

हाफकिन जीव-औषध निर्माण महामंडळ (मर्यादित)
(खरेदी कक्ष)

Haffkine Bio-Pharmaceuticals Corporation (Ltd)
(Purchase Cell)

Acharya Donde Marg, Parel, Mumbai 400 012.

Tel. No. +91-22-24100478.

Website: <https://www.vaccinehaffkine.com>

E-mail: procurementcell@haffkinemumbai.com

(Tender website: <https://mahatenders.gov.in>)



E- 5128

**Tender For Procurement Of
Various Medical Equipment of Group-A for
Government Medical College and Hospital Baramati
FOR THE YEAR
2024-25**

TIME SCHEDULE OF THE TENDER

1	Tender No.			E- 5128																						
2	Name of The Equipment			Various Medical Equipment of Group-A																						
Sr. No.	No. of units	Approximate cost per unit (Rs.)	Total cost (Rs.)	Tender Fees (Rs.)	EMD (Rs.)	Consignee																				
1	99	11,85,44,099 /-	14,25,70,055/-	32,500/-	3,25,000/-	As per Annexure XI.																				
	TENDER SCHEDULE All bid related activities (process) like Tender Document Download, Bid Submission and Submission of EMD and other documents will be governed by the time schedule given under Key Dates below: <table><tr><td>Date Of commencement of sale of Tender document/ download</td><td>11.10.2024, 10.00 am</td></tr><tr><td>Start of Sale of Tender Document</td><td>11.10.2024, 10.00 am</td></tr><tr><td>Pre Bid Meeting</td><td>21.10.2024 at 11.00 am</td></tr><tr><td>Pre Bid Meeting Venue</td><td>Bidders should send their queries through E- mail on procurementcell@haffkinemumbai.com</td></tr><tr><td>Last Date for Sale of Tender Document</td><td>01.11.2024 up to 14:00 hrs.</td></tr><tr><td>Bid Preparation period</td><td>Upto 01.11.2024 up to 14:00 hrs.</td></tr><tr><td>Closing of Bid (By department)</td><td>01.11.2024 up to 14:00 hrs.</td></tr><tr><td>Last Date and Time for the Submission of tenders</td><td>01.11.2024 up to 14:00 hrs.</td></tr><tr><td>Date and Time of Opening of Envelope No. 1</td><td>04.11.2024 at 16:00 hrs. onwards</td></tr><tr><td>Address for communication</td><td>Office of the Managing Director, (Purchase Cell), Haffkine Biopharmaceutical Corporation Ltd, Acharya Donde Marg, Parel, Mumbai.</td></tr></table>						Date Of commencement of sale of Tender document/ download	11.10.2024, 10.00 am	Start of Sale of Tender Document	11.10.2024, 10.00 am	Pre Bid Meeting	21.10.2024 at 11.00 am	Pre Bid Meeting Venue	Bidders should send their queries through E- mail on procurementcell@haffkinemumbai.com	Last Date for Sale of Tender Document	01.11.2024 up to 14:00 hrs.	Bid Preparation period	Upto 01.11.2024 up to 14:00 hrs.	Closing of Bid (By department)	01.11.2024 up to 14:00 hrs.	Last Date and Time for the Submission of tenders	01.11.2024 up to 14:00 hrs.	Date and Time of Opening of Envelope No. 1	04.11.2024 at 16:00 hrs. onwards	Address for communication	Office of the Managing Director, (Purchase Cell), Haffkine Biopharmaceutical Corporation Ltd, Acharya Donde Marg, Parel, Mumbai.
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In accordance with **G.R.No.SPO-2014/Pra.Kra.82/Part-III/Industry-4, dated 01.12.2016 issued by Industry, Energy & Labour Department, Mantralaya, Mumbai – 32**, The Managing Director, Haffkine Biopharmaceutical Corporation Ltd, Purchase Cell, Mumbai **on behalf of the Hon. Governor of Maharashtra** invites online digitally sealed tenders in Two Bid System for **Various Medical Equipment of Group-A** in the year 2024-25 .

INSTRUCTIONS TO TENDERER

1. The Tenders shall be submitted online through e-tendering process only. No tender will be accepted manually or through fax etc.
2. **Only Manufacturers/ importers/Authorised Distributor are eligible to participate in the tender.**
3. The Tender form will be available online only. No tender form will be sold / issued manually from Haffkine Biopharmaceutical Corporation Ltd,(Purchase Cell)
4. The tender document will be uploaded / released on website <https://mahatenders.gov.in>. The tenderer is required to download the tender document from this website as per the schedule of activities for online tender document download.
5. The tenderer is required to download the tender document within the schedule of activity for online tender document download. After expiry of the date and time for tender document download, the Haffkine Biopharmaceutical Corporation Ltd,(Purchase Cell) will not be responsible for any such failure on account of tenderer for not downloading the document within the schedule even though he has paid the cost of the tender to the Haffkine Biopharmaceutical Corporation Ltd,(Purchase Cell). In such case the cost of the tender paid by the tenderer will not be refunded.
6. During the activity of bid preparation, the tenderer is required to upload all the documents mentioned in the terms & conditions of the technical bid by scanning the documents and uploading it in the PDF. This activity of uploading the documents as well as preparation of commercial bid and other Annexure enclosed with the tender shall be completed within the schedule given for bid preparation.
7. After bid preparation, the tenderer is required to submit the bid during the activity of submission of bid.
8. The tenders submitted online will be opened on the schedule date before the participant. At the time of opening of technical bid the tenderer should bring all the original documents which have been uploaded along with the technical bid so that same can be verified at the time of opening of technical bid.
9. As the tenders are invited online, tenderers are required to upload tender as per the schedule given. Haffkine Biopharmaceutical Corporation Ltd,(Purchase Cell) is not responsible for failure on the part of tenderer to upload tender within the time schedule. In case of any help required for this purpose the tenderer shall contact to help line of e-tendering agency National Informatics Center (NIC). Tenderers are requested to go carefully through the process of e-tendering given on the website of <https://mahatenders.gov.in> to avoid disqualification of their tender on any ground. In case of any technical problems e.g. payment of EMD, downloading of tender terms, uploading of tender etc. This bidder should contact NIC helpline for resolution of their issues. Communication with Haffkine Bio-Pharma dtd (Purchase cell) will not be entertained. Haffkine Bio-Pharma is not responsible for bidder not able to participate in tender due to any technical problems.

10. PRE-BID MEETING:

If required by Haffkine Biopharmaceutical Corporation Ltd,(Purchase Cell) and depending upon the nature of work, the pre-bid meeting will be held at the date, time and venue mentioned in the e-Tender Notice.

Tenderers shall note that any corrigendum issued regarding this tender notice will be published on the Haffkine Biopharmaceutical Corporation Ltd,(Purchase Cell) portal and on the website of <https://mahatenders.gov.in>.

The prospective tenderer(s) should submit their suggestions/observations if any, in writing through email before pre-bid meeting.

Only suggestions / observations received in writing by mail within stipulated time will be discussed and clarified in pre-bid meeting and any modification of the tendering documents, which may become necessary as a result of pre-bid meeting, shall be made by Haffkine Biopharmaceutical Corporation Ltd,(Purchase Cell) exclusively through the issue of an addendum/corrigendum. The tender uploaded shall be read along with any modification. Authorized representatives of prospective tenderer(s) can attend the said meeting and obtain clarification regarding specifications, works & tender conditions. Authorized representatives should have authorization letter to attend the pre-bid meeting, provided queries are submitted in time.

Any amendment to the tender will be placed on the e-tendering website of the Haffkine Biopharmaceutical Corporation Ltd,(Purchase Cell)and the pre bid amendments herein called common set of deviations (CSD) should be downloaded by the tenderer and the tenderer should upload these signed & stamped CSD along with the tender terms and conditions as they form a part of tender. **PLEASE NOTE THAT THE TENDERER SHOULD NOT BID IN THE TENDER UNLESS AND UNTIL THE CSD(COMMON SET OF DEVIATIONS)ARE UPLOADED.**

- a) The tenderer will not be communicated separately regarding the amendment.
- b) In case there is single response to this tender the committee will be within its right to take action as per instructions prescribed **G.R.No.SPO-2014/Pra.Kra.82/Part-III/Industry-4, dated 01.12.2016 issued by Industry, Energy & Labour Department, Mantralaya, Mumbai – 32.**

11. Non-attendance at pre-bid meeting shall not be a cause for disqualification of a tenderer. The suggestions/objections received in pre-bid meeting may not be considered, if the same are not in consonance with the requirement of the tender/project. Haffkine Bio-Pharmaceutical Corporation Ltd, ,(Purchase Cell) reserves the right to reject the same.

12. Manner of Submission of Tender

The tender is divided in two parts and required to be submitted online only

Technical Bid (Part I):- Contains technical information such as technical specifications, terms & conditions of the tender, qualification criteria, documents required to be submitted to become qualify for opening of commercial bid, general terms & conditions of the tender, instructions to the tenderer for submission of the tender, other Annexures required to be submitted by the tenderer along with the technical bid, **confirming to tender terms & conditions.** Detailed specification of the tendered item shall be as per Annexure 'X'.

Commercial Bid (Part- II):- Contains price bid to be filled in by the tenderer.

13. Original Tender Form :-

Tenderers are required to sign and put official seal of the company on every page of the tender form as well as common set of deviations (CSD). They are also required to sign on every page of the specification copy and affix the seal of the company at the right hand corner of the bottom of the page.

IMPORTANT NOTE: - Apart from all the conditions mentioned in this tender document, the tender rules / guidelines published by Industry, Energy & Labour Department, Mantralaya, Mumbai – 32 vide G.R. No. SPO-2014/Pra.Kra.82/Part-III/Industry-4, dated 01.12.2016 are applicable and it is binding for bidders.

TECHNICAL BID (PART - I)

Technical bid shall contain following documents duly **SELF ATTESTED**, failing which tender will be declared **Invalid**. These documents shall be in the form of PDF files, if required in Zip file. These documents needs to be digitally signed by the tenderer and uploaded in the technical bid during online bid preparation stage.

1. PROFORMA

To be submitted along-with Technical Bid as mentioned in (**Annex- I**).

In every case of offer whether indigenous or imported the name of manufacturer, address together with brand /make /model should be indicated in the tender. **Any conditional offer of the tenderer will be rejected.**

2. Earnest Money Deposit (EMD) & Tender Fee

The tenderer should pay EMD online only. The Tenderer claiming exemption from payment of EMD & Tender Fee should produce attested documents which make the tenderer eligible for exemption. The Tenderers are eligible for EMD exemption if the firms are registered

- a. With Government as per Micro, Small & Medium Enterprises Development Act 2006 (MSME) as a Manufacturer.

Self-Attested copies of the registration should be attached with the tender.

The EMD will be forfeited if the tenderer withdraw from tender process at any stage OR the tenderer fails to enter into contract according to the terms & conditions if accepted. EMD of the successful as well as unsuccessful tenderer shall be refunded within due course .

3. Product Catalogue:-

Original Catalogues/brochures showing details of Technical Specifications of Equipment should be enclosed. All specification should be substantiated by Technical data sheets in original. Photocopies of the Catalogue / Brochure will be rejected.

4. Copy of G.S.T. Registration Certificate

5. GST / VAT Clearance Certificate:-

Sales Tax / GST clearance certificate mentioning clearance up to the last month/quarter (as applicable) from the date of publishing of the tender should be attached.

6. Turnover: - The average turnover for the last 3 years from the date of publication of tender should be 50% of total tender cost

7. Production Capacity: the bidder / importer should have manufactured/ imported at least 1.5 times of the quantity floated in the tender.

8. The bidder should submit complete audit report with relevant certificates and schedules for the last 3 financial years from the date of publishing of the tender certified by registered Chartered Accountant. If the audit of last financial year is not complete, the bidder has to submit provisional audit report (Balance Sheet and Profit & Loss Account Statement) signed by registered Chartered Accountant.

9. In case of foreign manufacturer the following documents of the last 3 years for similar equipment supplied will be required.

- a. Bills of entry
- b. Bills of lading or Airway Bill
- c. Country of Origin Certificate issued by competent authority of that country (Chamber of Commerce) naming the manufacturer, consignee, name of equipment, invoice no, quantity etc.

10. Authorization Letter:-

A importer quoting on behalf of manufacturer must attach authorization letter from the manufacturer to quote on behalf of manufacturing & to do after sales services till disposal of machinery as per **Annexure-II**. (It is mandatory to have a complete address, working e-mail address and contact numbers of the Manufacturer as well as it should mention the Country of manufacture of the equipment. **Equipment manufactured in any other place, than the mentioned originally; will be rejected.** [Incomplete Authorization in any form will not be accepted. It will be liable for rejection.]

11. I.S.O., I.S.I., CE from notified body or USFDA Certificates:-

In case of equipment with I.S.O., I.S.I., CE from notified body or USFDA , certificates required as per tender requirement.

12. Users list:-

The tenderer should submit user list of quoted model **(only)** as per **Annexure - IV**. And should also submit order copies to support the claim.

13. Make / Model:-

Detail of products, called in tenders, supplied to in the state of Maharashtra/India in last 03 years as per (Annexure - V) and the client list in India for past 3 years along their telephone numbers of concerned and their valid e-mail id. This should be supported by order copies of the same.

14. After Sales Service:-

The bidder should have minimum 2 service centers in Maharashtra with complete address, phone nos., fax nos. and e-mails as per **(Annexure - VI)**.

15. Terms & Condition Acceptance Certificate should be submitted as per **(Annexure - VII)**.

16. Proforma for Price Justification (Annexure VIII)

17. Fall Clause

It is a condition of the contract that all through the currency thereof, the price at which the bidder will the supply stores should not exceed the lowest price charged by the bidder to any customer during the currency of the rate contract and that in the event of the prices going down below the rate contract prices the bidder shall promptly furnish such information to Haffkine Biopharmaceutical Corporation Ltd,(Purchase Cell) to enable Haffkine Biopharmaceutical Corporation Ltd,(Purchase Cell) to amend the contract rates for subsequent supplies.

18. Commercial bid should not be submitted in Envelope No. 01 (Tech. Bid) else the bid will be rejected.

19. In case of Turn Key tender, prices quoted in the commercial bid should inclusive of all (Basic equipment plus installation and commissioning of equipment). The maintenance of any additional equipment required for proper installation and commissioning of the equipment/machinery supplied will be the responsibility of the tenderer for minimum of 10 years.

20. Authentication for Documents:-

The responsibility to produce correct authentication for documents rests with the tenderer. If any documents is detected to be forged, bogus etc., the tender shall be rejected and EMD shall be forfeited. Any contract entered under such condition shall also be liable to be cancelled at any time during its currency and further penal action like criminal prosecution, blacklisting etc. against the said contractor and/or the partners shall be instituted.

21. The quantity mentioned in the tender is only approximate estimated quantity, The MD HBPCCL(P.Cell) Parel Mumbai, if required may Purchase extra 50% of quantity published within 6 months of Purchase Order as repeat order.

At the time of submission of tender documents to this office all the photo copies of certificates / documents attached with the tender should be duly Self Attested.

IF ANY OF THE ABOVE DOCUMENTS / INFORMATION AS ENLISTED FROM NO.1 TO NO.15 IS NOT ATTACHED WITH THE TENDER, THE TENDER IS LIABLE TO BE TREATED AS INVALID.

* Should there be a minimum sales criterion to quality in past 3 years.

COMMERCIAL - BID (PART -II)

The Commercial Bid (Part-II) should contain the price. The cost should be quoted in Indian currency only, any fluctuation in the international currency will not be a concern of Haffkine Bio Pharmaceuticals Corporation Ltd and the price quoted in the tender will be considered as final. Tenderer should quote the price in proforma mentioned in **Annexure-IX mentioning Basic cost of Instrument along with applicable Taxes in percentage.**

All financial offers must be prepared and submitted online which should be signed using individual's digital certificate. Date of opening of commercial bid will be informed accordingly. Commercial quote in any other format shall be rejected. Conditional offers shall not be considered and shall be treated as non-responsive.

