

**Bidding document for-**

**Group A : Supply, Installation & Commissioning of Biomedical Equipmt. for Multi-Disciplinary Research Unit**

**Group B : Supply, Installation & Commissioning of Biomedical Equipmt. for Advanced Molecular Microbiology and Molecular Genomics**

**Group C : Supply, Installation & Commissioning of Biomedical Equipmt. for Gastroenterology**

**Group D : Supply, Installation & Commissioning of Biomedical Equipmt. for Orthopaedics**

**Group E : Supply, Installation & Commissioning of Biomedical Equipmt. for TB & Chest**

**Group F : Supply, Installation & Commissioning of RFID based Digital Library System**

**Group G : Rate Contract of Media & Consumables for Reproductive Medicine.**

**Group H : Rate Contract Chemiluminescence Based Fully Automated Immunoassay For Infectious Markers Testing On Reagent Rental Basis for Blood Bank.**

## **BIDDING DOCUMENT**

**SHORT TENDER NOTICE No: 06/2019- 2020/Bio-Medical Equipment/IGIMS/Store**



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

**SHORT TENDER NOTICE No: 06/2019- 2020/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**

<b>Sr. No.</b>	<b>Description</b>	<b>Page No.</b>
01.	<b>CHECK LIST</b>	<b>4-6</b>
02.	<b>ELIGIBILITY CRITERIA</b>	<b>7</b>
03.	<b>INSTRUCTION TO BIDDER</b>	<b>8-14</b>
04.	<b>CONDITION OF THE CONTRACT</b>	<b>15-20</b>
05.	<b>SCHEDULE OF THE REQUIREMENT</b>	<b>21</b>
06.	<b>SPECIFICATION AND ALLIED TECHNICAL DETAILS</b>	<b>27-55</b>

**IMPORTANT DATES**

<b>Last date for Purchase of Bidding Document</b>	Can be downloaded from Institute website
<b>Last date for submission of completed bidding document</b>	23/01/2020 up to 4.00 PM. by registered/speed post/ Courier only
<b>Date of opening of technical bid</b>	24/01/2020 at 3.00 P.M. in Conference Hall IGIMS, Patna.
<b>Date of demonstration of equipment</b>	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
8. **I/we have quoted the price in Indian Rupee only.**

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.	<b>Status of Bidder:</b> <ul style="list-style-type: none"><li>• Manufacturer or Authorized Agent of the Manufacturer</li><li>• Whether Public Undertaking, Public Ltd., Private Ltd. Company or Proprietary Firm/partnership firm</li><li>•</li></ul> (Please attach Notary certified <b>MANUFACTURER'S AUTHORISATION FORM</b> as per <b>FORMAT</b> placed at <b>Annexure – III</b> )		
2.	<b>Power of Attorney as per Annexure - V</b> 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.	<b>Notary certified User List</b> (List of Govt. /Semi Govt., Reputed Pvt. Hospital) where quoted model of the items has been supplied and installed.		
8.	<b>Notary certified Supply</b> order copy (Minimum 3nos. or more) issued by Govt./Semi Govt./Reputed Pvt. Institutions/organization for the quoted items. ( same model)		
9.	<b>Notary certified Performance certificate</b> of the same supplied machine (of quoted make and Model) issued by <b>Head of the dept. or Institution</b> 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. /Semi Govt. Organizations / Institutions / Hospitals at the rate lower than the rate quoted against this tender.		
15.	<b>Quality Assurance Certificate</b> like ISI, ISO-9002,		

	IP/BP, CE, FDA (US) or any other (please specify)		
16.	<b>Bid Security</b> amount deposited is enclosed or not. If yes, please mention the details.		
17.	<b>Original Technical Catalogue</b> of the quoted model .		
18.	Certificate, to the effect that bidder will maintain the quoted item(s) during Warranty period of three years/ 5 years as mentioned against each item 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 five/seven years after expiry of warranty period of three years in the <b>price bid</b> .  (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 <b>after sales / services</b> as mentioned in the bidding document.( Clause No- 13 of “ Instruction to Bidder “ & clause no- 3, 4 and 5 of Condition of contract.)		
21.	<b>Compliance Statement</b> 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.	<b>Compliance Statement</b> with relation to the terms & conditions as mentioned in the document.		
23.	<b>PAN and copies of Income Tax Returns</b> 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**

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

**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 and price should be mentioned in Indian Rupees.**

(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.	
	(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.  (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.	
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 <sup>st</sup> March 2018.	
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 Two year from date of 1<sup>st</sup> satisfactory installation and acceptance of the equipment. Repeat Supply Order will be placed as per requirement of the Institute of all the quoted and approved items. The rate contract may be further extended for period of one year as decided by Director, IGIMS-Patna.**
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](http://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 23/01/2020 up to 4.00PM by speed/Regd. post/ Courier only and technical bid will be opened on 24/01/2020 at 3.00 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 30<sup>th</sup> 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 enclosed photocopy of Income tax & sales tax clearance certificate.
10. 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?

**11. 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.

**12. 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 /5 years from the date of successful installation.
c.	CMC period	5/7 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.

13. 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.
14. **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/ five 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.**
15. Supplier will submit undertaking for ensuring uninterrupted supply of spares during the total life span of the equipment's.
16. Indian agency commission and Installation charge if any will be paid in Indian rupees after successful installation and demonstration of the equipment's.
17. Principal's Invoice of the quoted items must be submitted with the quotations.
18. Proof of the official Indian agent certificate of the firm must be attached. (Notary Certified Photocopy)
19. 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).
20. Bidder(s) have to submit an affidavit to the effect that they have not supplied the offered item(s) to any Govt., semi Govt. /Organization, Institution, etc. at the price lower than the price offered to I.G.I.M.S. – Patna.
21. 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.
22. Bidder might be required to demonstrate the system at the discretion of the institute.

**23. 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.

24. **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.

25. The Director reserves the right to accept or reject any or all tenders without assigning reasons.
26. The Director reserves the right to modify, add or delete any terms & conditions of the contract as and when required.

27. **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](http://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 in **Indian Rupees only**.

**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/ five years** from the date of satisfactory installation. The Complete System should include the basic unit and allied supporting components like UPS etc. to be supplied by the bidder along with basic unit if necessary for running the system.
- b. During warranty period of three/five 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, 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 = 365days  
**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 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 security money deposit, 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 security money deposit 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 security money deposit 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 Supply Order. 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. 1<sup>st</sup> extension for a month or a part thereof @ 2% per month .
- ii. 2<sup>nd</sup> extension for an additional month or a part thereof @ 3% per month subject to maximum Limit of 20% of the order items.
- iii. Cancellation.- If delivery is not done even after 2<sup>nd</sup> extension Institute shall have the right of cancellation of Supply order at its discretion. The institute may also cancel the supply order without giving any extension.

07. **Payment: -**

- a. 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.

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 breakup 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 backup 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 warrantee 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) owing 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/ Security money deposit,
- 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 equipment's 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 equipment's 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**

List of Equipment's
<b>Group -A- Multi-Disciplinary Research Unit</b>
1.Shaker Incubator, 2.Refrigerator 310 ltr., 3. Microwave Oven, 4.Water Bath 5.Centrifuge Machine, 6. Electronic Balance, 7. DNA Gel Electrophoresis Systems, 8. Homogenizer, 9. Compound Microscope, 10. Sonicator, 11. Media Filtration assembly with vacuum pump, 12. Protein Electrophoresis and blotting systems, 13. Magnetic Stirrer, 14. Liquid Nitrogen Cell Storage System, 15. pH Meter, 16. Elisa Processor, 17. Hybridization System, 18. HPLC
<b>Group -B- Advanced Molecular Microbiology and Molecular Genomics</b>
Next generation sequencing platform Automated DNA sequencer Digital ph meter Multi-well plate shaker Biospectrophotometer (nano volume spectrophotometer) Electrophoresis system and power pack:- a. Mini protein electrophoresis system (dual) b. DNA electrophoresis system Table top centrifuge (multiple rotors) UV- trans-illuminator
<b>Group-C: Gastroenterology</b>
Electrosurgical Unit
<b>Group-D: Orthopaedics</b>
Arthroscopy Instruments Battery Operated Power Drill System
<b>Group-E: TB &amp; Chest</b>
Bipap Machine
<b>Group-F: Library</b>
Supply, Installation and Commissioning of RFID based Digital Library System in IGIMS, Patna
<b>Group-G: Reproductive Medicine</b>
Rate Contract for Media And Consumables of IVF Lab for two years
<b>Group-H: Blood Bank</b>
<b>Chemiluminescence Based Fully Automated Immunoassay For Infectious Markers Testing On Reagent Rental Basis</b>

**ANNEXURES**  
**Annexure - I**

**PRICE SCHEDULED**

**LOCATED WITHIN INDIA.**

1	2	3	4	5							6
				<b>Price per unit (Rs.)</b>							
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 - II**  
**COMPREHINSIVE ANNUAL MAINTENANCE CONTRACT PRICES SCHEDULE**

S. No.	Item Description	1 <sup>st</sup> Yr.	2 <sup>nd</sup> Yr.	3 <sup>rd</sup> Yr.	4 <sup>th</sup> Yr.	5 <sup>th</sup> Yr.	6 <sup>th</sup> Yr.	7 <sup>th</sup> 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 include 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.....f or..... (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: Multi-Disciplinary Research Unit (MRU)**

### **1. Shaker Incubator**

(with adaptors for different volume flasks and a compatible voltage stabilizer)

It should be a bench top Orbital Shaker Incubator

Temperature Range at least from 15°C below ambient to 60°C

Control accuracy  $\pm 0.1^\circ\text{C}$  by microprocessor/ PID controlled

Shaking features:

1. Speed range at least 30 to 400 RPM.
2. It should have timer time of up to 99.9 Hrs or more.
3. Drive: By triple eccentric, brushless motor is preferable to avoid costly maintenance
4. It should have soft start and stop features to prevent culture spillage
5. It should have auto restart function after power interruption with non-volatile memory (retain set parameters after power failure).

