

BIDDING DOCUMENT

SHORT TENDER NOTICE No: 16/2017- 2018/Bio-Medical Equipment/IGIMS/Store



Supply, Installation & Commissioning of Bio-Medical Equipment's / Instruments

SHORT TENDER NOTICE No:16/2017- 2018/Bio-medical Equipment/IGIMS/Store

Issued to:

Cost of Document: Rs.2000/-

Paid By: Cash: Receipt No.:

Demand Draft: No.:

Issuing Bank:

(Authorized Signatory)

**INDIRA GANDHI INSTITUTE OF MEDICAL SCIENCES,
SHEIKHPURA, PATNA - 800014.**

INDEX

Sr. No.	Description	Page No.
01.	CHECK LIST	4-6
02.	ELIGIBILITY CRITERIA	7
03.	INSTRUCTION TO BIDDER	8-14
04.	CONDITION OF THE CONTRACT	15-20
05.	SCHEDULE OF THE REQUIREMENT	21
06.	SPECIFICATION AND ALLIED TECHNICAL DETAILS	28-39

IMPORTANT DATES

Last date for Purchase of Bidding Document	Can be downloaded from Institute website
Last date for submission of completed bidding document	16/01/2018 up to 4.00 PM. by registered/speed post/ Courier only
Date of opening of technical bid	17/01/2018 at 3.30 P.M. in Conference Hall IGIMS, Patna.
Date of demonstration of equipment	To be informed to the qualified bidders qualifying after opening of technical bids.

INDIRA GANDHI INSTITUTE OF MEDICAL SCIENCES,
SHEIKHPURA, PATNA -800014 (Bihar, India)

Sr. No. of Tender: _____

FILE NO. : Tender No.: _____

Tender form issued in favour of: _____

Dear Sir,

1. I/We hereby submit our tender for the _____
2. I/We are enclosing herewith the Demand Draft No..... dated..... for
Rs. /- drawn in favour of **Director I.G.I.M.S. - Patna (payable at Patna)** towards **EMD / Bid Security.**

(EMD AND COST OF BIDDING DOCUMENTS MUST BE SUBMITTED IN SEPRATE ENVELOP.TENDERS NOT ACCOMPANIED WITH EMD / BIDSECURITY ALONGWITH THE TECHNO-COMMERCIAL BID SHALL BE SUMMARILY REJECTED).
3. I/We have gone through all terms and conditions of the tender documents before submitting the same.
4. I/We hereby agree to all the terms and conditions, stipulated by the I.G.I.M.S. - Patna including delivery, warranty, penalty etc. Quotations for each group are being submitted under separate covers, and sheets and shall be considered on their face value.
5. I/We have noted that overwritten entries shall be deleted unless duly cut & rewritten and initialled.
6. Tenders are duly signed and stamped.(No thumb impression should be affixed)
7. I/We undertake to sign the contract/agreement, if required, within 15 (Fifteen days) from the date of issue of the letter of acceptance, failing which our/my EMD/Bid deposited may be forfeited and our/my name may be removed from the list of suppliers

Yours faithfully,

(Signature of Bidder with full name and address)

CHECK LIST FOR TERMS AND CONDITIONS

A.: To be filled by the bidder and submitted along with the Technical Bid.

Sr. No.	Terms & Conditions as per Bidding Document	Page No.	Remarks
1.	<p>Status of Bidder:</p> <ul style="list-style-type: none"> • Manufacturer or Authorized Agent of the Manufacturer • Whether Public Undertaking, Public Ltd., Private Ltd. Company or Proprietary Firm/partnership firm • <p>(Please attach Notary certified MANUFACTURER'S AUTHORISATION FORM as per FORMAT placed at Annexure – III)</p>		
2.	Power of Attorney as per Annexure - V in favour of person to sign, submit and negotiate the bid.		
3.	Certificate towards market standing of minimum 05 years in the area of supply and or maintenance of bio-medical equipment's.		
4.	Certificate for sole ownership / partnership		
5.	Statement of financial standing from bankers		
6.	Statements of turnover per year for last three successive years duly certified by the Chartered Accountants.		
7.	Notary certified User List (List of Govt. /Semi Govt., Reputed Pvt. Hospital) where quoted model of the items has been supplied and installed.		
8.	Notary certified Supply order copy (Minimum 3nos. or more) issued by Govt./Semi Govt./Reputed Pvt. Institutions/organization for the quoted items. (same model)		
9.	Notary certified Performance certificate of the same supplied machine (of quoted make and Model) issued by Head of the dept. or Institution after a minimum period of six months of installation		
10.	Prerequisite (if any) for installation of the Machine, if any, to be provided by the Institute.		
11.	Whether rates quoted are inclusive of all taxes or not.		
12.	Whether rates are quoted as per format mentioned in the Bidding Document or not.		
13.	Affidavit to the effect that the bidder is not blacklisted by any Govt. agency or have no pending case either Civil or Criminal against them.		
14.	Affidavit, to the effect that the bidder is not supplying the quoted item(s) to any other Govt. / Pvt. Organizations / Institutions / Hospitals at the rate lower than the rate quoted against this tender.		

15.	Quality Assurance Certificate like ISI, ISO-9002, IP/BP, CE, FDA (US) or any other (please specify)		
16.	Bid Security amount deposited is enclosed or not. If yes, please mention the details.		
17.	Original Technical Catalogue of the quoted model .		
18.	Certificate, to the effect that bidder will maintain the quoted item(s) during Warranty period of three years including all spares, accessories, consumables etc., (Please mention the name of the item / items with price, which are not supplied by the bidder free of cost with frequency of replacement)		
19.	Certificate, to the effect that bidder has quoted its rate for Comprehensive Annual Maintenance Contract inclusive of labour, spares, consumables, accessories etc. on per year basis for a further period of seven years after expiry of warranty period of three years in the price bid . (Please mention the name of the item / items with price, which are not supplied by the bidder free of cost with frequency of replacement during Comprehensive Annual Maintenance Contract period in the price bid)		
20.	Acceptance of all terms / conditions towards after sales / services as mentioned in the bidding document.(Clause No- 13 of “ Instruction to Bidder “ & clause no- 3, 4 and 5 of Condition of contract.)		
21.	Compliance Statement with relation to the technical specification as mentioned in the bidding document duly supported by the original catalogue. The bidder must quote specification in the compliance column Mere writing” Complied shall not be accepted.		
22.	Compliance Statement with relation to the terms & conditions as mentioned in the document.		
23.	PAN and copies of Income Tax Returns for the last three years.		
24.	Duly attested copy of GST registration certificate.		

B: To be filled by the Bidder and submitted along with Price Bid

Sl. No.	Terms & Conditions as per Bidding Document	Page No.	Remarks
1.	Item wise price for the item(s) as mentioned in the Bidding Document and as per format attached as Annexure – I(a) or I (b)		
2.	Rate for Comprehensive Annual Maintenance Contract as per terms & conditions mentioned in the Bidding Document and as per format attached as Annexure - II		

Note: If the above tender details are not mentioned and required documents are not attached at appropriate places, the offer of the bidder(s) shall be summarily rejected. Hence, bidder(s) are advised to go through the bidding document carefully and tender be prepared with all the required documents to avoid rejection of offer.

(Name of the Bidder with signature & seal)

ELIGIBILITY CRITERIA

01	Manufacturers or their authorized dealers/Indian subsidiaries/direct importers having a place of business in any of the States of India are eligible to participate in this tender.	Mentioned Page no.
02	The bidder and manufacturer of the equipment offered should be in the business of the supply and installation of same / similar equipment for the last five calendar years.	
	<p>(a)The manufacturer should have completed at least 05(Five) nos. installations of the quoted items in Govt. /Pvt. Institutions /Hospitals in India. The installations mentioned by the manufacturer in their offer must be functional and performance certificate for the same issued by the user concerned also be attached with the offer.</p> <p>(b) The bids quoted as the authorized representative of the manufacturer meeting the above criteria 02 (a) should have also supplied and installed at least 03(Three) nos. installations of the quoted items in Govt. /Pvt. Institutions/ Hospitals in India in last five years from the last date of submission of tender. The installations mentioned by the authorized representative in their offer must be functional and performance certificate for the same issued by the user concerned also be attached with the offer.</p>	
03	The Bidder should be public undertaking /Autonomous Body /Public Ltd./Pvt. Ltd. Company or proprietary firm /Partnership Firm and should be in medical equipment business since last five years in India. The Bidders having manufacturing facility in their name in India for the majority of the items offered by them shall be given preference.	
04	The Bidder (manufacturer or their authorized agent) should have had average annual financial turnover of Rs. 50 Lakh during the last three years ending s 31 st March 2016.	
05	Bidders who have the capability to attend repairs of these equipment within the time mentioned in this bidding document and who are willing to provide stand by equipment or replace the faulty equipment if the repair/down time extends beyond 72 hours from the time of reporting of the fault within the next 48 hours (total down time should not exceed 5 days in one instance). The bidders who have the capability to ensure the uptime mentioned in this document (Documentary proof shall be submitted on the after sales facilities and expertise of the bidder.)	
06	Bidders are not offering the equipment of a firm /company that has been blacklisted by Indira Gandhi Institute of Medical Sciences – Patna or blacklisted/debarred by any other State / Central Government's organization.	

Note:

- Notwithstanding anything stated above, the Institute reserves the right to assess the Bidder's capability and capacity to perform the contract satisfactorily before deciding on award of contract, should circumstances warrant such an assessment in the overall interest of the purchaser.
- The Institute reserves the right to ask for a free demonstration of the quoted equipment at a pre determined place acceptable to the purchaser of technical acceptability as per the tender specification, before the opening of the price tender.

INSTRUCTION TO BIDDER

GENERAL INSTRUCTIONS TO BIDDERS

1. **Tendering System**

The tenders/Bids are to be submitted in two Parts i.e. **Part - I & Part II.**

PART - I titled as TECHNICAL BID shall contain the complete technical specifications and details on the competency of the bidder and also the commercial bid package with terms and conditions of supply, warranty, after sales service etc. (Except Price Bid Form). Apart from the documents and signed copy of the purchased tender document, the necessary enclosures should be submitted in this technical bid. In short, the technical bid should contain all the necessary documents to prove the technical competency and capability of the bidders for supplying and installing a trouble free equipment meeting the quality standards and technical specification and the ability of the bidders for providing efficient after sales service to the satisfaction of the Tender Inviting Authority and the user institution.