OTHER TERMS & CONDITIONS CONCERNING THE TENDER

1. No price should be quoted in **part I** (Technical Bid). If any price is quoted in technical bid, the entire tender shall be considered as **INVALID**.
2. Envelope No.2 shall be opened only when the documents as mentioned in Envelope No.1 are in order, as per requirements and as per specifications. Valid tenderer shall be informed accordingly.
3.
 - a. The Envelop No. 2 (Commercial Bid) shall be opened of only those tenderers who have submitted all the documents as per tender terms and conditions in the envelope no.01 and are technically qualified. If two tenderers have quoted same cost of equipment, then the demonstration of both the tenderer will be taken.
 - b. Unsatisfactory performance at demonstration will disqualify the tenderer.
 - c. The demonstration should be done if possible at the institute specified. In case of heavy / bulky equipment the demonstration may be arranged at a place where the equipment is already functioning and as per convenience of the concern technical committee at the cost of the tenderer. Demonstration of the equipment in the factory premises is not allowed.
 - d. Factory inspection of L1 or any other bidder will be done as decided by the committee.
4. The tender validity should be for a **minimum period of 120 days** from the date of opening the Envelope No.2 (Commercial Bid). The validity of the tender can be extended up to 180 days at the discretion of Managing Director, Haffkine Bio-pharmaceutical Corporation Ltd, ,(Purchase Cell)
5. There will be no change or any type of rectification in quoted cost due to international fluctuation of currency after submission of tender. No communication in this regards will be entertained.
6. **Pre-dispatch Inspection**: The Pre-dispatch inspection will be done by a team appointed by Managing Director, Haffkine Bio-Pharmaceutical Corporation Ltd, (Purchase Cell) prior to shipment and the team will inspect the equipment physically in accordance to the tender specifications and certify the following things:-
 - a. The equipment is new and made of virgin material, it is not reconditioned / retrofitted.
 - b. The name of the equipment manufacturer, model and serial nos. of equipment & country of manufacturer.
 - c. The team shall clearly mention in their report the purchase order no., date and name of consignee.

Packing List: - It shall be issued by original manufacturer in 4 sets. One set should be kept in equipment container. Two sets should be sent with original

invoice to user department and one set shall be sent to Haffkine Bio-Pharmaceutical Corporation Ltd for information.

- d. Country of origin Certificate: - It shall be issued by competent authority of that country (Chamber of commerce of concerned Country) mentioning Name of manufacturer, consignee, name of equipment, invoice No., Qty. etc.
- e. Original Invoice issued by bidders / manufacturer should contain following details: -
 - i. The name of the equipment manufacturer, model and serial nos. of the equipment.
 - ii. Name of the consignee -list attached
 - iii. Purchase order number and date issued by Haffkine Bio-Pharmaceutical Corporation Ltd.

7. Demonstration:-

Demonstration is compulsory for lowest bidder and the bidder should arrange for the demonstration in India of the equipment quoted for in the tender within 7 days from the date of intimation of the request for demonstration preferably in Mumbai. However, if complete system of quoted model/complete system is not available in Mumbai, demonstration may be arranged outside Mumbai in any mutually agreed upon hospital at bidder's cost. Demonstration must be given within 7 days-time from the date of receipt of letter from Haffkine Bio-Pharmaceutical Corporation Ltd, (Purchase Cell) if planned in Mumbai and within 15 days if outside Mumbai, otherwise liable for penalty/legal action like forfeiture of EMD, blacklisting. If demonstration / testing of equipment offered by bidder is found to be non-satisfactory, then his offer will not be considered.

The demonstration of equipment should be attended by empaneled members as decided by Managing Director, Haffkine Bio-Pharmaceutical Corporation Ltd, (Purchase Cell) from members empanelled by Government Resolution dated 31.10.2017. The video recording of the demonstration shall be mandatorily done. Soft copy of the Video Recording shall be handed over to the representative of Haffkine Bio-Pharmaceutical Corporation Ltd.,(Purchase Cell) who witnessed the demonstration. Arrangement of Video Recording shall be done by the bidder at their own cost. The demonstration report shall be prepared on same day and signed by all present including representatives of bidder and the report of the demonstration should be scanned and mailed to General Manager, Purchase Cell, Haffkine Bio-Pharmaceutical Corporation Ltd / Managing Director, Haffkine Bio-Pharmaceutical Corporation Ltd on his / her office mail I.D. on the same day.

8. **Training:** - The successful tenderer shall have to give sufficient training at his cost to the staffs of the Hospital and Engineers of concern institute to operate the Medical Equipment. Also it shall be provided as and when required if asked by user department.
9. The successful tenderer will have to pay a security deposit of an amount **equivalent to 3% of the cost** of the equipment offered in the following form within 15 days from the date of issue of supply order from the concerned institute. **Bank Guarantee valid for 2 months after the expiry of AMC/CMC period issued by any Nationalized / Scheduled Bank.**

Security deposit will be refunded only after completion of warranty period and conformation AMC/CMC.

The successful tenderer should deposit online amount of 1.5% of order value towards service charges, within 7 (seven) days of award of contract.

10. The successful tenderer, who are Importers should enter into a Tripartite contract agreement (HBPCL, Bidder & Manufacturer).

11. The delivery of goods should be at door and should be made within **6 weeks** for indigenous items and **12 weeks** for imported items, from the date of work order. If the date of delivery cannot be strictly adhered to, then extension required by the tenderer should be stated in the bid. No excuses for delay by any statutory authorities like custom etc. will be taken into consideration for extension of the period of delivery. The primary responsibility for supply of goods in time will be rest with the supplier.
12. **Copy of supply order will be displayed on website: www.vaccinehaffkine.com**
13. **Penalty on late delivery:-** In the event of the late delivery of goods, the purchaser will recover from contractor by way penalty, a sum equal to **half Percent (1/2 %)** price of the goods delivered late per week calculated from the next day after the agreed delivery period is over.
14. **Consequences of inferior supply:** - If the equipment supplied is found of inferior quality or not as per specifications, the contractor shall replace the equipment within one month from the date of intimation at the cost & risk of the contractor and also liable to pay the fine imposed by the consignee, failing which Earnest Money Deposit & Security Deposit of the contractor shall be forfeited and the tenderer shall be liable for penal action including black-listing etc. In addition to the forfeiture of the Earnest Money Deposit & Security Deposit, if any fine is imposed by the consignee same shall be recovered from other dues to the contractor from –his bills payable.
15. **Replacement of Rejected materials:** - Tenderer / Contractor shall have to replace rejected material with approved one. The supplier shall remove the rejected material within 15 days failing which the same will be disposed off by consignee at the risk and cost of contractor without any further correspondence in this regards.
16. **Risk & Cost Purchase:** - In case the Contractor/s, shall at any time during the continuance of these presents fails to supply satisfactorily the equipment within the prescribed time as herein provided and or in case shall fail to replace any part/s that may have been rejected with other of approved quality, the consignee shall be at liberty forthwith to procure the same in the open market at the risk and cost of the contractor/s. Similarly if the work underlying the contract is not executed satisfactorily within the stipulated period or after the same having been disapproved wholly or partly is not rectified or re-done to the satisfaction of the Officer in Charge within the said specific period, the consignee shall get the same executed or rectified or re-done through any other agencies, at the entire risk of the supplier and expenses thereby incurred, shall be payable by the supplier and / or may be deducted from any moneys due or become due to the contractor/s and the consignee may, however fix such other subsequent date as he may think fit by which the delivery of the said article and or execution of the said work shall be completed.
17. **Blacklisting:** - The firm shall be black-listed, if it is found that:-
- Forged documents are submitted OR
 - If it becomes responsive on the basis of submission of bogus certificate / information.

- c. In case of non-supply of equipment / accessories or supply of substandard quality or supply of equipment / accessories found to have been previously used or having reconditioned parts.

18. Warranty Period :- (including supply of spares).

The warranty period shall be for 2 years from the date of commissioning of all equipment supplied as certified by the consignee.

The successful tenderer must ensure 95% uptime during warranty period. In case of downtime, warranty period will be extended for period of downtime. If the equipment is not attended within 24 hours for Mumbai and 48 hours for other places the supplier will be liable to pay a penalty of 0.07% of purchase cost for every day of delay. Such penalty will be recovered from the amount of security deposit. Certificate of such uptime / downtime issued by the end user will be binding for the supplier.

Replacement of parts and service thereof due to manufacturing defects during warranty period will be entirely at the supplier's cost. The expenditure incurred for procurement of space, transport, installation, commissioning and various duties shall be borne by the supplier.

19. Annual Maintenance Contract (For rendering services) /Comprehensive Annual Maintenance Contract:-

The tenderer will have to agree to enter into an Annual Maintenance Contract (AMC)@ 0.5% per year of the Order value of the machinery / equipment (excluding taxes).

Where required, tenderer will have to agree for Comprehensive Maintenance Contract (CMC) inclusive of all spares @ 5% of the Order value (excluding taxes) of the equipment per year. The period of such AMC / CMC will be of **8 years** after completion of warranty period. In case of non-compliance of AMC/CMC the supplier will be liable to pay a penalty. Such penalty shall be recovered from the amount of bank guarantee submitted. Payment for AMC /CMC on yearly basis will be made by the user's institution, at the end of year after satisfactory performance report from the end user.

20. Payment:-

Payment of 100% of the contract value will be made within 8 weeks on delivery and successful installation and satisfactory commissioning and operation of the machinery.

21. Third Party Inspection :-

The Managing Director Haffkine Biopharmaceutical Corporation Ltd, Mumbai has authority to appoint third party inspection. The cost of third party inspection shall be borne by the tenderer.

22. The tenderer should install the equipment in the concerned department of the institution, give demonstration free of cost and train the staff of the department (number as specified by the user.)

23. In case of imported machine, the purchase orders will be issued in Indian currency and afterwards the exchange rates is increased; no financial implications will be accepted by the concerned institution or by the Government of Maharashtra.

24. Complaint/s :-

If any bidder has a complaint against any process, decision etc. then the complainant has to give a written complaint within 10 days of such a decision or any other grievance to the General Manager to review such a decision or grievance and mention clearly his grievance, provided that after declaration of successful bidder only those

bidders who have participated in tender process can lodge a complaint also if technical bid is opened and before opening of commercial bid only those bidders who have been declared as technically qualified can lodge their grievance.

If the complainant is not satisfied with decision of reviewing officer he can appeal against this decision before Appeal Committee within 15 days.

25. Jurisdiction of the Courts :-

In case of any claim, dispute or differences arising in respect of tender, the cause of action shall be deemed to have arisen in Mumbai and all legal proceedings in respect of any such claim, dispute or difference shall be instituted in a Competent Court in the city of Mumbai.

26. Affidavit on Non-Judicial Stamp Paper of Rs. 100/- stating that the rates quoted in the tender are not higher than D P C O, N P P A or not Higher than MRP” to be submitted to this office along with proof of online paid tender fees & EMD. (To be submitted to this office)

27. "Affidavit on non-judicial stamp paper of Rs.100/-regarding the firm has not been found guilty of malpractices, misconduct or blacklisted/debarred for the quoted product by Public Health Department, Govt. of Maharashtra or by any local authority and other State Government/Central Government's organizations as on the date of submission tender document for the quoted items." (To be submitted to this office)

28 Force Majeure:

28.1 For purposes of this Clause, 'Force Majeure' means an event beyond The Control of the Supplier and not involving the Supplier's fault negligence and not foreseeable. Such events may include, but are not limited to, acts of the Purchaser either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.

28.2 If a Force Majeure situation arises at any time during the subsistence of contract, the Supplier shall promptly but not later than 30 days notify the Purchaser in writing of such conditions and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

28.3 Force Majeure will be accepted on adequate proof thereof.

28.4 If contingency continues beyond 30 days, both parties will mutually discuss and decide the course of action to be adopted. Even otherwise contingency continues beyond 60 days then the purchaser may consider for termination of the contract on pro-rata basis.

THE DECISION OF Haffkine Biopharmaceutical Corporation Ltd (Procurement Cell) WILL BE FINAL AND BINDING. Haffkine Biopharmaceutical Corporation Ltd (Procurement Cell,) RESERVES THE RIGHTS TO REJECT ANY OR ALL TENDERS WITHOUT ASSIGNING ANY REASON.

I have read all the terms and conditions of the tender carefully and I agree to abide by them.

Signature of Tenderer with Seal

List of Annexure

Annexure No.		Description
Annex No. I	:	Proforma to be submitted along-with Technical Bid
Annex No. II	:	Manufacturer Authorization Letter
Annex No. III	:	Technical Compliance Chart
Annex No. IV	:	User List of Quoted Model
Annex No. V	:	Detail of Products supplied in the state of Maharashtra/India in last 03years.
Annex No. VI	:	Details of After Sales Service Station
Annex No. VII	:	Terms & Condition Acceptance Certificate
Annex No. VIII	:	Proforma for Price Justification
Annexure IX	:	Proforma of Commercial Bid
Annex No. X	:	Technical Specification and Bill of Quantity
Annex No. XI		Consignee List.
Annex No. XII		Proforma of Affidavite.
Annex No. XIII		Proforma of Affidavite.

Annexure – I

(Incomplete Annexure is liable for Rejection)

(on Bidder's Letterhead)

PROFORMA TO BE SUBMITTED ALONG WITH TECHNICAL BID

- 1 Name and address of the firm :-
- 2 Registered Head Office Postal address :-
- 3 Telephone No. & FAX & E-Mail :- :-
- 4 In case of proprietorship / Partnership firms, names of proprietors / partners/ Directors with address and percentage of share
- 5 Ownership status of the firm
(Maharashtra Govt. / Central Govt./Jt. Sector /co - operative /SSI /Private)
- 6 Whether tendering as a manufacturer / importer
- 7 **Name of the person & Phone no. who should be contacted by this office in case of any urgent problem.**
- 8 **Full Address with Email ID, Phone Numbers and Location of Original manufacturing work/factory/factories :**

I / we hereby declare that particulars furnished above are true to the best of my /our knowledge and belief and that if any of the particulars is found to be materially incorrect / misleading, my /our tender shall be rejected and I / we are liable for penal action as per terms specified in the " term and conditions of tender".

Date :-

Full Signature of the tenderer with official seal and address

ANNEXURE II (Only for Imported Item)
(Incomplete Annexure is liable for Rejection)

Manufacturer's Letter Head

Ref: -

Date :-

To,

Dear Sir,

I/We the undersigned who is/are authorized signatory/signatories of the
Manufacturing (Name & complete address) Firm M/s.....

.....Country of Origin..... (Name & complete address) do hereby authorise

“exclusively” M/s..... to quote
rates/collect the orders/raise the bills for the items manufactured by me/us under the Tender
No.

I/We have gone through all the terms and conditions and read important instructions
of the tender and will be binding on me.

**We hereby confirm that all after sale services of our product supplied will be
provided by us or importer.**

Manufacturer's Authorized Signature with Stamp and Seal

ANNEXURE III
(Incomplete Annexure is liable for Rejection)

Technical Compliance Chart
(On Bidder's Letterhead)

Name of the Equipment/ Instrument – **Various Medical Equipment of Group-A**
Make & Model: _____

Sr No	Tender specifications as asked in the tender form	Equivalent specifications quoted by the tendered with the name of the manufacturer	Whether the tender quoted by the supplier is as per specifications asked for. Indicate against each item clearly YES / NO.	If the tender quoted is not as per specifications then variations/ deviations should be clearly indicated against each item asked for.
1	2	3	4	5

Note: Equivalent detail compliance in column 3 of quoted product is expected. Simply writing Yes/ NO/ Complies/ as per tender requirements, will be liable for rejection.

ANNEXURE IV
(Incomplete Annexure is liable for Rejection)

User List of Quoted Model
(On Bidder's Letterhead)

Name of the Equipment/Instrument:-

Sr. No.	Model No.	Name and Address of Institute	Authorized Contact Person	Tel., Fax & Mobile No. with Email-ID	Date of Supply
1	2	3	4	5	6

ANNEXURE V
(Incomplete Annexure is liable for Rejection)

Detail of Products supplied in last 03 years.
(On Bidder's Letterhead)

Specify how much quantity of products was supplied in Maharashtra/India in the last Three years as shown below (use separate sheet if necessary).

Year	Name of the Equipment	Quantity of supply	Amount of business Rs.	Name of the institute to whom supply is made
1	2	3	4	5

ANNEXURE VI
(Incomplete Annexure is liable for Rejection)
Details of After Sales Service Station
(On Bidder's Letterhead)

Name of the Equipment/Instrument:-

Sr. No.	Name of the Agency	Full Address with Pin code	Contact Person Name	Contact Numbers with STD code		
				Tel (Off)	Email- ID	Mobile No.
1	2	3	4	5	6	7

ANNEXURE VII
(Incomplete Annexure is liable for Rejection)

(On Bidder's Letterhead)
Terms & Condition Acceptance Certificate

Ref: -

Date :-

To,

Ref:- Tender Document No _____ Date_____

Respected Sir,

I /We the undersigned have examined the above mentioned Tender Enquiry document, including Amendment / Corrigendum No._____ Dt_____ (if any), the receipt of which is hereby confirmed.

If our tender is accepted we undertake to supply the goods & perform the services as mentioned in Tender Enquiry Document in accordance with the delivery schedule.

We further understand that you are not bound to accept the lowest or any tender you may receive against your tender enquiry.

We confirm that we fully agree to the terms and conditions specified in above mentioned Tender Enquiry document including Amendment / Corrigendum if any.