Display:

1. LED for indication of speed, running time and temperature.

Safety Features:

1. It should have open lid cut-out switch to stop platform motion.
2. It should have audible/ visible alarms for temperature and speed deviations.

Essential Accessories:

1. It should be supplied with universal platform (about 18 inches x 18 inches) having capacity to hold about 4-6 flasks of 2 liters. It should be supplied with the clamps/adaptors for flasks of 250 ml (8 Nos.), 500 ml (04 Nos), 1000 ml (02 Nos) and 2000 ml (02 Nos) and ~50 ml tube holder (1-2 Nos).

2. It should be supplied with compatible wall mountable stabilizer

Installation of an incubation tray for the petri plates is an optional requirement.

It should come with 3 years warranty and on-site repair services as and when required

### **2. 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.

The CVT will also carry 3 years warranty.

### **3. Microwave Oven**

**General Requirement:** This microwave oven shall be simple in operation and with turnable and capable in microwave cooking and defrosting.

Supply voltage: 220 volt, 50 Hz, single phase A>C>

Power consumptions: 1300 W approx

Microwave Frequency: 2450 Mhz

Control: Soft/one touch control

Timer: 60 minutes- 90 minutes

Exterior Dimensions: 520 mm (W) x 360mm (H) x 450 mm (D) approx. 10. Oven Dimensions 520 mm (W) x 360 mm (H) x 450 mm (D) approx.

Safety: The equipment shall be bounded to earth effectively in accordance with I.E.E. Wiring Regulations.

Sufficient, Safety interlocks to prevent leakage of microwave. 12. Accessories: Shall be supplied with a glass/ceramic tray.

Auto pipette (Fixed Volume)

Size Quantity (nos.) 0.2 uml 20.5 uml 2 1.0 uml 22.0 uml 25.0 uml 2 10.0 uml 250.0 yml 2 100.0 uml 2

Auto pipette (Variable Volume)

Size Quantity (nos.) 0.2 to 2 uml 21 to 10 yuml 2 10 to 100 uml 2 20 to 200 uml 2

### **4. 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  $+ 0.1^{\circ} \text{C} + 1$  digit from ambient to  $100^{\circ} \text{C}$  and work on 220 / 230 volts A.C. Supply.

Chamber size in inches : 17\*10\*9

### **5. CENTRIFUGE Machine**

Specifications:

Non refrigerated bench top centrifuge

Micro-processor control

Max speed of approx. 17,000 rpm and max rcf of more than 30,000 g.

Acceleration time to maximum speed must be less than 15s for all rotors at max load and a deceleration time of less than 15s with the standard 30 x 1.5/2ml rotor.

Automatic rotor recognition with imbalance detection

Rotor types required

1. Fixed angle rotor accommodating 24 x 1.5/2ml tubes with a speed of 30,000xg
2. Fixed angle rotor accommodating 6x 15/50ml with 7000xg speed.
3. Swing-bucket Plate Rotor accommodating 2 x DWP

### **6. 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

## **7. DNA 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 2-20 $\mu$ l, 20-200  $\mu$ l and 100-1000  $\mu$ l 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, auto switching.

## 8. Homogenizer

### Specifications

Should be used for small and heavy samples.

Should have an ease of using either as hand held or stand mounted, Teflon coated.

Should have variable speed control from 5000 rpm to 30000rpm

Volume range should be at least 0.1ml up to 100ml.

Noise rating should not be more than 72 dB.

At least should come with a 3 years warranty on parts and labour.

## 9. Compound Microscope

- Body: Binocular, sturdy, stable base body with focus adjustment controls.
- Eye piece: Paired, High quality (the image of the object as seen through the binocular eyepiece should be well defined centrally in at least 2/3 field of view), achromatic, wide field 10 x with inbuilt pointer. The eye piece should be aplanatic and have a minimum field number of 18 dioper adjustment must be present on one/both eye pieces or on the eye piece tube.
- Optical system should be infinity corrected.
- System complete with illumination system is required.
- Objective: Three objectives 10X, 40x, 100x, 10x and 40x objectives should have numerical apertures of 0.25 and 0.65 respectively and should be of spring loaded type or otherwise. 100x should have numerical aperture of 1.25 and should be of oil immersion and spring loaded type. Suitable prominent marking should be provided on 100 x for easy identification. Unbreakable containers to be provided for storing the objectives. All objectives should be wide field, achromatic and parfocal.
- Making for the objectives: Each objective should be engraved with the following information's:-
  - Name of the manufacturer
  - Magnification and numerical aperture for example 10x/0.25
  - 100x objective should be engraved with the word Oil in changing from one objective to another or reintroducing the same objective by rotation of the nosepiece, the object at the center of the field should not appear displaced by more than 0.02 mm in the object plane in any direction.
- Nose piece: Revolving nose piece to accommodate a minimum of three objectives with click stops. It should be provided with ribbed grip for easy rotation mounted on a precision ball bearing mechanism for smooth and accurate alignment Extra ports if any should be fitted with dust proof metallic/ ebonite caps.
- Stage uniformly horizontal, mechanical stage having dimensions of length 140 mm (+/- 20mm with fine vernier graduations (minimum reading accuracy of 0.1 mm). The stage should be provided with spring loaded slide holder for exact positioning of specimen/ slide It should be designed with convenient sub-stage vertical co-axial adjustment for slide manipulation. The stage should have ball-bearing arrangement to allow smooth travel in transverse directions i.e. 80 mm (+/-5 mm) and front to back direction, 50 mm (+- 5mm).
- Sub-stage condenser: Abbe-type condenser numerical aperture (N.A.) 1.25 focusable with rack and pinion arrangement incorporating an spherical lens and an iris-diaphragm. The soncenser should have a filter holder and removable/swing in/out blue filter (suitable for bright field Microscopy)
- Sub –stage illuminator:

- The system should have a build-in variable light source (Illuminator) This light source should have a 20 W, 6 V Halogen lamp. The circuitry for the light source should include a constant voltage supply.
- The system should be provided with a step down transformer and an on-off switch and intensity control. The lamp should be provided with a lamp socket which has the facility for easy replacement of the bulb
- Power supply: Voltage 220 V AC, 50Hz should have one on –off power switch, 3 core power cord with a 3 point male plug.
- The system should have an inbuilt protective/safety device to withstand fluctuations of voltage from 140 V to 280 V.
- A plano-concave mirror in fork mounting should be supplied which would be attachable to the base for field use when power is not available.
- The fuse for the halogen lamp should be easily accessible to the operator
- The illuminator should have a build –in field diaphragm for kohler illumination.
- Eye piece tubes: Binocular eye piece tubes, inclined at 45 degrees, rotatable through an angle of 360 degrees, having inter-pupillary distance range of 54-74 mm or wider, covering the above mentioned range.
- Focusing knob: Co-axial coarse and fine focusing knobs capable of smooth fine focusing movement over the full range of coarse travel. The fine focusing movement should have sensitivity of two microns or less (finer) over the entire coarsefocusing stop safety arrangement should be provided.
- General:
- All optical parts including objectives, eye pieces and prisms should have anti-reflective coating which also given anti-fungal property.
- All metallic parts should be corrosion-proof, acid proof and stain-proof.
- Working manual should be provided with each microscope.
- A bottle of at least 25 ml immersion oil, a roll of lens tissue paper and lens cleaning solution (100 ml) should be provided with each microscope.
- One anti static cleaning brush should be provided with each microscope for cleaning purpose.
- Microscope should be supplied with all spare parts including fuses- 6 Nos.
- All consumables required for installation and standardization of system and microscope cover to be given free of cost.
- The unit shall be capable of being stored continuously in ambient temperature of 0.50 deg C and relative humidity of 15-90%.
- Should be FDA or CE or ISI approved product.
- Three years warranty, 5 yrs. Comprehensive AMC should be available with service centers in close proximity.
- User /Technical/ Maintenance manuals to be supplied
- Certificate of calibration and inspection from factory.
- List of important spare parts and accessories with their part number and costing.

## **10. 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 two years Warranty 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

### **11. 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

### **12. 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

### **13. 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.

### **14. 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 FIVE years warranty from the date of installation

### **15. pH Meter**

Should be supplied with Combination Glass pH Electrode (0-70°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 ±10%, 50 Hz Calibration check facility & Calibration Error indication for 7.00 & 4.00 pH

### **16. Elisa Processor**

#### **Specifications:**

- Automated ELISA System having integrated incubator, washer, reader and plate shaker for complete ELISA
- Provision to use reader & washer independently if needed
- The system should have a capability to handle minimum of 4 plates on deck with storage capacity of minimum 10 plates.

### **Pipetting arm:**

- System should have independent pipetting arm with compatibility for generally available type 2. Each tip should have independent volume control & flexibility to move in x,y,z direction.
- Should have facility for liquid level & clot detection.
- Volume range 3ul- 25ml & different syringe capacity.
- Pipetting arm should be compatible for using test tube / eppendorf/microplates.
- The should have dedicated wash procedure.
- System should have capability of pipetting & sample dilution.
- Built incubator should have minimum 4 independently programmable incubators and temperature up to 60 degree centigrade with shaking feature.

### **Elisa Reader Component:**

- Modular design micro plate reader
- Absorbance mode: filter based reader with necessary filter option
- Light source: UV Xenon flash lamp/ any other light source suitable
- Measurement range 0-3.0 OD
- Photometric resolution: 0.001OD
- Photometric accuracy: + 0.001 OD
- Spectral Scanning, well area scanning end point (all modes) kinetic ( all modes)
- Reader capable of reading the plate 96 well
- Plate shaking linear and or bital.