PART - II titled as PRICE BID

2. The tender offers, duly filled, shall be submitted in sealed covers for **technical**. Such covers shall be super scribed as **“Tender No..... (here mention the tender no as specified) TECHNICAL BID for supply of (here mention the name of the equipment**
3. Quantity of items may increase or decrease. Director, I.G.I.M.S. - Patna reserves the rights to purchase different sub items/ components of items from different bidders.

This rate Contract will be valid for one FY and repeat Supply Order will be placed as per requirement of the dept. of all the quoted and approved items.
4. The “Bidding Document” along with terms and conditions, technical specification can be obtained from the office of the Store Officer, IGIMS, Patna on payment of Rs.2000/- (Rs. Two thousand only) Non –refundable for each Group by demand draft favouring Director , IGIMS, Patna payable at Patna.
5. The “ Bidding Document” can also be downloaded from institute website www.igims.org. In case, downloaded bidding document is used ,Bidder(s) have to submit the cost of the Tender Document along with the completed documents in the form of demand draft in favour of Director , IGIMS, Patna, payable at patna towards cost of the “ Tender documents” Bidder is required to attach separate DD for the same in a separate envelop super scribed with “ cost of bidding document” if the cost of tender document is not submitted by the bidder, his offer shall be outright rejected .
6. **Last date for submission of bidding document is 16/01/2018 up to 4.00PM by speed/Regd. post/ Courier only and technical bid will be opened on 17/01/2018 at 03.30 PM in Conference hall IGIMS, Patna**
7. **Earnest Money Deposit (EMD):**
Earnest Money 2% of the cost of Equipment required to be submitted along with tender by Demand Draft from any scheduled Indian Bank (valid up to one year from the date of technical bid opening.) only along with the tender favouring Director, I.G.I.M.S. – Patna (payable at Patna). No interest is payable on EMD/ Bid security.

- a. Bidder may quote more than one/several models. In such a situation EMD will be payable on the basis of highest priced model.
 - b. EMD of the unsuccessful bidders will be returned to them at the earliest after expiry of final bid validity and latest on or before the 30th day after the award of the contract without any interest.
 - c. EMD must be submitted in separate sealed envelope and endorsement of the same with DD number & date Bank Guarantee No. and its validity period be made with technical bids without amount stating that the same has been complied with price bid. If same is later found not enclosed tender will be cancelled for the party.
 - d. Non- submission of sufficient EMD along with the Technical Bid shall be one of the primary reasons for rejection of the offer in the first round.
 - e. Cheque, Cash payment, Money Order, Fixed deposit etc will not be accepted as EMD.
 - f. Public Sector Units within the State or State micro, small and medium enterprises registered with Govt. are exempted from remittance of EMD subject to submission of valid documents.
 - g. The EMD shall be in one of the following forms:
 - i.; A demand draft in favour of Director, I.G.I.M.S. – Patna (payable at Patna);
 - OR
 - ii; A Bank Guarantee issued by a nationalized/ scheduled bank located in India, in the form prescribed in the tender document as Annexure- IV (valid up to one year from the date of technical bids opening) Bank Guarantee in any other format will not be acceptable and render the bid non-responsive.
 - iii.; The successful Bidder's EMD will be discharged upon the Bidders signing the contract and furnishing the performance security. The EMD deposited in the form of DD of the successful Bidder can be adjusted towards the security deposit payable.
9. Bidder(s) should mention the DGS & D registration, if registered, and attach photocopy of DGS & D registration certificate Photocopy of Income tax & sales tax clearance certificate should be enclosed.
10. For Imported Goods, Indian Agency Commission must be declared in financial bid.
11. The Bidder's shall have to submit the following documents (Certified by Notary) in technical bid: -
- a. User List (List of Govt. / Semi Govt., Reputed Pvt. Hospital) where quoted model of the items has been supplied and installed.
 - b. Supply order (minimum 3 nos. Or more issued by govt./semi govt./reputed pvt. institution/organisation for quoted items (same model)
 - c. Performance certificate of the same supplied machine (of quoted make and Model) issued by **Head of the deptt. or Institution** after a minimum period of six months of installation.
 - d. Prerequisite (if any) for installation of the Machine if any to be provided by the Institute.
 - e. If the manufacturing company and/or its Indian agent (for Foreign manufactured) have authorized some agency for participation in this tender for a limited period than in that case they (Manufacturer / Indian agent) shall have to submit an undertaking duly notarized by Public notary that if their tender is selected they shall be solely responsible for compliance of all the terms and conditions mentioned in the bilateral agreement for purchase and subsequent supply order even if their authorized agent is changed. Any tender offer without such certificate duly certified by public notary shall be rejected in technical scrutiny itself.

- f. **Bidder must submit a compliance checklist along with the technical bid itself.**
- g. (Any tender offer without submission of above mentioned document (i.e. a to e) shall be rejected during technical scrutiny.)
- h. If any new System/ Latest model machine is a launched in the market and seller has not installed such quoted models they should submit an undertaking that he has not installed such models previously (Notarized by Public Notary).They may submit supply order / performance certificate of previous model, which was recently installed by them.

Installation & site plan:-

Requirement regarding site/location etc. for installation of equipment, if any, should be mentioned in the tender. Time required for installation of system after delivery must be mentioned. In case of delay in installation institute will have right to charge liquidated damage. Specify the following points for installation of the System: -

- a. Total power consumption along with break up of main System and Accessories.
- b. Whether the System needs uninterrupted power supply where ever applicable.
- c. Maximum tolerated transfer time in case of interruption of power supply.
- d. Whether the System needs any humidity control device.
- e. Whether the System needs any separate power line/isolation Transformer.
- f. Does the System need the electrical shielding?
- g. Does it require special civil works for installation?
- h. Whether Air conditioner is an essential requirement for the system.
- i. Does it require any special civil works for Installation?

12. After Sales Service Conditions:

- a. The Institute is in the pursuit of ensuring excellent after sales service for every user in respect of the equipment's supplied under this contract. The after sales services terms and conditions will be strictly enforced and those Bidders who are willing to support the Institute in its endeavour to provide trouble free operation/performance of the equipment's for the prescribed period need only participate in the tender.
- b. The after sales service shall be performed during the warranty period and also during the Comprehensive Maintenance Period (CMC)/ Annual Maintenance Contract, if awarded. The detailed terms and conditions for after sales service are mentioned hereunder.

c. Guarantee/Warranty Terms:

- i. The successful Bidder has to warrant that the Goods supplied under this Contract are new, unused, of the most recent or current models and incorporate all recent improvements in design and materials unless provided otherwise in the Contract.
- ii. The successful Bidder further have to warrant that the Goods supplied under this Contract shall have no defect arising from design, materials or workmanship (except when the design and/or material is required by the Tender Inviting Authority's specifications) or from any act or omission of the successful Bidder, that may develop under normal use of the supplied goods.
- iii. All the equipment's including the accessories supplied as per the technical specification as mentioned in the bidding document should carry comprehensive warranty (including all spares, accessories and consumables) for a period mentioned in this document in the first instance. During this period, the successful Bidder shall replace all defective parts / accessories / consumables and attend to all repairs/break downs and undertake stipulated number of preventive maintenance visits to every user installation site. The cost of spare parts for all replacements has to be borne by the successful Bidder during the period of comprehensive warranty. The items which are not covered under warranty should be clearly mentioned along with rate of the items . If any spares / accessories / consumables etc. are not replaced by the bidder during warranty period, bidder should mention it clearly with name of the items with frequency of replacement and its rate of the item.

- iv. On expiration of the comprehensive warranty period, the successful Bidder shall be willing to provide after sales support for an additional period prescribed in this document.
- v. The prospective Bidder, who are not manufacturers, shall submit an undertaking from the Original Equipment Manufacturers (OEM) that they are willing to provide spare parts for the period of warranty as mentioned and also during the additional CMC/AMC period, if awarded. The OEM shall also assure continuity of service to their product, in the event of change in dealership or the Bidders – their existing dealers - couldn't provide service during the warranty / CAMC period. The undertaking from OEM is an essential document forming part of the Technical Bid, without which the tenders will be rejected summarily in the first round itself.
- vi. After sales service centre in Patna (Bihar) preferably or at least in East India should be available as part of the pre-qualification and the Bidder shall provide proof of their capability to undertake such maintenance/repair within the stipulated time.
- vii. The successful Bidder shall provide preventive maintenance as per the frequency mentioned in this document during the warranty period. The Bidder shall attend any number of break down/repair calls as and when informed by the institute authority.
- viii. Upon receipt of such notice for repair/breakdown from the institute, the successful Bidder shall, within the period as specified in this document, and with all reasonable speed, repair or replace the defective goods or parts thereof, without cost to the Tender Inviting Authority.
- ix. If the successful Bidder, having been notified, fails to rectify the defect(s) within the period specified mentioned in this document, the Tender Inviting Authority may proceed to take such remedial action as may be deemed necessary, at the successful Bidder's risk and cost and without prejudice to any other rights which the Tender Inviting Authority may have against the successful Bidder under the contract.
- x. Failure to attend the repairs in time or failure to attend the stipulated preventive maintenance visit or failure to replace the defective equipment's or to provide stand by equipment if the fault/down time exceeds the stipulated period or to ensure the stipulated up-time in an year shall lead to forfeiture of the performance security and/or may lead to blacklisting/debarring of the defaulting Bidder.
- xi. The equipment which requires quality assurance test shall be done at free of cost immediately after installation, during the comprehensive warranty period, during the CMC/AMC period, by the demand of User and also when major spares are replaced.
- xii. Any mandatory approval required for installation shall be obtained by the successful Bidder in liaison with the respective authorities.
- xiii. The Bidder shall submit the parameters which require calibration and the frequency of calibration required.
- xiv. The Bidder shall undertake on-site calibration of the equipment every year as part of the after sales service during the period of comprehensive warranty, CMC/AMC or on demand from the user.
- xv. The Bidders shall also have to submit whether periodic replacements of consumable items are required for proper functioning of their quoted machine/Equipment? If yes they should submit the list of such consumables along with price list and frequency of replacement per year, if the same is not replaced free of cost during warranty / guarantee period.
- xvi. An undertaking of the principal regarding continuity of after sales and services (CAMC) @ the agreement rate even in case of changes of Indian agent during the life span of the equipment, must be enclosed in the technical bid. Further, it will be the responsibility of the manufacturer Indian agent to get counter signature on the agreement to be executed with them by the principal.