Sign and Office seal of the Tenderer

ANNEXURE – IX
(Incomplete Annexure is liable for Rejection)

Proforma of Commercial Bid
[COMMERCIAL OFFER]

PRICE SCHEDULE FOR E-5128/ (Various Medical Equipment of Group-A /2024-25)

Item description	Quantity	Ex-factory cost (including all accessories)	GST applicable (In Rs.)	Other incidental charges (please specify) (In Rs.)	Total landed cost per unit (3+4+5)	Total cost (including all accessories) Rs.(2×6)
1	2	3	4	5	6	7
Various Medical Equipment of Group-A	99					

Total tender price including all accessories (in words) _____

The price should be quoted only in Indian currency

Note:

In case of discrepancy between unit price and total price, the unit price shall prevail.

Only total landed cost per unit considered for rate comparison.

Signature of the Tenderer

Name

Designation

Business address

To be uploaded in the form of EXCEL

Technical Specifications
ANNEXURE – X

1.Dental Surgical Microscope (Qty -1)

Observation tubes	Standard: 0-210° Tilttable binocular tube
IPD	50-75 mm
Eyepiece	Standard: WF 10X/18 mm with eye guards and dioptre lock mechanism Option: WF 12.5X/18 mm with eye guards and dioptre lock mechanism
Dioptre Adjustment	± 5 mm
Magnichanger	Apochromatic 5 step: 0.4X, 0.6X, 1.0X, 1.6X and 2.5X *MaxLite coated
Objective	f 300-400 mm
FOV	66-10.6 mm
Magnification Range	2.7x-17.0x
Fine Focus	Manual, through objective adjustment knob
Light Source	50W LED, 100-240V
LUX	125K
Maximum Wattage	200 Watts
Color Temperature	6500K
Built-in filters	Green and Yellow
Vertical movement of arm	550 mm with power saver light cut off at park position
Microscope carriers	120° carrier
Optional accessories	Beam splitter (straight & inclined), Rotoplate, Double Iris, Low height Ergo view, camera adapter
The microscope mounted on wall/floor stand.	

2. Piezosurgery-(Qty-1)

1. Protects any kind of soft tissue like nerves, vessels and membranes should not be injured while cutting bone, offering safety for surgeons and patients
2. The unit should have control panel with touch screen
3. Operating frequency: From 24 KHz to 36 KHz
4. Irrigation system
5. Accessories
6. Hand piece one in quantity LED handpiece
7. Set of tips minimum 5
8. Foot control :1
9. THERE

3. 2.5 Dental Loupe -(Qty-2)

1. With □ . 5x magnification
2. large field of view and excellent depth of field
3. with titanium eyeglass frame
4. Setting the interpupillary distance
5. Soft nose bridge
6. Optics mount Easy attachment and removal of the optic

4. 3.5 Dental Loupe-(Qty-2)

1. With 3.5x magnification
2. Large field of view and excellent depth of field
3. With titanium eyeglass frame
4. Setting the interpupillary distance
5. Soft nose bridge
6. Optics mount Easy attachment and removal of the
7. optic

5. Implantology Unit--(Qty-1)

1. Pysiodispenser Designed specifically for oral and implant surgery-----01 QTY

1. Control Unit: The Large LCD display, Max. Output / Max. Torque: 210 W/50 Nem
Power Supply: AC120V or 230V 50/60 Hz Max. Pump Output: 75 mL/min Programs: 8
Programs Non-Optic
2. Micromotor Motor Speed: 200-40,000 min⁻¹, Non-optic Brushless Compact, Short and
Lightweight Micromotor High Power 210W/ Powerful Torque 50Ncm
3. Handpiece (20:1 Reduction) Double Sealing System Excellent Durability
4. Foot Control: Speed Control: Variable
5. Handpiece Stand

6 Irrigation Tube (5 pcs.) and Other Accessories

2. Implant Kit-01 QTY

1. Standard set including all the required tools for implant placement .Like
2. Marking drill Spade marking drill, Marking drill, external irrigation 3. Pilot drills: various standard sizes
4. Twist drills:: various standard size, colour coded
5. Body tryin: various standard size, colour coded
6. Surgical tools: parallel pins,counter sinks, drill extendor, Direct press fit for closed tray, Direct press fit for closed tray, Long direct hand and ratchet key, Short ratchet insertion tool, internal hex, Long ratchet insertion tool, Short motor insertion tool, internal hex, Long motor insertion too, Long driver for 0.05 inch hex, Short driver for 0.05 inch hex, Surgical torque ratchet etc

3. Dental Implants-20 QTY

1. Root form different sizes with the abutments, cover scree, healing screw and prosthetic component.

4. Sinus lift kit with osteotomes 1. Standard osteotome

5. Bone harvesting kit 1. Standard osteotome

6. Maxillofacial Surgery Instruments--(Qty-2)

All instruments must be produced with high-quality stainless steel medical grade standard, iso certified, The kind of stainless steel grants a very high resistance to wear and corrosion. Auto aclavable, highly standardised and designed.		
1	Austin Tissue Retractor	2
2	Aspiration tip Fraser	2
3	Austin Tissue Retractor	1
4	BABCOCK'S FORCEPS	1
5	Bauer Sigmoid Notch Retractor	1
6	Bone file bouble ended	1
7	Castroviejo Caliper	1
8	Chisel & Mallet	1
9	Cogswell B Elevator	1
10	Cottle Tunnel Elevator	1
11	Coupland Elevator	1
12	Crane Pick Elevator	1
13	Davis Osteotome	1
14	Diamond Rasp	1
15	Dolwick-Reich Clamp	1
16	Elevator Apexo	Pair
17	Elevator Coupland	1
18	Elevator Cryers	Pair
19	Elevator Winters Crossbar	Pair
20	Elevators Warwick James	Pair
21	Extracting Forceps	1
22	Extraction forcep	1
23	Extractionforcep mandible anterior	1

24	Extractionforcep mandible molar	1
25	Extractionforcep mandible molar cow horn	1
26	Extractionforcep mandible premolar	1
27	Extractionforcep mandible third molar	Pair
28	Extractionforcep maxilla molar cow horn	Pair
29	Extractionforcep maxilla anterior	1
30	Extractionforcep maxilla molar	Pair
31	Extractionforcep maxilla premolar	Pair
32	Extractionforcep maxilla root	1
33	Extractionforcep maxilla third molar	Pair
34	Grench Pattern Osteome	1
35	Hargis Coronoid Retractor	1
36	Hargis Mandibular Body Retractor	1
37	Hargis Medial Ramus Retractor	1
38	Hargis Sagittal Split Osteotome	1
39	Hemostat large	1
40	Hemostat medium	1
41	Hemostat small	1
42	Howard Bone File	1
43	Levasseur-Merrill Retractor	1
44	Lucas Curette	1
45	Molt Curette	1
46	Molt mouth prop	1
47	MOUTH GAG	1
48	Munro Lateral Vertical Ramus Retractor	1
49	Needle Holder	1
50	Obwegeser Alveolar Osteome	1
51	Obwegeser Chin Retractor	1
52	Obwegeser Nasal Retractor	1
53	Obwegeser Nasal Septum Osteotome	1
54	Obwegeser Pterygo-Max Osteotome	1
55	Obwegeser Ramus Retractor	1
56	Obwegeser Ramus Retractor	1
57	Obwegeser Retractor	1
58	Oral Bone File	1
59	Osteotome	1
60	Periapical Curette	1
61	Quinn Hydroxylapatite Perio Elevator	1
62	Retractor Austin's retractor	1
63	Retractor LANGENBECK RETRACTOR small and large	1
64	Retractor Minnesota retractor	1
65	RetractorSeldin Retractor	1
66	Rongeur Forceps	1
67	Ronnau Retractor	1
68	Root Teaser	1
69	Root tip pick	1
70	Rowe's Disimpact Forceps	1
71	Rowe's Disimpact Forceps	1
72	Rubber bite block	1
73	Scissor Iris scissors	1
74	Scissor Metzenbaum scissors	1
75	Seldin Perio Elevator	1

76	Silver Osteotome	1
77	Single-End Orbit Rim Retractor, 20CM	1
78	Skin Hook	1
79	Smith Sagital Seperator	1
80	Smith Wire Cutter	1
81	Smithwick Nerve Hook	1
82	Spatula Osteotome	1
83	Stout Bone Chisel	1
84	Surgical curette double ended	1
85	Surgical curette molt	1
86	Swab holder	1
87	Terry Hydroxyapatite Packer	1
88	Tessier Osteotome	1
89	Tessier Soft Tissue Retractor 90	1
90	Tongue Depressor	1
91	Towel clip	10
92	West Chisel	1
93	Zygoma Hook	1

7. General Dentistry Instruments-(Qty-5)

Sr no.	Name of instrument	Specifications	Qty
1	Air rotor hand piece high quality	1) High quality, push button. 2) Stainless steel/Titanium body. 3) Small head, 4) Ceramic bearing. 5) Light illumination, 6) Effectively cools the surface of the bur. 7) Special mechanism designed to automatically prevent the entry of oral fluids and other contaminants into the handpiece head 8) Two hole/ four hole 9) Speed 300000-500000 rpm. 10) lubricant spray-one 11) With coupling if required 12) one extra cartridge (NSK, KAvo,Sirona no low quality Chinese product)	5
2	Micro motor hand piece quantra angle	1. High quality 2.1:1 direct drive, 3. aluminum/titanium body, 4.Max speed 40000, 5. Push button. 6. Lubricant spray-one 7. Clean head system with anti suck back mechanism that stops blood, saliva entering the head from the oral cavity.	2
3	Micro motor hand piece straight	1High quality 2.1:1 direct drive, 3. Aluminum/titanium body, 4. Max speed 40000, 5. Lock system.	2

		6. Lubricant spray-one	
4	Airotor hand piece surgical	1.High quality 2.Stainless steel/Titanium body. 3.Small head, 4. Ceramic bearing. 5. Light illumination, 6. Push button, 7. Effectively cools the surface of the bur. 8. With coupling	1
5	45 degree head angulated hand piece	1) Triple Water Jet system efficiently bathes the bur at all operating speeds, providing maximum cooling.. 2) Titanium body, small head, ceramic bearing, light illumination, push button, 3) Special mechanism designed to automatically prevent the entry of oral fluids and other contaminants into the hand piece head, prolonging the life of the bearings 4) Speed 380,000-450,000 rpm. 5) Coupling if required. 6) lubricant spray-one	1
6	Air motor	1. Speed control, 2. Maximum speed 220000, 3. two hole 4. lubricant spray-one	3
7	Clinical Micromotor electrical	1. Motor Type: Brushless Micromotor 2. Max Torque: 4.2 Ncm apporx 3. Endodontics Torque: 0.3-6.0 Nem (Depending on Gear Ratio). 4. LED display 5. Motor Speed: 100-40,000 min	1
8	Laboratory micromotor	1.Speed: 1,000-35,000 min 2.Max. Torque: 4.1 Ncm Approx 3. Cord Length: 1.2 m Approx 4. Motor Handpiece 5. Speed:1,000-35,000 min1 Approx 6. Max Torque: 4.1 Ncm Approx 7. Cord Length:1.2 m Approx 8. Control box.	2
9	Apex locator	1. Auto detects the apex accurately in dry and wet canal. 2. Highly accurate. 3. Sound alert reaching the apex 4. LCD colored Display compact 5. Continuous use approx. 60 hrs battery back up	3
10	Endomicromotor	1. Torque control 2. Auto Reverse torque 3. 9 approx program settings 4. Compact and portable 5. Maximum torque 7Ncm 6. Speed range 100-13000 7. Head 16:1 8. Miniature Head 9. Stainless Steel Body 10. 360o Rotation 11. For Ni-Ti files (p2.35) 12. Push Button Chuck	2

11	Crown remover	Stainless steel, spring loaded, four different tips.	3
12	Rubber dam kit	1. 1x Dental Dam Punch (Ainsworth-Styled, Stainless Steel) 2. 1x Clamp Forceps 3. 1x Dental Dam Template - 6" (152 mm) 4. 1x 36 pcsLatex Medium Green 6" x 6" (152 x 152 mm) 5. 1x 2.1 mSmall Yellow (7 Ft. / 2.1 m) 6. 1x9 pcsFiesta 9 Color Coded Winged Clamp Pak 7. 1x Plastic Frame (6"/152 mm), Radiolucent	2
13	Three way syringes tips	Stainless steel, Autoclavable, non corrosive	50
14	Suction tips	1. Autoclavable, 2. noncorrosive, 3. stainless steel	10
15	High quality Mouth mirror with handle	1. High-contrast mirror image 2.High reflection and best picture quality 3. Exactly sharp mirror image 4. Absolute resistance to disinfection and sterilization	50
16	Endodontic pluggers	1. Double ended 2. Colour coded 3. Set of four instrument minimum	5
17	Orthodontic instrument kit Large size, hard rubber, for plaster missing	1. 1 x Bird Beak Plier 2.1 x Distal End Cutter 3.1 x Adams Plier 4.1 x Ivory stoke clamp 5. 1x Bracket remover 6. 1 x Band Pusher 7. 1xPin & Ligature cutter 8. 1 x universal plier 9. 1x Tucker 10. 1 x Bracket Height Guage 11. 1 x Reverse Action Tweezers 12. 1 x Mathiew 13. 1 x lightwire plier 14. 1x Hard wire Plier 15. 1x Bons Guage: 16. 5x Bracket holder 17. 1x Canine contouring plier 18. 1x Straight artery forcep 19. Tongue guard 20. Ribbion arch plier 21. 1xTweeds plier 22. 1xBand forming plier 23. 1xSeprater placing plier 24 1xBand forming plier 25. 1xBand pinching plier 26. 1xBand countouring plier 27 3x molar tube holder 28 Molar tubes 29 Prefabricated bands	1
18	Semi adjustable articulator	•Interchangeable fossae provide maximum flexibility and precision, enabling proper occlusion for each patient • Removable upper member facilitate wax-ups • Programmed fossae with curved 19mm (3/4") radius simulate	1

		average anatomical movements • Positive centric latch • Interchangeability of accessories and casts • Wide lingual visibility • Dual-end incisal pin • 0-90° adjustable condylar Inclination Comes complete with: 10 plastic mounting plates, instruction manual and carrying case Modular Articulator with Radial Shift and Orbitale Indicator Features: • Adjustable table • 0-30" progressive side shift • 0-4mm adjustable immediate side shift	
19	Face bow transfer	• Auto-centering. • Sterilizable. • Economical. • Detachable transfer clamp assembly. • Accessory indexes. • Built-in reference pointer. Accessories: Transfer clamp assembly anterior elevating assembly mounting platform with built-in cast support bitefork and biteplane	1
20	Alginate spatula plastic	For mixing alginate, made up of plastic, flexible	5
21	Plaster spatula(curved)	For mixing dental plaster, stone, investing material, autoclavable	5
22	Plaster spatula(straight)	For mixing dental plaster, stone, investing material, autoclavable	5
23	Rubber bowl (plaster)	Large size, hard rubber, for plaster missing	5
24	Rubber bowl (alginate)	Large size, soft rubber, for plaster missing	5
25	Enamel bowl	Medium size, white enamel. coating outside and inside	5
26	Wax spatula	Highly accurate design, stainless 5 steel, autoclavable, non erosive, medical grade stainless steel	5
27	Wax carver	Highly accurate design, stainless steel, autoclavable, non erosive, medical grade stainless steel	5
28	Wax knife	Highly accurate design, stainless 5 steel, autoclavable, non erosive, medical grade stainless steel	5
29	Plaster knife	Highly accurate design, stainless steel, autoclavable, non erosive, medical grade stainless steel	5
30	Lacron carver	Highly accurate design, stainless steel, autoclavable, non erosive, medical grade stainless steel	5
31	Hammer large	large size	2
32	Hammer large	medium size,	2
33	Hammer small	Small size	2
34	Cutter	Stainless steel with blade, Heavy 5 duty cutter ideal for thicker cuts and can be Used for cutting Thick paper, balsa wood cardboard, fabric, mat board	5
35	Plaster cutter plier	Plier	3
36	Gas torch	Pin-type Canister with High-Pressure Premium Fuel for Brazing. Adjustable flame can be refilled easily. With insulation, without plastic container	5
37	Hinge articulator	Material: hard metal Durability: High longevity and robust	10

		performance. Function: Replicates positions between maxilla and mandible. Applications: Suitable for removable prosthodontic appliances (dentures) and fixed restorations (crowns, bridges, inlays, and onlays)	
38	Flask maxilla with clamps	Made up of Brass with clamps Designed for maxilla	5
39	Flask mandible with clamps	Made up of Brass with clamps Designed for mandible	5
40	Three point articulator	Material: Metal (Aluminium Alloy) Intercondylar distance 10-11 cm Incisal guidance 9-12 Condylar guidance 31 Lower member movable Seri adjustable, Non Arcon type	5
41	Endodontic pen	Cut and Fill 2 in 1 Ergonomic Design Cordless, ergonomic and lightweight design making it easy for handling cleaning and storage rechargeable, with charger	5
42	Endodontic gutta percha cutter	Heat Conduction Stable at 280°C. Power Consumption: Operates on 2 x 1.5V AA batteries 200+ cuts with fresh cells. Technical Specifications: Class II and Class B equipment. Input Power Supply: 2 x 1.5V AA batteries. < 3W power, 19mmx200mm dimensions. rechargeable inbuilt battery. with charger	5
43	Sand blaster	Features: Rubber glove for abrasion-free 1 working, high-quality contamination-free nozzle, built-in light, exhaust filter for pollution-free atmosphere, large glass for easy viewing Functionality: Provides smooth finish on dental articles, abrasion-free working •Application: Dental surface preparation •Safety: Rubber glove for delicate surfaces, exhaust filter for a pollution-free workspace •Visibility: Built-in light for enhanced visibility during procedures	1
44	Bite block	It should be a rubber-like texture.. not too hard, medium size, with protective attachment	5
45	Carver for restoration	Highly accurate design, stainless steel, autoclavable, non-erosive, medical grade stainless steel	5
46	Aluminium instrument box	For sterilization of dental Instruments, made up of aluminium, with lid and vents	15
47	Perforated trays no 3	Dental Impression tray Dentulous Perforated is used to take a negative imprint of hard (teeth) and soft tissues in the mouth (maxilla plus mandible)	4
48	Perforated trays no 4	Dental Impression tray Dentulous Perforated is used to take a negative imprint of hard (teeth) and soft tissues in the mouth (maxilla plus mandible)	4
49	Lead apron	•0.34mm Lead equivalency •BARC certified. Type:- Dental Radiography. Category: X ray protection. Material: Lead.	3

