

BIDDING DOCUMENT

TENDER NOTICE No.: 02 / 2016 - 2017 / Biomedical Equipt./ IGIMS / Store



Supply, Installation & Commissioning of Bio-Medical Equipments / Instruments

TENDER NOTICE No 02/2016 – 2017/ Biomedical Equipt. / 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

Sl. No.	Description	Page No.
01.	CHECK LIST	5 to 7
02.	ELIGIBILITY CRITERIA	8
03.	INSTRUCTION TO BIDDER	9 to 16
04.	CONDITION OF THE CONTRACT	17 to 22
05.	SCHEDULE OF THE REQUIREMENT	23 to 29
06.	SPECIFICATION AND ALLIED TECHNICAL DETAILS	

IMPORTANT DATES

Last date for Purchase of Bidding Document	Can be downloaded from Institute website
Last date for submission of completed bidding document	08 / 06 /2016 up to 4.00 PM. by registered/speed post/ Courier only
Date of opening of technical bid	09/06/2016 at 3.30 P.M. in conference hall IGIMS, Patna.
Date of demonstration of equipment	To be informed to the qualified bidders qualifying after opening of technical bids.

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

SI. No. OF TENDER: _____

FILE NO. : Tender No.: _____

Tender form issued in favour of:

Dear Sir,

1. I/We hereby submit our tender for the

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

Yours faithfully,

(Signature of Bidder with full name and address)

CHECK LIST FOR TERMS AND CONDITIONS

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

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

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

	certificate.		

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

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

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

(Name of the Bidder with signature & seal)

ELIGIBILITY CRITERIA

- 01 Manufacturers or their authorized dealers/Indian subsidiaries/direct importers having a place of business in any of the States of India are eligible to participate in this tender. Mentioned
Page no.
- 02 The bidder and manufacturer of the equipment offered should be in the business of the supply and installation of same / similar equipment for the last five calendar years.
- (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 31st March 2016.
- 05 Bidders who have the capability to attend repairs of these equipment within the time mentioned in this bidding document and who are willing to provide stand by equipment or replace the faulty equipment if the repair/down time extends beyond 72 hours from the time of reporting of the fault within the next 48 hours (total down time should not exceed 5 days in one instance). The bidders who have the capability to ensure the uptime mentioned in this document (Documentary proof shall be submitted on the after sales facilities and expertise of the bidder.)
- 06 Bidders are not offering the equipment of a firm /company that has been blacklisted by Indira Gandhi Institute of Medical Sciences – Patna or blacklisted/debarred by any other State / Central Government's organization.

Note:

- Notwithstanding anything stated above, the Institute reserves the right to assess the Bidder's capability and capacity to perform the contract satisfactorily before deciding on award of contract, should circumstances warrant such an assessment in the overall interest of the purchaser.

- The Institute reserves the right to ask for a free demonstration of the quoted equipment at a pre determined place acceptable to the purchaser of technical acceptability as per the tender specification, before the opening of the price tender.

INSTRUCTION TO BIDDER

GENERAL INSTRUCTIONS TO BIDDERS

1. **Tendering System**

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

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

PART - II titled as PRICE BID

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

This rate Contract will be valid for one FY and repeat Supply Order will be placed as per requirement of the deptt. of all the quoted and approved items.
4. The “Bidding Document” along with terms and conditions, technical specification can be obtained from the office of the Store Officer, IGIMS, Patna on payment of Rs. 2000/- (Rs. Two thousand only) Non –refundable for each Group by demand draft favouring Director , IGIMS, Patna payable at Patna.
5. The “ Bidding Document” can also be downloaded from institute website www.igims. Org.. In case, downloaded bidding document is used ,Bidder(s) have to submit the cost of the Tender Document along with the completed documents in the form of demand draft in favour of Director , IGIMS, Patna, payable at patna towards cost of the “ Tender documents” Bidder is required to attach seprate D D for the same in a seprate 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 08/ 06/2016 up to 4.00PM by speed/Regd. post/ Courier only and technical bid will be opened on 09.6.2016 at 3.30PM in Conference hall IGIMS, Patna**
7. **Earnest Money Deposit (EMD):**
a; Earnest Money2% 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 favoring Director, I.G.I.M.S. – Patna (payable at Patna). No interest is payable on EMD/ Bid security.

- b. Bidder may quote more than one/several models. In such a situation EMD will be payable on the basis of highest priced model.
 - c. EMD of the unsuccessful bidders will be returned to them at the earliest after expiry of final bid validity and latest on or before the 30th day after the award of the contract without any interest.
 - d. 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.
 - e. 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.
 - f. Cheque, Cash payment, Money Order, Fixed deposit etc will not be accepted as EMD.
 - g. 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.
 - h. The EMD shall be in one of the following forms:
 - i.; A demand draft in favour of Director, I.G.I.M.S. – Patna (payable at Patna);
 - OR
 - ii; A Bank Guarantee issued by a nationalized/ scheduled bank located in India, in the form prescribed in the tender document as Annexure- IV (valid up to one year from the date of technical bids opening) Bank Guarantee in any other format will not be acceptable and render the bid non-responsive.
 - iii.;The successful Bidder's EMD will be discharged upon the Bidders signing the contract and furnishing the performance security. The EMD deposited in the form of DD of the successful Bidder can be adjusted towards the security deposit payable.
9. Bidder(s) should mention the DGS & D registration, if registered, and attach photocopy of DGS & D registration certificate Photocopy of Income tax & sales tax clearance certificate should be enclosed.
10. For Imported Goods, Indian Agency Commission must be declared in financial bid.
11. The Bidder's shall have to submit the following documents (Certified by Notary) in technical bid: -
- a. User List (List of Govt. / Semi Govt., Reputed Pvt. Hospital) where quoted model of the items has been supplied and installed.
 - b. 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.
 - c. Prerequisite (if any) for installation of the Machine if any to be provided by the Institute.
 - d. 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.

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

Installation & site plan:-

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

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

12. After Sales Service Conditions:

- a. The Institute is in the pursuit of ensuring excellent after sales service for every user in respect of the equipments 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 equipments 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 equipments 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.

- 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 equipments 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 equipments to enter into CMC with the Tender Inviting Authority, at the end of the Comprehensive Warranty Period, if the Institute, as the case may be, desires so, shall lead to forfeiture of performance security and may also result in the blacklisting/debarring of the Bidder.
- The successful Bidder shall also indicate the rates for the CMC in price bid form and such rates are binding on the successful tenders after the expiration of the warranty period. The yearly rates for CMC shall remain the one and the same as quoted in the price bid form for the extended years.

- Cost of CMC (excluding taxes, if any) will be considered for Ranking/Evaluation purpose.
- The payment of the agreed CMC charges will be made as per frequency for payment after satisfactory completion of said period, on receipt of service report/ break down report from the user.
- The Bidder shall also have to submit whether periodic replacement of consumable items are required for proper functioning of their quoted machine/Equipment? If yes they should submit the list of such consumables along with price list and frequency of replacement per year if the same is not included in quoted Comprehensive Annual Maintenance Contract charges per year.

13. Time Limits prescribed

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

14. Firm have to provide a minimum **UPTIME GUARANTEE** of 95% (95% of 365 Days) per year during the warranty period as well as during the Comprehensive Annual Maintenance Contract.
15. **While calculating the total unit price of the item / system to be procured, expenditure to be incurred in maintenance of the quoted item / system including all spare parts for a total period of seven years after expiry of the warranty period of three years shall also be taken into consideration. Accordingly, it is mandatory for the bidders to submit the rate for Comprehensive Annual Maintenance Contract (with spares) for a minimum period of seven years after the expiry of warranty period of three years.**
16. Supplier will submit undertaking for ensuring uninterrupted supply of spares during the total life span of the equipments.
17. Indian agency commission and Installation charge if any will be paid in Indian rupees after successful installation and demonstration of the equipments.
18. Principal's Invoice of the quoted items must be submitted with the quotations.
19. Proof of the official Indian agent certificate of the firm must be attached. (Notary Certified Photocopy)
20. In order to fully and optimally utilize the equipment, training to Para Medical Staffs and Doctors should be provided. In continuation to this training, separate maintenance training for the machine and the sub systems should also be given to the "Equipment Maintenance Engineer" and "Equipment Maintenance Technicians". All the financial commitments in this regard shall be met by the bidder(s).