Xvii;- The offered warranty includes:

- Visits to the user institutions at frequencies prescribed as part of preventive maintenance.
- Testing & calibration as per technical/service/operation manual of the manufacturer or as per the period specified or as per the demand of the user.
- Quality Assurance tests (if applicable).
- The cost of labour for all repairs/ and all spares required for replacement during repairs all kinds of accessories, Probes, all types of sensors and transducers, Electrodes, Detectors, battery, battery for UPS, other vaccumatic parts etc wherever applicable and also the accessories and other devices supplied along with the equipments like stabilizer, UPS, AC, Computer, Compressor, Monitor, etc, which forms part of the equipment system, without which it cannot perform satisfactorily.
- The exclusion of warranty of any vital equipment parts will be compared with offers of other Bidders during evaluation of the bids and this may be taken into consideration in deciding the successful Bidder on the basis of expert advice.
- The Bidder shall provide up-time warranty of complete equipment as mentioned in this document, the uptime being calculated on 24 (hrs) X 7 (days) basis failing Warranty period will be extended for every additional day of down time equal to one week.
- All software updates, if any required, should be provided free of cost during Warranty period.

d. Comprehensive Annual Maintenance Contract:

- The decision to enter into CMC or AMC will be determined on the basis of cost and complexity of the equipment by the Tender Inviting Authority, at its discretion, prior to the expiration of warranty period.
- The Comprehensive Maintenance Contract (CMC) is otherwise an extended warranty. All the terms and conditions agreed by the successful Bidder for executing the comprehensive warranty of the equipment shall be extended during the period of CMC, only difference being the payment of CMC charges is absent during the period of comprehensive warranty.
- The cost of CMC, accessories spares, and consumables as in case may be quoted along with taxes applicable, if any. The taxes to be paid extra, to be specifically indicated. In the absence of any such stipulation the price will be taken inclusive of such taxes and no claim for the same will be entertained later.
- Failure/refusal on the part of the successful tender supplying/installing the equipment's to enter into CMC with the Tender Inviting Authority, at the end of the Comprehensive Warranty Period, if the Institute, as the case may be, desires so, shall lead to forfeiture of performance security and may also result in the blacklisting/debarring of the Bidder.
- The successful Bidder shall also indicate the rates for the CMC in price bid form and such rates are binding on the successful tenders after the expiration of the warranty period. The yearly rates for CMC shall remain the one and the same as quoted in the price bid form for the extended years.
- Cost of CMC (excluding taxes, if any) will be considered for Ranking/Evaluation purpose.
- The payment of the agreed CMC charges will be made as per frequency for payment after satisfactory completion of said period, on receipt of service report/ break down report from the user.
- The Bidder shall also have to submit whether periodic replacement of consumable items are required for proper functioning of their quoted machine/Equipment? If yes they should submit the list of such consumables along with price list and frequency of replacement per

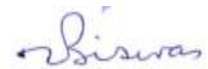
year if the same is not included in quoted Comprehensive Annual Maintenance Contract charges per year.

13. Time Limits prescribed

Sl. No	Activity	Time Limit
a.	Installation & Delivery period	12 weeks from date of issuance of Supply Order
b.	Comprehensive warranty period	3 years from the date of successful installation.
c.	CMC period	7 years
d.	Frequency of visits to all User Institution concerned during Warranty/CMC	One visit every three months (4 visits in a year) for periodic/preventive maintenance and any time for attending repairs/break down calls.
e.	Frequency of payment of CMC charges	Every six months after completion of the Period.
f.	Submission of Performance Security and entering into contract	10 days from the date of issuance of Letter of Intent
g.	Maximum time to attend any Repair call	Within 24 hours.
h.	Uptime in a year during warranty as well as during CAMC period.	95% of 365 days.

14. Firm have to provide a minimum **UPTIME GUARANTEE** of 95% (95% of 365 Days) per year during the warranty period as well as during the Comprehensive Annual Maintenance Contract.
15. **While calculating the total unit price of the item / system to be procured, expenditure to be incurred in maintenance of the quoted item / system including all spare parts for a total period of seven years after expiry of the warranty period of three years shall also be taken into consideration. Accordingly, it is mandatory for the bidders to submit the rate for Comprehensive Annual Maintenance Contract (with spares) for a minimum period of seven years after the expiry of warranty period of three years.**
16. Supplier will submit undertaking for ensuring uninterrupted supply of spares during the total life span of the equipment's.
17. Indian agency commission and Installation charge if any will be paid in Indian rupees after successful installation and demonstration of the equipment's.
18. Principal's Invoice of the quoted items must be submitted with the quotations.
19. Proof of the official Indian agent certificate of the firm must be attached. (Notary Certified Photocopy)
20. In order to fully and optimally utilize the equipment, training to Para Medical Staffs and Doctors should be provided. In continuation to this training, separate maintenance training for the machine and the sub systems should also be given to the "Equipment Maintenance Engineer" and "Equipment Maintenance Technicians". All the financial commitments in this regard shall be met by the bidder(s).
21. Bidder(s) have to submit an affidavit to the effect that they have not supplied the offered item(s) to any Govt., semi Govt. / Pvt. Organization, Institution, Nursing Home etc. at the price lower than the price offered to I.G.I.M.S. – Patna.
22. All the claims regarding meeting the specifications shall be duly supported by appropriate, latest technical catalogues/brochures from the manufacturer. Simply stating that the equipment(s) meets the specifications is not sufficient and any such quotations will be summarily rejected. Computer printed documents or Photostat copy or laser printouts will not be accepted as technical catalogues / brochures.
23. Bidder might be required to demonstrate the system at the discretion of the institute.
24. **Notification of Award/Letter of Intent (LOI)**
 - a. Before expiry of the tender validity period, the Institute will notify the successful Bidder(s) in writing, by registered / speed post or by fax or by email (to be confirmed by registered / speed post immediately afterwards) that its tender for equipment(s), which have been selected by the Institute, has been accepted, also briefly indicating there in the essential details like description, specification and quantity of the goods & services and corresponding prices accepted. This notification is undertaken by issuing a

- Letter of Intent (LOI) by the Institute.
- b. The successful bidder, upon receipt of the LOI, shall furnish the required performance security and submit an agreement in the prescribed format within ten days, failing which the EMD will be forfeited and the award will be cancelled.
 - c. The Notification of Award shall constitute the conclusion of the Contract.
25. **Signing of Contract**
The successful bidder shall execute an agreement for ensuring satisfactory supply, installation, commissioning and the after sales service/support during the warranty period and during the Comprehensive Annual Maintenance Contract.
27. The Director reserves the right to accept or reject any or all tenders without assigning reasons.
28. The Director reserves the right to modify, add or delete any terms & conditions of the contract as and when required.
29. **Amendment of tender documents:**
- a. At any time prior to the dead line for submission of Tender, the Institute may, for any reason, modify the tender document by amendment.
 - b. The amendment shall be notified and uploaded on the institute website www.igims.org only and such amendments shall be binding on them thereafter.
 - c. The Institute shall not be responsible for failure to inform the prospective bidders. Purchasers of tender documents are requested to browse the website of the Institute for information/general notices/amendments to tender document etc on a day to day basis till the tender is concluded.
30. The Dispute, if any, will be subject to Jurisdiction at Patna (Bihar).



**Director,
I.G.I.M.S. - Patna**

CONDITIONS OF THE CONTRACT

01. Duty Free Clearance, Transportation, Forwarding & Handling Charges:

Clearance charges at point of Entry / Air Port and on ward transportation charges with Insurance up to I.G.I.M.S. - Patna will be borne by supplier's Indian Agent for which this Institute will not pay the charges. The firm should quote as FOR IGIMS Patna including all expenditure.

02. Demurrage, Taxes & Octroi:-

No demurrage charges will be paid by the Institute in case of delay on the part of supplier. However, this Institute will provide all necessary documents required for clearance / transportation of the goods and for exemption of the taxes/octroi for which supplier/Indian agent will have to intimate/furnish his requisition of document required, if any, well in advance. Octroi will be payable by supplier / Indian agent, if required.

03. Warranty Period:

- a. The “**Complete System**” shall remain under warranty period of **three years** from the date of satisfactory installation. The Complete System should include the basic unit and allied supporting components like UPS, Computer System, Printer, De-ionizer, Dehumidifier etc. to be supplied by the bidder along with basic unit if necessary for running the system.
- b. During warranty period of three years, bidder shall provide at least **four maintenance visits per year** at regular interval for usual maintenance and supervision. If bidder fails to provide these maintenance visits at regular interval, a proportionate deduction in the form of penalty on pro-rata basis will be recovered from the bidder from the Bank Guarantee amount. In case the Bank Guarantee is not adequate, Institute shall have right to recover the losses / penalty from other sources as well.
- c. Bidder shall also attend all breakdown calls within 48 hours of the receipt of the information from institute through fax/e-mail/mobile/sms etc.
- d. During warranty period, **bidder** shall maintain and keep **95% uptime** per year of the “**Complete System**” as per calculation given below:-

$$1 \text{ Year} = 365 \text{ days}$$
$$95\% \text{ of } 365 \text{ days} = 347 \text{ Days per annum}$$
- e. The bidder shall compensate the uptime less than the specified above for **every additional day** of down time over and above 18 days stipulated above, warranty period will get extended by one week as penalty at no extra cost i.e. the extended penalty period will be equal to one week for every additional day of down time.
- f. During warranty period, **bidder** will make the “**Complete System**” in satisfactory working condition. In case, any spare parts, accessories, PCB, consumables etc. needs replacement due to normal wear and tear, **bidder** will supply and install the same for which no additional payment is to be made with a validity to cover warranty period if required.
- g. In case, the **bidder** is not able to provide services (and the items / accessories is not functioning as the reason thereof) due to natural calamity (act of God), Political unrest, Riot and fire at the user site, then in such a situation the warranty period will be extended by the period for which the item / accessories could not be operated because of supplier not been able to provide services.
- h. During warranty period, in case of any alleged damage due to accident / human error, a committee under the Chairmanship of Director, I.G.I.M.S. – Patna with one member from the bidder and one member from the Institute will decide the authenticity of the claim. The decision of the committee shall be final and binding on both the parties.