		Disposable / Reusable:- Reusable.	
50	Thyroid collar	Measured Lead Equivalence : 0.58 mm at 100 KVp of X-ray beam. Type: Dental Radiography. Category: Xray protection. Material:- Lead Disposable Reusable:- Reusable	2

8. Multipara Monitor-(Qty-5)

- Should be a pre-configured/Non- Modular Type patient monitor.
- ECG:
 - a) Should have 3/5/12 leads ecg
 - b) Should have all 12 lead Interpretation for the ECG
 - c) Atleast 5 leads should be analyzed for ECG in single time.
 - d) Should provide ST segment analysis and arrhythmia detection.
 - e) Should be provided with inbuilt Defibrillator and cautery protection.
 - f) The no of waveforms displayed should be 5 or more.
 - g) Should have a sweep speed of 12.5, 25, 50 mm/sec
 - h) The heart rate range should be 30-240 bpm or more.
- Pulse Oximeter:
 - a) Should have a measurement technique: Nellcor/Masimo.
 - b) Should have OEM Authorization certificate for SpO2 technology used.
 - c) Should have Oxygen saturation range of 0-100 %
 - d) Accuracy of oxygen saturation should be +-2% for 70-99% and +- 3% for 40-69%
 - e) Should be supplied with reusable adult probes.
- NIBP :
 - a) Should have Oscillometric measurement technique.
 - b) Should have measurement range of 10-270 mmHg for adults, 10-240 mm Hg for pediatric and 10- 135 mm Hg for neonatal
 - c) The measurement interval should vary from 2 mins to 2 hours
 - d) Should have Auto, Manual, Stat modes
 - e) Should be supplied with standard adult cuffs.
- Temperature:
 - a) Should have minimum 2 channels of temperature.
 - b) The range for measurement should be 0-50 degree celcius with an accuracy of +-0.1 degree
 - c) Should be provided with skin probes.
- Respiration:
 - a) Should have Impedance Pneumography measurement Technique.
 - b) Should be able to capture 0-150 breaths per minute or more.
 - c) Should have a resolution of 1 bpm.
 - d) Should have a measurement accuracy of +-2 Breath/min.
 - e) Should have a user selectable apnea Alarm.
- Heart (Pulse) rate:
 - a) Pulse rate should be user selectable from the source: smart, ECG,SpO2, NIBP.

- b) Should range from 10-300 bpm for adults and 10-350 bpm for pediatric
- c) Should have an accuracy of ± 1 bpm or $\pm 1\%$
- Alarm:
 - a) Should have Audi-Visual Alarms for all parameters.
 - b) Should be able to adjust the alarm levels
 - c) Should have alarm silence duration of 120 seconds or more.
- Networking Parameter:
 - a) Should have wired / wireless connectivity provision with central nursing station.
 - b) Should be compatible with a USB Port / WIFI/ LAN Connectivity.
- Display:
 - a) Should be LCD /TFT type of display
 - b) Display size should be 12 inch or more
 - c) Should have rotary knob for user interface.
- IBP:
 - a) Should have a minimum two channel display.
 - b) Should display systolic, mean, diastolic with waveform.
 - c) The pressure should be ART,PA,CVP,RAP,LAP,ICP,P1,P2
 - d) The range should be 0-300,6-120,10-300mmHg with an accuracy of ± 1 mmHg or $\pm 2\%$
- EtCO₂:
 - a) Should have a side stream transducer for CO₂ measurement.
 - b) The range should vary from 0-150 mmHg or more.
 - c) The resolution should be 0.1 mmHg
 - d) Accuracy of the device should be ± 2 mm for 0-40 mmHg range, $\pm 5\%$ of the reading for 41-70 mmHg range, $\pm 8\%$ of reading for 71-100 mmHg range, $\pm 10\%$ of reading for 101-150 mmHg.
- Printer(Optional):
 - a) Should have inbuilt thermal Printer
 - b) The printing speed should be 25,50 or more mm/sec
- Power Supply:
 - a) Should have an inbuilt rechargeable battery.
 - b) Should provide a backup of 120 mins or more
 - c) The recharging time of battery should be less than 6 hours.
- The product should be USFDA /EU-CE / BIS certified from regulatory authorities for medical equipment.
- The Device should be CDSCO Certified.
- Manufacturer must be ISO/ICMED 13485 certified.
- Should have Following Electrical safety standards IEC 60601-1, IEC60601-1-2, IEC 60601-2-49, IEC 80601-2-30, IEC 80601-2-61, and IEC 60601-2-27.

9. Bronchoscope (Qty-1)

A. High Definition Video Processor with built in Xenon light source (150 watt or more),

1. It should be compact, lightweight Digital color video processor.
2. It should have single CCD color system.
3. It should have xenon short arc lamp of 300 W or more with 3W LED as auxiliary lamp.
4. It should have HD Image output such as DVI-D, RGBS Connectors, Y/C Connectors and Composite video connector and Video Out.
5. It should have facility for USB port on front and rear panel.
6. It should have following Power Requirements for operation
 - Voltage-230V
 - Frequency 50/60 Hz.
7. Weight of processor with light source.
8. It should have facility for Image Enhancement Endoscope iscan/NBI OR FICE technology for better diagnosis.
9. It should have a freeze scan to temporarily select the best image.
10. It should be able to view far off image with better brightness.
11. It should have facility of extra illumination for more light apart from normal brightness control.
12. Panel button should be feather touch.
13. Processor with in-built light source will be preferred.

B. Specification of High definition Adult Video Bronchoscope

Field of View (°)	120° or more
Depth of Field (mm)	3-100
Tip Deflection Up-Down (°)	Up 180/Down 130
Rigid Distal Width (mm)	Ø 6.1 or less 26.4 or less
Insertion Tube Width (mm)	Ø 6.4 or less
Minimum Instrument Channel Width (mm)	Ø 2.8 or more
Working Length (mm)	600 or more
Total Length (mm)	860 or more

C. With all standard set of Accessories

Scope should be High definition

High Frequency treatment should be possible
 Scope PVIJ Connector should be rotatable by 180 Degree
 Two to Three Remote switches should be available on Control Body
 Biopsy Port should be below control Body.
 Video Bronchoscope should be CE/FDA approved
 Following accessories to be supplied with scope for 2.8mm channel diameter

- a. Reusable Cup biopsy forcep : 100ty
- b. Reusable Cup biopsy forcep with spike: 10Qty
- c. Reusable Dornia basket: 10 qty
- d. TBNA needle: 50 qty
- e. Leakage tester
- f. Biopsy Forceps - 10 nos.
- g. ETO Cap-1
- h. Mouth Piece - 10 nos.
- i. Cytology Brush - 10 nos.
- j. Sterilisation Tray Suitable for Bronchoscope
- k. Suitable Cupboard for drying
- l. Biopsy and suction Valve- 4 each
- m. Biopsy forceps (Alligator), Reusable 4no.
- n. Biopsy forceps (Standard with Needle & Fenestrated), Reusable 10 no.
- o. Biopsy forceps (Alligator jaw-step fenestrated). Disposable 10 no.
- p. Biopsy forceps (Alligator jaw-step with needle fenestrated) Disposal, 10 no. q.
- Biopsy forceps (Standard Oval fenestrated). Disposal 10 no.
- r. Biopsy forceps (Standard Oval with needle fenestrated). Disposable 10 no.

D. 24" OR MORE MEDICAL GRADE MONITOR

1. 24" Colour HD monitor with DVI-D, RGB & S-VHS Video in/out facility. 2. Availability of NTSC and PAL Signals.

E. Mobile Trolley with Castor to be provided.

F. Recording software.

10 Automated Perimeter (Qty-2)

Stimulus Characteristics

Target Size	Goldmann III Size
Method of Presentation	Rear Projection LED Static Perimeter
Luminance range ostilbs (50 to 10 db)	0.01 to 1000 Ap
Number of stimuli	133
Luminance Accuracy	+/-0.5db
Color	Pale green with wave length of 568 nm
Duration	0.2 to 5.0 sec in 0.2 sec increment
Interval	0.3 to 4.9 sec in 0.2 sec increment

Strategies

Screening	Fixed, 3 Zone & contour screening
Threshold	Full & fast Threshold

Fixation Monitors

Electro-optical monitoring	Video Monitor
Heijl Krakau Fixation Control	Blind Spot Method
Mosaic Attention Monitor	Sensor Method

Stimulator Screen

Shape	Part Hemispherical Bowl
Radius	30cm
Surface	Integrated Diffusing
Background Luminance	31.5 Apostilbs (Fixed)
Chinrest Movement	Dual Chinrest with Vertical movement only
Operator Interface	Touch Screen, Keyboard and Mouse
Printer	Laser Printer (Supports All Kinds of USB Printers)
Analysis Software	Field Explorer V2.0

Patterns

Central Field	5 Patterns
Full Field	6 Patterns (Patterns can be customized)

Characteristics

Dimension in mm	590 (H) x 545 (W) x 520 (D)
Weight	Approx 42Kg
Power Supply	230 V, 50 Hz AC
Power Consumption	100 Watts
Operating range	40 to 104 F (10 to 40 C)
Operating humidity	35 to 85% (non-conductivity)

11 Autorefracto-Keratometer(Qty-6)

SPECIFICATIONS:-

- Manual Mode/auto
- Auto- Alignment Preferred
- Auto-focus
- Auto-shoot
- Auto- PD measurement: 40mm -85mm approx.
- Accurate Measurement
- High speed measurement: 0.3sec or less
- Keratometry (Range between 6 to 12 mm)
- Automatic measurement for Keratometry (Range between 30D to 68 D)
- Automatic fogging
- Automatic IOL mode
- Automatic power saver mode
- Peripheral K'metry mode
- Simple operation & user friendly data
- Measurable Range: Sphere -18 to +23 Diopters (0.25D Step)

o Cylinder: +/-8 +10D

o Axis: 0-180'

- Measurement indication: LED Digital
- Should have at least 0, 12, 13.5 and 15 mm vertex distance
- Should measure a minimum pupil diameter of 2mm
- Should have vertically adjustable chin rest of at least + 25 mm
- Should be supplied with motorized table optional, quote price separately
- Alignment observation : 5-6 inches TV monitor colour preferred
- Printout: High speed built in line Laser Printer preferred
- Power source :100/120 Vac,220/240 vac
- Axis 0-180° (in 1° or 5° steps)
- Warranty period should be minimum 1 year or more
- AMC of machine should be for minimum for 2 years as per Govt. Norm.
- UPS Backup as per the requirement of Machinery/servo controlled voltage stabiliser
- CE Certification
- License for software pack if applicable

12 Refraction chair unit with stool (Qty-5)

Technical specifications:

Seat minimum height	550 mm
Seat Maximum height	710 mm
Up & Down stroke	160 mm
Seat Rotation	0 to 180°
Back & Forward movement	95° to 175°
Net Weight	189 kg
Load Lifting	200 kg
Motor Available	24V DC
Stabilizer required	1 kva min
Minimum area required	8' X 10'
Optional	Left side stand is also available for convenient.
Standard Color available	Blue, Gray, Maroon Green, Black

Power Requirements

AC Input	230V AC 50 Hz
Fuses	5A Slow Blow

13 Applanation Tonometer (Qty-4)

TECHNICAL SPECIFICATION:

Type	Applanation tonometer
Principle	Goldmann tonometry

SPECIFICATIONS

Measuring Range	0 to 80 mmHg in 2mmHg increments.
Diameter of the pneumatic face	3.06 mm
Measurement	47 mm Wide x 30 mm Deep x 85 mm Height
Weight with accessories	Approximate 800 gm

14. Phacoemulsification Machine (Qty-1)

Phaco Emulsification Machine.

- I)
 - 1) Aspiration: Peristaltic pump with Auto Venting.
 - 2) Vacuum 5 to 500 mmHg.
 - 3) Flow rate = 0 to 50 cc/min.
 - 4) Irrigation: Fluid delivery- Gravity fed/Continuous / Foot operated
IV pole:Manual/Motorized
 - 5) U/S (Ultra sound): Hand Piece- Light weight, Longitudinal piezo electric Crystals or more, 20-35khz, U/S modes- Continuous/Pulse/Micro pulse/Burst mode
Mbur Occlusion pulse/Occlusion Micro pulse, U/S power-1-100%
 - 6) Anterior Vitrectomy with Pnuematic cutters with Cut Rate Minimum 60-700 Cuts/Min or more with 20G Cutters. With Inbuilt Air Compressor preferable. Vitrectomy mode should be linear or nonlinear
 - 7) Should be with Endo and Macro Diathermy from the same company.
 - 8) Tips 2.8mm, 2.2mm, 1.8mm should be compatible & Should be provided.
 - 9) Handpiece should be made of Titanium Material.
 - 10) Linear & Pulse Mode should be available.
 - 11) Must be with Reusable (Autoclavable) Tubing/Cassette.
- II) Phaco Emulsification: Hand piece -Light weight, slim, 4 piezo electric crystals or more, 20- 35Khz.
- III) Auto tuning capability.
- IV) Safety: advanced chamber stability with excellent surge control.
- IV) MICS capability.
- VI) Vitrectomy with cutter: 206 cutter
- VII) Machine should be Light weight & Portable.
- VIII) Reusable Tubing system with Integrated Closed Sensor.
- IX) Should have CE certificate From Notified Body/ USFDA.
- X Touch Screen Device.
- XI) Service Manual should be provided.
- XII) Should be supplied with standard accessories
- XIII) Should be supplied with one extra phaco handpiece.

XIV) Should be supplied with UPS system or servo controlled stabilizer, dust cover

XV) Warranty for 2 years should be provided.

