm</li> <li>• Swing out rotor for 500 ml capacity with 4-6 places along with adaptor for 50 ml and 15 ml conical bottom &amp; 15 ml round bottom</li> <li>• Adjustable speed short spin key</li> <li>• Soft start/stop function</li> <li>• There should be inbuilt chamber for drainage.</li> <li>• Auto drainage system should be inside the rotor chamber to prevent the chamber for corrosion.</li> <li>• Automatic rotor detection system senses rotor and indicate maximum permissible speed.</li> <li>• Non corrosive inner chamber</li> <li>• A suitable voltage stabilizer to be provided by the supplier</li> <li>• Optional: Manufacturer’s warranty of 5 year</li> </ul>
<p style="text-align: center;"><b>9</b></p>	<p>Membrane cutter and printing device and lateral flow device Automatic reagent dispenser</p> <ul style="list-style-type: none"> <li>• It should be Fully automatic, user friendly for operation</li> <li>• Programs can be able to add to the memory that facilitate process repeatability easy and accurate.</li> <li>• Belt Speed should be of 150 - 450 cm/min</li> </ul>

- Dispense Rate should be of 0.4 -3.0  $\mu\text{l}/\text{cm}$
- Minimum Line Width should be of 0.3 mm
- Minimum Working Volume 1500  $\mu\text{l}$
- It should work with Power 110-220 V, 0.6-1.2 A, 50 -60Hz
- Dimension 78 x 37 x 41 cm
- Two delivery heads for printing one or two lines
- Digitally programmable belt speed
- Recovery of unused reagents should be possible
- Should be able to process for small scale preparation of laminates
- It should produce Extremely uniform, reproducible, and crisp printed lines
- Precise dispensing with positive displacement syringe pumps
- It should have very high throughputs
- Emergency STOP switch.
- Laminates should be detected photoelectrically
- Manual calibration of needle functionality should also be possible.
- No indentation should be produced even on the softest membrane Printed laminates should be removed from the other end of the belt
- Self priming should be there to eliminate entrapped air
- Big size nozzle eliminates shear to avoid damage to proteins
- Reagent delivery should be programmable per cm
- Minimum of One-year warranty against manufacturing defect

#### Printing device

- Print Length should be of 20-30cm
- Minimum No. of Printing Heads - 2
- Minimum Working Volume 100-150  $\mu\text{l}$
- Working Voltage 110-220V, 50-60Hz
- Dimension 47 x 16.5 x 11.5 cms.
- There should be uniform dispensing of reagents results in good line quality.
- Minimum of two lines can be able to printed simultaneously
- There should be provision of variable speed for controlled dispensing of reagents.

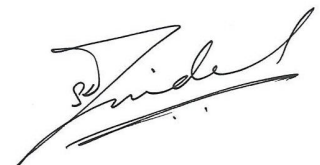
- Pressure on the membrane should be adjustable
- Holding tank should have 400-500µl volume which should allow printing of at least 10 laminates.
- Emergency STOP switch.
- Recovery of unused reagents should be possible
- Auto–reverse facility may be provided to make the operation automatic.
- Minimum of One-year warranty against manufacturing defect

#### Cutting device

- Maximum Card Width 100-120mm
- Power 110-220V, 50-60Hz
- Dimension 44cm X 35cm X 33cm (H)
- Cutting speed should be about 3000-5000 cuts per hour.
- Blades should be easily replaceable, available and should be made of hardened alloy steel.
- In normal operation, 5-6m lakh cuts should be made without sharpening of blade.
- Number of strip to be cut should be programmable and can be varied as per requirement from 1 to 6000.
- Width of the strip should be also programmable from 2mm to 12mm.
- Keyboard entry facility should be there for strip width definition.
- Emergency STOP switch.
- Minimum of One-year warranty against manufacturing defect.

#### Lateral flow device (membranes)

- Should be supplied with Sample Pad, Conjugate Release Matrix and Absorbent Pad sufficient for the preparation of minimum 25,000 strips with a strip size of 4-5mm width and 75-100mm length.



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