04. After Sales Services: -

- a. After expiry of the warrantee/Guarantee period of the equipment, the Indian agent will have to undertake the Comprehensive Annual Maintenance contract (with spare parts, accessories, consumables etc.) of the Complete System for the further life span of equipment. The life span of the equipment shall not be less than ten years. In special circumstances the total life span of the Equipment/ items may be reduced by the Institute.
- b. The Complete System should include the basic unit and allied supporting components like UPS, Stabilizer, Computer System, Printer, De-ionizer, Dehumidifier etc to be supplied by the bidder along with basic unit if necessary for running the system.
- c. During Comprehensive Annual Maintenance Contract, bidder shall provide at least **four maintenance visits per year** at regular interval for usual maintenance and supervision. If bidder fails to provide these maintenance visits at regular interval per year, a proportionate deduction in the form of penalty at the rate of 25% of contract amount per year will be deducted.
- d. Bidder shall also attend all breakdown calls within 48 hours of the receipt of the information from institute through fax/e-mail/mobile/sms etc.
- e. During Comprehensive Annual Maintenance Contract, **bidder** shall maintain and keep **95% uptime** per year of the “**Complete System**” as per calculation given below:-
1 Year = 365 days
95% of 365 days = 347 Days per annum
- f. The bidder shall compensate the uptime less than the specified above for **every additional day** of down time over and above 18 days stipulated above, warranty period will get extended by one week as penalty at no extra cost i.e. the extended penalty period will be equal to one week for every additional day of down time.
- g. During Comprehensive Annual Maintenance Contract, **bidder** will keep the “**Complete System**” in satisfactory working condition. In case, any spare parts, accessories, PCB, all type of consumables etc. needs replacement due to normal wear and tear, **bidder** will supply and install the same for which no additional payment is to be made. .If any spares / consumables / accessories etc. are not covered under Comprehensive Annual Maintenance Contract charges, it should be clearly mentioned with frequency of replacement and with rate. The validity of rate of such items should also be mentioned clearly. What will be the rate of escalation on the quoted rate after expiry of the validity of rate of such item must be mentioned.
- h. The payment of Comprehensive Annual Maintenance Contract will be made on half yearly basis after submission of satisfactory functioning report of the Complete System by the officials authorized by the Institute.
- i. In case, the **bidder** is not able to provide services (and the items / accessories is not functioning as the reason thereof) due to natural calamity (act of God), Political unrest, Riot and fire at the user site, then in such a situation the Comprehensive Annual Maintenance Contract will be extended by the period for which the item / accessories could not be operated because of supplier not being able to provide services.
- j. During Comprehensive Annual Maintenance Contract, in case of any alleged damage due to accident / human error, a committee under the Chairmanship of Director, I.G.I.M.S. – Patna with one member from the bidder and one member from the Institute will decide the authenticity of the claim. The decision of the committee shall be final and binding on both the parties.

05. Performance Security

- a. There will be a performance security deposit amounting to 10 % of the total value of the equipment excluding taxes, which shall be submitted by the successful bidder within 10 days from the date of issuance of “Letter of Intent”.

- b. The contract duly signed and returned to the Institute shall be accompanied by a demand Draft or Bank Guarantee in the prescribed format.
- c. Upon receipt of such contract and the performance security, the Institute shall issue the Supply Orders containing the terms and conditions for the execution of the order.
- d. Failure of the successful bidder in providing performance security as mentioned above and / or in returning contract copy duly signed in time shall make the bidder liable for forfeiture of its EMD.
- e. The Performance security shall be denominated in Indian Rupees or in the currency of the contract as detailed below:
 - i. It shall be in any one of the forms namely Account Payee Demand Draft or Bank Guarantee issued by a Scheduled bank in India, in the prescribed form as provided in this document endorsed in favour of the Institute.
 - ii. Institute will release the Performance Security without any interest to the successful bidder on completion of the successful bidder's all contractual obligations including the warranty obligations & after receipt of certificates confirming that all the contractual obligations have been successfully complied with.

06. Delivery period/Liquidated Damage: -

Goods should be delivered within three months after receipt of irrevocable and confirmed Letter of Credit. If the delivery is not affected by due date, the Director, I.G.I.M.S. - Patna shall have the right to charge liquidated damage on supplier/his Indian agent as under: -

- i. 1st extension for a month or a part thereof @ 2% per month of C.I.F. value.
- ii. 2nd extension for an additional month or a part thereof @ 3% per month of C.I.F. value subject to maximum Limit of 20% of the order items. All expenses incurred for extension of L.C. will be borne by supplier/his Indian agent.
- iii. Cancellation.- If delivery is not done even after 2nd extension Institute shall have the right of cancellation of Supply order at its discretion..

07. Payment: -

100% payment through International Irrevocable Letter of Credit in favour of principal abroad, but 80% will be released on shipment of goods & balance 20% after satisfactory installation of equipment on submission of Bank Guarantee of value not less than 20% of the cost of the quoted equipment (with a minimum validity to cover up the warranty / guarantee period) will be submitted by supplier. This Bank Guarantee will be released after expiry of guarantee period.

- a. In case, the equipment is purchased in Indian Currency then the payment will be made as per following scheduled.
- b. 90% payment will be released against delivery and successful installation of the equipment & balance 10% will be released on submission of 10 % Bank Guarantee of the total cost of ordered value. This Bank Guarantee will be released after expiry of guarantee period.
- c. L. C. will be opened only after receipt of the 20% bank Guarantee of the total cost of equipment (with a minimum validity to cover up the warranty / guarantee period), confirmation letter of all our terms and condition, submission of agency certificate in favour of Indian agent who have submitted and quoted the price, name of the

Bankers abroad; intimation about country of origin and 10 copies of Performa invoice of the ordered item. Indian Agency commission will be paid in Indian currency only to Indian agent, if any. No extra charges will be paid for installation/demonstration and training to personnel.

08. **Validity of Price:-**

Minimum up to one year from date of tender submission and it should be extendable.

09. **Part Supply:** No part supply/ wrong supply or short supply will be accepted by the Institute. The Director IGIMS, Patna will be the final authority and will have the right to reject full or any part of supply, which is contradictory to the terms and conditions agreed at the time of placement of order. In case of rejection of any supplied items due to nonconformity in quantity and/or quality, Institute will have right to charge liquidated damages, as it deems fit

10. **Packing & Marking:-**

Goods must be securely and adequately packed and protected in order to prevent damage, otherwise all losses and /or damage resulting from inadequate packing and/or inadequate protection or inadequate marking shall be borne by seller/seller's Principal abroad.

11. Supplier may have to provide required manpower for running the equipments at mutually agreed remuneration (Which shall not be more than remuneration payable for the particular category of staff at IGIMS) at the sole discretion of the Institute, till institute is able to arrange its own staff for the purpose.

12. **Insurance: -**

Insurance up to Patna will be borne/arranged by principal supplier/his Indian Agent.

13. **Installation & site plan:**

Requirement regarding site/location for installation of equipment, if any, should be mentioned in the tender. Time required for installation of system after delivery must be mentioned. In case of delay in installation institute will have right to charge liquidated damage.

Specify the following points for installation of the System: -

- a. Total power consumption along with break up of main System and Accessories.
 - b. Whether the System needs uninterrupted power supply.
 - c. Maximum tolerated transfer time in case of interruption of power supply.
 - d. Whether the System needs any humidity control device.
 - e. Whether the System needs any separate power line/isolation Transformer.
 - f. Does the System need the electrical shielding?
 - g. Whether Air Conditioner is required for the System.
 - h. Does it require special civil works for installation?
14. The bidder should also quote for supply of "Un-Interrupted Power Supply" (UPS) with a battery back up of at least 30 minutes, "Constant Voltage Transformer (CVT)" of reputed manufacturer of required capacity along with Spike Suppressor or "Servo Voltage Stabilizer" as per requirement of the System. Bidder may quote the prices for all the above items (UPS/CVT/SERVO VOLTAGE STABILIZER) and the decision will be taken during technical evaluation of the item whether UPS is suitable or CVT / Servo Voltage Stabilizer will serve the purpose.

15. Responsibility:-

The principal as well as its agent will be severally and jointly responsible for ensuring the minimum life span of 10 years for the equipment. Both the said principal abroad and his Indian agent will have the full responsibility for the proper functioning of the equipment/instruments within the warranty period and thereafter during the life span of the equipment

16. The bidder is required to provide list of persons (along with their permanent and correspondence address) owning more than 1% share ownership in the company/firm (both principle and Indian Agent).

17. The bidder is required to submit compliance sheet, which should reflect details of clause-by-clause compliance of technical specifications as well as general terms & conditions failing which their offer shall be rejected.

18. In order to fully and optimally utilize the equipment, training to paramedical staff and Doctors should be provided. In continuation to this training a separate maintenance training for the machine and the sub system should also be given to the Equipment Maintenance Engineer and Maintenance Technicians of the Institute. All the financial commitment in this regard shall be met by the firm/Principal.

19. Penalties for non-performance

The penalties to be imposed, at any stage ,under this tender are;

- a. imposition of liquidated damages,
- b. forfeiture of EMD/performance security,
- c. termination of the contract,
- d. Blacklisting/debarring of the bidder.