21. Bidder(s) have to submit an affidavit to the effect that they have not supplied the offered item(s) to any Govt., semi Govt. / Pvt. Organization, Institution, Nursing Home etc. at the price lower than the price offered to I.G.I.M.S. – Patna.
22. All the claims regarding meeting the specifications shall be duly supported by appropriate, latest technical catalogues/brochures from the manufacturer. Simply stating that the equipment(s) meets the specifications is not sufficient and any such quotations will be summarily rejected. Computer printed documents or Photostat copy or laser printouts will not be accepted as technical catalogues / brochures.
23. Bidder might be required to demonstrate the system at the discretion of the institute.
24. **Notification of Award/Letter of Intent (LOI)**
 - a. Before expiry of the tender validity period, the Institute will notify the successful Bidder(s) in writing, by registered / speed post or by fax or by email (to be confirmed by registered / speed post immediately afterwards) that its tender for equipment(s), which have been selected by the Institute, has been accepted, also briefly indicating there in the essential details like description, specification and quantity of the goods & services and corresponding prices accepted. This notification is undertaken by issuing a Letter of Intent (LOI) by the Institute.
 - b. The successful bidder, upon receipt of the LOI, shall furnish the required performance security and submit an agreement in the prescribed format within ten days, failing which the EMD will forfeited and the award will be cancelled.
 - c. The Notification of Award shall constitute the conclusion of the Contract.
25. **Signing of Contract**
The successful bidder shall execute an agreement for ensuring satisfactory supply, installation, commissioning and the after sales service/support during the warranty period and during the Comprehensive Annual Maintenance Contract.
27. The Director reserves the right to accept or reject any or all tenders without assigning reasons.
28. The Director reserves the right to modify, add or delete any terms & conditions of the contract as and when required.
29. **Amendment of tender documents:**
 - a. At any time prior to the dead line for submission of Tender, the Institute may, for any reason, modify the tender document by amendment.
 - b. The amendment shall be notified and uploaded on the institute website www.igims.org only and such amendments shall be binding on them thereafter.
 - c. The Institute shall not be responsible for failure to inform the prospective bidders. Purchasers of tender documents are requested to browse the website of the Institute for information/general notices/amendments to tender document etc on a day to day basis till the tender is concluded.
30. The Dispute, if any, will be subject to Jurisdiction at Patna (Bihar).

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

CONDITIONS OF THE CONTRACT

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

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

02. Demurrage, Taxes & Octroi:-

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

03. Warranty Period:

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

05. Performance Security

- a. There will be a performance security deposit amounting to 10 % of the total value of the equipment excluding taxes, which shall be submitted by the successful bidder within 10 days from the date of issuance of “Letter of Intent”.
- b. The contract duly signed and returned to the Institute shall be accompanied by a demand Draft or Bank Guarantee in the prescribed format.
- c. Upon receipt of such contract and the performance security, the Institute shall issue the Supply Orders containing the terms and conditions for the execution of the order.
- d. Failure of the successful bidder in providing performance security as mentioned above and / or in returning contract copy duly signed in time shall make the bidder liable for forfeiture of its EMD.
- e. The Performance security shall be denominated in Indian Rupees or in the currency of the contract as detailed below:
 - i. It shall be in any one of the forms namely Account Payee Demand Draft or Bank Guarantee issued by a Scheduled bank in India, in the prescribed form as provided in this document endorsed in favour of the Institute.
 - ii. Institute will release the Performance Security without any interest to the successful bidder on completion of the successful bidder’s all contractual obligations including the warranty obligations & after receipt of certificates confirming that all the contractual obligations have been successfully complied with.

06. Delivery period/Liquidated Damage: -

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

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

07. Payment: -

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

- a. In case, the equipment is purchased in Indian Currency then the payment will be made as per following scheduled.

- b. 90% payment will be released against delivery and successful installation of the equipment & balance 10% will be released on submission of 10 % Bank Guarantee of the total cost of ordered value. This Bank Guarantee will be released after expiry of guarantee period.
- c. L. C. will be opened only after receipt of the 20% bank Guarantee of the total cost of equipment (with a minimum validity to cover up the warranty / guarantee period), confirmation letter of all our terms and condition, submission of agency certificate in favour of Indian agent who have submitted and quoted the price, name of the Bankers abroad; intimation about country of origin and 10 copies of Performa invoice of the ordered item. Indian Agency commission will be paid in Indian currency only to Indian agent, if any. No extra charges will be paid for installation/demonstration and training to personnel.

08. **Validity of Price:-**

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

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

10. **Packing & Marking:-**

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

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

12. **Insurance: -**

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

13. **Installation & site plan:**

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

Specify the following points for installation of the System: -

- a. Total power consumption along with break up of main System and Accessories.
- b. Whether the System needs uninterrupted power supply.
- c. Maximum tolerated transfer time in case of interruption of power supply.
- d. Whether the System needs any humidity control device.

- e. Whether the System needs any separate power line/isolation Transformer.
 - f. Does the System need the electrical shielding?
 - g. Whether Air Conditioner is required for the System.
 - h. Does it require special civil works for installation?
14. The bidder should also quote for supply of “Un-Interrupted Power Supply” (UPS) with a battery back up of at least 30 minutes, “Constant Voltage Transformer (CVT)” of reputed manufacturer of required capacity along with Spike Suppressor or “Servo Voltage Stabilizer” as per requirement of the System. Bidder may quote the prices for all the above items (UPS/CVT/SERVO VOLTAGE STABILIZER) and the decision will be taken during technical evaluation of the item whether UPS is suitable or CVT / Servo Voltage Stabilizer will serve the purpose.
- 15. Responsibility:-**
The principal as well as its agent will be severally and jointly responsible for ensuring the minimum life span of 10 years for the equipment. Both the said principal abroad and his Indian agent will have the full responsibility for the proper functioning of the equipment/instruments within the 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/performance security,
 - c. termination of the contract,
 - d. Blacklisting/debarring of the bidder.
- 20. Termination of Contract**
- a. Termination for default:- The Institute, without prejudice to any other contractual rights and remedies available to it (the Institute), may, by written notice of default sent to the successful bidder, terminate the contract in whole or in part, if the successful Bidder fails to deliver any or all of the goods or fails to perform any other contractual obligation(s) within the time period specified in the contract, or within any extension thereof granted by the Institute.
 - b. In the event of the Institute terminates the contract in whole or in part, the Institute may procure goods and/or services similar to those cancelled,

with such terms and conditions and in such manner as it deems fit and the successful bidder shall be liable to the Institute for the extra expenditure, if any, incurred by the Institute for arranging such procurement.

- c. Unless otherwise instructed by the Institute, the successful bidder shall continue to perform the contract to the extent not terminated.
- d. Termination for insolvency: If the successful bidder becomes bankrupt or otherwise insolvent, the Institute reserves the right to terminate the contract at any time, by serving written notice to the successful bidder without any compensation, whatsoever, to the successful Bidder, subject to further condition that such termination will not prejudice or affect the rights and remedies which have accrued and / or will accrue thereafter to the Institute.
- e. Termination for convenience: - The Institute reserves the right to terminate the contract, in whole or in part for its (Institute) convenience, by serving written notice on the successful bidder at any time during the currency of the contract. The notice shall specify that the termination is for the convenience of the Institute. The notice shall also indicate inter alia, the extent to which the successful bidder's performance under the contract is terminated, and the date with effect from which such termination will become effective.

21. **Fall Clause:**

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

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

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

**Director,
IGIMS - Patna**

CHAPTER:

SCHEDULE OF THE REQUIREMENT

SI No	Name of the Department	Name of the equipment
Group	Name of Department	Name of Machine Equipments
A		As mentioned in the NIT

ANNEXURES
Annexure - I (a)

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

1	2	3	4	5							6
				Price per unit (Rs.)							
Scheduled	Brief description of goods Make: Model:	Country 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.	Packing and forwarding charge	Inland transportation , insurance for a period including 3 months delivery, loading/unloading and incidental cost till consignee site.	Incidental services (including installation and commissioning, supervision, demonstration and training) at the consignee site.	Unit price (at consignee site basis(g)	Total unit price (At Consignee Site) Basis Rs. 4x5(g)

Total quoted price in Rs.

In Words:

Note:

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

Place:

Name:

Date:

Business Address:-

Signature of Bidder;-

Seal of the Bidder;-

Annexure: I (b)

PRICE SCHEDULED FOR GOODS TO BE IMPORTED FROM ABROAD

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

To be paid in Indian Currency (Rs) :
 Total Tender Price in Foreign Currency:.....
 In Words;-.....