XVI)User Programmable:

Mode	U/S 1, U/S 2, U/S 3, I/A 1, VA 2, VA 3, CAPVAC, DIA & VIT
Foot switch	Multi-Functional foot switch with user programmable foot pedal angles & side buttons.
User Interface	Clear LCD display with soft touch interface
Video Overlay	Video overlay facility available in all modes
Instrument Trolley	Compact machine trolley with instrument tray

15. Optical Coherence Tomography (OCT) System (Qty-1)

- The system should have an imaging engine that is based on fibreoptic technology
- It should have computer, a keyboard, usb input and mouse and servo voltage stabiliser
- It should contain main console-1, monitors -2, laser printer 1, imaging catheter -10
- It should utilise the catheter that emit near infrared light to produce high resolution real time images
- Imaging catheter :should be FDA/EUROPIAN-CE /DCGI approved
- Instrument weight: around 30 to 40 kg (without monitor)
- Scan speed :50000 to 100000 A-scans per second
- Scan pattern of fundus: 3D scan (horizontal/vertical and linear scan(line scan/cross scan/radial scan)
- Montor: 24" to 25" widescreen HD
- Input devices: wireless keyboard,wireless mouse
- Operating system: windows 10
- Fixation internal,external
- Internal fixation (focus adjustment): -18D TO +22D
- Imaging modes: should have anterior segment,posterior segment,fundus imaging and OCT angiography
- B-scan:10to 12 mm raster ;3-12 mm cube
- OCTA: 3by 3 mm,6by6mm, 8by8mm,,12by12 mm (retina) ;4.5by4.5mm(optic nerve head),14by14 mm,14by10 mm
- Should have appropriate hardware and software with printer

16. Fundus Camera (Qty-1)

Dimensions	-Compact and Portable
Angle of Coverage:	-Nonmyd: 45 degree 2x magnification (digital) -Myd: 50 degree
Working distance:	-25 to 41 mm
Pupil Size -	-4.0 mm or more -3.3 mm or more when the small pupil diaphragm is used
Photography Modes	-Color photography -Red free photography -Red free and cobalt Blue/FAF
Focusing	-Auto fixation -internal fixation target for myd mode (optional)
Patient diopter correction range:-	-Without correction - 13 D to +12 D (where split lines are used) -With minus correction lens :--12D to -33D -With plus correction lens: +9D to + 40D
Sources	-Non myd mode: LED light
Standard Accessory:-	- Dust cover motorized table. -UPS system or servo controlled stabilizer

Standard safety:-

- It should comply with CE standards/USFDA for Medical
- deviceIEC standards for product safety

17. Photo disrupting ND YAG Laser(Qty-1)

Laser	Nd:YAG
Laser Wavelength	1064nm
Mode	Super Gaussian or better
Mode of operation	Q-Switched
Min laser energy	0.5mJ-10mJ (single pluse)
Max laser energy	Single pluse 10mJ Double pulse 18 mJ or more Triple pulse 25mJ.or more
Pulse repetition frequency	2.5 Hz (Max.) or more
Pulse duration	<4 ns or less
Optical break down	Typically 2.5mJ/3MJ in air or less
Focus diameter/Spot size (In Air)	10µm in air or less
Focus shift	+500µm (Posterior-0, 150, 250, 300 or more Anterior-0, 150,or more)
Pulse width	<4/5ns
Aiming beam	Laser diode 650nm or more Power output 3UW-150µW
Cooling	Air Cooling
Magnification	3/5 step magnification
Interpupillary distance	Variable
Diopter	+8D to -8D
Eye pieces	10X (Optional 12.5X)
Illumination	LED, brightness continuously adjustable
Slit adjustment	0-12mm or more, continuously adjustable
Slit rotation	0°-90°
Filters	Blue and green
Power supply	Variable power: 100-240V ± 10%, 50-60Hz
Dimension	Compact and portable
Standard Accessory	motorized table, dust cover,UPS system, fuses(6),

It should comply with CE standards/USFDA for medical device IEC standards for product safety

18. Photocoagulating Green Laser (Qty-1)

Technical Specifications-

BEAM CHARACTERISTICS:

1. Should have treatment laser type Frequency- Doubled Nd:YAG.

2. Principal wavelengths shall be 530-532 nm.
- 3 Delivered power of lasers shall be as Frequency- Doubled Nd:YAG.
- 4 Delivery Mode - Single, repeat.
- 5 The amount of time the patient is exposed to activated laser energy shall be 0.01-2 Sec.
- 6 Repeat time shall be 0.1-2 Sec
- 7 Spot diameter @ retina shall be 50-1,000µm

AIMING BEAM:

1. Wavelength shall be 630 nm 2. Power shall be <1 mW. DELIVERY SYSTEM TYPE:
1. Slit lamp is required.
2. Intraocular probe is required(optional)
3. Hand piece(s) is required.
4. Indirect ophthalmoscope laser delivery system

User's interface

Manual

Software and/ or standard of communication(where ever required As Applicable Dimensions(metric)NA

Weight (lbs, kg)NA

Noise (in dBA) Noise-free system

Heat dissipation Should maintain nominal temp and the heat should be disbursed through a cooling mechanism

Mobility, portability Stationary.

Power requirements Electrical Requirement: 200-230 VAC 50/60 Hz single phase

Battery operated Online UPS shall be Provided

Protection Stabilizer to be provided

Power consumption To be specified by vendor

Accessories, (mandatory,standard, optional); Spare parts (main ones);

Consumables/reagents (open, closed system)

Dust

covers. I

Allen Key.

1 set spare bulb-

6/fuses-6

Should be supplied with motorized table

Should provide protective goggles to be exclusive for

- 1) Volk 160degree wide field laser lens
- 2) mainster wide field laser lens
- 3) laser coated + 20 D IDO lens Appropriate UPS backup

Atmosphere/Ambience (air conditioning, humidity, dust ...)

- 1.Operating Condition: Capable of operating continuously in ambient temperature of 5 to 40 deg. C and relative humidity of 15 to 80% in ideal circumstances.
2. Storage condition: Capable of being stored continuously in ambient temperature of 0 to 40 deg. C and relative humidity of 15 to 90%

User's care, Cleaning, Disinfection & Sterility Issues

Sterilization not required.

Certificates (pre-market, sanitary...); Performance and safety standards (specific to the device type); Local and/or international

1. Should be US FDA/CE/BIS/CDSCO approved (USFDA/CE requirements will be applicable only when the Indian standards like BIS/CDSCO are not available.)
2. Manufacturer should have ISO 13485 certification for quality standards.
3. Electrical safety conforms to the standards for electrical safety IEC 60601-1-General Electrical Socket. requirements (or equivalent BIS Standard).

Pre-installation requirements: nature, values, quality, tolerance

Availability of 5 Amp/15 Amp.

Requirements for sign-off

Supplier to perform installation, safety and operation checks before handover.

Local clinical staff to affirm completion of installation.

Training of staff (medical, technicians)

Training of users in operation and basic maintenance shall be provided. Advanced maintenance tasks required shall be documented.

Warranty

3 years, including for all spares and calibration work.

Operating manuals, set manuals, other manuals

Should provide 2 sets(hard copy and soft copy) of:

1. User, technical and maintenance manuals should be supplied in English/Hind/Regional language along with machine diagrams;
2. List of equipment and procedures required for local calibration and routine maintenance;
3. Service and operation manuals(original and Copy) to be provided;
4. Advanced maintenance tasks documentation;
5. Certificate of calibration and inspection,
6. Satisfactory certificate for any existing installation from government hospital.

Other accompanying Documents

List of essential spares and accessories, with their part number and cost;

Service Support Contact details (Hierarchy Wise; including a toll free/landline number)

Contact details of manufacturer, supplier and local service agent to be provided;
Any Contract (AMC/CMC/add-hoc) to be declared by the manufacturer.

Recommendations or Warnings

Any warning sign would be adequately displayed.

19. Slit lamp with imaging system (Qty-1)

1. Microscope - Galilean
2. magnification change - 5 step drum
3. Eye Piece - 10X OR 12.5x
4. Magnification Ratio - 6x, 10x, 16x, 25x, 40x
5. Real Field of view in mm 34, 22, 14, 8.5, 5.5
6. pupillary distance - Variable
7. Working distance - Adequate
8. Slit Length & width - 0-12 OR 0-14
9. Input voltage - 110v/220v, AC, 60/50Hz
10. Illumination & Background Type - Bright LED
11. Filters heat absorbing Green & cobalt blue, Yellow & Neutral Density Filters
12. Movement Range - Appropriate
13. Input Power - 230V AC
14. Camera - HIGH resolution digital HD Imported. best quality
15. Software - Appropriate ; updated software, and hardware
16. Applanation Tonometer Principle - Goldman Tonometry
17. Motorized Instrument Table
18. Monitor - 24 inch to 30 inch,
19. HD, high resolution, colour -
Standard accessories -
Servo controlled voltage stabiliser Dust cover extra spare fuses
20. CE CERTIFIED / FDA APPROVED / EU

20. ENT Operating Microscope (Qty-2)

1. Should have latest high end apochromatic optics
2. Should have 5 step magnification changer with five click stop positions
(64/10/16/25/40x)
3. Should have total magnification ranging from at least 2.1x upto 26x or more without using additional external magnification multiplier/changer
4. Should have multifocal objective lens with focal distance 200mm and 300mm with fine focusing knob.
5. Stereo Base minimum 24mm is must
6. Pair of high point wide field push-in eyepieces 12.5x magnification with eye guards and magnetic clocks, diopter setting from -5D to +5D, also suitable for spectacles wearers.
7. Should have swivel coupling with brake for application-oriented positioning of microscope head required for specialized ENT surgeries such as stapedectomy and cochlear implants.
8. Should have straight binocular tube.
9. Should have integrated 2 LED illumination with lamp lifetime of 60,000 working hours for better color rendition, tissue differentiation and maintenance free usage.
10. Should have heat absorbing and UV filters
11. Should have integrated red-free green filter for better visualization in blood filled operating field.
12. Should be floor stand complete imported system on castor wheels with brake.

13. Should have Inclination switch which turns on the illumination in the working position and turns it off in the stand by position.
14. Compulsory integrated 4K video camera with 4K video resolution and 12 MP still photo resolution, camera also has playback function for video and photo and thumbnail view, video (MPEG-4) and photo (.jpg/raw) storage on SD memory card (system comes with a 64 GB SD memory card), or transfer via USB. Video signal available in HDMI(1 video connector).video/photo control through IR remote control and two hard keys on camera body, all camera settings adjustable via onscreen menu.
15. Should be USFDA registered and to be verified on USFDA website.
16. Should be supplied with sterilizable caps for adjustment knobs and handgrips that can be sterilized in autoclaves.
- 17.Should be supplied with Dust cover to cover the microscope when not in use.

21. Burrs & Micro Instrument set (Qty-4)

A)BURS

1. Diamond burrs 1 mm diameter 70 mm length
2. Diamond burrs 2.3 mm diameter 70 mm length
3. Diamond burrs 3.1 mm diameter 70 mm length
4. Diamond burrs 3.5 mm diameter 70 mm length
5. Diamond burrs 6.0 mm diameter 70 mm length
6. T.C. burrs 1 mm diameter 70 mm length
7. T.C. burrs 2.3 mm diameter 70 mm length
8. T.C. burrs 3.1 mm diameter 70 mm length
9. T.C. burrs 3.5 mm diameter 70 mm length
10. T.C. burrs 6.0 mm diameter 70 mm length

B)MICRO INSTRUMENT SET EAR INSTRUMENTS

1. MUSTOID RETRACTOR 2*2-----1QTY
2. MUSTOID RETRACTOR 3*3-----1QTY
3. MUSTOID RETRACTOR 4*4-----1QTY
4. SHEAS SPECULUM SET OF 4-----1QTY
5. ADSON FORCEPS PLAIN-----1QTY
- ADSON FORCEPS TOOTH-----1QTY
6. GRAFT CUTTING SCISSOR 4" STRAIGHT-----1QTY
- GRAFT CUTTING SCISSOR 4" CURVED-----1QTY
7. FARABEEUF ELEVATOR CURVED-----1QTY
8. CROCODILE FORCEPS ALLIGATOR-----1QTY
9. CROCODILE FORCEPS CUP-----1QTY
10. CROCODILE FORCEPS SCISSOR-----1QTY
11. ENDAURAL SPECULUM STR-----1QTY
12. B.P.HANDLE 3 NO.----- 1QTY
13. SKIN HOOK-----1QTY

14. MYRINGOTOMY KNIFE-----	1QTY
15. MICRO EAR PICK STR., CVD.,90',45'-----	4QTY
16. MICRO EAR BALL PROBE-----	1QTY
17. MICRO EAR SICKLE-----	1QTY
18. MICRO EAR FLAG-----	1QTY
19. MICRO EAR CIRCULAR-----	1QTY
20. MICRO EAR ELEVATOR-----	1QTY
21. INSTRUMENT RACK 11 HOLES-----	1QTY
22. AUTOCLAVE BOX WITH SILICON MATT-----	1QTY
23. SUCTION TIPS SET OF 14-----	1QTY
24. ADOPTER-----	1QTY
25. HOUSE CURETTE DOUBLE ENDED STRAIGHT-----	1QTY
HOUSE CURETTE DOUBLE ENDED ANGLED-----	1QTY

22. General Instruments for ENT (Qty-4)

1. TOWEL CLIPS CROSS ACTION-----	1QTY
2. TOWEL CLIPS FORCEPS-----	1QTY
3. ARTERY FORCEPS 6" STRAIGHT/CURVED-----	2QTY
4. ARTERY MOSQUITO FORCEPS 5" STRAIGHT/CURVED-----	2QTY
5. BABCOCK FORCEPS 6"-----	1QTY
6. MIXTERS FORCEPS 8"-----	1QTY
7. CHITTEL FORCEPS 8"-----	1QTY
8. ADSON FORCEPS TOOTH/PLAIN-----	2QTY
9. DISSECTING FORCEPS 6" TOOTH/PLAIN-----	2QTY
10. TINACULUM FORCEPS 6" VERTICLE SERRATION VASCULAR-----	1QTY
11. TINACULUM FORCEPS 8" VERTICLE SERRATION-----	1QTY
12. SUCHER/TREAD CUTTING SCISSOR-----	1QTY
13. STOUT SCISSOR 6" STRAIGHT/CURVED-----	2QTY
14. MAYO/DISSECTING FINE SCISSOR 6" STRAIGHT/CURVED-----	2QTY
15. MAYO/METZENBAUN SCISSOR 8" CURVED-----	1QTY
16. SMALL FINE SCISSOR 4" STRAIGHT/CURVED-----	2QTY
17. NEEDEL HOLDER 6" STRAIGHT-----	1QTY
18. NEEDEL HOLDER 6" BAYONET-----	1QTY
19. SPONGE HOLDING FORCEPS 8"-----	1QTY
20. KOCHER CLAMPS 6" CURVED/STRAIGHT-----	2QTY
21. T.C NEEDEL HOLDER 6"-----	1QTY
22. T.C SCISSOR 6" STRAIGHT/CURVED-----	2QTY
23. LANGENBACK RETRACTOR-----	1QTY
24. CATS PAW RETRACTOR-----	1QTY
25. CHEATLE JAR-----	1QTY

23. FESS Set(Qty-2)

Sr. No.	Technical Specificaions
	Nose surgery instruments set should include the following instruments
1	Forceps, Septum Straightening. Ald Jaws. Asch.22cm/8.75"
2	Forceps, Septum Straightening. Universal Walsham. 23cm/9"
3	Speculae, Nasal. St. Clair Thomson. Set of 4.9cm
4	Speculum, Nasal. Killian.90mm.15cm/6"
5	Forceps, Septum Straightening. Ald.Jaws.Asch.22cm/8.75"
6	Forceps, Septum Straightening. Universal.Walsham. 23cm/9"
7	Speculae, Nasal. St.Clair Thomson Set of 4.9cm
8	Speculum, Nasal. Killian. 90mm.15cm/6"
9	Forceps, Septum Straightening. Ald. Jaws, Asch.22cm/8.75"
10	Forceps, Septum Straightening. Universal. Walsham. 23cm/9"
11	Speculae, Nasal. St.Clair Thomson. Set of 4.9cm
12	Speculum, Nasal. Killian. 90mm.15cm/6".
13	Forceps, Septum Straightening. Ald. Jaws.Asch.22cm/8.75"
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15	Speculae, Nasal. St.Clair Thomson. Set of 4.9cm
16	Speculum, Nasal. Killian. 90mm.15cm/6".
17	Forceps, Septum Straightening. Ald. Jaws, Asch.22cm/8.75"
18	Forceps, Septum Straightening. Universal.Walsham 23cm/9"
19	Speculae, Nasal. St.Clair Thomson. Set of 4.9cm
20	Speculum, Nasal. Killian. 90mm.15cm/6".
21	Forceps, Septum Straightening. Ald.Jaws, Asch.22cm/8.75"
22	Forceps, Septum Straightening. Universal.Walsham 23cm/9"
23	Speculae, Nasal. St. Clair Thomson. Set of 4.9cm
24	Speculum, Nasal. Killian. 90mm.15cm/6".
25	Forceps, Septum Straightening. Ald. Jaws. Asch.22cm/8.75"
26	Forceps, Septum Straightening. Universal.Walsham 23cm/9"
27	All instruments should be of high quality,
28	It should have minimum 2 years of warranty and from single parent company
29	Instruments should be Autoclavable and rust free with easy to use.
30	All the Instrument set should be provided with Autoclave able and rust free container.