## **17. Hybridization System**

- It should be an open system that automates the denaturation and hybridization steps in slide based FISH procedures and provides walk-away convenience for laboratory personnel. The low cost unit should accept a wide range of sample types, easy to use, and should reduce hands-on time by more than 50% while ensuring overall precision and accuracy in all slide-based assays.

### **System should have following user Programmable Settings**

- 40 User defined protocols and 3 operating modes
- Easy to read backlit display
- Numeric keypad allows for easy programming
- Can be used as a fixed temperature slide warmer

### **System should be Easy to Use**

- Eliminates manual steps and reduces hands-on time during FISH procedures
- Slides do not need to be fully loaded to maintain temperature accuracy
- Slide guide keeps slides in place and allows for one hand removal
- Humidity control cards inside the lid maintain a humid environment.

### **System should have more Stringent Temperature Control:**

- Rapid temperature ramp-up and accuracy of  $\pm 1^{\circ}\text{C}$
- Temperature uniformity across all slide positions
- Heats slide to temperatures ideal for FISH Procedures

### **System Details:**

- System should hold up to 12 slides. The lid seals tightly when closed providing optimal chamber humidity. The system maintains uniform temperature across all slide positions. Slides can be easily added or removed with one hand. The numeric keypad allows for easy programming with 40 user programmable settings and 3 modes of operation: Denaturation/ Hybridization, Hybridization, and Fixed Temperature.

## **18. High-Performance Liquid Chromatography (HPLC)**

### **Specification**

#### **1. Quaternary Pump**

- a) Flow Range : Set Point from 0.001 to 5.0 mL/min .
- b) Flow Accuracy: +/-1% or better
- c) Flow Precision: +/- 0.075% RSD or Better
- d) Pressure Range:  $\geq 60$  MPa up to 2 mL & 0 - 20 MPa up to 5 mL/min
- e) pH Range: 1.0 – 12.0
- f) Vacuum Degasser: Degasser should be available for solvent degassing.
- g) Leak Sensor: Pump module should have leak sensor

#### **2. Auto sampler:**

- a) Injection Range: 0.1 - 100  $\mu$ L in 0.1  $\mu$ L increments
- b) Precision: Typically < 0.5 % RSD of peak areas from 5  $\mu$ L to 100  $\mu$ L
- c) Minimum sample volume: 1  $\mu$ L
- d) Carryover Typically: 0.005% or better with external needle cleaning.
- e) Sample capacity: 120  $\times$  2/1.5 mL vials.
- f) Pressure Operating range:  $\geq 60$  MPa.
- g) Leak Sensor: Module should have leak sensor

#### **3. Column Compartment:**

- a) Temperature Range: 20°C to 80°C
- b) Temperature Accuracy: +/- 0.5 °C or better
- c) Temperature Stability:  $\pm 0.1^\circ\text{C}$
- d) Heat Up/Cool Down Time: <10 minutes from ambient to 40 °C/  $\leq 10$  minutes from 40°C to 20°C.
- e) Column Capacity: Four 25 cm columns
- f) Leak Sensor: Module should have leak sensor

#### **4. Photo Diode Array Detector**

- a) Wavelength range: 190-800 nm or better
- b) Wavelength accuracy:  $\pm 1$  nm
- c) Slit width: Programmable
- d) Short term Noise:  $< + / - 1 \times 10^{-5}$  AU or less at 254 nm
- e) Drift :< 1.0  $10^{-3}$  Au/h at 254 nm
- f) Linearity:  $> 2.0$  AU at 265 nm
- g) Detector Types: 512/1024 element Diode Array
- h) Data Rate: up to 80 Hz
- i) Light Source: Deuterium lamp and tungsten lamp
- j) Flow cell: Standard flow cell of 10 mm
- k) Time programmable: Wavelength, polarity, peak width, lamp bandwidth, auto balance, wave length range, threshold, spectra storage mode.
- l) Leak Sensor: Module should have leak sensor

#### **5. Chromatography Software:**

Standard Licensed Chromatography Software based on latest Windows version capable of controlling the entire HPLC system, data acquisition, analysis & storage.

#### **6. Columns:**

- a) C18 Columns: 2 nos. (4.6 x 150 mm & 4.6 x 250 mm)
- b) C8 Columns: 2 nos. (4.6 x 150 mm & 4.6 x 250 mm)

c) Guard Columns: 2 nos.

#### **7. Consumables:**

1. Clear vials : 1000 nos.
2. Amber vials : 1000 nos.
3. D2 Lamp for PDA : 1 no.
4. Flow cell for PDA : 1 no
5. PEEK Ferrules: 40 nos.
6. PEEK Tubings : 6 m
7. Solvent filter : 12 nos.
8. Frits/Pre filters : 500 nos.
9. Pump seal : 8 nos.

#### **8. UPS:**

Suitable On-line UPS with 60 minutes back up (UPS & Batteries should be covered under warranty for 5 years)

#### **9. Computer:**

Processor Intel Core i7-4670 Processor (3.4GHz, 6M Cache), HDD 1TB 7200RPM, Graphics: Intel HD Integrated Graphics, Memory 4GB X 2 DIMM 1600MHz, Optical DVD Recordable, Wireless WiFi Operating System Window 7 or above, cordless mouse and Keyboard.

#### **10. Printer:**

LaserJet printer with print, scan & copy options should be quoted along with system.

#### **11. Warranty:**

5 years warranty from the date of installation.

#### **12. Service Support:**

Supplier should confirm the availability of minimum essential spares in the next 10 years after installation.

#### **13. Training & Installation:**

Installation and training to users should be given at IGIMS Patna free of cost. Compliance statement must be enclosed along with offer.

#### **14. Installation in India**

The quoted system or equivalent category system should have at least 10 numbers of installations in India by the vendor. List of such 5 users with contact numbers of faculty in-charge and copy of their installation report should be enclosed. At least two most recent PO copy must be submitted.

#### **15. Future Up-gradation:**

In future, the system should be upgradable to Fluorescence, ELSD, MS & RI Detectors.

#### **16. Service Facility and Downtime Call Attendance:**

Supplier should clearly mention about their service set up in India for prompt service support along with the contact details of service engineers specially trained on the offered system. Service should be provided within 72 hrs from the report of technical problem so that machine down time is minimized. In case, the Equipment/System remains non-operational for more than 5 days, then warranty period will be extended for the equivalent period for which Equipment/System remained non-operational. Warranty extension in such case shall be done without prejudice to any other term & condition of the contract.

## **17. Pre-Installation Requirement and Tool Kit**

Necessary tool kit and pre-installation advice should be sent immediately after the placement of the order.

## **18. Re-installation**

In case of shifting, the vendor should provide a free support and provision for one time reinstallation of instrument for free of cost.

## **19. Documentations**

Quote should be in technical and price bid format & Compliance statement must be enclosed along with supporting literature In case of Proprietary technology, relevant certificate must be enclosed along with offer.

# **Group-B: Advance Molecular Microbiology and Molecular Genomics**

## **1. Next Generation Sequencing Platform**

- The NGS platform workflow should be Fast, simple, scalable bench top type next generation sequencing platform that should enable highly accurate variant detection, extremely uniform coverage, and sensitivity to detect low-frequency variants without use of any steps involving emulsion PCR.
- The system should be a single instrument capable of performing all range of low to high throughput applications like targeted resequencing of small to large gene panels, de novo assembly/whole genome sequencing of microbes, metagenomics, preimplantation gene diagnosis, high res HLA Typing in the small to mid-range data throughput segment as well as mouse/ human whole exome/ whole transcriptome, small/microRNA sequencing or NIPT in the high data throughput segment along with capability to run cytogenetic methylation micro arrays on the same instruments. The cost per sample for whole exome sequencing at 100x coverage for approximately 40 MB exome on the system should be less than USD 420 including sequencing and Library preparation Cost.
- Automated clonal amplification (templating/ clustering) to sequencing step should be on board along with additional capability to scan cytogenetic and methylation arrays on the same instrument.
- Sequencing should be based upon robust and globally proven with numbers of peer-reviewed publications.
- Sequencing should support sequencing read length in the range of 150-300 bp in single or paired end direction.
- The System should generated 120 Giga bases output or 400 million single or 800 million paired end tags or more which should enable multiplexing of at least 12 whole exome/ whole transcriptome samples per sequencing run with 30-40 million reads/tags per sample
- The NGS system should be provided with user friendly software and also a require bioinformatician for secondary data analysis and interpretation
- The system should have capabilities for microarray scanning for cytogenetic/methylation applications and should be provided with ancillary instruments for the same.
- The secondary data analysis should be followed of industry standard like FASTQ, SFF, BAM and VCF.
- Analysis should capable to automated SNV calling and provide option to its verification
- Variants can be verified manually using alignment and other quality parameters
- Analysis should also be capable enough to call CNV and Gene Fusion events as per instruction
- Analysis pipeline should also be able to process UMI Based sequencing reads for bias free CNV detection and good quality and improved sensitivity and specifically for variant calls
- Analysis pipeline parameters can be customized uniquely for each panel as per user requirement
- The software should provide the options to export alignment and variant results in PDF or excel format.
- Specification variants of interest should be recognized automatically
- Support for Clinical interpretation of identified variants and actionability
- Should have at least 12TB of data storage option on board or by attaching additional hardware/server to the quoted instrument

- Vendor should supply the ancillary instrument, if required for preparing libraries using kits along with the system.
- The vendor should have a fully functional NGS support lab in India for providing back up support if required for performing any troubleshooting activities

Vendor should have strong base/resources available locally for providing quick onsite support with respect to instrument maintenance, application and bioinformatics training/troubleshooting exercises.