Note:-

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.
3. The Bidder will be fully responsible for the safe arrival of the goods at the named port of entry in goods condition as per terms of CIP as per INCOTERMS, if applicable

Indian Agent;-
 Indian agency commission: % of FOB

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

Place;-
 Date

Annexure - II
COMPREHINSIVE ANNUAL MAINTENANCE CONTRACT PRICES SCHEDULE

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

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

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

Seal and Signature of the bidder

ANNEXURE – III

MANUFACTURER'S AUTHORISATION FORM

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

No. _____ Dated: _____

To

The Director

Indira Gandhi Institute of Medical Sciences,

Sheikhpura,

Patna – 800 014 (Bihar, India)

Dear Sir,

Tender No _____ :

Equipment Name _____ :

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

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
byconstitute,appointandauthoriseSri/Smt(name and address) who is presently
employed with us and holding the position of as our attorney, to act and sign on
my/our behalf to participate in the tender no..... for (Equipment
name).

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

Dated this the ___ day of 201_ For _____

(Name, Designation and Address)

Accepted

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

Date : _____

Group- A- Regional Cancer Centre)

Specifications of Latest High Dose Rate remote controlled Brachytherapy System

The Brachytherapy system should integrate all aspects of a complete high dose rate (HDR) Brachytherapy cycle for treatment purpose; networking to the computerized treatment planning system for transfer of images and related details; a dedicated computerized treatment planning system; two-way networking between the TPS and the HDR Brachytherapy unit to transfer the planned data for executing the treatment. Brachytherapy unit should be capable of doing Intracavitary, Intraluminal, and Interstitial Brachytherapy treatment . The unit should have an in built safe for sources in accordance with the regulations of the International standard.

Treatment Unit - HDR

1. Ergonomic Treatment unit should be on wheels for easy mobility within the room.
2. Separate stepper motors to control the dummy check cable and Co 60 Source cable.
3. A safe to contain the Cobalt Source which complies with International safety regulations.
4. Treatment unit should have a (built-in) integrated radiation detector.
5. Multichannel indexer with a minimum of 20 PHYSICAL channels or more having an automatic / optical verification of channel number and applicator connection.
6. Equipment should have additional battery powered DC motor source retraction system as back up for source return security.
7. The source must be retractable in the event of an emergency / power failure by an independent DC motor or manual source retraction through.
8. Battery backup and a detailed circuit for checking the battery condition.
9. Equipment should have integrated radiation detector to confirm source return.

Control Unit

1. Treatment Communication Console on a desktop PC 22 inch TFT/LCD/LED display.

Control Console SHOULD have Touch screen panel .

2. Source position accuracy check possible with a source position check ruler and digital camera.
3. Source position adjustable by user (+/- 1 mm). Using the source alignment, you can achieve a dwell position.
4. All required QA and Dosimetry items like well type chamber, electrometer along with 20 meter extension cable, gamma Zone monitor, reconstruction jig, source position check ruler with Survey meter etc must be supplied by supplier as per radiation safety guide lines.
5. Control unit should be of user friendly console and a graphical user interface and should contain an extensive reporting facility.
6. Control Unit software should run on Windows application.
7. Control Unit should have a self-testing feature including battery, indexer/RAM.
8. Control unit must allow storage of multiple standards and keep track of patients' fractionated treatment.
9. Equipment should have access must be limited to authorised users with Password protection.
10. The treatment times must be automatically corrected for the decay of the Cobalt source.
11. Equipment should have facility to Import treatment planning parameters in DICOM format from Brachytherapy planning systems via network, CD/DVD, or USB storage.
12. Treatment length must cover 40cm or more with a corresponding 1mm step source size with accuracy of +/- 0.5 mm or better.
13. There should at least be 350 dwell positions for the source in each channel.
14. Dwell times for each source step to be from 0.1 to 999.9 secs.
15. Display Window should show step position and corresponding dwell time to 0.1 sec.
16. Display of Total reference air Kerma and dose.

17. The control unit should contain inbuilt protection circuit to prevent treatment without proper applicator connection and proper indexer locking.

18. Online extensive display of status codes with an indication of the action required.

19. Large patient database should be provided with a backup option to an external storage device. Control unit should contain a built-in log book and all events should be recorded.

TREATMENT PLANNING SYSTEM

The equipment should have a complete 3-D Brachytherapy 3 Planning system based on state of the art hardware independent of the equipment console and with the latest user friendly operating system having the capability of 3D inverse planning for image guided Brachytherapy.

The Planning System should be dedicated, in-house product of the HDR equipment manufacturer specifically developed to integrate with the HDR equipment.

It should support all brachytherapy treatment modalities capable for HDR stepping source.

It should be DICOM 3.0 and DICOM-RT compliant with import and export and print facility.

It should be possible to input CT images through network or CD and it should support multiple localization algorithms including CT & MRI based reconstruction. It should be possible to do 3- D multi-planar, volumetric catheter reconstruction. It must have different types of Dose Volume Histograms. The software should be FDA approved and must follow international recommendations like ICRU-38, TG-43 & ICRU-85.

High end Graphics workstation, consisting of minimum of

- Intel Core i5 processor
- 4 GB RAM
- 1 TB hard disk
- DVD-RW drive, internal
- 4 x USB ports, 1 x serial

- 2/3 button wheel mouse and WIN keyboard
- Windows 7 professional and Antivirus
- 22" TFT/LCD/LED screen – Flat panel display
- The hardware should be upgradable

Brachytherapy software must be provided and should support all of the Brachytherapy treatment modalities including intracavitary, interstitial, intraluminal and surface mould techniques.

1. All the reconstruction technique like, Orthogonal, Semi-orthogonal with reconstruction box, Variable angle, Isocentric must be available, CT Image based reconstruction, Dose Calculation based on TG43, Automatic placement of Basal Dose Points for Paris Technique, Automatic shielding for Applicator
2. Advanced optimization using dose points like geometry based, full or polynomial optimization for irregular, regular volume implants should be available in order to give dose conformity on implant volume and dose points.
3. Optimization on dose points on target should be available
4. Fast and accurate dose calculation considering radial dose function, anisotropy function and geometric function should be there.
5. Rapid reconstruction of catheter using tracking algorithm and indication of corresponding lines on the images should be present.
6. For outpatient treatments, extremely accurate and dwell time optimization and dose calculation must be available.
7. A standard library of treatment must be present for easy retrieval for protocol patients
8. Wide range of dose volume histogram methods, Point dose option, Different planes view must be available.
9. Inverse Planning of Brachytherapy using volume optimization should be included in the offer.

NETWORKING

Networking with the treatment machine for treatment execution should be possible.

Networking with CT, MRI for image acquisition should subsist possible.

Equipment should have capability to communicate any oncology Information system.

Radiation Source and Transfer Mechanism:

- The source must be a single 2 Ci Strength Cobalt source with active length of less than 4.5mm.

1. The source cable connection must be tested to withstand more -than 1,00,000 transfers per source for clinical use and should be tested and certified for use in curved applicators. The source transfer guarantee must be high to ensure optimal usage of each individual source.

2. The offer must include supply of 2 (TWO) Nos. Co-60 Sources, to be used for first ten years with the offered system

3. The source cable must be able to negotiate treatment curvature of 1cm to 1.5cm radius

4. The source cable must be a multistrand of atleast 49 strands and a dia of <0.9mm.

5. The source cable should move forward with an accuracy of + 0.5mm and must be controlled by stepper motors.

6. The source drive out length from indexer should at least be 1300 mm to reach farther sites of treatment.

7. The source transfer guarantee must be enhanced in such a way that each source must be utilized for an extended period of time

8. Surface contamination test to ISO 9978

9. Leak testing meets requirements of ISO 2919

Insurance and Freight cost of the Sources for both onward and return of used source. The Clearance and transport of the sources and the Re-export / disposal of the decayed sources must also be included in the offer.

Following applicator should be offered along with system

1. Fletcher Williamson type 2 sets
2. CT/ MR Fletcher type- two sets
3. Vaginal applicator set- 2 set.
4. Esophagus applicator – 1 set
5. Flexible Implants complete set with 500 Numbers of Flexible tubes
6. Rigid Needle Implants complete set with at least 90 Numbers of needles of minimum three different lengths.
7. Breast template with at least triple plane or more – 1 Set
8. Template for prostate and perineal implants – 1 Set
9. Bronchus applicator set -1 no.

Treatment tubes to connect all Applicators should be of constant length to prevent stretching and slippage and also should be quick fit safety connections.

Both rigid and flexible type of implants along with necessary X-ray Catheters, transfer tube etc., to be provided.

Should be possible to cut the flexible implant tubes to the appropriate end length's, which would ensure patient comfort.

**Specification for High Dose Rate Brachytherapy
remote after loading system .**

GENERAL SPECIFICATIONS :

A high dose rate remote after loading Brach therapy system capable of Intracavitary, Intraluminal, intra – operative, surface mould radiation therapy.

The HDR system should be microprocessor based with PC control.

The HDR system must be from a well Established company with a Documented History of Reliability.