24. Coblator (Qty-1)

Debrider Micro Drilling System

Specifications for Comprehensive Shaver (Debrider) Cum Micro-Drilling System

- 1) TABLE TOP CONTROL UNIT:
Markings: CE 0120 as per 93/42 EEC Directive
UL as per UL 60601-1 and CAN/CSA C22.2 No. 601.1
Supply Voltage: 100-240 Vac / 2A-1A/50/60 Hz
Motor Power Supply: 2 Quick connectors of the push-pull type / 48 Vdc
Electrical Insulation Class: Class I
Parts applied: Type B
Medical Class: IIa
Protection Class: IP 41
Peristaltic Pump: Deliver of 15 to 130 ml/min, adjustable by 10% steps (With two speed)
Irrigation Stand: Stainless Steel, Height 450mm
Display: Digital display of speed and irrigation steps
Control should have provision to connect High Speed Otological Micro Motor (Universal hand piece attachment)
- 2) MULTI-FUNCTION PEDAL:
Watertightness: IPX8
Cable : 3 m
- 3) Debrider Hand piece with Cable:
Type: Direct Current, Brushless & Sensorless
Torque : 0.15 mNm
Speed in Continuous rotation : 400 to 12,000 rpm
Speed in Oscillation mode: 500 to 5,000
Revolutions per cycle 2-6 revolutions
Frequency: 1-4.5 Hz
Rotating angle : 360°, Auto blocking
Size/ Weight: Diameter 18mm, Length 140mm, Angle 15° / 196 gm without cable
Motor Cable: Push-Pull type at Control end, Length-295mm + 5cm
Instruments: Straight & angled shaver blades, Disposable or reusable
Cleaning: Machine washable
Sterilization: In autoclave at 134°C for 18 min.
- 4) 80 K Micro motor with cable
Type: Direct current, Without brushes or Hall detectors
Torque: 0-40 mNm
Speed of rotation : 4,000-80,000 rpm
Coupling: As per ISO 3964, The most widely used standard in the world
Size/Weight: Diameter 21mm, Length 100mm, ISO Nose ESO included 120 gm without cable
Motor Cable: Push-Pull type at Control end, Length- 3 Mtr
Sterilization: In autoclavable at 134°C for 18 min
- 5) Surgical Hand pieces:
Angled Hand piece with 1:1 ratio, Suitable for bur length 70mm
Straight Sleek Hand piece with 1:1 ratio, Suitable for bur length 70mm
- 6) Burs & Blades
Debrider blades: 4 mm-Straight-3 Nos
4 mm 30° angled - 2 Nos

Drill Burs 70 mm long: T.C. burs - 5 nos & Diamond burs -5 nos

25. Fibreoptic Laryngoscope(Qty-1)

- The scope should be slimmer, light weight and fully portable.
- The scope should be compatible with any camera and light source.
- The scope should have grip fit design for single hand operation.
- The scope should have following technical specifications:
 - Field of view :85 degree or more
 - Direction of view: 0 (zero degree)
 - Depth of field 5 to 50 mm or better
 - Distal end outer diameter: 3.1 mm
 - Insertion tube outer diameter: 3.5 mm
 - Tip angulations range (degree): Up 130° or higher, Down 130° or higher
 - Working length: 300 mm or more
 - Total length :550 mm or more
- The scope should be fully submersible in disinfectant solution and waterproof.
- The scope should be supply with ETO Cap (MB-156) and Leakage tester (WA23080A) of same make.
- Manufacturer should have their own service center in India for fast service back up.
- The scope should be European CE marked & US-FDA approved.

26. OT Table (Qty-2)

1. Overall approx. size: 1830 mm x 560 mmx760 mm(with variation of 50mm)
2. Stainless steel top, Stainless steel Base made from 18G SS.
3. Kidney Bridge.
4. Removable & folding foot end with S.S. drainage tray.
5. Height adjustment and Head low/up (T & TR) position by screw & lever mechanism.
6. Lateral Tilt Position
7. Lithotomy Crutches
8. Gear type angular arrangement for Lithotomy bars.
9. Mattress, step stool & Arm Boards
10. Stainless Steel removable side railings
11. Manufacturer should provide ISO certificate of Company.
12. Manufacturer should provide CE Certificate.
13. All \$5 should be of SS304 grade SS sheet.
14. Weight bearing capacity should be minimum 125 Kg

27. Pure Tone Audiometer(Qty-1)

Speech Audiometry: Stimulus Via
Microphone Via Tape /CDI Masking
White Noise, Speech Noise or
Narrow Band
Tone: Tone Duration is controlled manually
Pulsing Rate:
Range: 1.5 to 3.5 Hz Warble
Frequency
Modulation
£5% Special
Test: SISI/ABLB/

Strenger Test

Power Supply: 230V AC 50Hz

110% Standard

Accessories:

- Headset
- Bone Conductor with Headband Patient Response Switch
- Dust Cover
- Audiogram Pad
- Operation Manual
- ISO 13485:2016

28. Impedance Audiometer (Qty-1)

Dimensions And Weight: LxWxH: 370 x 290 x 180mm

Test Types: Tympanometry.

Acoustic Reflex. Reflex Decay. Quick

Check. Quick Screening

Display: 7" TFT

resistive touch

screen display

Printer: External Thermal Printer

Reports:

- Printed on Thermal paper
- PDF report created directly from the device and stored on USB pen drive with possibility to add patient data and tests comments via the USB keyboard (Optional)
- Data transfer to PC using Resonance Management data suite Children Feature: To help keep the child distracted while running screening "Quick Check" a series of animated images appears on the color display

Data Transfer to PC via cable through USB port Windows compatible software

Probe tone: 226Hz

Intensity: 226 Hz: 85 dB SPL. + 2dB

Frequency

Accuracy: 10.5%

Harmonic distortion: Less than 1%

Admittance Measurements:

Compliance range at 226 HZ: 0.05 up to 7ml

Sensitivity Scale: Auto Scales to appropriate range, available scale at 226Hz

1525 and 7ml Air Pressure

- Control: Automatic
- Range: from +200 up to -400 daPa adjustable in 50 daPa steps
- Pressure accuracy: ± 10 daPa or $\pm 10\%$
- Sweep rate : 50,100,200, 300 daPa/sec and automatic
- Indicator: Measured value is displayed on the graphical display
- Safety

Limitation: -800 up to +600 daPa Acoustic

Reflex Tests:

- Reflex test method: Threshold. Automatic, Manual
- Stimulus duration: 0.5. 1 or 2 sec
- User selectable protocols for all test methods
- Ipsi or Contralateral stimulation for all reflex text

- Automated peak search functions available for all test methods
- Manual Reflex: Pump manual control of all stimuli
- Reflex Decay: Threshold, Automatic, Manual
- Stimulus duration: 10 or 20 sec Frequencies And Intensity

Ranges

Ipsilateral:

- Pure Tone Level range (dB HL) from 50 to 110
- Noise level range (dB SPL) from 50 to 100
- Frequency: 500, 1000, 2000, 3000, 4000 Hz Noise: BBN, HP or LP
- Accuracy: $\pm 1\%$
- Harmonic distortion (THD): Less than 3%

Contralateral:

- Pure tone level range (dB HL) from 50 to 120
- Noise level range (dB SPL) from 50 to 115
- Frequency: 250, 500, 1000, 2000, 3000, 4000, 6000, 8000 Hz
- Noise: BBN, HP or LP
- Accuracy: $\pm 1\%$
- Calibration accuracy: ± 3 dB Level steps: 1, 2, 5, 5 or 10 dB
- On/Off ratio: 70dB minimum

Quality System: Manufactured, designed, developed and marketed under ISO 13485, ISO 9001 certified quality system. Medical CE marks and FDA approval

Standard Accessories:

- Probe 226 Hz
- Headband and probe handle
- Probe cleaning tool kit
- DD45 for contra
- Kit of assorted ear tips: size from 6mm up to 15mm
- Calibration cavity with probe holder
- Thermal paper roll
- Device dust cover
- Multilingual Quick users handbook
- Pen drive
- MDS Software with NOAH module
- Power supply cable
- Spare fuse

29. OAE (Qty-1)

Dimensions And Weight: Lx W xH: 180 x 135 x 41mm

Display :7 TFT resistive touch screen display

Power Supply Input 100- 240V ac /0.3A-50/60 Hz

Output: +5V de /2A Rechargeable Battery

Sample Rate 1:24 Bit 44.1k samples

Stimulus Level: 70-90 Db Pe

Spl Stimulus Rate: 66 Hz

Window Of Analysis: 512 Samples (3-15 Ms)
Test Time: 500 To 1250
Stimuli (From 30 To 75 S) Stimulation Protocol:
Non-Linear Click
Acquisition
Bandwidth: From 750
Hz To 5 Khz Artefact
Level: From 20 To 60 Db Spl

TEOAE SCREENING:

Response Detection: Statistical
Analysis of Signal Polarity
Protocols: 3 User Definable
Frequencies from 750 Hz to 5 KHz

TEOAE DIAGNOSTIC:

Response Detection: User Defined stop criterion SNR 3,6 or 9 dB, in minimum 2 and maximum 5 of the 5 available frequency bands
Protocols: 3 User Definable
Frequency Bands: 1.1,5, 2, 3,4 kHz

DPOAE

Frequency Ratio F2/F1: 1,22 F2
Frequencies: 2,3,4,5, 6 Khz
1.2 Stimulus Level: 30-70 Db Spl
LI Stimulus Level: User Definable:
Automatic (L1-0,4 1,2-39 Db). L1-L2, L1-L2+10 Db
Artefact Level: From 0 To 40 Db Spl
Frequency Response Detection: User Defined
Stop Criterion Snr 3, 6 Or 9 Db For Each
Frequency
Response Detection: From 2 To The Number Of Enabled Frequencies Frequency
Test Time: Customizable By User From 2 To 16 S Protocols: 2 Pre-
Set (70db E 65-55db). 3 User Definable Screening F2

Frequencies (Khz) 2.3.4.5.6 L1/L2
(dB SPL): 65/75/70/70

Measurement Types: TEOAE 0.7 to 5 kHz.
Stimulus 70-90dB per SPL DPOAE 1.5 to 12kHz. 30 to 70 dB SPL
Cradle for battery charging and desktop use Data:

Over 1000 tests in the unit

Internal database: Available and with possibility of reviewing test results Transfer to PC: Via Bluetooth 2.1

Standard Accessories:

- OAE Probe
- Medical power supply
- MDS Software suite
- Disposable Ear tips starter kit
- Calibration Cavity

- User Manual
- Carrying Bag
- Pen drive
- Touch Screen pen

30. Small Fragment Set (Qty-2)

Small fragment set

1. Drill Bit 2.5 mm dia. & L. 110/85mm For quick coupling
2. Drill Bit 3.5 mm dia & L. 110/ 85mm For Quick coupling
3. Countersink Shaft 3.5, L 72mm
4. Tap for 3.5mm cortex screw L. 50/110 mm
5. Tap for 4mm Cancellous bone screw L. 110 mm
6. T-Handle with quick coupling L. 80mm
7. T-Handle with quick coupling L. 110 mm
8. Double drill sleeve 3.5/2.5
9. Double drill sleeve 6.5/3.2
10. small hexagonal screw driver
11. Holding sleeve L. 80mm.
12. Depth gauge for 2.7 mm to 4.00 mm 1 Screws
13. Sharp Hook L. 155 mm
14. Universal Brill guide
15. Bending Template For I.C-I.CP3.5, 9 holes
16. Bending Template For I.C-I.CP 3.5, 12 holes
17. I.CP Drill Bit 2.8mm with stop length 165mm 2 Flute for Quick coupling
18. Wire Bending plier L. 115 mm
19. Reduction Forcep with points. L. 130 mm
20. Reduction Forcep Toothed, Ratchet lock, L. 140 mm
21. Bone holding Forcep speed Lock L. 190 mm
22. Periosteum elevator curved
23. Periosteum elevator round
24. Periosteum elevator straight
25. K-wire cutter to cut k wire and Steinmann pin upto 6 mm
26. Aluminium case
27. Reposition forceps for small fragment with points L. 15 cm/5.9"
28. Reposition forceps with ratchet fixation
29. Needle holder Mathew 5 1/2"
30. Needle holder Crilewood 4"
31. Tissue forceps Adson 4"
32. Tissue forceps Adson 6"
33. Forceps Allis Baby 5"
34. Babcock forceps 5"
35. Halsted mosquito straight 5"
36. Halsted mosquito Curved 5"
37. Standard Scissor straight 5"

PROFESSOR AND HEAD

Dept. of Orthopaedics
Govt. Medical College and General Hospital
Baramati, Dist. Pune

PROFESSOR AND HEAD
DEPT. OF RADIOLOGY
G.M.C. BARAMATI

PROFESSOR AND HEAD
DEPT. OF RADIOLOGY
Govt. Medical College and
Hospital, Baramati, Dist. Pune

37	Standard Scissor Curved 4"	1
38	Cutie fine straight 9cm / 3 1/2"	1
39	Cutie fine curved 9cm / 3 1/2"	2
40	Cutie probe straight 10cm / 4"	
41	Cutie probe curved 10cm / 4"	
42	Ligature scissors Spencer 14 cm / 5 1/2"	
43	Jacobson scissor Rayonet standard blade 13mm straight 7 1/4"	
44	Jacobson scissor Flat handle 15.5 mm blade straight 7"	
45	Volkmann blunt 22 cm / 8 3/4" Two prongs	
46	Volkmann blunt 22 cm / 8 3/4" Three prongs	
47	Langenback retractor R 35 mm	
48	Langenback retractor 11* 41 mm	
49	Mini langenback 16cm / 6 1/4" (10* 6 mm)	
50	Mini langenback 16cm / 6 1/4" (20* 6 mm)	
51	Vickers retractors 1 prongs 18.5 cm / 7"	
52	Vickers retractors 2 prongs 18.5 cm / 7"	
53	Vickers retractors 3 prongs 18.5 cm / 7"	
54	Gillies retractor 20cm / 8"	
55	Bone osteotome Lambotte straight 24cm / 9 1/2", 15 mm	
56	Bone osteotome Lambotte straight 24cm / 9 1/2", 20 mm	
57	Bone osteotome Lambotte curved 24cm / 9 1/2", 15 mm	
58	Bone osteotome Lambotte curved 24cm / 9 1/2", 20 mm	
59	Periarticular reduction forceps small	
60	Periarticular reduction forceps medium	

- All instruments should be high quality S.S. / 316L / 316L_{TL} Titanium
- CE Certified company
- ISO standard company
- Manufacturer US FDA Approved.

[Signature]

31. Large Fragment Set (Qty-2)

Sr No	Large fragment set
1)	Drill Bit 3.2 mm dia. L. 145/120mm For quick coupling
2)	Drill Bit 4.5mm dia L.147/120 mm, For quick coupling
3)	Double drill sleeve 4.5/3.2
4)	Double drill sleeve 6.5/3.2
5)	Countersink Large L.180mm
6)	T-Handle with quick coupling 80 mm
7)	Tap For 4.5mm cortex screws L. 70/125 mm
8)	Tap For 6.5 mm Cancellous screws L. 195 mm
9)	Large hexagonal Screwdriver L.240mm (4.5mm)
10)	Depth gauge for 4.5 to 6.5mm Screws
11)	Universal Drill sleeve 4.5 mm
12)	Bending Template For LCP 4.5/5.0, 6+5 holes
13)	Bending Template For LCP 4.5/5.0, 6+5 broad, 10 holes
14)	Bending Template For LCP 4.5/5.0, 6+5 broad, 14 holes
15)	LCP Drill Bit 4.3 mm with stop, L. 221 mm 2 Flute for Quick Coupling
16)	Aluminium Case perforated
17)	Large hexagonal screwdriver L. 100 mm
18)	Sharp hook 155 M
19)	Jumbo cutter
20)	Extractor for Broken screw
21)	Hohmann's Retractor 42mm
22)	Hohmann's Retractor 16mm
23)	Reduction Forcep Pointed L. 210mm
24)	Reduction Forcep Serrated L. 230mm
25)	Screw holding Forcep 3 1/2 For 3.5mm to 6.5mm bone screw
26)	Screw holding Forcep 3 1/2 For 1.5 mm to 2.7mm bone screw
27)	Reposition forceps for large fragment with points 20cm/8"
28)	Reposition forceps with ratchet fixation
29)	Needle holder Masson 9"
30)	Needle holder Masson 10"
31)	Needle holder with multigrooved (Masson Luethy) 8"
32)	Taylor tissue forceps Bayonet type tooth 7"
33)	Allis Forceps 8"
34)	Allis Forceps 10"
35)	Bone holding forceps with ratchet Lane 10"
36)	Bone holding forceps with ratchet Lane 12"
37)	Standard scissor Straight 8"
38)	Standard scissor curved 8"
39)	Volkman blunt retractor 4 prong 22 cm/8 1/2"
40)	Volkman blunt retractor 6 prong 22 cm/8 1/2"
41)	Langenback retractor 22cm/8 1/2" (25*65) mm
42)	Langenback retractor 22cm/8 1/2" (12*80) mm
43)	Morris angled retractor 22cm/8 1/2" (2")
44)	Morris angled retractor 22cm/8 1/2" (3")
45)	Periosteum elevator Bayonet (angled) Long
46)	Bone Osteotome Lambotte straight 24cm/9 1/2", 30 mm
47)	Bone Osteotome Lambotte straight 24cm/9 1/2", 10 mm
48)	Bone Osteotome Lambotte curved 24cm/9 1/2", 30 mm

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49)	Large (Detonoma) Lambotte curved 24cm/9 1/2", 40 mm	1
50)	Peri articular reduction forceps medium	2
51)	Peri articular reduction forceps long	1
52)	Bolt cutter	