## **2. Automated DNA sequencer**

1. Fully automated capillary based DNA sequencer
2. only licensed version of the system to be quoted along with user license to perform the sequencing by sangar method.
3. number of capillaries 8-16-24 capillaries operating in parallel to meet through put employ capillary array that use bare silica capillary with a useful life that exceeds 160 runs the preferred capillary length is 36/50 cm.
4. Excitation source single 505nm solid state long life laser utilizing a standard power supply and without heat removed ducting.
5. Dye detection, cooled CCD detection technology and spectrograph for color separation. system must be able to detect and analyze up to 6 fluorescent dyes simultaneously for DNA fragment analysis.
6. Capillary illumination simultaneous dual-side illumination detection to maximize and signal uniformity and sensitivity that in reduces the requirements placed on the user for sample preparation and cleanup.
7. Tracking of consumable, radio frequency identification technology to track key consumables data.
8. Heating/cooling : active temperature cooling/heating that can maintain temperature from 18 0C to 70 0C .
9. System should be quoted with both 96 well plate option.
10. Sequencing throughput>80-100 samples/ day having >500bp read length with QV26.
11. Electrophoresis voltage up to 20kv.
12. Minimum computer configuration i7 processor 3.0 GHz processor operating system: suitable OS , installed RAM 8 GB hard driver 500 GB with required external hard disk , 7200 RPM SATA 3.0 Gb/s and 8 MB Data Burst Cache Microsoft ® Office Home & student 2007 OEM Version 16 x DVD/RW Driver with DVD-R double layer write capability integrated Intel ® 17 inch flat panel LCD monitor Graphics Media accelerator , 5 USB port, ethernet (100BASE- TX single-port minimum), Optical USB mouse , 5 year licensed antivirus.
13. Software: The vendor must supply software that are optimized for the instrument in area of denovo re-sequencing. Fragment analysis application like SSR, ISSR ALFP plant & microbial finger printing, microsatellite long sizing SSCP, SNP validation and screening linkage analyses.
14. Real time analysis system software should allow real time data quality evaluation providing immediate access to base called.
15. Consumables: consumables for 700 sequencing reactions should be supplied as start up material. applications-specific kits and sequencing reagents required to perform the sequencing by synthesis (SBS) should be manufactured and available from the same supplier.

16. The vendor should provide application training on the operation of the instrument, chemistry options and software in their regional lab.
17. Vendor should have at least 25 installations (includes all the available models) in India.
18. Suitable UPS for running the system.
19. Electrical requirement :220 volt, 50hz.

### **3. Digital pH Meter**

Digital pH range 0.00 to 14.00 units

Temperature range 32.0 to 212 degree F ( 0 to 100°C )

pH Resolution : 0.01 units

Temperature Resolution : 0.2° F (0.1° C)

pH Accuracy : +1 units within 10° C Calibration, +0.2 units within 20°C

Temperature Accuracy: +0.6° F ( +0.3° C)

ATC Probe : Thermistor , 10kΩ at 25°C

pH Temperature Compensation Auto 32.0 to 212 °F ( 0.0 to 100° C)

pH Buffer Recognition : USA ( 4.01, 7.00 & 10.01 ) or NIST ( 4.01, 6.86 & 9.18) 10 pH calibration on

Temperature 32.0 to 140.0° F ( 0.0 to 60° C)

pH offset Recognition: +90 mV at pH 7.00 or +98.3 mV/ +81.7mV at pH 6.86 pH slope Recognition: 30% at pH 4.00, 4.01, 9.18 or 10.01

Data memory: Non volatile 50 sets ( pH temperature data and time stamp ): erase all data Function

Operation Temperature Range : 32.0 to 122.0° F ( 0.0 to 50.0° C)

IP Rating: 67

Power: Four LR44 button batteries

Battery Life: 200 hours or greater ( Low battery indicator)

Size: 0.9x7.4x1.8 inch (23x188x46 mm)

Weight : 3.70z (105g)

### **4. Multiwell plate shaker**

- Orbital diameter 4mm
- Permissible shacking weight 4 microplate
- Motor rating input 12-15 watt
- Motor rating output 55-60 watt
- Permission on time 100%
- Speed min (adjustable)-100 rpm
- Speed range 100-1100 rpm
- Speed display - digital led
- Timer eyes.
- Timer display about 100hrs
- Number of microtiter plates maximum 4 permissible ambient temperature 15-40 c voltage 200 to 240 volts

### **5. Biospectrophotometer Kinetics (Nano Volume spectrophotometer).**

Wave length range absorption– 200 to 850 at nm increments. Absorption measuring range -0a to 2.9a (260nm)  
 Random error absorption <0.001 at A=0, <0.005 at A=1, should be able to undertake kinetic applications -enzyme activity at different temperature should have temperature controlled Cuvette shaft should have a LCD display for curves with provision for printout ds DNA concentration range (UV 260nm) ucuvette G1.0= 25 ng/μL-

1200ng/L +1ng/  $\mu$ L at A=0, +2.5 ng/  $\mu$ L at A=1 ds DNA concentration range (UV 260nm)Uvette 2nm=n  
12ng/UL to 700ng/  $\mu$ L+0.5ng/  $\mu$ L at A=0, +1.25ng/  $\mu$ L at A=1

BSA concentration range (UV 280nm)Cuvette G1.0= 70ng/  $\mu$ L to 750 pg/  $\mu$ L+0.03Yg/UL at A=0, +0.75Yg/  
 $\mu$ L at A=1

BSA concentration range (UV 280nm)Cuvette 2 mm=35ng/  $\mu$ L to 25 Yg/UL+0.015Yg/pL at A=0, +0.35  $\mu$ g/  
 $\mu$ L at A=1

Adjustable temperature range 20°C to 40°C( smallest step size 0.1°)

Systemic temperature error +0.1°C at 25 to 37°C

Random temperature error +0.1°C at 25 to 37° C

Measuring time range 00:05- 10:00 min: second

Interval between two measuring points 00:05- 10:00 min: second.

## **6. ELECTROPHORESIS SYSTEM AND POWER PACK**

### **A. Mini Protein Electrophoresis System (Dual)**

1. Gel Size 8x7 cm
2. Spacers 075&1.0 mm thickness based with glass plates , sample loadingguides.
3. Two gel running capacity Ridged combs 10 & 15 well
4. Optional Preparative comb Gel casting Stand, no tapes or grease.

### **B. Submarine DNA Electrophoresis system**

1. Single caste mould to prevent leakage.
2. Mini 7 x 10cm gel tray UV transparent 1.5mm and 1.0mm thick 10 x 15 well comb (2 pairs) detachable electrodes, 15 x 15cm UV transparent gel tray, tape free gel caster along with casting gates. Optional preparative combs.
3. Large 15 x 25 cm gel tray UV transparent gel tray, 15 x 20x 30 well 1.5 x 1.0 mm thick combs ( 2each) Detachable electrodes, 15 x 15cm transparent gel tray, tape free gel caster along with casting gates, optional preparative combs.
4. Power supply: 5-200 V in V step 200W maximum.
5. Type of output: constant voltage or current with automatic crossover.
6. Output terminals 4 recessed sets in parallel.
7. Timer: 0.999 minutes.
8. Safety features: No load detection, ground leak detection, sudden load change detection, overload/short circuit detection, auto power up after power failure.



## **7. Table top centrifuge (multiple rotors)**

Specification :

Non refrigerated bench top centrifuge.

Micro- processor control.

Max speed of approx. 17,000 rpm and max rcf of more than 30,000 g.

Acceleration time to maximum speed must be less than 15s for all rotors at max load and a deceleration time of less than 15s with the standard 30 x 1.5/2 ml rotor.

Automatic rotor recognition with imbalance detection.

### **Rotor types required**

1. Fixed angle rotor accommodating 24 x 1.5/2 ml tubes with a speed of 30,000xg
2. Fixed angle rotor accommodating 6x 15/50 ml with 7000xg speed.
3. Swing- bucket plate rotor accommodating 2 x DWP

## **8. Technical specifications for UV-trans-illuminator**

UV trans-illuminator with unique UV protective glass can be adjusted to the operator's visual angle and fixed.

It should be equipped with better UV protection.

It should have dual wavelength feature.

Dual-light trans-illuminator should provide two 20cm x 20cm work surfaces.

White light filter surface is designed for coomassie blue stained protein gels, methylene blue stained DNA gels, silver stained protein gels, autoradiographies, and microtiter plates.

Excellent transmission efficiency

Small figure and airproof frame

## **Group-C: Gastroenterology**

### **1. Electrosurgical Unit**

#### **Technical Specification for Electro surgery unit for G I Endoscopy procedures**

1. The unit should have 350-430 KHz output, up to 120-300 Watts Elector surgery unit with Simple TFT Touch screen display.
2. The unit should have fixed socket for Bipolar, monopolar and neutral output only for GI endoscopic procedures.
3. Automatic control of out put power according to all currently available electrosurgical regulative technologies to prevent the tissue damage and charring. (The output voltage should be regulated in various levels)
4. Should gave facility to program several numbers of settings and procedure.
5. Electro cautery machine should support spray coagulation mode for Advanced Procedure of GI
6. Possibility for Upgrading to Argon Plasma Coagulation system as per the different procedure of GI endoscopic procedures
7. Argon Plasma Coagulation should support 3 mode for advanced APC procedure.
8. Unit should be CE or USFDA approved.
9. Should have continuous patient monitoring with return electrode (neutral electrode)
10. The unit should be supplied with all standard accessories to make the system to work full functional includes (All accessories should be from same manufacturer):
  - a. One Foot Switch for Cautery
  - b. Active Cord – 2 in no
  - c. Reusable Patient Plate with cable- 5 No.
  - d. Disposable Patient Plate with cable – 25 pcs

## **Group-D: Orthopaedics**

### **1. Technical Specification for Arthroscopy Instruments**

#### **1. General Specifications**

- a. Should be USFDA certified
- b. All the Electronic equipment's should comply with Electrical safety conforms to standards for electrical safety.
- c. All the equipment's power input should be 220-240 V AC, 50 Hz fitted with Indian plug.
- d. All should be Compatible with Smith & Nephew main machine installed in department (Ortho OT).
- e. Warranty 3 years + 7 years CMC for equipment,
- f. Warranty 5 years for Hand instruments and accessories.
- g. Price should be quoted in Indian Currency.