The HDR system manufactures should have ISO / FDA / CE / Type approval from AERB.

The HDR system must have a “check cable” that automatically checks the operation of the complete system prior to treatment, The check cable must also be possible to use as a “Dummy” source to allow simulation of particular source locations.

The system needs to be flexible for use in thinner implants and the source must be certified for maximum source transfers.

The system should be in use in recognized centers in India / abroad. The tender offer must be accompanied with letters of reference with performance certificate from Minimum 5 nos.existing users should be enclosed.

Any other specific advantage of the equipment may be mentioned.

DETAILED SPECIFICATIONS

TREATMENT UNIT – HDR

Treatment unit should be on wheels for easy mobility within the room.

Treatment unit should be have a telescopic head to adjust for various heights/

Separate stepper motors to control the dummy check cable and Radiation Source cable

A safe to contain the Radiation Source which complies with international safety regulations.

Treatment unit should have a (built in) integrated radiation detector (GM Tube type)

Multichannel indexer with a minimum of 20 channels having an automatic / optical verification of channel number and applicator connection should be offered.

The source must be retractable in the event of an emergency / power failure by following methods:

- By an independent DC motor
- Manual source retraction through hand crank.

Battery back up and a detailed circuit for checking the battery condition

Mention the safety features and also measure to be taken during source struck.

CONTROL UNIT :

Stand alone and independent PC based control Unit with colour monitor, keyboard, moue, printer (for hardcopy) built in audio card, network card and a back –up media.

Control unit should have user friendly console and a graphical user interface and should contain an extensive reporting facility.

Control Unit Software Should Run On Windows Application.

Control Unit should have a self testing including battery, indexer / RAM.

Control unit must allow storage of multiple standards and keep track of patients for fractionated treatment.

Access must be limited to authorized users with password protection.

The treatment times must be automatically corrected for the decay of the source.

Wide treatment length should be covered with adjustable min. step source size.

Display of Total reference Air Kerma and dose.

The control Unit should contain:

- An inbuilt protection circuit to prevent treatment without proper applicator connection and proper indexer locking
- Online extensive display of status codes with an indication of the action required.
- Large patient database should be provided with a backup option to an external storage device.
- Control unit should contain an built – in log book and all events should be recorded

TREATMENT PLANNING SYSTEM :

The HDR Brachytherapy system should have a separate 3D Treatment planning system compatible to it so that the planning can be transferred directly through network for execution to the independent HDR machine control computer linked to it.

The Radiotherapy treatment planning system should be fully computerized, integrated system having hardware and software to perform all kinds of Brachytherapy planning calculations, isodose plotting and display of patient files, display and other related programs.

HARDWARE :

WORK STATION :

The treatment planning system should have a separate computer (in addition to the control of the HDR Brachytherapy machine) and should have a most modern graphics workstation working at 2GHz speed or higher speed with CPU, fast processor with min 1GB of Ram memory and it should have a Hard disk with large storing capacity of 80 Giga Bytes of more of memory and external mass storage unit of 12 Giga bytes of digital tape / CD – R&W with keyboard and must. The hardware should be upgradeable.

Film scanner :

The system should have a very high resolution and high speed compatible scanner for transferring the information from X ray, patient contour etc into the system for image based planning.

Display / terminal :

The system should have at least two display 17” (TFT / LCD screen with high resolution for good Visualization) for display and contouring in different terminals.

PRINTER / PLOTTER :

The system should have a fast multi – colour plotter to print out various datas and Isodose curves.

PORTS

The system should have the 1 parallel, 2 serial and Ethernet port for networking and SCSI ports to connect SCSI devices like scanner, digital tape drive and floppy drive

OPERATING SYSTEM :

The system should have a latest enhanced operating system which offers multitasking, multiuser facilities.

SOFTWARE :

The system must provide software to perform the following functions :

BRACHYTHERAPY :

3D TPS for Brachytherapy should have software for advanced DVH, inverse planning and different methods of optimization of the treatment plan for higher channels. The offered system should have facility for the DICOM link with C-Arm IITV unit CT/MR, fusion and auto contouring of the organs etc.

The following reconstruction techniques are preferred :

- Orthogonal
- Semi – orthogonal with reconstruction box
- Variable angle
- Isocentric
- CT/MR Image based reconstruction
- 3D Dose Calculation based on TG43 standard protocol
- Image fusion of US/CT/MRI is required.
- US based planning with frame grabbing should be present.

Automatic Dose Point placements

Automatic shielding for Applicator.

Advanced optimization using dose points like geometry based, full or polynomial optimization for irregular, regular large volume implants should be available in order to give dose conformity on implant volume and dose points.

Optimization on dose points on target should be available.

Fast and accurate dose calculation should take into account for tissue absorption and scatter factor, source anisotropy and shielding must be available.

Rapid reconstruction of catheter using Applicator database manager on reconstructed images and indication of corresponding lines on the images should be present.

For outpatient treatment, extremely accurate dwell time optimization and dose calculation must be available.

A standard library of treatment applicator must be present for easy and fast accurate planning. Data base must

be present for easy planning and retrieval for protocol patients.

Wide range of Dose Volume Histogram methods, Point dose option and different planes view must be available.

Complete DVH and plan evaluation of the 3D brachytherapy planning should be possible.

APPROVALS

The planning system software should have necessary international approval.

FUTURE UPGRADES:

- Whatever the up gradation /newer developments made in unit, applicators, templates or planning software that happen during the next two years from the date of Installation should be provided free of cost by the company.

WARRANTY

Quote for 5 years of Comprehensive annual maintenance CMC and AMC contract following 5 Years of warranty period. Recommend the list of spares for smooth running of quoted unit for 5 years (To be quoted separately) The spares should be available for minimum of 10 Years

SERVICE FACILITIES :

Factory trained Service Engineers / Application specialists should be available in India to look after the installation and maintenance of the systems without patient treatment interruption.

RADIATION SOURCE AND TRANSFER MECHANISM:

The system should have Co-60 source. Specify the max, source activity & no, of sources that can be accommodated.

Mention the source half-life and clinical working life of Co-60 source.

Mention the diameter of source and its characteristics of clinical usage, transfer guarantee and usability.

The source cable connection must be tested to withstand maximum no of transfers per source, The source transfer guarantee must be high to ensure optimal usage of each individual source (**higher is preferred**).

The source cable must be a multi strand type and must be able to negotiate treatment curvature of 1 cm radius.

The source cable should have a safe movement (Forward / backward) with an accuracy of (± 1 mm and must be controlled by stepper motors.

The source drive out length from indexer should be mentioned along with step size (smaller is preferred) and treatment length (higher is preferred). .

The source transfer guarantee must be enhanced in such a way that each source – must be utilized for an extended period of time (higher is preferred).

Two nos. Co 60 source should be offered including all the charges , disposal and import charges for use at hospital for a period of min 10 years.

The source should be dispatched as and when required by the hospital and all paper work relating to the source import has to be provided to the hospital for necessary approval.

Specify that Insurance, Freight and Cost of the Sources for both onward and return of used source should be borne by the company, The Clearance and transport of the source and the re-export / disposal of the decayed sources for a period of 10 Years must also be included in the offer with Guarantee letter from the company to take back the decayed source should be included.

APPLICATORS:

- CT&MR Cervix for Intracavitary fletcher Type – 2 set
- CT&MR compatible Ring Applicators (Titanium based -1 set each)
- Vaginal Cylinders - 2 Set (CT&MR compatible)
- Esophagus(2 set each)
- Bronchial Applicator with dummies & X-Ray marker set (1 No)
- Head & Neck (1 set each)
- Nasopharynx (1 set each)
- Flexible Implant tubes and rigid steel needle of each 50 nos of different sizes should be quoted.

All Standard Templates

- Breast (1 set each)
- Prostate (1 set each)
- Gyne (1 set each)

All Applicators must be supplied with transfer tube

Treatments Tube to connect all Applicators and channels quoted should be of constant

Both rigid and flexible type of implants along with necessary X-Ray Catheters, transfer tube etc, to be provided should be possible to cut the flexible implant tubes.

- X-Ray marker set for all application should be quoted.

QUALITY ASSURANCE TOOLS:

- Necessary Source calibration devices (Well chamber/jig/Electrometer/Phantom)
- Survey Meter
- Gamma Zone Monitor
- UPS System for 0.5hrs back up - 2 nos.
- Last Man Out Switch
- Two way communication System
- CCTV Monitoring System
- Source position check device
- Specify any other necessary quality assurance tools & supply
- Brachytherapy Patient Table with height adjustment features and leg rest features should be offered

Training To Staff

Necessary training for optimal usage of equipment should be provided at factory site/existing setup at abroad for one Radiation Oncologist and one medical Physicist.