20. Termination of Contract

a. Termination for default:- The Institute, without prejudice to any other contractual rights and remedies available to it (the Institute), may, by written notice of default sent to the successful bidder, terminate the contract in whole or in part, if the successful Bidder fails to deliver any or all of the goods or fails to perform any other contractual obligation(s) within the time period specified in the contract, or within any extension thereof granted by the Institute.

b. In the event of the Institute terminates the contract in whole or in part, the Institute may procure goods and/or services similar to those cancelled, with such terms and conditions and in such manner as it deems fit and the successful bidder shall be liable to the Institute for the extra expenditure, if any, incurred by the Institute for arranging such procurement.

c. Unless otherwise instructed by the Institute, the successful bidder shall continue to perform the contract to the extent not terminated.

d. Termination for insolvency: If the successful bidder becomes bankrupt or otherwise insolvent, the Institute reserves the right to terminate the contract at any time, by serving written notice to the successful bidder without any compensation, whatsoever, to the successful Bidder, subject to further condition that such termination will not prejudice or affect the rights and remedies which have accrued and /

or will accrue thereafter to the Institute.

- e. Termination for convenience: - The Institute reserves the right to terminate the contract, in whole or in part for its (Institute) convenience, by serving written notice on the successful bidder at any time during the currency of the contract. The notice shall specify that the termination is for the convenience of the Institute. The notice shall also indicate interalia, the extent to which the successful bidder's performance under the contract is terminated, and the date with effect from which such termination will become effective.

21. **Fall Clause:**

The prices charged for the equipment supplies under the contract by successful bidder shall in no event exceed the lowest price at which the successful bidder sells the equipments of identical description to any other persons during the period of contract. If any time, during the contract, the bidder reduces the sales price chargeable under the contract, he shall forth with notify such reduction to the Institute and the price payable under the contract of the equipments supplied after the date of coming into force of such reduction or sale shall stand correspondingly reduced.

22. **Applicable Law & Jurisdiction of Courts**

- a. The contract shall be governed by and interpreted in accordance with the laws of India for the time being in force.
- b. All disputes arising out of this tender will be subject to the jurisdiction of courts of law in Patna (Bihar, India).



**Director,
IGIMS - Patna**

CHAPTER:

SCHEDULE OF THE REQUIREMENT

Group -A- Transplant Immunology
List of Equipment's
Flow Cytometer
Automated Multi Parametric Immunoassay Analyser.
Blood Irradiator
<u>Multiplex analyser(100 or 500 bead Plex based on xMAP technology) For HLA typing & Antibody Screening</u>
Blood group ABO Typing Machine
Vertical Safety Cabinet (Class II Type B)
Group -B- Multi-Disciplinary Research Unit
1. Refrigerator 310 Ltr., 2. Waterbath 3. Microwave Oven 4.pH Meter 5.Electronic Balance 6. Geldoc 7. Gel Electrophoresis Systems, 8.-20 degree deep freezer 9.Sonicator 10. Media Filtration assembly with vacuum pump 11.Protein Electrophoresis and blotting systems 12.Magnetic Stirrer 13.Liquid Nitrogen Cell Storage System,

ANNEXURES
Annexure - I (a)

**PRICE SCHEDULED FOR DOMESTIC GOODS OR GOODS OF FOREIGN ORIGIN
LOCATED WITHIN INDIA.**

1	2	3	4	5							6
				Price per unit (Rs.)							
Sched uled	Brief descript ion of goods Make: Model:	Countr y of origin	Qty. nos.	Ex- factory/ex- warehouse /ex- showroom/ off-the shelf	Excise duty(if any) % and value.	Sales tax/ vat(if any % and value.	Packi ng and forwa rding charg e	Inland transportatio n , insurance for a period including 3 months delivery, loading/ unloading and incidental cost till consignee site.	Incidental services (including installatio n and commissi oning, supervisio n, demonstra tion and training) at the consignee site. (f)	Unit price (at consign ee site basis(g) a + b + c + d+ e + f	Total unit price (At Consign ee Site) Basis Rs. 4x5(g)
				(a)	(b)	(C)	(d)	(e)	(f)		

Total quoted price in Rs.

In Words:

Note:

1. If there is a discrepancy between the unit price and total price THE UNIT PRICE shall prevail.
2. The charges for Annual CMC after warrantee shall be quoted separately as per price scheduled.

Place:

Name:

Date:

Business Address; -

Signature of Bidder;-

Seal of the Bidder;-

Annexure: I (b)

PRICE SCHEDULED FOR GOODS TO BE IMPORTED FROM ABROAD

1	2	3	4	5					6
				Price per unit (CURRENCY)					
Schedule d	Brief descrip tion of goods Make: Model:	Country of origin	Qty. nos.	FOB price at port/ Airport of lading (a)	Carriage & Insurance (port of loading to port of entry) and other incidental cost . (b)	Incidental Services (Including Installatio & Commissi oning, supervisio n, Demonstr ation And Training) at the consignee 's site. (C)	Extended Insurance (Local transportation and storage) from port of entry to the consignee site for a period including 3 month beyond date of delivery . (d)	Unit Price on CIP Named port of Destination + Extended Insurance (Local Transportati on and storage) (e_)	Total Price on CIP Named Port of Destination + Insurance (Local Transportati on and storage) 4x5(e)

To be paid in Indian Currency (Rs) :

Total Tender Price in Foreign Currency:.....

In Words;-.....

Note:-

- a) If there is a discrepancy between the unit price and total price THE UNIT PRICE shall prevail.
2. The charges for Annual CMC after warrantee shall be quoted separately as per price scheduled.
3. The Bidder will be fully responsible for the safe arrival of the goods at the named port of entry in goods condition as per terms of CIP as per INCOTERMS, if applicable

Indian Agent;-
Indian agency commission: % of FOB

Name:
Signature of Bidder;-
Business address;-
Signature of Bidder
Seal of the Bidder;-

Place;-
Date

Annexure - II
COMPREHINSIVE ANNUAL MAINTENANCE CONTRACT PRICES SCHEDULE

S. No.	Item Description	1 st Yr.	2 nd Yr.	3 rd Yr.	4 th Yr.	5 th Yr.	6 th Yr.	7 th Yr.	Total Comprehensive Annual Maintenance Contract over a period of seven years after expiry of warranty period of three years from the date of successful installation. (a + b + c + d + e + f + g + h + i)
a	b	c	d	e	f	g	h	i	j
1.	Name of the Equipment: Make: Model: Qty.:								
2.	Name of the Equipment: Make: Model: Qty.:								

Scope of Contract (details as mentioned in the Clause No. – 13 of “Instruction to Bidder” & Clauses No.: 3, 4 and 5 of “Condition of Contract”):

- a) The rate of Comprehensive Annual Maintenance Contract as mentioned above should cover the Complete System. Complete System should include the basic unit and allied supporting components like UPS, Stabilizer, Computer System, Printer, De-ionizer, Dehumidifier etc to be supplied by the bidder along with basic unit.
- b) **Preventive maintenance visit:** Four Maintenance visits at regular interval for usual maintenance & supervision failing which 25% of the contract amount per visit would be deducted as penalty.
- c) **Break down maintenance visit:** As & when required
- d) **Response Time:** within 48 Hours.
- e) Uptime Guarantee: 95% of 365 days
- f) The above-mentioned charges should includes labour charges for maintenance and breakdown visits per year, spares, accessories and all type of consumables required for the maintenance of the supplied items. If any spares / consumables /accessories etc. are not covered under above-mentioned charges; it should be clearly mentioned with frequency of replacement and with rate. The validity of rate of such items should also be mentioned clearly. What will be the rate of escalation on the quoted rate after expiry of the validity of rate of such item must be mentioned.
- g) Payment of Comprehensive Annual Maintenance Contract would be made on half yearly basis after completion of work and satisfactory working report. In no case, advance payment is to be considered.

Seal and Signature of the bidder

ANNEXURE – III

MANUFACTURER'S AUTHORISATION FORM

(To be submitted by authorized dealers/representatives/importers)

No.

Dated:

To

The Director
Indira Gandhi Institute of Medical Sciences,
Sheikhpura,
Patna – 800 014 (Bihar, India)

Dear Sir,

Tender No :
Equipment Name :

1. We (Name of the OEM) are the original manufacturers of the above equipment having registered office at (full address with telephone number/fax number & email ID and website), having factories at _____ and _____, do hereby authorize M/s. _____ (Name and address of bidder) to submit tenders, and subsequently negotiate and sign the contract with you against the above tender no.
2. No company or firm or individual other than M/s. _____ are authorized to bid, negotiate and conclude the contract in regard to this business against this specific tender.
3. We also hereby undertake to provide full guarantee/warranty /Comprehensive Annual Maintenance Contract as agreed by the bidder in the event the bidder is changed as the dealers or the bidder fails to provide satisfactory after sales and service during such period of Comprehensive Warranty / Comprehensive Annual Maintenance Contract and to supply all the spares/ accessories / consumables etc. during the said period.
4. We also hereby declare that we have the capacity to manufacture and supply, install and commission the quantity of the equipment's tendered within the stipulated time.

(Name)

for and on behalf of M/s. _____

Date:

(Name of manufacturers)

Place:

Note: This letter of authority should be on the letterhead of the manufacturing concern and should be signed by a person competent and having the power of attorney to bind the manufacturer.

ANNEXURE – IV
BANK GUARANTEE FORM

To

The Director
Indira Gandhi Institute of Medical Sciences,
Sheikhpura,
Patna – 800 014 (Bihar, India)

WHEREAS _____ (Name and address of the supplier) (Hereinafter called “the supplier”) has undertaken, in pursuance of tender no _____ dated _____ (herein after called “the contract”) to supply The Director, Indira Gandhi Institute of Medical Sciences, (address) with _____ (Description of goods and supplies).

AND WHEREAS it has been stipulated by you in the said tender/bid that the supplier shall furnish you with a bank guarantee by a scheduled commercial bank recognized by you for the sum specified therein as security for compliance with its obligations in accordance with the bid scope;

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 amount of _____ (Amount of the guarantee in words and figures), 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 hereby waive the necessity of your demanding the said debt from the supplier before presenting us with the demand.