#### **2. Arthroscopy hand Instruments for Shoulder.**

1. Suture Manipulator with a traumatic tip to spread parallel strands of suture with its jaw to create a closed loop to allow suture slide freely during extraction
2. Bankart Rasp
3. Knife Rasp
4. Shoulder Elevator
5. Tissue penetrator cum suture retriever in below angles with Small Sharp penetration tip Straight
6. Tissue penetrator cum suture retriever in below angles with Small Sharp penetration tip 35 Degree up
7. Tissue penetrator cum suture retriever in below angles with Small Sharp penetration tip 45 Deg Right
8. Tissue penetrator cum suture retriever in below angles with Small Sharp penetration tip 45 Deg left
9. Tissue penetrator cum suture retriever in cigar handle with small sharp penetrator curved tip so that it can be used to grasp the labrum at 6' O'clock position Curved Left
10. Tissue penetrator cum suture retriever in cigar handle with small sharp penetrator curved tip so that it can be used to grasp the labrum at 6' O'clock position Curved Right
11. Multifunctional Suture passer with provision of only 1 needle, which can hold the cuff & at the same time pass the suture & retrieve it in one step
12. Nitinol needles for passing the suture (1 box)
13. Open ended suture cutter, side loading with function of leaving sufficiently long tail without chance of cutting knot
14. Single hole knot pusher
15. Hook knife
16. Reusable CANULATED Obturator for 8.5 mm cannula for easy cannula insertion
17. Reusable CANULATED Obturator for 7 mm cannula for easy cannula insertion
18. Reusable CANULATED Obturator for 5.5 mm cannula for easy cannula insertion
19. Alligator locking grasper
20. Crochet hook
21. Shoulder Probe
22. 1.8 mm Drill bit
23. 2.5 mm Drill bit
24. 6" X 3.5 mm spiked tip drill guide
25. Sterilization Tray

#### **3. Arthroscope with sheath and Obturator**

1. Wide Angle Forward-Oblique Telescope 70 degree, enlarged view, Diameter 4 mm, length 18 cm, autoclavable, fiber optic light transmission incorporated. (One piece).
2. High Flow arthroscopic Sheath with snap in coupling mechanism diameter 6.5 mm working length 13.5 cm, two stopcocks, rotating, for use with telescopes 0 Degree, 30 Degree, 70 Degree with Obturator blunt (One Piece).

#### 4. Arthroscopic Camera

Three-Chip, Camera should be HD, resolution of 1920 X 1080 native resolutions, Full HD Progressive/ Interfaced. Video Output should have Minimum; DVI, S-Video, C-Video, HDSDI with Extra long fiber optic cable. (One Piece).

#### 5. Arthroscopy Hand Instrument for PCL

1. PCL Director Drill Guide Handle
2. Director PCL Elbow Aimer ranging from 40 to 65 deg for drilling to the laser mark at the aimer's elbow
3. Director PCL Tip Aimer ranging from 40 to 65 deg for drilling to the of the aimer
4. Director PCL Tibial Aimer with broad face tip that easily passes through notch & provides protection to posterior capsule during guide wire drilling
5. Director PCL Femoral Aimer for outside in drilling with medial incision, should have hoop tip to provide visual reference for the diameter of the fully reamed tunnel
6. WIRE CATCHER PCL
7. SAFETY STOP, PCL
8. Director 4-point Bullet with four sharp points for secure engagement of the guide at any angle
9. Endoscopic CANULATED drill bit 5 mm for femoral tunnel drilling including calibration
10. Endoscopic CANULATED drill bit 5.5 mm for femoral tunnel drilling including calibration
11. Endoscopic CANULATED drill bit 6 mm for femoral tunnel drilling including calibration
12. Endoscopic CANULATED drill bit 6.5 mm for femoral tunnel drilling including calibration
13. Endoscopic CANULATED drill bit 7 mm for femoral tunnel drilling including calibration
14. Endoscopic CANULATED drill bit 7.5 mm for femoral tunnel drilling including calibration
15. Endoscopic CANULATED drill bit 8 mm for femoral tunnel drilling including calibration
16. Endoscopic CANULATED drill bit 8.5 mm for femoral tunnel drilling including calibration
17. Endoscopic CANULATED drill bit 9 mm for femoral tunnel drilling including calibration
18. Endoscopic CANULATED drill bit 10 mm for femoral tunnel drilling including calibration
19. Endoscopic CANULATED drill bit 11 mm for femoral tunnel drilling including calibration
20. Endoscopic CANULATED drill bit 12 mm for femoral tunnel drilling including calibration
21. CANULATED drill bit 5 mm for tibial tunnel drilling
22. CANULATED drill bit 5.5 mm for tibial tunnel drilling
23. CANULATED drill bit 6 mm for tibial tunnel drilling
24. CANULATED drill bit 6.5 mm for tibial tunnel drilling
25. CANULATED drill bit 7 mm for tibial tunnel drilling
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28. CANULATED drill bit 8.5 mm for tibial drilling
29. CANULATED drill bit 9 mm for tibial tunnel drilling
30. CANULATED drill bit 10 mm for tibial tunnel drilling
31. CANULATED drill bit 11 mm for tibial tunnel drilling
32. CANULATED drill bit 12 mm for tibial tunnel drilling
33. Slotted sizing block with slots to measure graft ranging from 5 mm to 12 mm with increment of 0.5 mm. Also, includes the scale to measure the length of the graft
34. Universal Endo Femoral Guide Handle
35. Endo-Femoral Aimer, no offset
36. 3mm offset Endo-Femoral aimer
37. 4mm offset Endo-Femoral aimer
38. 5 mm offset Endo-Femoral aimer
39. 6 mm offset Endo-Femoral aimer
40. 7 mm offset Endo-Femoral aimer
41. Offset guide for precision tibial tunnel drilling, 2 mm -5 mm
42. Notch master curette 8.0 mm
43. Tendon Stripper Slotted & Closed
44. Depth probe for measuring femoral tunnel length, Calibrated 10 mm to 130 mm in 2 mm increments
45. 3.5 mm CANULATED Hex Driver, 1.5 mm cannulation
46. Bio Screw Driver & Screw Starter
47. 4.5 mm endoscopic CANULATED drill bit
48. 2.7 mm Graft passing pin wire (Box of 6)
49. 2.4 mm Tibial guide wire or tibial tunnel (Box of 6)

50. Guide wire 1.5 mm cannulation with marking (Box of 6)
51. Convex rasp
52. Compound curve rasp
53. Bone tunnel plug, Small 7.0-8.0 mm Package of 3
54. Bio Screw interference Screw Driver

## **6. Shaver Hand Piece**

- a. The autoclavable shaver hand piece, which is compact, lightweight and ergonomically designed, with hand control.
- b. The connecting cable should be autoclavable and replaceable with length of approx. 10 Ft.
- c. The hand piece should be not more than 8 Inches length and 460 Gms.
- d. The hand piece should have suction control lever.
- e. The Shaver Hand piece should have safety mechanism of Blade Window Lock to avoid any unintentional tissue damages on pull out.
- f. The Safety feature for window locking should be accessible and controllable from shaver hand piece.
- g. The Shaver hand piece should have push-button motor controls: Forward, Reverse Oscillate, and Blade and Window Lock.
- h. The Shaver should offer Maximum torque not be less than 32 oz.in
- i. The shaver should be supplied with compatible shaver sterilization case.
- j. The Shaver should be able to use any electro Blades, if desired.
- k. Input voltage of 100 to 240 V, 50/60 Hz power consumption not more than 350 VA.

## **7. Consumables**

- a. Shaver Blades
- b. Endo-Button
- c. Bio-Screw
- d. Suture Disc
- e. Suture Post
- f. Staple
- g. Fiber tape
- h. Fiber wire
- i. Interference Screw(Titanium)

## **2. Technical Specification of Battery Operated Power Drill System**

### **General Specifications**

- a. Should be USFDA certified
- b. All the Electronic equipment's should comply with Electrical safety conforms to standards for electrical safety.
- c. All the equipment's power input should be 220-240 V AC, 50 Hz fitted with Indian plug.
- d. All should be Compatible with Smith & Nephew main machine installed in department (Ortho OT).
- e. Warranty 3 years + 7 years CMC for equipment,
- g. Price should be quoted in Indian Currency.