Should be CE/ FDA and ISO approved product wherever applicable

Electrical safety conforms to standards for standards for safety IEC/60601/IS-13450

Manufacturer should have ISO certifications for Quality standards, Source certificate, Performance and source transfer guarantee certificate should be enclosed.

User manual in English ,Service manual in English should be included along with the system.

List of Important spare parts and consumable and accessories with their part number and costing fixed for a period of 5 years should be quoted.

List of equipments available to providing calibration and routine maintenance support as per manufacturer Documentation in Service/Technical manual.

Compliance report to be submitted in a tabulated and point wise manner clearly mentioning the page/Para Number/manual will not be considered.

Group-B-Dentistry:-

DENTAL OPG MACHINE UNIT WITH CEPHALOMETRIC FACILITIES AND DIGITAL FILM PROCESSOR

EQUIPMENT	SPECIFICATIONS	Qty.	
<p>DENTAL OPG MACHINE UNIT WITH CEPHALOMETRIC FACILITIES AND DIGITAL FILM PROCESSOR</p>	<ul style="list-style-type: none"> • The machine mode must be type approved by AERB (Atomic Energy Regulatory Board) • Corrosion free construction • Should have laser beam / bright beam for accurate alignments of reference anatomical Land marks. • Should have provisions for programming depending on the patient male, female and Child. • Should have high frequency X-ray generator machine. • Should have constant magnification for the whole length and width of the image. • Central touch screen console for easy operation of the equipment preferable. • Should have provision for sitting and standing imaging positioning • Voltage 60-80 kv adjustable • Line voltage 230 V 50Hz (voltage stabilizer of required capacity should be provided for OPG machine & digital film processor) • Anode current up to 12 mA or more. • X-ray tube should confirm to the latest radiation safety standards. • Should possess Automatic soft tissue filtration. • Should have functional and easy to use head positioned which guarantees accurate Positioning for all Cephalometric projections. • The ear posts and nasal positioners of durable quality, hygienic and fully transparent to Radiation should be provided. • Automatic collimation for Cephalostat or OPG • Aperture selection should be automatic. • Should include, (lateral Ceph, frontal Ceph, all lateral and multi-angle TMJ views etc.) • Exposure time should be variable from 0.2 to 5 sec. • It should have panoramic X-ray imaging. • Should have movement technology, multi –motor with motorized carriage Movement. 	<p><u>1</u></p>	

	<ul style="list-style-type: none"> • Should have up/down movement. • Should have panoramic examination programs for high resolution panoramic imaging. • Exposure time should vary according to the anatomical landmarks • X-ray system generator should have high frequency, constant potential, microprocessor Controlled tube voltage-40-80 KV, tube current 2-10mA, or more. • X-ray tube: <ul style="list-style-type: none"> • It should have focal spot: 0.5 mm or less • It should have total filtration 2.5 mm AL eq. • Standard accessories: <ul style="list-style-type: none"> • Chin support. • Temple clamps. • X-ray exposure switch with extensible cable. • Hand grips. • Disposable bags • Bite blocks with supporters. • Accessory trays. • Electrical requirements: <ul style="list-style-type: none"> • Power supply voltage AC 230 V \pm 10% • Frequency 50Hz • Power low power rating <ul style="list-style-type: none"> • The unit must be supported with a digital film processor • Lead apron, thyroid collar and Gonadal shield and Dosimetry badges must be provided with complete unit. • Make: IMPORTED PREFERRED EXCEPT CHINESE MAKE <ul style="list-style-type: none"> ▪ Equipment with latest specifications will be Preferred ▪ 5 years warranty is must ▪ Must comply with rules and regulations of national & international radiation safety. ▪ Cost of entire unit should include the cost of transportation, installation with required size lead screen fixation. ▪ (inclusive of all taxes) <p>The equipment Should have a US FDA/ European CE approved & AERB compliant.</p>		
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Group-C-Anatomy

a;PROJECTION MICROSCOPE:

- Infinity optical system, Trinocular Microscope with following. Head: Trinocular Infinity optical system with Siedentopf 30 degree inclined, IPD – 47 -76 MM. Adjustment for diopter in left eye.
- **EYEPIECE:** EXTRA WIDE FIELD 10X/22MM. Infinity optical system.
- **NOSEPIECE:** Quintuple reversed, revolving nosepiece on ball bearing.
- **OBJECTIVES:** Infinity Optical system Plan Pi- 4x/0.10 10x/0.25 20x/0.40 S40x/0.65 S60x/0.85 S100x/1.25
- **Phase Objective:** Infinity Optical system 10X/0.25, 20x/0.40, S40x/0.65, Should be anti-fungus treated and anti-reflection coated for maximum light throughput.
- **STAGE;** 216mmx150mm rack less stage equipped with integrated 79x52mm mechanical stage.
- **CONDENSER:** Height-adjustable Abbe N.A. 1.25 condenser with iris diaphragm and opening for optional phase contrast sliders. Height-adjustable Zernike N.A. 1.25 phase contrast disc condenser.
- **FOCUS ADJUSTMENT:** Coaxial coarse and fine adjustments, 2µm precision, 20mm travel range Rack-stop for protection of slides and objectives. Friction adjustment.
- **ILLUMINATION:** Diascopic intensity adjustable with 3 W illumination Internal 85V – 240 V power supply. In-built sensor to automatically switch off should be available to save energy.
- **IMAGE PROJECTION:** Image projection system should consist of Digital High definition camera 1080P with USB and HDMI port, LED HDMI TV, Image grabbing and analysis software like image Sticking, Stacking, measurement, counting, segmentation, layering, editing, Brightness, contrast adjustment in Live and saved images. Suitable computer.

B;PENTA HEAD MICROSCOPE:

- High quality routine observation microscope Infinity optical system with color corrected Trinocular head with 10x/22mm eyepiece, 30° inclined tubes with 4 extra binocular heads with 30° inclined tubes mounted on pillar, 10x/20mm eyepieces, Equipped with joystick for green Laser pointer, Interpupillary distances 50 -75 mm Diopter adjustment on both eyepieces, Reversed quintuple revolving nosepiece on ball-bearings, Infinity Optical system Plan – Achromatic 4x, 10x, S40, 60x, S100x oil immersion objectives, All optical parts should be anti- fungus treated, 150x140 mm stage with 76x50 mm mechanical stage. In height adjustable Abbe condenser N.A. 1.25 with iris diaphragm and filter holder, Condenser with slot for optional slider with dark field of phase contrast, Diascopic 3W/5W illumination with adjustable intensity with Internal power supply 85-240 V (CE), Delivered with power cord and dust cover. Digital CMOS camera with 18Mp dedicated for microscope only with imaging software having image grabbing, capture live, along with software featured with Image stacking, stitching, Time-lapse, Video overlay, water marking measurement, Layering, Image editing functions, Scale bar, save options like JPEG, TIFF, TIF PNG etc, suitable computer and monitor and 0.5x optical adapter. In should be upgradable to Phase contrast, DIC, Fluorescence, Polarizing microscope.
-

Group-D; Obst.&Gyne.

CTG

(Cardiotocomachine)

1. Specifications for Antepartum and intrapartum Foetal Monitor (Cardiotocomachine)

- Cardiotoco machine must be a state of the art system manufactured by a reputed brand of manufacturer adhering to the following specifications.
- Cardiotoco machine should comprise of complete unit with printer and all the accessories
- **Monitor: it should be provided with**
 - a. Battery and main operation facility
 - b. Should have inbuilt LCD Screen/LCD TV monitor with facilities to display on screen fetal heart tracings and toco tracings
 - c. Should be compact, lightweight and should have inbuilt carrying handle and waterproof transducers
 - d. The unit should have

Fetal Heart Rate range 50-240bpm

External Toco range 0-127 relative units

Should have NST timer for antepartum applications

- e. Highly sensitive ultrasound transducer which should be 1.5 MHz for less signal attenuation and good signal acquisition Ultrasound transducer should be a waterproof unit. Should have facility to connect any transducer in any socket for easy use. Preferably facility to switch between transducers when more than one transducer used.
- f. Audible alert indication of fetal bradycardia and tachycardia
- g. Ability to give an accurate and continuous trace and should be able to detect sudden beat changes upto 25bpm
- h. External tocotransducer which should be a sealed waterproof unit with guard ring to reduce maternal respiration artefact
- i. Patient event marker
- j. Capability of automatic fetal detector
- k. Digital numeric and text display along with audio signal of fetal movement Should have inbuilt keyboard entry screen for patient data entry, name etc. minimum 5 hour memory of traces with fast printing.
- l. Should provide following accessories-Transducer belts, buckles, Main cables, interconnecting cables, ultrasound gel cables.
- m. Inbuilt high resolution thermal/Laser printer with easily available cost effective paper
- n. Should be either provided with trolley with wheels with locking facility for storage of transducers or the unit must have wall mounting and a protective cover with cabinet.
- o. Should have facility to monitor twins at a time. Should be able to display both fetal heart traces clearly
- p. Optional:
 1. Should have facility of connection of central monitor system
 2. Should have facility to record fetal heart rate pattern through fetal ECG
 3. Should have facility for intrauterine pressure monitor