32. External Fixator Set (Qty-3)

External

Container-----01 qty

Instrument set

Drill bits-200mm long -4.8mm-----01 qty

Drill bits-200mm long -3.2mm-----01 qty

Trocar 6mm -----01 qty

Drill guide 6 x3.2x 80mm-----01 qty

Drill guide 6 x5x 80mm-----01 qty

Screw Guide 8x6x100mm-----01 qty

Half Pin Introducer D type-----01 qty

Half pin introducer Universal-----01 qty

Allen wrench-----01 qty

Open Compressor-----01 qty

Appliances-----01 qty

Guide Rods 150 mm Composite-----01 qty

Guide Rods 200 mm Composite-----01 qty

Guide Rods 250 mm Composite-----01 qty

Guide Rods 300 mm Composite-----01 qty

Guide Rods 350 mm Composite-----01 qty

Guide Rods 400 mm Composite-----01 qty

SS Guide Rod 8 mm x 150 mm-----01 qty

SS Guide Rod 8 mm x 200 mm-----01 qty

SS Guide Rod 8 mm x 250 mm-----01 qty

SS Guide Rod 8 mm x 300 mm-----01 qty

SS Guide Rod 8 mm x 350 mm-----01 qty

SS Guide Rod 8 mm x 400 mm-----01 qty

Fixing element 8mm hole with centrally tapped bore-----01 qty

Fixing element 8mm hole-Open type with centrally tapped bore---01 qty

Fixing element 6mm hole with untapped central bore-----01 qty

Fixing element 6mm hole with centrally tapped bore-----01 qty

Fixing element 8mm hole with untapped central bore-----01 qty

Spacers discs-1.2mm-----01 qty

Spacers discs-2mm-----01 qty

Spacers discs -4mm-----01 qty

Spacers discs -8mm-----01 qty

Bolts long-20 mm-----01 qty

Bolts long-25 mm-----01 qty

Bolts long 35 mm-----01 qty

Fixator-Pediatric-----01 qty

Appliances-----01 qty

Fixing Element 4mm hole with Centrally tapped bore-----01 qty

Fixing element 4mm untapped central bore-----01 qty

Fixing element 2.5mm untapped central bore-----	01 qty
Rod 4mm-80mm-Carbon-----	01 qty
Rod 4mm-100mm-Carbon-----	01 qty
Rod 4mm-150mm-carbon-----	01 qty
Rod 4mm-200mm-carbon-----	01 qty
Rod 4 mm 250 mm Carbon-----	01 qty
Rod 4 mm-300 mm Carbon-----	01 qty
Connecting Bar 4 X 80mm-----	01 qty
Connecting Bar 4 X 100mm-----	01 qty
Connecting Bar 4 X 150mm-----	01 qty
Connecting Bar 4 X 200mm-----	01 qty
Connecting Bar 4 X 250mm-----	01 qty
Connecting Bar 4 X 300mm-----	01 qty
Bolts:M4-----	01 qty
Spacer-0.5mm-----	01 qty

Instrument set for 4 mm external fixator

Allen Wrench Universal 3 mm-----	01 qty
Drill bit 2.5mm x 80mm-----	01 qty
Drill Bit 1.8 x 80 mm-----	01 qty
Half Pin introducer Universal-----	01 qty
Parellel Screw jig for 4 & 2.5 mm-----	01 qty
Sleeve 6 x 4mm-----	01 qty
Sleeve 4 x 2.5mm-----	01 qty
Trocar 2.5mm-----	01 qty
sleeve 4 x 2.6 mm-----	01 qty
Sleeve 2.5/1.8mm-----	01 qty
Trocar 1.8mm-----	01 qty
Container for Pediatric fixator-----	01 qty
Other Items-----	01 qty
Half Pin 5mm*32mm threads-----	01 qty
Half Pin 5mm*50mm threads-----	01 qty
Half pin: 4x3.5mm-----	01 qty
Half Pin: 2.5mm-----	01 qty
Half Pins: 54.5mm-----	01 qty
Titanium Half Pin dia 3 mm x 15 x 70 mm-----	01 qty
Titanium Half Pin dia 3 mm x 25 x 70 mm-----	01 qty
Titanium Half Pin dia 3 mm x 30 x 70 mm-----	01 qty
Titanium Half Pin dia 3 mm x 30 x 100 mm-----	01 qty
Drill Bit 1.8mm-----	01 qty
Drill bit 2.5mm x 80mm-----	01 qty
A.O type fixator(11 mm)-----	01 qty
Tubular Rods-----	01 qty
Tubes 100mm-----	01 qty
Tubes 150mm-----	01 qty
Tubes 200mm-----	01 qty
Tubes 250mm-----	01 qty
Tubes-300mm-----	01 qty

Tubes-350mm-----	01 qty
Tubes-400mm-----	01 qty
Tubes-450mm-----	01 qty
Tubes-500mm-----	01 qty
Universal Clamp for 2 pins-----	01 qty
Tube to Tube Clamp-----	01 qty
Single Adjustable clamp-----	01 qty
Twing Adjustable clamp-----	01 qty
Single open clamp-----	01 qty
Trans Tibia Clamp-----	01 qty
Tubular Clamp 4 x 4 mm-----	01 qty
Tubular Clamp 4 x 2.5 mm-----	01 qty
8 mm Rod to Pin Clamp 8 mm x 6 mm -----	01 qty
8 mm Rod to Pin Clamp 8 mm x 8 mm-----	01 qty
4 mm Rod to Pin Clamp-----	01 qty
4 mm Rod to Rod Clamp-----	01 qty

- bit 3.5mm dia for metal for extraction of damaged screws
- The torque limiting screwdriver should have screw-holding sleeve along with all other essential instruments to use the implants
- All instruments must be enclosed in a syncase with lid

CHISEL AND IMPACTOR SET

- The set contains bone impactor of dia 6 in round and flattened shape of length 140mm
- It also contains bone impactor of dia 8mm in round shape of length 140mm
- Curved Gouge of 10mm & 15mm of length 140mm
- Flat Chisel, straight, 16mm wide of length 140mm
- The set is available in aluminium case

EXTERNAL FIXATOR

Large External Fixator

- Rod of dia 11 mm in
 - Carbon fibre
 - lengths 100-400 mm
 - carbon fibre rod, curved for pelvis
- Clamp, clip-on self-holding, MR-safe
- Aperture for rods 11 mm
- Schanz screw 5mm with lengths 125-200 mm
- All instruments must be enclosed in a Vario with lid with an insert for Schanz Screws
- The instruments should have Combination Wrench of diameter 11.0mm
- The instruments should have Socket Wrench of diameter 11.0mm,cannulated
- The instruments should have Combination Clamp, clip-on, self-holding, MR-safe
- The instruments should have Clamp, clip-on, self-holding, MR-safe
- The instruments should have Universal Chuck with T-Handle
- The instruments should have Adapter for Seldrill Schanz Screw with diameter 5.0 mm
- The instruments should have Compressor, open
- The instruments should have Short Trocar with diameter 3.5 mm
- The instruments should have Long Trocar with diameter 3.5 mm
- The instruments should have Handle for Drill Sleeve

- The instruments should have Short Drill Sleeve 5.0/3.5
- The instruments should have Long Drill Sleeve 5.0/3.5
- The instruments should have Short Threaded Drill Sleeve 6.0/5.0
- The instruments should have Long Threaded Drill Sleeve 6.0/5.0
- The instruments should have Connecting Rod □ 5.0 mm, length 150 mm, Stainless Steel

Medium External Fixator

- Rod of dia 8 mm in
 - Carbon fibre
 - lengths 120-320 mm
- Clamp, clip-on self-holding, MR-safe
- Aperture for rods 8 mm
- Schanz screw 4mm & 5 mm with lengths 80-175 mm
- All instruments must be enclosed in a Vario with lid with an insert for Schanz Screws
- The instruments should have Combination Wrench with diameter 8.0 mm
- The instruments should have Wrench, hexagonal with diameter 3.5 mm with T-Handle
- The instruments should have Combination Clamp, medium, clip-on, self-holding. MR-safe
- The instruments should have Clamp, medium, clip-on, self-holding. MR-safe
- The instruments should have Drill Sleeve 4.0/2.5
- The instruments should have Adapter for Seldrill Schanz Screw diameter 4.0 mm
- The instruments should have Adapter for Seldrill Schanz Screw diameter 5.0 mm
- The instruments should have Universal Chuck, small, with T-Handle
- The instruments should have Short Trocar with diameter 3.5 mm
- The instruments should have Long Trocar with diameter 3.5 mm
- The instruments should have Trocar with diameter 2.5 mm
- The instruments should have Handle for Drill Sleeve
- The instruments should have Short Drill Sleeve 5.0/3.5
- The instruments should have Long Drill Sleeve 5.0/3.5
- The instruments should have Short Threaded Drill Sleeve 6.0/5.0
- The instruments should have Threaded Drill Sleeve 4.0
- The instruments should have Long Threaded Drill Sleeve 6.0/5.0

33. Volar distal Redaus plate (ss LVM) (Qty-2)

T3Lox LCPs

lcp dorsal distal radius plate 2.4, straight, holes -----
 01qty
 lcp dorsal distal radius plate 2.4, straight, & holes-----
 01qty
 lcp dorsal L distal radius plate 2.4, left angled, shaft 3 holes, head 2 holes-----
 01qty
 lcp dorsal L distal radius plate 2.4, left angled, shaft 4 holes, head 2 holes-----
 01qty

kp dorsal L distal radius plate 2.4, right angled, shaft 3 holes, head 2 holes-----
 01qty
 lcp dorsal L distal radius plate 2.4, right angled, shaft 4 holes, head 2 holes-----
 01qty
 lcp dorsal L distal radius plate 2.4, left angled, shaft 3 holes, head 3 holes-----
 01qty
 lcp dorsal L distal radius plate 2.4, left angled, shaft 4 holes, head 3 holes-----
 01qty
 lcp dorsal L distal radius plate 2.4, right angled, shaft 3 holes, head 3 holes-----
 01qty
 lcp dorsal L distal radius plate 2.4, right angled, shaft 4 holes, head 3 holes-----
 01qty
 lcp dorsal L distal radius plate 2.4, oblique, left angled, shaft 3 holes, head 3 holes-----
 01qty
 lcp dorsal L distal radius plate 2.4, oblique, left angled, shaft 4 holes, head 3 holes-----
 01qty
 lcp dorsal i distal radius plate 2.4, oblique, right angled, shaft 3 holes, head 3 holes-----
 01qty
 lcp dorsal I distal radius plate 2.4, oblique, right angled, shaft 4 holes, head 3 holes-----
 01qty
 lcp dorsal T distal radius plate 2.4, shaft 3 holes, head 3 holes-----
 01qty
 lcp dorsal T distal radius plate 2.4, shaft 4 holes, head 3 holes-----
 01qty
 lcp volar distal radius plate 2.4, left shaft 3 holes, head 5 holes-----
 01qty
 lcp volar distal radius plate 2.4, left, shaft 5 holes, head 5 holes-----
 01qty
 lcp volar distal radius plate 2.4, right shaft 3 holes, head 5 holes-----
 01qty
 lcp volar distal radius plate 2.4, right shaft 5 holes, head 5 holes-----
 01qty
 lcp volar distal radius plate 2.4, extraarticular, left, shaft 3 holes, head 5 holes-----
 01qty
 lcp volar distal radius plate 2.4, extraarticular, left, shaft 5 holes, head 5 holes-----
 01qty
 lcp volar distal radius plate 2.4, extraarticular, right shaft 3 holes, head 5 holes-----
 01qty
 lcp volar distal radius plate 2.4, extraarticular, right, shaft 5 holes, head 5 holes-----
 01qty
 lcp volar distal radius plate 2.4, extraarticular, left shaft 3 holes, head 4 holes-----
 01qty
 lcp volar distal radius plate 2.4, extraarticular, left shaft 5 holes, head 4 holes-----
 01qty
 lcp volar distal radius plate 2.4, extraarticular, right shaft 3 holes, head 4 holes-----
 01qty

Icp volar distal radius plate 2.4, extraarticular, right, shaft 5 holes, head 4 holes-----
01qty
optional: Icp volar butterss plate, 2.4, left,shaft 3 holes, head 5 holes-----
01qty
optional: Icp volar butterss plate, 2.4, right, shaft 3 holes, head 5 holes-----
01qty
Locking Screw self tapping 2.4 X 6 mm -----
04qty
Locking Screw self tapping 0 2.4 X 8 mm -----
04qty
Locking Screw self tapping 02.4 X 10 mm-----04qty
Locking Screw self tapping 22.4 X 12 mm-----04qty
Locking Screw self tapping 2.4 x 14 mm-----04qty
Locking Screw self tapping 02.4 x 16 mm-----04qty
Locking Screw self tapping 02.4 X 18 mm-----04qty
Locking Screw self tapping 02.4 x 20 mm-----04qty
Locking Screw self tapping 22.4 x 22 mm-----04qty
Locking Screw self-tapping 02.4 x 24 mm-----04qty
Locking Screw self tapping 02.4 X 26 mm-----04qty
Locking Screw self tapping 02.4 X 28 mm-----04qty
Locking Screw self tapping 02.4 x 30 mm-----04qty
Self Tapping Cortical Screws Len 6 mm Dia 2.4 mm-----04qty
Self Tapping Cortical Screws Len 8 mm Dia 2.4 mm-----04qty
Self Tapping Cortical Screws Len 10 mm Dia 2.4 mm -----04qty
Self Tapping Cortical Screws Len 12 mm Dia 2.4 mm-----04qty
Self Tapping Cortical Screws Len 14 mm Dia 2.4 mm-----04qty
Self Tapping Cortical Screws Len 16 mm Dia 2.4 mm-----04qty
Self Tapping Cortical Screws Len 18 mm Dia 2.4 mm-----04qty
Self Tapping Cortical Screws Len 20 mm Dia 2.4 mm-----04qty
Self Tapping Cortical Screws Len 22 mm Dia 2.4 mm-----04qty
Self Tapping Cortical Screws Len 24 mm Dia 2.4 mm-----04qty
Self Tapping Cortical Screws Len 26 mm Dia 2.4 mm-----04qty
Self Tapping Cortical Screws Len 28 mm Dia 2.4 mm-----04qty
Self Tapping Cortical Screws Len 30 mm Dia 2.4 mm-----04qty

34. Tourniquet (Qty-5)

TOURNIQUET

TECHNICAL SPECIFICATIONS

Control	Micro computerized cuff pressure control
Inflation Air Source	Internal air Compressor
Cuff Pressure	Adjustable 100 to 450 mmHg
Preset Resolution	10 mmHg.
Accuracy	Max. + 5%
Displays	- 3 digit-Pre-selected pressure. - 3 digit-Clock-Elapsed time - Green led for Inflate & Red led for Deflate
Push Button Functions	Preset pressure for each separately. Inflate/Deflate-cuffs 1 & 2 2. Deflate - cuff 1 & 2
Clock Elapsed Time	- 0.00 - 3.00 hours.
Counter	- Reset at deflate mode.
Alarms	Pressure Sensor Setting 1. Cuff pressure is out of range > than 30 sec. after cuff on start. 2. Cuff pressure is out of range > than 11 sec. during operation. 3. Inflation pressure > 450 mmHg. 4. 3 beeps - 5 min. time to set time. 5. Deflate mode Cuff pressure is higher than actual. 10 sec. after deflate mode is activated.
Power Consumption	260 W
Voltage Source	230 VAC . 50 Hz
Weight	7.5 kg.
Dimensions	290 (w) x 110 (h) x 260 (d) mm
Note	Specifications are subject to change without notice.