### **Drill and Reamer Hand piece:**

- Selection of Drilling and Reaming with the built in Switch option DRILL/REAM in same hand Piece
- Selection of the drilling and reaming with the same attachment
- Should have dual trigger for forward/ reverse and oscillation mode
- Maximum speed of 1200 rpm in drilling, 270 RPM in reaming
- Should have variable speed control on the hand piece
- Should deliver maximum torque of 150 in/lbs
- Drill torque should be 35 in/lbs
- Should have DC brush less motor for low maintenance
- With appropriate adaptors for drilling, reaming and pin placement and wire placement
- Future up gradation compatible for Navigation interface for Joint replacement surgeries
- Micro processor controlled Hand piece can be calibrate for the consistence performance

- Weight of hand piece with battery should be not more than 3.5
- Fully Cannulated 4.0 mm hand piece
- Should have Pistol grip Hand piece
- Tool less 360 degree attachments insertion
- Should be autoclavable
- Dedicated forward and Reverses switch with safe mode
- Can be calibrating for the consistence performance

#### **Sagital Saw Hand piece:**

- Should have two speed controls with standard and fast mode. Free speed of 10000 -12000 cycles per minute
- Micro processor controlled Hand piece can be calibrate for the consistence performance
- Saw Noise level should not more than 89db
- Weight of hand piece with battery should be not more than 3.5 lbs
- Blade mount should be adjustable to different angles with 360 degree rotation
- Should have tool less mounting of accessories
- Should have DC brush less motor
- Should be autoclavable
- Should have safe mode

#### **Drill and reaming Attachments:**

- 1/4 inch Jacobs Drill Attachment with key
- Keyless Chuck
- Quick Connect attachment
- Reamer Attachment
- Hudson Modified Trinkle attachment
- Pin Collet Attachment
- K Wire Collet Attachment

#### **Battery Charger:**

- 220-240 volts charger and should have the feature to count the charging cycle for a particular Battery,
- Should have capability to identify the worn out battery
- Should have to charge four batteries at a time
- Should have an indicator to provide battery status for charging.
- Should be able check over autoclaved battery cycles (Number of Time and Total time)

#### **Battery Kit:**

- Li-ion Cell Chemistry and also compatible with Ni Mh & Ni Cd batteries with low internal impedance to deliver higher current than other battery types number of batteries-4
- Should have run time of minimum 17 minutes
- Should include Autoclavable outer housing
- Shield to protect battery from the housing
- Opening of battery housing for easy insertion of battery
- Should have option for autoclavable batteries

#### **Sterilization Case:**

- Should be accommodate all hand piece, attachment and accessories for autoclave

#### **Consumable:**

- Price of Consumables should be quoted separately.

## Group-E: TB & Chest

### 1. Bipap Machine

#### Technical Specification of Bipap for non-invasive ventilation

1. Should be a handy and portable, light weight device for providing NIV for patients.
2. Should essentially have the following modes- BIPAP, Auto CPAP, CPAP (Spontaneous) & VAPS.
3. Should incorporate latest algorithms for leak compensation and synchronization.
4. Should have a display for real time monitoring of tidal volume, respiratory rate, I:E ratio, Delivered IPAP & EPAP.
5. Should include user adjustable alarms and essential nonadjustable fixed alarms for patient Safety.
6. Should include alarms for leak, apnea, patient circuit disconnection, low internal battery etc.
7. Should be able to provide adequate pressure ranges for IPAP, EPAP for patients  
IPAP pressure range 2 to 25 H<sub>2</sub>O in increment of 0.2 cms H<sub>2</sub>O  
EPAP pressure range 2 to 25 cms H<sub>2</sub>O in increment of 0.2 cms H<sub>2</sub>O
8. Should have provision for inspiratory and expiratory trigger sensitivity adjustment
9. Should have provision for inspiratory and expiratory slope adjustment
10. Should have built in internal battery for 8 hrs of back up at a minimum 10 mbar pressure
11. Accessories to be supplied: patient Circuit -3 Nos ; NIV mask (Adult and Pediatrics sizes)-3 Nos each (full face mask, Nasal mask, extra set of connecting tubing)
12. Should be European CE/FDA approved.

## Group-F: Library

#### RFID Based Digital Library System For IGIMS

1.	<p><b>RFID Tag for books/ document Identification and Security, integrated with KOHA latest version (Requirement: Approximately 12,000 tags and 12,000 IGIMS logo) and Tagging of RFID Tags on all the documents &amp; Shielding of IGIMS Logo on RFID Tags.</b></p> <p><b>Specifications/features:</b></p> <ol style="list-style-type: none"> <li>1. Passive re-writable RFID tags consisting microchip and antenna a low acid free good quality self-adhesive RFID tags having 4096 bits memory, 13.56 MHz frequency and built in anti-theft control bit.</li> <li>2. The RFID chip used in the tag have three sections             <ol style="list-style-type: none"> <li>i. Lockable section—for item identification</li> <li>ii. Re-writable section for library specific use</li> <li>iii. Security function (EAS) for item anti-theft</li> </ol> </li> <li>3. Tags should be ISO standards fully compliant with ISO 18000-3 Mode 1 and include both mandatory and optional commands specified in ISO 15693-3</li> <li>4. <b>Dimensions:</b> Tag size minimum <b>50 mm x 50 mm</b> (l x W), (+/-10%) 2000 per rolls (6000 per case)</li> <li>5. Distance for detection from pedestal should be minimum of 36inches and as per ISO18000-3</li> <li>6. Data rate- Tag to Reader: 26kbps minimum, Reader to Tag: 26kbps minimum.</li> <li>7. A single tag for Identification and Anti-theft must be read even if not visible and must read in any orientation. It must tamperproof RFID and should support CIP/SIP2 complied with KOHA latest version</li> </ol>	
2.	<p><b>Electromagnetic (EM) Security (Requirement: Approximately 60000 Strips) and Fixing of EM Strips on Library documents.</b></p>	

	<p><b>Specifications/features:</b></p> <ol style="list-style-type: none"> <li>1. The Size of the Security Strip should be minimum 160MM X 3 MM for Hardbound and paperbound books and periodicals.</li> <li>2. Strips must be guaranteed to perform for Life Time of the object in which they a placed.</li> <li>3. Strips once applied on material should be hidden in Nature.</li> <li>4. The security strips shall be one-piece, flexible, thin, nonrusting metallic alloy coated with an adhesive film. The film shall not discolor or lose its adhesive or cohesive strength with age. The strips shall require no moisture, heat or additional glue, or adhesive for affixing to library materials.</li> </ol>	
3.	<p><b>Staff work Station for RFID- Two :</b> (A RFID workstation will be used at the circulation counter of the library for reactivating &amp; deactivating RFID security (EAS-bit, setting and resetting along with ID identification)</p>	
4.	<p><b>Staff work Station for EM – (Two)</b></p> <ol style="list-style-type: none"> <li>1. MUST be 100% compatible with the Library’s Electromagnetic Security Strips and Detection System and be able to sensitize and desensitize the magnetic security strips.</li> <li>2. System hardware must be attractive and contemporary, and be able to be integrated into Library’s own furniture.</li> <li>3. The proposed system must be able to mount in or on the work surface of a circulation station.</li> <li>4. Must allow for check-in and checkout of multiple items.</li> <li>5. Must have visual and audible cues to prompt the library staff during the conversion process.</li> <li>6. The proposed system must provide dual function: capable of processing bar codes and EM in the same circulation transaction.</li> <li>7. The proposed system must be able to be used for charge and discharge of library materials.</li> </ol>	
5.	<p><b>Combined Self Check-In and Check-out Units (The unit should work for both EM and RFID)- (One)</b></p> <p>It should work for self issue and return of multiple documents to the library users simultaneously through RFID, EM and barcodes.</p> <p><b>Specifications:</b></p> <ul style="list-style-type: none"> <li>• Long range RFID Reader and Antenna with multiple Read/Write facility</li> <li>• Customizable Kiosk Shell to suit the library decor</li> <li>• High Speed Thermal Kiosk slip Printer</li> <li>• LED flat Touch Screen Monitor (Capacitive Technology, minimum 20" or higher)</li> <li>• High resolution display</li> <li>• Branded/Reputed Small Factor CPU</li> <li>• Multi protocol firmware ISO 15693 and ISO 18000 compliant</li> <li>• Communication interface — USB</li> <li>• Client Software should perform functions like tagging,</li> </ul>	
6.	<p><b>Library Security Gate i.e. 3 EAS (Electronic Article Surveillance) pedestals Gates compatible with RFID Tags complete in all respect with necessary accessories (– One pair).</b></p> <p>Library security gate for RFID along with Dome Camera &amp; DVR integrated with EAS Gates Security. gate should include three theft detection pedestals, which are interdependent of each other and also have overlapping protection zones providing additional security. We plan to install these pedestals at one location in the library i.e. Entrance of the Library. The system should have</p>	

	<p>suitable number of I/O ports for Standard electronic counter, web cam trigger, CCTV, Locking gates, etc. The offer must complete in all respects and must include all the components required for the functionality of the system.</p> <p><b>Operating Frequency:</b> 13.56 MHz  <b>Chip Compatibility:</b> ISO 15693/18000-3. Can be configured to detect different chip types simultaneously.  <b>Detection Range: Upto 100 (cm) on either side between two pedestal (application dependent).</b> Specific version includes Ethernet interface. If EAS on detected, chip type, ID number, date and time are stored.  Pedestal including 1 antenna set (3 antennas) for large detection field and 1 electronic unit (Controller) integrated into the pedestal bottom  <b>Security Mode Alarms:</b> EAS &amp; AFI (Application Family Identifier) Lights and Buzzer located at the top of the pedestal. Dome Camera (Color)  <b>Gate Synchronization:</b> RF Protocols</p>	
7.	<b>Shelf Management System/Portable Handheld RFID Reader with Antenna (Two)</b>	
8.	<p><b>Book Drop Box (Two unit)</b>  Hardware: RFID Reader + Antenna + Book Drop Box with:</p> <ol style="list-style-type: none"> <li>1. Branded/Reputed Steel Enclosure from the firm which has national/global presence</li> <li>2. Check In RFID Reader (Ethernet): 13.56 MHz, ISO 15693 and ISO 18000 compliant</li> <li>3. 250 Books Receiving Cart X 2 No (Branded/Reputed, having national/global presence)</li> <li>4. Ethernet High Speed Thermal Slip Printer (Reputed/Branded)</li> <li>5. Client software for checking-in facility and communicating with ILMS Software with provision for E-mail/SMS Confirmation</li> <li>6. Magnetic Flap lock</li> <li>7. Book Full Sensor</li> <li>8. Book Bin full indicator to the counter station</li> <li>9. Fire and water proof</li> <li>10. Light weight</li> <li>11. Multi protocol firmware ISO 15693 and ISO 18000 compliant</li> <li>12. Should support NCIP/CIP2 complied with KOHA latest version and other international standard ILMS USB Communication interface.</li> </ol>	
9.	<b>Printer for printing RFID tag based Library Membership Card (One )</b>	
10.	<p><b>RFID Smart Card</b>  RFID Smart Cards [Smart Cards for 500 Patrons]ISO 15693/18000-3 with minimum of 4096 Bits Memory]. Smart card should follow the mifare card IC coil design guide.</p> <p><b>Specifications :</b>  Dimensions : 86mm x 54mm x 0.9mm (App.)  Unique Serial No. : 64 bit ID  Antenna size : 45x76mm  Frequency : 13.56 MHz  Memory : 4096 bit  Operating distance : 1.20 mts or more  Material : PVC ISO Hard Plastic  (Direct Print)  Standard : ISO  Credit Cards, white  printable surface</p>	