4. Environmental factors:

Shall meet IEC-60601-1-2: 2001 (of Equivalent BIS) General Requirements of safety for Electromagnetic Compatibility or should comply with 89/366/EEC:EMC- directive

5. Power Supply:

6. Power input to be 220-240V AC, 50Hz fitted with Indian plug
7. Should work on 220-240V AC as well as rechargeable batteries. Main adapter to be supplied

Standard Safety and Training

1. Should be FDA,CE,UL or BIS approved product
2. Comprehensive warranty for 2 years and 5 years CMC after warranty including UPS
3. Comprehensive training for staff and support services till familiarity with the system
4. Manufacturer training for staff and support services till familiarity with the system
5. Should have local service facility. The service provide provider should have the necessary equipment's recommended by the manufacturer to carry out preventive maintenance test as per guidelines provide in the service/ maintenance manual.
6. Additional specialty software/hardware if any should be quoted separately as optional

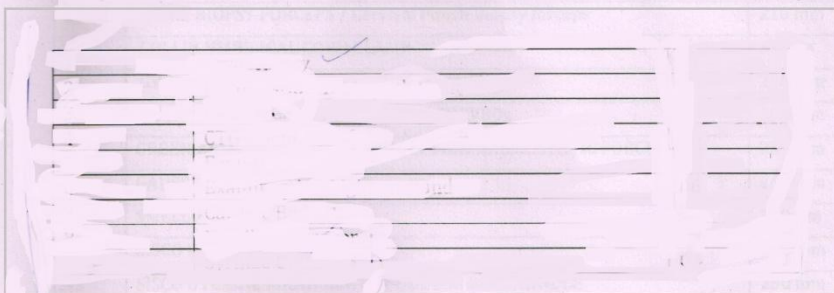
Documentation:

1. The availability of above mentioned features and technical specification must be substantiated with authentic published documents from manufacturer or regulatory bcies.
 2. User/Technical/Maintenance manual to be supplied in English
 3. List of equipment's available for calibration and routine Preventive Maintenance Support as per manufacturer documentation in service/ technical manual
 4. Certificate of calibration and inspection
 5. List of important spare and accessories with their part number and costing
-

(2) Feotal Doppler

(3) Cryocautery

INDIRA GANDHI INSTITUTE OF MEDICAL SCIENCE, PATNA
DEPARTMENT OF OBS & GYNAE



(INSTRUMENTS)

1.	Big Auto clave <i>code</i>	1
2.	Boiler Big 4'x3x'2'	1
3.	Big Size Drum (ss)	6
4.	Medium Size Drum (ss)	6
5.	Small Size Drum (ss)	6
6.	Steel Tray with cover (12"x10")	2
7.	D & C Set	15
8.	Self retaining Abdominal Wall retractor	1
9.	PEB cannula	4
10.	Leush Wilkiinson Cannula Medium Small	4 4
11.	Uterine Sound	10
12.	Bladder Sound	40
13.	Kidney Tray	40
14.	Small katori (Gilli Pot)	40
15.	Stitch removal Scissor	10
16.	Tooth forceps 8"	10
17.	Kochers curve forceps (12" inch)	20
18.	Langenbacks Retactor ultra small	4
19.	Langenbacks retractor medium	4
20.	Zerney Retractor 18-20 cms	4
21.	Curved artery forceps (Spencer wells type) size 6 inch	60
22.	Curved artery forceps (Spencer wells type) size 8 inch	60
23.	Curved artery forceps (Spencer wells type) size 10 inch	20
24.	Curved artery forceps 10 cm (Micro - Mosquito)	60
25.	Right angle artery forceps (Lahey type) Blunt tipped 8-10 inch	4
26.	Mixer forceps 10"	4
27.	Mayo Straight needle holder 15-16 cm (Tungsten carbide tip)	4
28.	Mayo Straight needle holder 18-20 cm (Tungsten carbide tip)	4
29.	Angled fine tip needle holder 20-22 cm (Tungsten carbide tip)	4
30.	Devers retractor 25 mmx 30mm	4
31.	Devers retractor 28 mmx 30mm	4
32.	Intestinal non crushing clamp straight (large size / Adult), 28-30 cms	4
33.	Intestinal non crushing clamp curved (large size / Adult), 28-30 cms	4
34.	Humbey's skin grafting knife handle (Small)	1

35	FAURE BIOPSY FORCEPS / Cervical Punch Biopsy forceps	210 mm	02
36	COLLIN UMBILICAL CORD CLAMP	85 mm	04
37	GWILLINMA HYSTERECTOMY CLAMP CURVED	200 mm	30
38	MAINGOTS HYSTERECTOMY CLAMP CURVEDz	200 mm	30
39	GREEN ARMYTAGE CAESAREAN SECTION HAEMOSTATIC FORCEPS	220 mm	20
40	GAUSS SCALP FLAP FORCEPS	260 mm	01
41	SPELLIE PERFORATOR	270mm	01
42	SISCO LOOP REMOVING HOOK	275 mm	01
43	SISCO UTERINE MANIPULATOR DOUBLE RING HANDLE	250 mm	02
44	YAUNKERS SUCTION TUBE	300 mm	08
45	SIMS UTERINE SCISSORS T/C TIP CURVED	180MM	04
46	THUDICHUM NASAL SPECULUM	16.5x9.0x 74MM	02
47	THUDICHUM NASAL NASAL SPECULUM	19.5x10.5 x 76MM	02
48	SIMS VAGINAL SPECULUM MEDIUM 65XmmX 72X30mm	65X26mm X72X 30mm	10
49	SIMS VAGINAL SPECULUM LARGE 72X34mm X 80 38 mm	72 X 34mm X 80 X 38mm	20
50	SIMS UTERINE DEPRESSOR DOUBLE ENDED TOOTHED 20X25mm/ANNEXURE VAGINAT WALL RETRACTOR	260mm	50
51	SIMS UTERINE CURETTES DOUBLE ENDED SHARP & BLUNT 14 X 9MM	275mm	04
52	NOVAK ENDOMETRIAL BIOPSY CURETTES	240mm	02 02
53	SIMS UTERINE CURTTES FIBRE HANDLE SINGLE ENDED - 17 mm	275mm	02
54	DEAVERS ABDOMINAL RETRACTOR ADULT 38MM	275mm	02
55	BOZEMANN UTERINE DRESSING FORCEPOS WITH LONGITUDINAL GROOVE	250mm	01
56	BABCOCK TRAUMANIL GRASPING FORCEPS ATRUMATIC JAW	200mm	10
57	TEALE UTERINE VULSELLUM FORCEPS 4X5 TEETH	250mm	20
58	DARTIGUES UTERUS HOLDING FORCEPS	255mm	01
59	DOYEN MYOMA SCREW RING HANDLE FOUR SPIRAL	180mm	01
60	DOYERS RETRACTOR	40x60mm	04
61	BONEY CLAMP		01
62	MAYOS SCISSORS CURVED 8"	185 mm	40
63	HALSTED MOSQUITO FORCEPS CURVED 5"	125 mm	100

Micro Instrument

1	ADSON MICRO DISSECTING FORCEPS FINE	125mm	02
2	ADSON DISSECTING FORCEPS TOOTHED	125 mm	02
3	MICRO SCISSORS STRAIGHT ROUND HANDEL	145 mm	02
4	MICRO SCISSORS CURVED ROUND HANDLE	145 mm	02
5	CASTROVIEJO NEEDLE HOLDER T/C TIP WITH CATCH STRAIGHT	180 mm	02

Item Description	Size	Qty
MAYOS SCISSORS CURVED 8"	185 mm	40
HALSTED MOSQUITO FORCEPS CURVED 5"	125 mm	100
MAYO HEGGAR NEEDLE HOLDER	150 mm	20
ADSON MICRO DISSECTING FORCEPS FINE	125mm	02
ADSON DISSECTING FORCEPS TOOTHED	125 mm	02
MICRO SCISSORS STRAIGHT ROUND HANDEL	145 mm	02
MICRO SCISSORS CURVED ROUND HANDLE	145 mm	02
CASTROVIEJO NEEDLE HOLDER T/C TIP WITH CATCH STRAIGHT	180 mm	02