We undertake to pay you any money so demanded notwithstanding any dispute or disputes raised by the supplier(s) in any suit or proceeding pending before any Court or tribunal relating thereto our liability under these presents being absolute and unequivocal.

We agree that no change or addition to or other modification of the terms of the contract to be performed there under or of any of the contract documents which may be made between you and the supplier shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition no modification.

No action, event, or condition that by any applicable law should operate to discharge us from liability, hereunder shall have any effect and we hereby waive any right we may have to apply such law, so that in all respects our liability hereunder shall be irrevocable and except as stated herein, unconditional in all respects.

This guarantee will not be discharged due to the change in the constitution of the Bank or the Supplier(s).

We, _____ (indicate the name of bank) lastly undertake not to revoke this guarantee during its currency except with the previous consent, in writing, of The Director, Indira Gandhi Institute of Medical Sciences, Patna (Bihar). This Guarantee will remain in force up to (Date). Unless a claim or a demand in writing is made against the bank in terms of this guarantee on or before the expiry of (Date) all your rights in the said guarantee shall be forfeited and we shall be relieved and discharged from all the liability there under irrespective of whether the original guarantee is received by us or not.

(Signature with date of the authorized officer of the Bank)
Name and designation of the officer

.....
.....
Seal, name & address of the Bank and address of the Branch

ANNEXURE - V
POWER OF ATTORNEY
(On a Stamp Paper of relevant value)

I/ We.....(name and address of the registered office) do here
by constitute, appoint and authorise
Sri/Smt.....
.....(name and address) who is presently
employed with us and holding the position of as our
attorney, to act and sign on my/our behalf to participate in the tender
no.....for
..... (Equipment name).

I/ We hereby also undertake that I/we will be responsible for all action of
Sri/Smt..... undertaken by him/her during the tender process and
thereafter on award of the contract. His / her signature is attested below

Dated this the ___ day of 201_ For _____

(Name, Designation and Address)

Accepted

(Signature) (Name, Title and Address of the Attorney)

Date : _____

Specification & Allied Technical Details

Group-A : Transplant Immunology

1. Specifications for Flow Cytometer(analyser) with two lasers, four colour and six parameters

2. System should be a flow-cytometer (analyzer) and equipped with two lasers (blue, red), with option for upgrades to higher configuration in future.
3. All lasers and their excitation-optics should either be fixed aligned or should not require frequent alignment. Alignment setup should be rapid and each laser should have its unique pinhole.
4. System should have capability of detecting up to 6 parameters (4 fluorescence outputs and forward and side scatter) with option to upgrade in future.
5. System should be able to acquire and sort at least 10,000 events per second.
6. System should accept 3.5 ml/ 5.0ml tubes for sample acquisition.
7. System should have digital acquisition system and digital signal processor of at-least 18bit or better processor.
8. System should be provided with software capable of baseline setting of system performance thereby ensuring automated instrument set-up for consistent results.
9. System should have the capability for compensation in real-time and also for post-acquisition analysis.
10. System should be supplied with the latest version of acquisition and analysis software and any software upgrades should be provided free of cost during the warranty and CMC period.
11. Should be supplied with high-end data acquisition unit with dual high-resolution flat panel monitors form source (No local supply hardware) and should be supplied all latest and original licensed software with installation media. The operating system and all other accessory software should be licensed and supplied with original installation CD/DVD/USB. Should be supplied a high-end color laser printer.
12. Systems should be supplied with a suitable anti-Vibration Platform with a sturdy table top.
13. Should be supplied with a branded 5 KVA online UPS with atleast 120 minutes backup for the data acquisition unit.
14. System should be supplied along with 250 assay kits for stem cell enumeration free of cost.
15. Should be supplied with a Start-Up kit including Calibration beads, flow check beads, 1,000 Litres of Sheath fluid and sample acquisition tubes (1,000 tubes)
16. Vendor will also provide extensive on-site training for system and software and also training at company training centre for two personnel.
17. System should be quoted with three years complete cover warranty and Seven years of CAMC Post-Third year CAMC should also cover lasers and any other critical parts and should be quoted along with the detailed list of spare parts and their current list prices.
18. Company must have a direct presence in India with strong after-sales technical and service support and must ensure that all faults are rectified within 72 hrs.
19. Firm should quote the rate of all kits & consumables required to run the test.

2. Multi Parametric Immunoassay Analyzer

- 1) Fully Automated Chemiluminescence system based on latest technology.
- 2) Continuous random access/floor standing/robotic sample handler allows batch, random access, continuous access, and randomly reagent loading and unloading during sample tests run.
- 3) Minimum 25 number of different measured assays on-board simultaneously, Minimum 25 number of deferent reagents can be store On-board.
- 4) On-board maintenance history records store facility.
- 5) Clot detection/Reflex testing capability for Sample.

- 6) Online or Remote Trouble shooting facility should be available.
- 7) Sample probe carry over performance should Less than 0.1 ppm and Minimum Sample volume required/dead volume 10 µL/50 µL.
- 8) Instrument and individual Reagents Parameters should be US-FDA Approved.
- 9) Instrument should be operated by separated dedicated separate Computer.
- 10) On-board history records store facility for Quality control Levey-Jennings and Westgard rules

3. Blood Irradiator

- a) Self shielded-type Isotope (Cobalt -60) based Irradiator Type B (U) approved that designed as per ANSI N.433.
- b) To irradiate units of blood components to prevent Graft versus Host Disease risk.
- c) Maximum Co-60 sources capacity : 30 TBq (810 Ci)
- d) Does rate at maximum capacity : 11 Gy/Min (in air)
- e) 9.5 Gy/Min (in water) Dose rate uniformity : Radial +25% or better
- f) And axial - 25% or better Irradiation volume : Sample Chamber - 300 liters.
- g) Rotating Chamber - 2000 liters
- h) Size of sample chamber : Sample Chamber > 17 cm (dia.) x .20 cm (h)
- i) Shielding material: lead & stainless steel weight of the unit: ~2600 kg approx...
- j) Size of the unit :~112cm (L) x 95cm (W) x 270cm (H)
- k) Power requirement : 220/230v, 50Hz, 15 Amps
- l) Single phase, A.C. Supply. Timer range : 6 sec onward
- m) Control system: should be able to be operated by 3 modes of operations: i) Auto Mode having features of indicating on the panel Dose, dose rate, real time & date etc. along with preset time & automatic cobalt-60 decay corrections. ii) Electrical mode: controlled by using electrical buttons with Timer which can be preset iii) Manual Mode usable in case of power failure of whenever required.
- n) Cobalt-60 Source should be housed inside the source container/lead flask of the unit. Sources should be in from of pencils and Type approved by Atomic Energy Regulatory Board (AERB), India, welded, decontaminated tested for leakage and certified.
- o) Dosimetry: The instrument should be verified dose rate profile at extreme points of irradiation chamber along with its central dose rate to assess the maximum & minimum doses given to any sample/ product.
- p) Power requirements: The unit should be able to operate with single phase, AC supply of 220/230 V, 50Hz.
- q) Installation: The installation will have to be completed by the provider and cost of installation should be included in the cost of the unit.
- r) Provider must train user's personnel in the operation & maintenance aspects of the unit during the period of installation. Provider will undertake replacement of sources and taking back old sources. Number of Installations in Central Government Institution in India should be provided.

4. Multiplex analyser(100 or 500 bead Plex based on xMAP technology) For HLA typing & Antibody Screening

- System should be Open Platform Genetic and protein analysis including applications for Protein Expression, Cell Signaling, Genotyping, Autoimmune, Cystic Fibrosis, Cancer, Cardiac, Metabolic Markers HLA typing & Antibody detection assays
- System should be semi-automated and Powered by xMAP Technology and should Multiplex up to 100 or up to 500 different microspheres in one well of a 96 or 96/384 well plate
- System should have two laser for reporting and classification of beads. Reporter laser should be of 532nm and Classification Laser should be of 635/638nm.
- System should have Photo Multiplier tube (PMT) for reporter detection and Avalanche Photo diodes for Classification detection.
- System should be Compatible with all existing vendor kits and should provide a broad menu of applications.
- System should have fast processing time and should Multiplex 96 samples in less than one hour
- System should have an automated calibration, validation and hands free start up and shutdown procedure
- System should include analyzer, XY platform and automated Sheath Delivery system
- Instrument should come with computer with operating and analysing software, PC to be provided should have the following configuration: Windows 10 Professional, 1TB HDD, 4GB RAM or more, intel i7 or better processor, including UPS.
- All consumables as required to run the system should be quoted separately
- Supplier should provide onsite application and maintenance training to lab staff
- System should come along with a 3 year warranty and supplier should quote separately for next 7 year CAMC
- System should be CE marked and UL listed

All the accessories as per annexure B attached should be supplied.

Installation of the equipment and the all-necessary accessories such as UPS, desktop PC, Printer compatible with the existing power supply & backup should be provided.

Power back up should be at least 1 hours.

Quotation should include **3yrs. Warranty** with all the spares and CMC for next **7 years** after the expiry of warranty.

Supplier shall provide onsite comprehensive training to the Lab staff & support services till the familiarly and confidence in using the system.