	Printing : Colour																															
11.	<b>Retrospective conversion of 12,000 documents</b>																															
12.	<b>Integrated Library Management Software (ILMS) i.e. KOHA latest version with Linux Operating System (Multiple User and Branch library handling) and SIP2/NCIP protocol integrated with KOHA - (One)</b>																															
13.	<b>Library Server</b>																															
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14.	<b>UPS</b> Make/ Model: Microtek/iball or equivalent Maximum Power: 5 KVA Waveform: Pure Sinewave																															
15.	<b>Computer</b> (Specification attached)																															

<b>Desktop – Core i5</b>	
<b>Parameters</b>	<b>Minimum Specifications</b>
Make/Model	HP/DELL/Lenovo
Processor	Intel CORE i5 6 <sup>th</sup> generation or above
RAM	4 GB DDR4 expandable upto 16 GB
Mother Board	OEM mother board with OEM logo printed on mother board (no sticker) or Intel original mother board
HDD	1 TB or higher
Graphics subsystem	Integrated HD graphics
Combo Drive	8x or higher DVD writer (Internal)
USB ports	4 or above
Monitor	18.5 inches LED, antiglare, TCO 05 energy compliant (preferred)
Mouse	OEM make USB optical scroll mouse with mouse pad
Key Board	OEM make USB minimum 104 key board
Network interface	10/100 ethernet LAN (IPV6 compliant) on board, WiFi/Bluetooth Enabled
Cable & connector	Power cable min. length 1.5 m (Indian type)
Security features	Power on password, selectable boot
Operating system	Windows 10 professional 32bit/64 bit preloaded with media, documentation and certification. Shall be supplied with appropriate license in name of RSCL
Production unit	ISO 9001 and ISO 14001 certified
Warranty	One/Three year and comprehensive

## **Group-G: Reproductive Medicine**

### **1. Rate Contract for MEDIA AND CONSUMABLES OF IVF LAB for two years**

Sl. No.	NOMENCLATURE-A
1.	Follicle Flush Buffer Media. Washing media having both optimal and a stable pH environment for flushing ovarian follicles during oocytes collection, suitable for flushing needles. Specially having HEPES-buffer. Medium is ready to use and must be supplemented with protein. Store at 2-8 °C. Protect from light.
2.	Embryo Vitriification Pack. Sterility tested & DMSO based/DMSO Free media. Mouse Embryo Assay tested. Medium is ready to use. Store at 2-8 °C. Protect from light.
3.	Embryo Vitriification Thaw Pack. Sterility tested. Mouse Embryo Assay tested. Contains Sucrose, Sodium lactate, Sodium Bicarbonate. Antibiotics. Medium is ready to use. Store at 2-8 °C. Protect from light.
4.	Sperm Preparation Media. Supplemented with: Human Serum Albumin. Sodium pyruvate. A Bicarbonate based buffer for sperm preparation and storage. HEPSES Buffer. Contain Antibiotics. Medium is ready to use. Store at 2-8°C. Protect from light. Media should be in alkaline Ph(8-8.5) for better results
5.	Density Gradient Media. Designed specifically for sperm preparation and isolation of viable spermatozoa using density gradient separation. Each packaged in a kit with one vial of each 40% and 80% densities. Antibiotics. Medium is ready to use. Store at 2-8°C. Protect from light. Media should be in alkaline Ph(8-8.5) for better results
6.	Sperm Freezing Medium Sterility tested. Mouse Embryo Assay tested. Sperm survival tested. pH 7.3-7.5. A HEPES buffered

	cryopreservation medium with glycerol as the cryoprotectant used for freezing washed sperm, MESA and TESA samples. Antibiotics. Medium is ready to use. Store at 2-8°C. Protect from light.
7.	<b>Culture Oil</b> Ensures a high-quality culture system with extensive washing and testing during manufacture. Reduces osmotic stress caused by evaporation. Helps maintain pH stability and used as an oil overlay for culture media during IVF and ICSI procedures. Sterility tested. Medium is ready to use. Store at 2-8 °C. Protect from light.
8.	<b>PVP Medium</b> This solution used to reduce the motility of sperm making it easier to catch them with an ICSI pipette with bicarbonate buffered medium containing 7% polyvinyl pyrrolidine. Sperm survival tested. Sperm immobilization tested. Antibiotics. Medium is ready to use. Store at 2-8°C. Protect from light.
9.	Natural Alternate to PVP Media (SpermSlow Media)
10.	Hyaluronidase (Oocyte Denudation)
11.	<b>Single Step Media</b> A single step media for uninterrupted embryo culture up-to blastocyst stage. Sterility Tested, Mouse Embryo Assay Tested, Contain Antibiotics, Medium Ready to use, Store at 2-8°C.
12.	<b>Transfer Media</b> Based on buffered with HEPES, Transfer media having hyaluronate Endotoxin level <0.1 EU/ML, Antibiotics, Storage : 2-8°C
13.	<b>DNA Fragmentation kit.</b> Ready to use. Storage: Room temperature.
14.	<b>Sterile water.</b> Suited in IVF lab for the cell and tissue culture, co2 incubator , humidity pan, cleaning the surface of the laminar hood. Endotoxin tested limit less then 0.005 EU/ml. MEA up to 96 hours ≥80%. Storage : Room temperature.
15.	<b>Laboratory disinfectant for co2 incubator and laminar hood.</b> Non toxic, safe cleaning for co2 incubator and laminar hood. No alcohol, no odor. Effective against hepatitis B, HIV, rotavirus within 1-2 minutes, microbectrium within 4-6 minutes bacteria fungi between 12-17 minutes
16.	<b>Laboratory Hand disinfectant.</b> Non toxic, safe disinfection for hands. Non alcohol, no odor. Effective against hepatitis B, HIV, rotavirus within 1-2 minutes, microbectrium within 4-6 minutes bacteria, fungi. Neutralizes bacteria which causes bad smell does not dry the skin. Ready to use. Storage: Room temperature.

Sl. No.	<b>NOMENCLATURE-B DISPOSABLES REQUIRED FOR ART FACILITY</b>
1.	IVF Test Tubes Polystyrene Round bottom 14ml. Sterility assurance level to be 10 <sup>6</sup> . USP class VI tested polystyrene. Non- pyrogenic at less then 0.25 end toxin units/ml. Qualified plastic ware for in vitro fertilization (IVF) and assisted reproductive technique.
2.	IVF Test Tubes Polystyrene Round Bottom 6ml. Sterility assurance level to be 10 <sup>6</sup> . USP class VI tested polystyrene. Non- pyrogenic at less than 0.25 end toxin units/ml. Qualified plastic ware for in vitro fertilization (IVF) and assisted reproductive technique.
3.	IVF Grade Conical Test Tubes 5ml. Sterility assurance level to be 10 <sup>6</sup> . USP class VI tested polystyrene. Non-pyrogenic at less than 0.25 end toxin units/ml. Qualified plastic ware for in vitro fertilization (IVF) and assisted reproductive technique.
4.	IVF Serological Pipette 1ml. USP class VI tested polystyrene. Non-pyrogenic at less than 0.25 end toxin units/ml. Qualified plastic ware for in vitro fertilization (IVF) and assisted reproductive technique.
5.	IVF Serological Pipette 5ml. USP class VI tested polystyrene. Non- pyrogenic at less than 0.25 end toxin units/ml. Qualified plastic ware