Item Description	Size	Qty
FAURE BIOPSY FORCEPS	210 mm	02
COLLIN UMBILICAL CORD CLAMP	85 mm	04
GWILLINMA HYSTERECTOMY CLAMP CURVED	200 mm	30
MAINGOTS HYSTERECTOMY CLAMP CURVED	200 mm	30
GREEN ARMYTAGE CAESAREAN SECTION HAEMOSTATIC FORCEPS	220 mm	20
GAUSS SCALP FLAP FORCEPS	260 mm	01
SMELLIE PERFORATOR	270mm	01
SISCO LOOP REMOVING HOOK	275 mm	01
SISCO UTERINE MANIPULATOR DOUBLE RING HANDLE	250 mm	02
YAUNKERS SUCTION TUBE	300 mm	08

Item Description	Size	Qty
SIMS UTERINE SCISSORS T/C TIP CURVED	180MM	04
THUDICHUM NASAL SPECULUM	16.5x9.0x74 MM	02
THUDICHUM NASAL NASAL SPECULUM	19.5x10.5x 76MM	02
SIMS VAGINAL SPECULUM MEDIUM 65XmmX 72X30mm	65X26mmX7 2X 30mm	10
SIMS VAGGINAL SPECULAM LARGE 72X34mm X 80 38 mm	72 X 34mm X 80 X 38mm	20
SIMS UTERINE DEPRESSOR DOUBLE ENDED TOOTHED 20X25mm	260mm	50
SIMS UTERINE CURETTES DOUBLE ENDED SHARP & BLUNT 14 X 9MM	275mm	04
NOVAK ENDOMETRIAL BIOPSY CURETTES	240mm	02
SIMS UTERINE CURTTES FIBRE HANDLE SINGLE ENDED	255mm	02
DEAVERS ABDOMINAL RETRACTOR ADULT 38MM	300mm	04
BOZEMANN UTERINE DRESSING FORCEPOS WITH LONGITUDINAL GROOVE	250mm	01
BABCOCK TRAUMANIL GRASPING FORCEPS ATRUMATIC JAW	200mm	10
TEALE UTERINE VULSELLUM FORCEPS 4X5 TEETH	250mm	20
DARTIGUES UTERUS HOLDING FORCEPS	255mm	01
DOYEN MYOMA SCREW RING HANDLE FOUR SPIRAL	180mm	01

Group-E-Pediatric Medicine

Specification of Neonatal Ventilator for NICU.

- The ventilator should be microprocessor controlled designed for neonatal use. With possibility to upgrade with additional features.
- Continues flow, pressure limited, time cycled ventilator design.
- Ventilator modes: should have following modes available in the unit.
 - IMV/IPPU
 - CPAP including non- invasive ventilation.
 - SIMV, SIPPV/Assist- control.
 - High frequency oscillatory ventilation: oscillating diaphragm based system, with active expiration.
 - Volume targeted/guarantee mode of ventilation with ability to deliver and monitor tidal volume as low as 1-2ml (Range 2 ml to 50ml)
 - Pressure support mode of ventilation
 - Apnea back- up ventilation.
- Should have integrated high resolution LCD screen for real-time display of
 - Scalar (pressure, flow and Volume against time) and loop (pressure-volume, volume flow and pressure -flow) pulmonary graphics.
 - Digital display of FiO₂, peak pressure, mean airways pressure, CPAP/PEEP, Expiratory tidal volume, expiratory minute volume, total frequency, spontaneous frequency, lung function monitoring including compliance, resistance, lung distention coefficient, (c₂₀/C), lung time constant, Rate volume ratio etc, Should have built-in logbook for recording events like various alarms.
- Integrated monitoring: Integrated volume and pressure monitoring i.e. monitoring of PEEP P(Max) P (mean) and VT, VT (spont) MV and MV (leak). The volume monitoring should have NTPD to BTPS correction. Monitoring of I : E, frequency and spont. Frequency.
- Settings range:

Trigger	Flow/volume, leak adapted
PIP	8 to 80 cm H ₂ O
PEEP/CPAP	0 to 25 mbar
I;E ratio	1:0 to 1:10
Insp. Time	0.1 to 2 sec
Exp. Time	0.2 to 30 sec
Frequency	Up to 200 BPM
Base Flow (VIVE)	1 to 30 LPM
Synchronization	Patient synchronization with adjustable flow trigger
High Frequency amplitude	1-100%
Integrated blender for oxygen	21% to 100%
- Integrated screen for display of Pressure- Time, Flow-time and Volume- time curves
- Integrated monitoring of Fio₂
- Monitoring of flow: At the Y piece with facility to activate of deactivate it.
- Audiovisual alarms with advisory on – screen message: MV high/low, Apnea, tube obstruction, FiO₂ high / low high PIP, Low PEEP/ CPAP, fail to cycle, gas supply low, power

failure, ventilator inoperative, alarm log book.

- The ventilator should have automatic compensation for leakage and should monitor and display leakages.
- The ventilator should show trends of important parameters viz, C.R, FiO₂, MAP etc for evaluation of patient improvement.
- Ventilator should be supplied with Good quality medical air compressor (CE market) and a heated limb humidified with servo regulation of humidity.
- Scope of supply.
 - Ventilator on trolley with wheels and brake facility
 - Integral medical air compressor
 - Humidifier: Autoclavable humidifier chamber and complete patient circuit (set of 2 patient circuit with each ventilator)
 - Circuit support arm
 - 2 hose set for conventional neonatal ventilation
 - 1 hose set for HF Ventilation
 - Bacterial filters
 - Flow Sensor (5 set)
 - Oxygen Cell
 - Oxygen connecting hose
 - Air Connection hose
 - Battery back- up (at least 30 minutes)
 - Instruction manual
 - Training CD/DVD
- The ventilator should have following options for upgrade (please give prices for each option)
 - communication interface with laptop
 - PC software for archiving and analysis
- The firm must give a warranty of 3 years, rates of CAMC for next 7 years after expiry of the warranty should be given, covering (i) 2 preventive maintenance service per year, (ii) On call technical interventions, spare parts and travel.
- Rates of consumables and spares should be submitted separately.
- The firm must certify the availability of spares and consumables for next 10 years.
- The firm must have a service base in patna with 24 hrs service back up.

The equipment should be US FDA Approved.

SPECIFICATIONS OF Neonatal and Pediatric 5 Para MONITOR

1. It should have Compact design, TFT screen more than 12" configurable with at least 4 wave form in single screen
2. It should have Neonatal and pediatric, adult mode (optional)
3. It should have Inbuilt printer
4. It should have size of numeric and wave form should be adjustable and readable from suitable distance

5. It should Capable to monitor

- Heart rate/ECG
- Respiratory rate
- Saturation (SPO₂)
- Blood pressure NIBP
- Body temperature ,one for transthoracic and one for rectal

6. Heart rate/ ECG

- 5 leads ECG (I, II, III, AVR, AVL, AVT & V)
- Range 20- 300 bpm approx
- Accuracy ± 5 bpm
- ECG amplitude user adjustable
- Facility to detect multi lead arrhythmia and ST segment analysis.

7. Respiratory rate

- It should base on transthoracic impedance mechanism.
- Able to measure 03 to 150 breaths/min

8. Saturation (SPO₂)

- Plethysmographic waveform display.
- Dual wavelength LED pulse oxymetry
- Locked with ECG synchronization
- Range 0-100%
- Should be capable of measuring oxygen saturation even in case of motion artifact (patient motion or movement), low perfusion and intensive ambient light

9. Blood pressure NIBP

- Oscillometric non invasive mechanism.
- Manual, auto and stat modes
- Auto: automatically at 5, 10, 15, 30, 60 minutes.
- SBP, DBP and MAP
- Blood pressure range:
Paediatrics :-Systolic : 20-250 mm Hg
- Diastolic: 0-150 mm Hg
- Neonates: Systolic: 20-150 mm of Hg
- Diastolic : 0-100 mm of Hg

10. User selectable alarm, audio visual alarm with message display should have facility

for:-

- HR High Low
- SPO₂ $\checkmark \checkmark$
- BP $\checkmark \checkmark$ for SBP, DBP, MAP

- Temp √√
- RR √√
- Arrhythmia and ST changes alarm
- Probe failure
- Poor signal
- Power failure
- Alarm silence switch

11. Trends

- Data interval: 20 sec
- Display range: upto 12 hours
- Tabular format: one table for all variables
- Should have facility of tabular trend and graphical for at least 24 hrs. it should have Memory storage at least 12 hours-24 hours