The supplier should provide workbenches & furniture for keeping the equipment's

ANNEXURE-A

Sr. No.	KIT Name	Pack Size
1	HLA A SSO Typing kit	20/40/100 test
2	HLA B SSO Typing kit	20/40/100 test
3	HLA C SSO Typing kit	20/40/100 test
4	HLA DRB1 SSO Typing kit	20/40/100 test
5	HLA DQA1/DQB1 SSO typing kit	20/40/100 test
6	HLA DPA1/DPB1 SSO typing kit	20/40/100 test
7	KIR SSO Genotyping Test (RUO)	20/40/100 test
8	SSO MICA	20/40/100 test
9	CWD Class I A Locus Typing	20/40/100 test
10	CWD Class I B Locus Typing	20/40/100 test
11	CWD Class I C Locus Typing	20/40/100 test
12	CWD Class II DRB1 Locus Typing Test	20/40/100 test
13	CWD Class I A Locus Typing Test	20/40/100 test
14	XR Class I A Locus Typing	20/40/100 test
15	XR Class I B Locus Typing	20/40/100 test
16	XR Class I C Locus Typing	20/40/100 test
17	XR Class II DRB1 Typing	20/40/100 test
18	PE - Conjugated Streptavidin	1 ml
19	AmpliTaq Polymerase	150 uL
20	96 well Thermal Cycler plates	
21	Polyethylene Sealing Tape	
22	Nuclease Free Water	
23	Corning Strip Tubes and Caps	
24	Aluminium Sealers	
	Antibody Products	
38.	Class I PRA	24/25test
39.	Class II PRA	24/25 Test
40.	Antibody screening kit	96/100 test
41.	Single antigen Beads Class I	24 /25test
42.	Single antigen Beads Class II	24/25 test
43.	MICA Antibody test	24/25test
44.	DSA	96 /100test
45.	SeraClean	24 /25test
	Antibody Accessory Products	
46	Qiagen Vacuum Manifold	1 Unit
47	Millipore Filter Plates	10 Plates
48	CostarThermowellAluminum Sealers	100 seals
49	Wash Buffer for LMX, LM1, LM2	100ml
50	Wash Buffer for LSA	25 ml
51	Pos Control SeraforLifeScreen Deluxe	75 ul
52	Neg Control Sera for Life Screen Deluxe	75 ul
53	LSA Conjugate Concentrate	25 tests
54	Conjugate for LMX	94 tests
55	Conjugate for LM1, LM2	125 ul
56	DSA Lysis buffer	2.5 ml
57	Fluor analyzer products	
58	Sheath fluid 20 L	400
59	cel 1 Calibration Bead	5 ml
60	Cal 2 Calibration Bead	5 ml
61	Con 1 Control Bead	5 ml
62	Con 2 Control Bead	5ml

*If any consumables other than above required, should be quoted by supplier

ANNEXURE -B

Sr. No.	Instruments	Model/Make	Qty
1	Thermal Cycler PCR		1
2	SPECTROPHOTOMETER FOR DNA/RNA/PROTEIN QUANTIFICATION		1
3	Bath Sonicator		1
4	Dry Heating Block		1
5	Vortex Mixer		3
6	Plate Shaker 200rpm single plate		1
7	Mini Centrifuge (8 well PCR tube centrifuge)		1
8	Mini Spin Table Top Centrifuge		1
9	Vacuum Pump		1
10	Vacuum Manifold		1
11	Retainer tray		1
12	Silicon Compression Mat		1
13	PCR Plate holder tray		1
14	0.2- 2 microlitre pipette 8 channel		2
15	2-20 microlitre pipette 8 channel		2
16	20-200 microlitre pipette 8 channel		1
18	200-1000 microlitre pipette 8 channel		1
19	Cryoblock for Taq polymerase		1
20	Laminar hood		1
21	Gel electrophoresis (DNA) apparatus		1
22	Gel doc system		1

5. Blood group ABO Typing Machine

- The ABO typing Automated equipment should have the following parameter
- ABO/Rh typing - Antibody identification, platelet cross matching.
- Antibody Screening, cross Match, Rh Phenotyping
- Facilities' should be provided for Donor
- Should be a Fully Automated Continuous Random Access system
- System should be a Floor Model so that it can be moved easily
- System should be covered to avoid dust contamination
- System and waste containers to be within the system
- System should have two separate pipetting arms for pipetting the reagents and samples
- Should have STAT facility for emergency samples.
- System should be based on Gel/SPRCA technology
- Should have the facility of automatically performing weak D testing of RH negative samples
- System should have a capacity to load 180 samples or more at a given point of time
- Cards/Plates should be room temperature stable
- System should have facility to load plates/cards continuously during the run
- Should have Continuous refilling of system liquid (without interruption) and waste removal
- System should have different security levels for different users of the system
- Should be able to give grading of reaction for choosing least compatible blood in cases of multiple transfusions.
- Should have blood grouping (A-B-AB-D1-D2-CTRL-A1CELLS-BCELLS-OCELLS-AUtoctrl), Antibody Screening (Three Cell panel), Cross match, Donor Pooled and all other combination of test performed on automatic system.
- Platelet cross match and platelet Antibody screening will be preferred.Facility for automated igG and igM titres

6. Vertical Safety Cabinet (Class II Type B)

Technical Specification

1. Direction of Flow: Vertical
2. Working Size: W 1800 X D 600 X H 600 mm &
3. Overall Size: W 1900 X D 750 X H 2050 mm
4. System should have one HEPA filter with 99.999% efficiency for Particles>0.3µm
5. HEPA filter should have H14 according EN 1822
6. Exhaust HEPA Filter for 100% exhaust of air from workspace
7. Exhaust module of suitable capacity to discharge HEPA filtered air into the atmosphere
8. Exhaust module shall be connected to the Biosafety Cabinet through PVC pipe duct
9. System should have a prefilter for> 0.5 µm with 85% efficiency
10. Pre filter should have G4 Class according to EN779
11. System should have illumination level> 800 lux
12. Noise level should be
13. Working chamber should be made from AISI 304 stainless steel
14. External and internal structure should be made from 2.00 mm electrostatically painted steel.
15. System should have hour counter up to 100.00 Hours
16. System should have 0.4 m/sec. Flow velocity flow should be vertical
17. System should have 2100 meter cube / hour capacity, high quantity blower with double suction. 18. System should have 2 pieces covered and fuse protected
19. Power consumption not more than 440 Watt.
20. Comprehensive warranty for 3 years and provision of CAMC for next 7 years

21. Spare parts required:

- a) Mini pleat filter – 1 No.
- b) Spare Mini pleater filter- 1 No.
- c) Magnehelic gauge for pressure measurements- 1 No.
- d) On- site calibration (HEPA filter Integrity Test (PAO/DOP Test, Air Velocity Test – inflow & down flow, Particle count test) immediately after installation.

Group-B: Multi-Disciplinary Research Unit (MRU)

1. Technical Specifications of Refrigerator 310 liters

Minimum Gross storage Capacity 310 to 330 ltrs

Model Type Double door

Voltage Range at 40 degree centigrade Capable of working on 220 volts + 12 % A.C 50 Hz

Power Source AC , 220 Volts to , 50 Hz

Method of Defrosting Frost Free

Insulation Puff / Maxi 2 / Polyurethane

Refrigerant Gas CFC free

Compressor Power saver compressor

Accessories Required Adjustable shelves , chiller Tray , Temperature controller, Auto lamp On/off feature , should be supplied with all standard accessories as per manufacturer catalog for the model supplied

Warranty with 3 year Comprehensive Warranty

Stabilizer Should be supplied with 0.5 KVA capacities CVT without any extra cost.

2. Water Bath

Double walled chamber, these come with high speed stirrer with motor of 1/20HP that is fitted to unit for achieving continuous stirring as well as maintaining a uniform temperature throughout.

Further, the presence of speed regulator on front panel also allows controlling speed of stirrers heating mechanism comprising set of heaters with sensitivity of $\pm 0.1^\circ\text{C} \pm 1$ digit from ambient to 100°C and work on 220 / 230 volts A.C. Supply.

Chamber size in inches : 17*10*9

3. Standard Specification for Microwave Oven

The microwave oven shall be simple in operation and with turnable.

Capable in microwave cooking and defrosting.

Supply voltage : 220 volts, 50Hz. single phase A.C.

Power Consumption : 1300W approx.

Microwave Power : 700W - 850W

Oven Capacity : 20 litre - 25 litre

Microwave Frequency : 2450 MHz

Control : Soft/one touch control

Timer : 60 minutes - 90 minutes

Exterior Dimensions : 520mm(W) x 360mm(H) x 450mm(D) approx.

Oven Dimensions : 330mm(W) x 220mm(H) x 330mm(D) approx.

Safety : Safety Interlocks to prevent leakage of microwave.

4. pH Meter

Should be supplied with Combination Glass pH Electrode ($0-70^\circ\text{C}$), Standard Buffer Tablets, Electrode Stand with Clamp, Dust Cover, Power Cord, Operational & Instruction Manual.

Ph Range – detection: 0-14 pH,

Resolution : 0.01 pH

Temperature Range : 0.0 to 100°C (Manual Compensation)

Display : 3 1/2 Digit LED Display

Power Supply : 230VAC $\pm 10\%$, 50 Hz Calibration check facility & Calibration Error indication for 7.00 & 4.00 pH

5. Electronic Balance

Specifications:

- Weighing Capacity 200 to 230 gm
 - Readability 0.1mg
 - ISO 9001:2008 CERTIFIED
 - Fully Automatic Internal Calibration.
 - Dye cast aluminum design for long term stability and accurate results
- Suitable stabilizer for Electronic Balance

6. Geldoc for both transillumination and chemiluminescence imaging system with photographic capabilities attached to a CCD camera and computer with software

System should be with true 16 bit CCD, with > 4 Megapixel image resolution
Cooled CCD with cooling range of -30°C absolute temperature using peltier cooling system

System with dynamic flat fielding technology with $\text{CV} < 5\%$.

Multi image color target with multi-channel image display

Large transillumination area for sample of minimum 28x36 cm with imaging area of 26 x 35 cm.

Should support stain free gel imaging

Auto focus technology without the movement of sample platform

Pixel size should be $6.45\ \mu\text{m} \times 6.45\ \mu\text{m}$ or bigger

Instrument should have a minimum 6 position filter wheel
Dynamic range should be >4 orders of magnitude for good quantification.
System should have at least 8 different modes of illumination (Trans-UV, epiwhite, no illumination for chemiluminescence, trans-white, epi-red, epi-green, epi-blue, and optional trans-blue)

Data Processing Unit: desktop PC (with a latest processor at least Core I3, TFT monitor at least 19" size, 3 GB RAM and 320 GB hard disk.