	for in vitro fertilization (IVF) and assisted reproductive technique. MEA using multipole endpoints, including 1-cell, expanded blastocyst on day 5 $\geq 80\%$ and cell count. Storage: Room temperature.
6.	IVF Transfer Pipette 3ml. Sterility assurance level to be $10^6$ . USP class VI tested polystyrene. Non-pyrogenic at less than 0.25 end toxin units/ml. Qualified plastic ware for in vitro fertilization (IVF) and assisted reproductive technique.
7.	IVF Grade Semen Container. USP class VI tested polystyrene. Non-pyrogenic at less than 0.25 endotoxin units/ml. Qualified plastic ware for in vitro fertilization (IVF) and assisted reproductive technique.
8.	IVF Grade Petri dish 35mm. Sterility assurance level to be $10^6$ . USP class VI tested polystyrene. Non-pyrogenic at less then 0.25 endotoxin units/ml. Qualified plastic ware for in vitro fertilization (IVF) and assisted reproductive technique.
9.	IVF Grade Petri dish 60mm. Sterility assurance level to be $10^6$ . USP class VI tested polystyrene. Non-pyrogenic at less then 0.25 endotoxin units/ml. Qualified plastic ware for in vitro fertilization (IVF) and assisted reproductive technique.
10.	IVF Grade Petridish 60mm. Centre Well Dish. Sterility assurance level to be $10^6$ . USP class VI tested polystyrene. Non-pyrogenic at less then 0.25 endotoxin units/ml. Qualified plastic ware for in vitro fertilization (IVF) and assisted reproductive technique.
11.	IVF Grade Petri dish 90 mm. Sterility assurance level to be $10^6$ .USP class VI tested polystyrene. Non-pyrogenic at less then 0.25 endotoxin units/ml. Qualified plastic ware for in vitro fertilization (IVF) and assisted reproductive technique.
12.	IVF Grade Four Well Dish. Sterility assurance level to be $10^6$ . USP class VI tested polystyrene. Non-pyrogenic at less then 0.25 endotoxin units/ml. Qualified plastic ware for in vitro fertilization (IVF) and assisted reproductive technique.
13.	Ovum Pick up Needle. Single/Double lumen & Catheter Ovum Picks up Set (with valve) Tube 60-100 cms Needle 30-35 cms. Gauge 17. B. Thin tip. Storage: Room temperature.
14.	Echo tip Ovum Pick up Needle. Single/Double lumen & Catheter Ovum Picks up Set (with valve) Tube 60-100 cms Needle 30-35 cms. Gauge 17. B. Thin tip.
15.	Embryo Transfer Catheter 4.5 cms. a- Soft (visible on USG). b- Rigid (visible on USG). c- Trial embryo catheters. Storage : Room temperature.
16.	ICSI Dish. Sterility assurance level to be $10^6$ . USP class VI tested polystyrene. Non-pyrogenic at less then 0.25 endotoxin units/ml. Qualified plastic ware for in vitro fertilization (IVF) and assisted reproductive technique. MEA tested.
17.	Cryo Vials 1-2 ml (semen freezing). Storage: Room temperature.
18.	IVF Grade Syringes 1 ml. Storage: Room temperature.
19.	IVF Grade Syringes 5 ml. Storage: Room temperature.
20.	ICSI DISPOSABLES: Holding Pipettes (Same make as injecting pipette) Inner diameter 30 $\mu\text{m}$ and outer diameter 120 $\mu\text{m}$ with distal tip angle 35°. Better support for the oocyte or embryo and reduces distortion during micromanipulation.
21.	Injecting Pipettes (Same make as holding pipette). To reduce sperm adhering to glass. Inner diameter 5.4 $\mu\text{m}$ and outer diameter 7 $\mu\text{m}$ with distal tip angle 35°. Precision injection pipette offer reduced tip flexibility and parallel walls for precise sperm control. Storage: Room temperature.
22.	DENUDING PIPETTES. Denuding cumulus mass from the oocytes prior to ICSI to check fertilization or for micromanipulation of oocytes embryos, blastocyst and blastomeric. Flexible polycarbonate pipette are designed for use with reusable pipetting handles. Supplied sterile FLEXIPET/DENUDING PIPETTES

	Inner Diameter - 130/135 µm Inner Diameter - 140/150 µm Inner Diameter - 170/175 µm Inner Diameter - 225/250 µm Inner Diameter - 275/300 µm
23.	Sterile Tips with white filter & RNase Dnase pyrogen free & DNA free should be fit out micropipette. (1000 µl). Storage: Room temperature (single pack).
24.	Sterile Tips with white filter & Rnase Dnase pyrogen free & DNA free should be fit out micropipette ( 0.5-10µl) Storage : Room temperature (single pack).
25.	Sterile Tips with white filter & Rnase Dnase pyrogen free & DNA free should be fit out micropipette ( 20-100µl). Storage: Room temperature (single pack).
26.	Lint Free Tissue Paper. Storage : Room temperature.
27.	Open Device for Vitrification. Storage of vitrified human oocytes and embryos. Mouse embryo assay tested. Storage: Room temperature.
28.	Cryo Labels. Pre cut labels (white colour) Size: 1.28×0.50 inches. Precut, Peel off labels sized to fit micro centrifuge tubes and other container, Ideals for 1.5-2.0ml or lager tubes. Freezable in liquid nitrogen, Chemically resistant. Storage: Room temperature.
29.	Cryo Marker. For marking cryo vials and straws. Alcohols free, Storage: Room temperature.
30.	Goblet: Goblet for frozen straws (oocytes and embryos), Storage: Room temperature.
31.	Aluminium Canes

Should provide trained embryologist for six month at IGIMS in the department of Reproductive Medicine and train our embryologist.

**General Terms:-**

- Earnest money will be 2 Lakh.
- After selection the successful bidders have to submit the S.M.D. of Rs.2 Lakhs with two years validity before signing the Agreement.

**Group-G: Blood Bank**

**1. SPECIFICATION FOR CHEMILUMINESCENCE BASED FULLY AUTOMATED IMMUNOASSAY FOR INFECTIOUS MARKERS TESTING ON REAGENT RENTAL BASIS:**

Sl No.	Specification	Remarks
1.	Specification related to Equipment:	
	(i) Fully Automated immunodiagnostic electro- chemiluminiscence technology or chemiluminiscence in magnetic immunoassay (CMIA) or enhanced chemiluminiscence technology , walkaway, high throughput system for HIV I & II (fourth generation), HbsAg, HCV and preferably Syphilis with latest acceptable Technology and reagents should be acceptable by DCGI.	
	(ii) The instrument should provide comprehensive process check that performs monitors and verifies each step throughout sample and assay processing.	
	(iii) It should have continuous loading capacity of minimum 60 samples.	
	(iv) It should have barcode reader to read multiple barcode types	
	(v) It should have a capability to do the assay in continuous, random, & stat mode.	
	(vi) Throughput of at least 60 tests/hr.	

2.	Sample Handling	
	(i) It should have the capacity to accept various types of sample container like primary, secondary tubes and micro sample cups for sampling purposes.	
	(ii) It should have access to the samples during operations.	
	(iii) It should have the facility for clot detection, bubble detection, check viscosity, sample level and short samples to ensure accuracy preventing erroneous results due to improper samples.	
	(iv) It should have the disposable tip sampling system or a probe decontamination system to overcome the carryover and or cross contamination probability	
3.	Reagent Management	
	(i) It should have a disposable tips system or a probe decontamination system to avoid reagent carryover.	
	ii) The onboard reagent stability should not be less than 1 months or should have Inbuilt refrigeration system with controlled temperature and humidity.	
	iii) It may have continuous random access to loading and unloading reagents or should have high number of loading capacity.	
	iv) It should have the compact, integrated reagent pack with all components.	
	(v) Turnaround time Up to one hour for sample processing and result for all tests mentioned above	
	vi) It should have the capability of inbuilt inventory management system	
4.	Calibration and Quality Control	
	(i) It should have the calibration stability of at least 4 weeks for each parameter to decrease reagents consumption.	
	(ii) It shall have multiple lot calibration capabilities and calibration curve transition facility.	
	(iii) It shall have the inbuilt QC package system to monitor the quality of result obtained.	
5.	Waste Management: It shall have the facility to collect both liquid and solid	
6.	Primary equipment should be of latest version and must not be refurbished.	
7.	There must be facility of auto up-gardation of the machine.	
8.	One Back up equipment must be provided for downtime in case of primary equipment break down. Back up equipment can be with lower number of sample loading(Not less than 30) and lesser throughput (Not Less than 60 test/Hour), rest all specification similar to primary machine	
9.	The system software must have the capability to diagnose the hardware performance using dedicated software with the provision to log all activities for full traceability	
10.	The firm should provide the details of after sales and service and application backup	
11.	Demonstration and onsite training of staff up to their satisfaction by the application	
12.	The firm must have an application specialist and service engineer in the respective state	
13.	A certificate to be provided to the effect that shut down period of the primary machine as well as back up machine must not exceed for more than 24 hours and option of further back up in case of both equipment breakdown.	
14.	Original literature along with the user's list of all the above parameters should be attached with the satisfactory report for the last one year from at least five users with contact detail 14 The equipment a	
15.	The equipment and reagents /kits to be provide should have European CE-IVD / US-FDA certification.	
16.	The firm will supply the UPS with one hour backup system along with system free of cost.	
17.	The firm will install the machine free of cost and will take care of regular services, maintenance, repair in order to ensure the proper functionality of the equipment free of cost.	

18.	Cost per reportable test including the price of start up and shut down consumption of reagents and other Reagents (Cleaner/Washer/Diluent) /Kits /Calibrator, QCs (Positive control and Negative control required daily) /Tips required /Any other accessory required for the enclosed parameters (enclosure – I) according to the mentioned number of tests must be quoted and the rate will be frozen for 5 years and will be considered for price bid comparison.	
19.	The firm should provide rate certificate from any Govt. Institution where similar equipment has been installed.	
20.	The workload may increase/decrease as per requirement of the hospital.	
21.	The rate for the other parameters available must be quoted and frozen but will not be considered for price comparison.	
22.	Any turnkey process including temperature and humidity control of the laboratory required for the installation of the equipment will be carried out by the company/bidder.	
23.	The equipment should be able to run on the existing electrical provision.	
24.	The firm should provide life cycle cost (LCC) analysis report which includes not only the initial acquisition cost but also cost of operation, maintenance and disposal during the lifetime of the external resource procured	

Enclosure: - **PARAMETERS REQUIRED for reagent rental basis**

1.	Anti-HIV 1/2 – 20000 tests annually including cost per reportable test (Price of Reagents(Cleaner/Washer/Diluent) /Kits /Calibrator/QCs (Positive control and Negative control required daily) /Tips required /Any other accessory must be included)	
2.	Anti-HCV - 20000 tests annually including cost per reportable test (Price of Reagents(Cleaner/Washer/Diluent) /Kits /Calibrator /QCs (Positive control and Negative control required daily) /Tips required /Any other accessory must be included)	
3.	HBsAg testing - 20000 tests annually including cost per reportable test (Price of Reagents(Cleaner/Washer/Diluent) /Kits /Calibrator /QCs (Positive control and Negative control required daily) /Tips required /Any other accessory must be included)	
4.	Syphilis testing - 20000 tests annually including cost per reportable test (Price of Reagents(Cleaner/Washer/Diluent) /Kits /Calibrator /QCs (Positive control and Negative control required daily) /Tips required /Any other accessory must be included)	

**General Terms:-**

- **Earnest money will be Rs.50,000.00.**
- **After selection the successful bidders have to submit the S.M.D. of Rs.1 Lakhs.**
- **The firm has to quote the cost of each test. The L1 will be calculated on the total test cost basis.**

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