12. Power

- 220/240 V AC
- 50/60 Hz
- Rechargeable internal battery with backup time more than 2 hours

13. Reusable accessories:

- BP Cuff:
 - Neonatal : 2.5cm, 3cm, 4cm, 5cm- 1each
 - Child : 6-9 cm, 12 cms-1each
- SPO₂ probe with extension cable
 - : Universal flexiprobe-2 in number, suitable for neonates, young children as well as older children.
- ECG lead with suitable length cable
- Temp Probe- Rectal, Skin= 2 each
- Clamp for attachment for bed railing
- upgradable for side stream ETCO₂
- Warranty period: 2 years
- Manuals: Operator and Service manuals
- Maintenance: AMC or CMC for 5 years.
- US FDA approved

Transcutaneous Bilirubinometer

1. Should be a POCT (Point-of-care testing) instrument for noninvasive measurement of total serum bilirubin levels for neonates
2. Should have no pain, no trauma, no risk of infection and no hazardous waste
3. Should be able to perform during and after phototherapy
4. Should be able to perform during age (24-42 weeks) and post-natal age (0-20 days)
5. Measuring range should be between 0-30 mg/dl
6. Instrument should have rechargeable battery
7. Measurement per full charge must be not less than 100 tests
8. Should have tungsten bulb as a light source for minimum life of 30,000 measurements
9. Accurate results in standard clinical units regardless of race or gestational age
10. No need to perform separate analysis or refer to conversion tables
11. Should have option to avoid cross infection among neonates during the reading
12. Consumables of Non-Invasive Bilirubin Analyzer

Cranial USG and ECHO System

1. Fully digital onboard system with broadband digital beam former.
2. 12" or more high resolution non-interlaced monitor with tilt and swivel facility.
3. System should have multi channel frequency compounding facility to filter low and high frequencies returned from the transducer and then process these signals independently and in parallel to create an image.
4. System should have 2D, M-mode, color flow, PW, CW, steer able CW, and directional color power angio facility.
5. System should have minimum 512 channels.
6. System should be upgradeable to higher number of channel at site.
7. the system should support broadband phased and linear array transducer technologies. Frequency processing facility for the transducer should be 1-15 MHz. This should be available without the need for frequency switching.
8. Phased array transducers frequency range should be 1-12 MHz.
9. System should have 256 gray shades.
10. Independently selectable gain control in both Axial and Lateral Plane or equivalent.
11. Triplex imaging.
12. System should be new generation ergonomically to curve minimum injury to the sonographer / physician.

13. Keyboard platform rotate-able and move-able, height adjustable (up/down) for use in ICCU and NICU.
14. Cineloop review facility minimum 700 frames higher will b preferred.
15. Facility for independent steering of B mode and color beam on liner probe.
16. Tissue Harmonic Imaging.
17. Linear Array Imaging with expanded field of view on both side of linear image or equivalent.
18. Transcranial Doppler.
19. 3 Active Imaging Transducer Port, it should be configurable upto 4 transducer ports.
20. Apicardial, Intra-operative, Multiplane TEE Transducer capability.
21. PW/CW Doppler facility in all imaging phased array sector transducer.
22. On-board image management.
23. Storage – should have >1,00,000 image storage facility in the hard disk drive.
24. System should have inbuilt image management, with facility for direct storage of images and cineloop of 5-6 sec in the Hard Disk Drive and also thumbnail review to view, edit, measure images, loops and also reports.
25. Archive – should have facility to transfer images to CDRW and Floppy Drive.
26. Print – should have direct connectivity to Inkjet printer for printing images and report.
27. Full functional measurement facility and calculation should be possible.

System should be quoted with the following transducers :

1. 3-8 MHz Broadband Phased Array Transducer for Pediatric Cardiac imaging.
2. 5-12 MHz Broadband Phased Array Transducer for Neonatal Cardiac imaging.
3. 4-8 MHz Broadband Convex Array Transducer for Pediatric and Neonatal Abdominal Imaging.
4. The aperture of cardiac probe should be preferably less than 10 mm.
5. Online UPS with 30 min backup.
6. Color inkjet printer.
7. B/W thermal printer.

Accessories:

1. A well stable trolley to keep machine, jelly, UPS, printer, VCRs etc. DVD mounted on heavy duty castor wheel.
2. Paper roll for inkjet printer and thermal printer for at least 1000 image.
3. Demonstration of equipment is a pre-requisite before finalization of tender enquiries.

*** The system should be European CE / US FDA approved.**

(f) TECHNICAL SPECIFICATIONS OF Portable X-Ray Machine

Page 1 of 2

S.No. Operational requirements Comments

1. Compact, lightweight, easily transportable mobile radiographic unit suitable for bedside x-rays.
2. The unit must have an effective braking system for parking and transport. The tube stand must be fully counterbalanced with rotation in all directions
3. Exposures with remote control should be available.
4. The unit must have cassette storage facility for all size of cassettes

S.N. **Technical Specifications** Comments

1. The Generator:

1. Microprocessor controlled high frequency, output 20 KW or above.
2. It should have a digital display of mAs and kV.
3. KV range:40kV to 120kV
4. mA range: 300 mA or more

2. **X-Ray Tube:**

1. Rotating anode with at least 2500 rpm and focal spot size should be 1 mm. or less.
- 3Light Beam Collimator of multi leaf type with auto cut off switch
3. The exposure release switch should be detachable with a cord of sufficient length as per ICRP recommendation

S.N. System Configuration Accessories, spares and consumables Comments

1. Grid(Ratio 12:1) of following sizes should be provided- 01 each
-12"x15"
-10"x12"

S.N. Standards and safety Comments

1. Should comply with AERB /BIS/ICRP Guidelines for radiation leakage and X-Ray equipments.

(g) T-piece resuscitator

TECHNICAL SPECIFICATION

DESCRIPTION ASKED BY THE PURCHASER	
• Stand alone resuscitator unit attachable to the pole of resuscitation centre.	
1) Manometer range--10 to 60 cm of H2O.	
2) Peak inspiratory pressure (PIP) @ 10 L/min -2 to 40 cm of H2O	
3) Positive end expiratory pressure @ 5 L/min -1-5 cm of H2O @ 10L/min -2 –10 cm of H2O.	
4) Gas inlet flow range -5-15 LPM.	
5) Delivered O2 concentration-upto 100% depending on gas supply.	
6) Weight -Not exceeding 4 kg.	
7) Essential accessories:	
(a) 2 sets of resuscitation kits (which includes reusable patient supply line, reusable patient T –piece and reusable gas supply line)	
(b) 2 sets of reusable face mask kits	
(c) Pole mount (Mounting block and pole bracket)	
8) Length of the T piece circuit should be 1.0 to 1.5m	
9) Two option for mask and endotracheal tube connection-15mm female and male.	
11) Should be supplied with test lung	
12) There should be safety features of maximum pressure relief.	
<ul style="list-style-type: none">• Quotation must include a compliance statement and in addition, each of the above points is marked in the technical brochure. Points not covered in the brochure must be specifically addressed in a separate certificate.	
Manuals: One set of operator & service manuals with each monitor	
Should be able to provide training of all healthcare personal during first month of installation in the group of 5 trainees per session.	

Group-F; ENT;

Integrated Bipolar and Ultrasonic Coagulation & Cutting unit for Held Neck Surgery

Technical Specification

- Synergistic of Ultrasonic energy combined with Bipolar HF energy
- Delivery of both ultrasonic and bipolar energy through one instruments simultaneously
- Unit should also be able to deliver separately the other energy modality like monopolar, bipolar etc.
- Rapid Dissection and Reliable Hemostasis up to 7mm Vessels in a Single Instrument
- Dedicated cart for transportation and storage
- Instrument recognition and automatic application of default settings for ease of use.
- LCD and Touch Screen user Interface
- Device should have dedicated Seal and Seal & Cut mode by hand activation as well as foot switch without exchanging the instruments.
- Device should have best in class versatility, upto and including 7 mm vessel sealing capability, Fast cutting speed, Fine and easy dissection. Hemostatic seal mode, Optimised grasping etc for getting less instrument usage & exchange, Uninterrupted operation flow and reduced OR time.
- Fine Jaw Probe should have 9 cm Working Length with total cutting length of 14 mm and should be capable of Rapid Dissection and Spot Coagulation.
- The device should be USFDA approved and European CE certified.(both Certificates are mandatory).
- Device should be supplied with following instrumentations :
 - 1) Ultrasonic Generator with Foot Switch
 - 2) Advanced HF Generator with Foot Switch
 - 3) Transportation Cart
 - 4) Communication Cables
 - 5) Autoclavable Transducer with cable
 - 6) Fine Jaw Hand piece probe (5 pcs)