Necessary accessories (like UPS, stabilizer etc) should be provided to ensure proper functioning of the equipment throughout the year including hot summer days when ambient temperature exceeds 40°C.

Warranty 3 year from the date of installation. & Seven Year CAMC rate should be quoted.

Technical features described above should be supported by original illustrated catalog.

Software for Image acquisition and Analysis:

Software for densitometry of 1-D/2-D gets, blot colony counting and other applications

Software should support fully the hardware (geldoc) and be compatible with the instrument

Should have tri-plex image capture capability and analysis features

software should be Mac and PC compatible

Software should have ability for unlimited installations of the software for multiple users with full functionality with live update for any change of analysis parameters

7. Gel electrophoresis systems

Specifications of Gel electrophoresis systems (Horizontal and Vertical) with Power Pack Vertical gel electrophoresis

1. Should run one to four precast or hand cast mini gels in less than an hour.
2. Dimension of gel should be of approximate size 7.3 x 8.3 cm.
3. Should have thermoplastic casting gaskets to form a tight seal with the glass plates to ensure leak-free casting.
4. Should provide casting frames with simple cam closure to provide precision alignment on any flat surface.
5. Should have side-by-side casting stand which allows access to both gels simultaneously, and a spring-loaded lever creates a tight seal against the thermoplastic rubber gasket.
6. The tank should hold a buffer volume of approximately 700-1000 ml.
7. The approximate dimension of the tank should be 12x16x18cm.
8. The short plate and spacer plates size should be approximately 10.1 x 7.3 cm and 10.1 x 8.2 cm respectively.

Horizontal gel electrophoresis

1. Should have a buffer tank, a safety lid with cables, and a leveling bubble.
2. Should be provided with removable electrodes for ease of cleaning.
3. Should have arrow on the side of the base indicates the direction of the run and ensures proper orientation of the gel.
4. Should have colour-coded, labelled electrodes and labelled base.
5. Should be provided with tabs on the base to permit easy removal of the lid.
6. Should come with reverse-compatible design Clear plastic construction for easy sample visualization.
7. Should be provided with UV-transparent gel trays with fluorescent ruler.
8. Should be provided with gel-casting gates to cast gels right in the cell.
9. Should be provided with combs to fit every need .
10. Dimension of the tanks should be approximately a) 9.2x25.5x5.6 cm (WxLxH) and provided with two gel trays of approximate dimensions as 7x7 cm and 7x10cm and should be able to run 8-30 samples in a single run and provided with both fixed and preparative 8 well and 15 well combs and b) 18x40.5x9.4 cm (WxLxH) and provided with four gel trays of approximate dimensions 7x7 cm and 7x10cm and should be able to run 8-30 samples in a single run and provided with both fixed and preparative 8 well and 15 well combs and b)

18x40.5x9.4 cm (WxLxH) and provided with four gel trays of approximate dimensions as 15x10, 15x15, 15x20 and 15x25cm and should be able to run 30-120 samples in a single run and provided with both fixed and preparative 15 well and 20 well combs.

11. Should be supplied with micropipettes, variable range 2-20µl, 20-200 µl and 100-1000 µl as essential accessories.

Power Pack

1. Should have a programmable output range of 10-300V, adjustable in 1V steps, 4-400mA and adjustable in 1mA steps with a maximum of 75 Watts.

2. Should have four pair recessed output terminals in parallel.

3. Should come with a timer ranging from 1min-99hr59min.

4. Should come with pause/resume function.

5. Should come with a output which could be constant voltage or constant current with automatic cross-over.

6. Should come with a 3 digit LED display.

7. Should be provided with a EN-61010,CE regulatory compliance.

8. Should include safety features such as no load detection, sudden load change detection, overload/short circuit detection and over voltage protection.

9. Should be provided with fuse on both hot and neutral for input protection.

10. Should be able to operate at temperatures from 0-40 C and 0-90% humidity.

11. Should be a space safer design with approximately 21x24.5x6.5 cm (WxLxH).

12. Should be able to take an input power range of 90-120 Or 198-264 VAC, 50/60Hz, autoswitching.

8. **-20 degree Deep freezer**

Model Type: Compact Upright Model

Temperature Range: -20° C (-10 to -30° C)

Temperature display: Microprocessor digital temperature display, preferably at eye level

Capacity: App. 250 liters (200-300 liters)

Storage: Convenient storage drawers (at least four racks/ drawer)

Control Panel: Front Mounted display/control panel located at convenient height

Compressor type: Heavy duty, scroll hermetic type or any better type of compressors suitable for low cooling

Safety features: Alarm & recording system

High/low temperature alarm ($\pm 5^{\circ}\text{C}$ to $\pm 15^{\circ}\text{C}$, adjustable)

Power failure

Self diagnostics

Breaker switch turns Power Off in event of over current abnormality

Memory backup

Preferably may have chamber temperature is displayed for five seconds if Buzzer key is depressed during power failure alarm

After a power outage, operation resumes at pre-outage settings

Having a non-volatile memory would be an advantage

Memory for temperature & alarm temperature setting)

Door Lock: Lockable door latch for extra safety: By adding a commercially available lock, you an safeguard the contents

Accessories: to be supplied with suitable stabilizer, castor-wheeled rack for easy movement and any other accessories , if so required for installation and essential functioning of the equipment

Warranty: Standard 3 years warranty. Please quote the rate of the CAMC for additional seven years after the expiry of standard warranty

9. **Sonicator**

Ultrasonic frequency: 20-25 kHz

Supplied probe(s) can process sample volumes ranging from at least 0.5 to 50 ml.

Should have programmable timer for at least 60 minutes.

Must be supplied with sound/ noise enclosure including clamps for the safety of the user

Must be supplied with probe stand and clamps.

It should be supplied with three years Warranty & Seven year CAMC and on demand repair services as and when required.

Technical features described above should be supported by original illustrated catalog, with list of users (with all contact detail), and authentication of vendor's business record in the form of Income

Tax return for, at least, of last 3 years

Installation, testing should be conducted

10. Media filtration assembly with vacuum pump(Polysulfone Bottle-Top Filter Holders with for media filtration)

Assembly should be Autoclavable

Securely screws onto glass media bottles* with 33 mm or 45 mm neck sizes

Deep screw threads attach directly to bottle allowing convenient filling and vacuum filtration without holding filter to bottle

Major components molded of durable, break-resistant, transparent polysulfone (PSF), which is non-toxic, easy-to-clean and exhibits low protein-binding

Removable sterilization membrane support plate provides maximum flow rate and throughput

Molded-in graduations

Cover ports accommodate 1/4" i.d. tubing for flushing procedures, sterile venting or pressure filtration

Without required membrane, accepts 47 or 50 mm membrane

Should be supplied with vacuum pump

11. Protein electrophoresis and blotting systems, (mini as well as regular)

Mini electrophoresis and blotting systems (complete set with power supply)

- It should be vertical mini electrophoresis unit that can run about 10x8 cm (WxL) size gels, with the running capacity of 2-4 gels simultaneously (Preferably 4 gels).
- Should have integrated spacers with glass plates for ease of casting.
- Should be a modular system to support western blotting in the same tank.
- Should come with all standard accessories like 10 well 1.0 mm thick combs (5 Nos.), 5 sets of glass plates – both spacer plates, and short plates; and dummy plates (2 Nos.)
- Should be supplied with four casting stands and frames to cast four gels simultaneously.

Blotting apparatus should have the following technical features

- It should be a transblot wet type
- Can hold gel size of about 10 x 7.5 (mini gels)
- Capacity: at least 2 mini gels simultaneously
- Should be supplied with cooling unit that absorbs heat generated during transfer

Power supply:

- Programmable power supply should be capable to operate four electrophoresis units simultaneously with graphic 3 digit LED display.
- The output range should be about 10- 300 Volts, 4- 400 mA, power 75 W.
- Option for constant voltage or constant current.
- Timer: 1- 999 min
- Safety: No load detection, short circuit detection, over voltage protection.

Regular electrophoresis system (complete set)

- It should be vertical gel electrophoresis system that can run about 16x 20 cm (WxL) size gels with the capacity to run 1-2 gels simultaneously.
- It should be supplied with casting stand (complete set), 15 well combs (2), 1.5 mm spacers (at least 4) and two sets of plates (notched as well as normal)
- It should be supplied with necessary tank, clamps and gaskets and other accessories required for running and casting the gels
- Cooling should be an optional but preferred feature

12. **Magnetic stirrer**

Motor: Maintenance-free brushless motor drive and should not generate heat

Speed Range: From 5 up to 250 rpm,

Stirring performance: 100% jerk-free, Should be able provide even and smooth stirring also at slow speeds, and gentle mixing of cell cultures.

Should be suitable for viscous culture media.

13. **Liquid Nitrogen Cell Storage System**

1. For long term storage of cell samples in 2 ml and 5 ml cryovials in cryobox racks in liquid nitrogen
2. The system must have strong, lightweight STORAGE TANK with AUTO-REFILLING DEVICE and TRANSFER/TRANSPORT TANK
3. STORAGE TANK should have liquid nitrogen storage capacity of 60 liters or more BUT NOT MORE THAN 120 liters
4. Static holding time of STORAGE TANK should be more than 120 days and static evaporation time must be less than 0.9 liters per day
5. Neck diameter of STORAGE TANK should be between 8 to 10 inch
6. Storage space of STORAGE TANK should accommodate more than 2000 cryovials (1.2/2 ml capacity) in 10 x 10 cryobox format or 400 cryovials (5 ml capacity) in cryoboxes
7. Exterior of STORAGE TANK should be not more than 30.0 X 30.0 inch (diameter X height)
8. Storage system should be with wheeled accessory for easy movement
9. Storage system should be equipped with liquid nitrogen level monitor & alarm
10. The system must be equipped with AUTO-REFILLING wheel base device of approximately 50-100 liters capacity for supply of liquid nitrogen for a period minimum of two months without refilling
11. One TRANSFER/TRANSPORT TANK with wheeled accessory of approximately 20 liters capacity for transport of liquid nitrogen MUST be included in system
12. Complete system should have Three years warranty & Seven Year CAMC from the date of installation