35. Electric Drill (Qty-3)

nulated Battery handpiece
 meter of cannulation 4 mm
 of handpiece 1300 gm with Battery
 of the system 170 W
 hum speed with attachments 1500 rpm
 separate forward and reverse triggere
 apiece compatable with radiolucent drive
 ant change between clockwise and counterclockwise rotation possible
 e system fully autoclavable

Attachments can be fitted on single handpiece
reliable protection of soft tissue with integrated oscillation mode

Power Module

Has Li-ion batteries, control unit & motor inside
Mode Selector Switch to select Drilling/Reaming, Saw, Oscillating Drill mode
There a display indicating the battery capacity status
Butt to diagnose errors in the system
of module 700 gm
Battery Lithium ion battery with a minimum life of 1000 cycles
No self discharging of batteries and no memory effect there in the batteries
The capacity of the Battery 1.2 Ah
Maximum charging time between < 60 min
Battery voltage 25.2V
Batteries are Safe and easy to handle in the operation theatre

Lid for Hand piece

Fully autoclavable
"Weight of Lid 80 gm
For holding and preventing fall of Power Module from the Handpiece
Mode Selector Switch to select Drilling/Reaming, Saw, Oscillating Drill mode

Cover

made of Stainless steel
Fully autoclavable
For sterile transfer of Power Module to Battery Hand piece

Battery handpiece

weight of handpiece 1760 gm with Battery
maximum oscillating frequency 11,000 osc/min.
the amplitude of oscillation should be 4.5"
aw can be locked in 8 different positions in steps of 45°
Fully autoclavable

Lid for Hand piece

Fully autoclavable
Weight of Lid 140 gm
For holding and preventing fall of Power Module from the Hand piece

Universal Battery Charger II

4 charging bays
capable of charging NiCd, NiMh and Lithium Ion batteries
Display the charging status of the batteries
Keeps inserted batteries constantly fully loaded

AO/ASIF Quick Coupling attachment

Diameter cannulation 2mm
Maximum Speed 1450 rpm
Maximum Torque 3Nm

Drill Chuck attachment

Diameter of cannulation 4 mm

Maximum Speed 1450 rpm

Maximum Torque 3 Nm

AO/ASIF Quick Coupling for Medullary Reaming

Diameter of cannulation 4 mm

Maximum Speed 330 rpm

Maximum Torque 13 Nm

Quick Coupling for K-wire

Continuous adjustment facility for wire diameter from 1 to 4 mm

Maximum Speed 1450 rpm

Quick Coupling for DHSDCS Tripple Reamer

Diameter of cannulation 4mm

Maximum Speed 670 rpm

Maximum Torque 65 Nm

Hudson Quick Coupling for Medullary Reaming

Maximum Speed 330 rpm

Maximum Torque 13 Nm

Trinkle Quick Coupling for Reaming

Maximum Speed 330 rpm

Torque 13 Nm

Quick Coupling modified for Medullary Reaming

Maximum Speed 330 rpm

Maximum Torque 13 Nm

ittal Saw attachment

Maximum oscillating frequency 11,000 osc/min.

amplitude of oscillation 4.5"

attachment can be locked in 8 different positions in steps of 45°

Saw Blade for TJR Surgery Length 81 to 116 mm, Usable L 60 to 95 mm, Width 12.5 to 25 mm, Thickness 0.89 to 1.47 mm

Saw Blade for General Traumatology Length 46 to 90 mm, Usable Length 25 to 69 mm, Width 10 to 50 mm, Thickness 0.4 to 1.2 mm

Reciprocating Saw attachment

Mum oscillating frequency 11,000 osc/min.

mum stroke length for reciprocating saw 4 mm

Attachment can be locked in 8 different positions in steps of 45°

Saw Blade for Reciprocating saw Length 55 to 80 mm.Cutting thickness 0.85 to 1.1 mm, Width 10 to 12 mm

Reciprocating saw should accommodate Sternum top

Sternum guard for sternotomies available

Saw Blade for Sternum attachment, Cutting thickness 1.1 mm

Radiolucent Drive

Precise aiming and drilling under image intensifier control for locking intramedullary nails

Drill Bit diameter 2.0 to 4.5 mm, Length 106 to 148 mm, Usable length 80 to 122 mm

The surgeon should reduced exposure to x-rays

Drive overload protection

36. High Vacuum Suction Machine (Qty-6)

• MAXIMUM VACUUM	≥0.09MPa (680 mm Hg).
• ADJUSTABLE RANGE	150mm Hg- MAX. VACUUM
• FLOW RANGE	≥80 LP M (LITERS PER MINUTE)
• NOISE	≤60 dB (A).
• STORAGE BOTTLES	4000 ml x 2 NOS & 2000 ml x 2 NOS
POLYCARBONATE	
• FOOT SWITCH	1 NOS.
• POWER SUPPLY	220 V+10%/50 Hz
• INPUT POWER	280 WATT
• PACKING	1 CARTON
• UNIT WEIGHT	G.W 27 Kgs. NET WT. 24 Kgs.
• UNIT DIMENSION	490 X 390 X 940 mm.

37. X-Ray Machine (Qty-2)

Mobile X-Ray machine

- High Frequency generator of 100 KHz,or more.
- Radiographic KV: 40 to 120 KV or more.
- Rad mA: up to 110 mA or more
- Output power: 4.2 KW or more
- mAs range: 1 to 200mAs or more

X-Ray tube head: Should have Mono-block version X-Ray tube head should be provided. The mono-block consists of Stationary Anode X-Ray tube, H.V. transformer, filament transformer, H.V. rectifiers and capacitors, all immersed in high grade oil with high dielectric strength. Mono-block Tube Head should be protected for thermal overload.

- Manual LBD (light beam diaphragm) with should be provided with provision of Auto Shutoff.

Control Panel: Should have Attractive and ergonomically designed control panel with total soft touch switches for various operations. having following functions & indications.

- Machine ON/OFF switch
- Digital display of KV and mÂ
- KV and mas increase and decrease switches.
- Ready and x-ray on switch with indicators

- Bucky selection switch.
- Stand by and exposure release switch
- Self diagnostic program with indicators for
 - Earth fault error
 - KV error
 - Filament error
 - Tube Head thermal overload.
- X-Ray on indicator.
- Incoming voltage indicator.
- Anatomical programming up to 216 pre-programmed functions in which automatic selection of Technical Factors is done according to the Body part Selection.

A 2-Step hand switch with dual action for exposure release with retractable cord should be provided for taking images from a safer distance.

Tube Stand: Should Have_Mobile stand with 4-wheel design, which ensures easy mobility and steering. The spring balance stand (with fixed Tube Head column) should be very light in weight with tube arm, which is very easy to maneuver and allows smooth movements of tube head in vertical plane. Lead lined cassette storage box. This mobile stand is made to withstand all jerks while in use offering unparalleled reliability. SBM Stand can be easily moved on floor and lock should be provided to lock its movement on floor. The equipment occupies minimum floor area and is capable to be taken through elevators with ease

Power supply: Should work Single Phase 230V, AC and 50 Hz., 15 Amps with line regulation of $\pm 10\%$.

Following Accessories Should be Supply along with unit

1. Lead Aprons of 0.25 mm lead equivalence- 02 Nos

A. OTHER REQUIREMENTS:-

- The company should be ISO And ICMED certified.
- The unit should be approved by AERB.
- The company should have a dedicated local service centre in the state.
- The company should have proven track record in Govt. sector.
- The unit should be European CE from notified body should be provided.
- The unit equipment should have Central Drugs Standard Control Organization (CDSCO) (Medical Device & Diagnostic Division) License to manufacture for Sale or for Distribution of Class C or Class D medical devices in Form MD-9 under Medical Device Rules, 2017.

38. ACL PLC Instruments(Qty-1)

Tibial Target Guide for ACL reconstruction, tunnel angle between 40 mm to mm adapter in 5mm increments

Quadriceps thickness tester

Punch, through-cutting, cutting width 2.7 mm, curved jaws, 15° upwards, sheath diameter 3 mm, straight, handle with cleaning connector, working length 12 cm

Punch, through cutting, cutting width 15 mm, curved jaws, 15° upwards, sheath diameter 3 mm, straight, handle with cleaning connector, working length 17 cm

Punch, through-cutting, cutting width 2.7 mm, straight jaws, sheath diameter 3 mm, 30° curve to left, handle with cleaning connector, working length 12 cm

Punch, through-cutting, cutting width 3.4 mm, straight jaws, sheath diameter 3 mm, 30° curved to right, handle with cleaning connector, working length 12 cm

Punch, through-cutting, cutting width 2.7 mm, straight jaws, sheath diameter 3 mm, 30° curve to right, handle with cleaning connector, working length 12 cm

Punch, through cutting, cutting width 3.4 mm, curved jaws, 90° left, sheath diameter 3 mm, straight, handle with cleaning connector, working length 12 cm

Punch, through-cutting, cutting width 2.7 mm, curved jaws, 90° left, sheath diameter 3 mm, straight, handle with cleaning connector, working length 12 cm

Punch, through-cutting, cutting width 3.4 mm, curved jaws, 90° right, sheath diameter 3 mm, straight, handle with cleaning connector, working length 12 cm

Punch, through-cutting cutting width 2.7 mm, curved jaws, 90° right, sheath diameter 3 mm, straight, handle with cleaning connector, working length 12 cm.

Punch, through-cutting, cutting width 3.4 mm, straight jaws, sheath diameter 3 mm, 15° curved upwards, handle with cleaning connector, working length 12 cm

Grasping Forceps, spoon-shaped jaws, jaw width 4.5 mm, straight jaws, sheath diameter 3 mm, straight, handle with cleaning connector, working length 12 cm

Grasping Forceps, spoon-shaped jaws, jaw width 3.4 mm, straight jaws, sheath diameter 3 mm, straight, handle with cleaning connector, working length 12 cm

Grasping Forceps, spoon-shaped jaws, straight, jaw width 7 mm, sheath diameter 3 mm, straight, handle with cleaning connector, working length 12 cm

Grasping Forceps, spoon-shaped jaws, serrated, jaws curved, 30° upwards, sheath diameter 3 mm, straight, handle with cleaning connector, working length 12 cm

Foreign Body Grasper, aggressive, straight jaws, sheath diameter 3 mm, straight, handle with cleaning connector, working length 10 cm

Tibial Target Guide for ACL reconstruction, tunnel angle between 40° to 55°, adjustable in 5 mm increments

Quadriceps thickness tester

39. General ortho Instrument(Qty-5)

- 1 Towel clip cross action straight (Bally Jones w/)
- 2 Towel clamp (Backhaus) 13 cm/5
- 3 Safety Clamps Bunt 10.5 cm/4 %
- 4 Safety Clamps 10 cm/1" 1/2
- 5 Safety Clamps 15 cm/5"
- 6 BP Handle Standard Nis
- 7 RP Handle Standard No 4
8. BP Handle Standard No.7
- 9 Double side BP Handle

10. Needle holder Mayoheger 20cm/8"
- 11 Needle holder Mayaheger 15cm/6"
- 12 Tissue forceps Standard Toothed 18cm/7"
13. Tissue forceps Standard Toothed 20cm/8"
14. Tissue forceps Standard Non Toothed 18cm/7"
15. Tissue forceps Standard Non Toothed 20cm/7"
16. Tissue forceps Allis 15cm/6"
17. Tissue forceps Adair Allis 15cm/6"
18. Artery forceps Kocher Straight 20cm/8"
19. Artery forceps Kocher curved 20cm/8"
20. Artery forceps Crile Straight 16cm/6"
21. Artery forceps Crile Curved 16cm/6"
22. Artery forceps Mosquito Straight 12cm/5"
23. Artery forceps Mosquito Straight 10cm/4"
24. Artery forceps Mosquito Curved 12cm/5"
25. Artery forceps Mosquito Curved 10cm/4"
26. Spange holding forceps 25cm/10"
- 27 Babcock forceps (Tissue/Organ holding) 18cm/7"
28. Bone holding forceps Self Centering 15cm (6"
29. Bone holding forceps Self Centering 24cm /9 1/2"
30. Bone holding forceps Self Centering 28cm/11"
- 31 Pelvic Reduction forceps (Long pointed ball 1-2 ups)
- 32 Plate holding forceps self retaining with speed lock 11"
33. Plate holding forceps self retaining with speed lock 6"
34. Plate holding forceps self retaining with speed lock 8"
35. Cheatle forceps Plain 26.5 cm/ 10%"
- 36 Cheatie forceps Serrated 26.5 cm / 10%"
37. Scissors Mayo straight suture cutting] 18cm/7"
38. Scissors Metzenbaum straight (tissue cutting). 18cm/7"
39. Scissors Metzenbaum curved (tissue cutting 11/
- 40 Scissor Tenotomy Small Jameson curved 6"
- 41 Scissor Tenotomy medium Jameson curved 7"
42. Ligature scissor Heath
43. Bowls Round small 10cm/4"
44. Bowls Round medium 15cm/6"
- 45 Bowls Round big 20cm/8"
46. Kidney Tray/ Bowls 25 cm/10"
47. Hammer with fibre handle Vickers 350gm
48. Bone Lever retractor Hohman small Bmm
49. Bone Lever retractor Hohman medium 18mm
- 50 Bone Lever retractor Hohman large 43 mm
51. Bone Lever retractor Lane 25.5 cm/10"
52. Retractor self retaining Weitlaner 44 prongs 19 m/
- 53 Retractor self retaining Wenlaner 44 prongs don
- 54 Ketractor Langenbeck (135 mmy 22cm/11"

1. Jumbo Cutter
2. Universal hand drill
3. K wire container
4. Bone Gouge Stille Straight 20cm/8" (5 mm)
5. Bone Gouge Stille Straight 20cm/8" (10mm) Bone
6. Bone Stille Straight 20cm/80 mm)
7. Nerve root retractor Love No 122m/8%)
8. Nerve root retractor 6. Love No 2 22cm/1%
9. Nerve root retractor Love No. 3 22cm/8%
10. Skull traction Tongs Larger Crutchfield
11. Graft handle Silver SS 19 cm/7"
12. Graft handle Watson SS 30 cm/12"
13. Bone cutting forceps Ruskin Liston (straight) 1m/"
14. Bone cutting forceps Sulle Laston straight) 22m/20
15. Bone cutting forceps Stille Easton (angle) 27cm/10
16. Bone holding Forceps Iley Groves 21cm/8%
17. Bone holding forceps Patella 18.5 cm/7
18. Bone holding forceps Patella 24 cm/9
19. Reposition forceps for Small fragments 13.5cm/5 v
20. Reposition forceps with points for large fragments 20cm/8
21. Reposition forceps with thread fixation 16cm/6%"
22. Reposition forceps with thread fixation 24cm /9/"
23. Hammer with fibre handle Vickers 500gm
24. Hammer with fibre handle Vickers 700gm
25. Bone Lever retractor Blount-2 26cm / 10%"
26. Bone Gouge Spongiosa Straight with fiber handle 25 cm/10 (
27. Bone Gouge Spongiosa Straight with fiber handle 25 cm /10 (10mm
28. Bone Gouge Spangiosa Curved with fiber handle 25 cm 107 Lansing
29. Bone Gouge Spongiosa Straight with fiber handle 25 cms/10 (30mm)
30. Bone Gouge Spongiosa Curved with fiber handle 25 cm/10" (25mm)
31. Cement splitting Osteotome guarded blade 30cm/12"
32. Drum sterilizer Heavy duty and seamless 44"
33. Drum sterilizer Heavy duty and seamless "4"
34. Drum sterilizer Heavy duty and seamless 66"
35. Drum sterilizer Heavy duty and seamless 8" B
36. Drum sterilizer Heavy duty and seamless 94
37. Drum sterilizer Heavy duty and seamless 9" 9"
38. Drum sterilizer Heavy duty and seamless 11" 4 "
39. Drum sterilizer Heavy duty and seamless 11" 9"
40. Drum sterilizer Heavy duty and seamless 14"*
41. Drum sterilizer Heavy duty and seamless 15" 1
42. Self retaining retractor (Track Organize) Small
43. Self retaining retractor (Track Organize) medium t
44. Wire passer 22cm/8" Small
45. Wire passer 22cm/8" medium
46. Wire passer 22cm/8" large
47. Bone hook Sharp 20cm/8"

48. Cartilage Clamp Grava Tuff 19cm/7 W
49. Bone mill 4mm hole bore
50. Hudson Hand drill
- 51 Hudson Hand drill extension piece
52. Hudson Hand drill Burr Conical Imm
53. Hudson Hand drill Burr Conical 13mm
54. Hudson Hand drill Burr Spherical Tommm
55. Hudson Hand drill Cushing perforator 15mm
56. Bone awl for straight radius uina entry with fiber handle
57. Bone awl for curved radius ulna entry with fiber handle
58. Bone awl stainless steel for humerus entry
59. Bone awl stainless steel for tibia entry,
60. Needle holder with scissors 6"

61. Needle fanider Debakey late 5
62. Tissue Forceps Debakey Straight 6"
63. Tissue Forceps Debakey Straight 10"
64. Bone Holding forepes Burns 6"
65. Bone Holding forcpes
66. Jaster sessor fim
67. Burns 9"
68. Bose Holddigg touches Serster Lonem./18.cm
69. Bone Holding forepes Gerster Lowman 8"/ 20cm
70. Bozemmann Scissor S shaped 24cm/92"
71. Langenback retractor 22cm/8" 14 70 mm.
72. Langenback retractor 22cm/8" 11*55 mm Parker
73. Langenheck no i retractor
74. Parker Langenbeck no 2 retractor
75. Zerny retractor 22 cm/8%"
- 76.Cancellous bone impactor Round 12 mm
77. Cancellous bone impactor Square 12 mm
78. Bolt Cutter

40. Fluoroscopy (With Digital Radiography) (Qty-1)

SPECIFICATIONS OF HIGH FREQUENCY DIGITAL RADIO FLUOROSCOPY SYSTEM

Digital Radiography/Fluoroscopy System with dynamic fixed Flat Panel Detector in table.

Unit should be capable of doing all types of Fluoroscopic examinations like GI examination, ERCP, barium studies, along with radiography procedure.

X-RAY GENERATOR:

- High Frequency X-Ray Generator of frequency should be provided.
- Power output of generator should be 80KW.
- KV Range should be:
 - Radiographic KV: 40 to 150KV.

- Fluoroscopic KV: 40 to 120KV.
- mA Range (Rad.): up to 1000mA, 800mA at 100KV.
- mA Range (peak): Normal pulse Flr. Mode:- up to 40mA
Boost pulse Flouro/Cine mode:- up to 70mA.
- Exposure time (Rad.): 1ms to 5Sec.
- Cumulative flouro. timer to cut off exposure.
- mAs Range (Rad.): 1 to 350mAs or more.

CONTROL:

X-Ray/Image Control Console

Fully Integrated System with Following features:

- Digital Display of Radiography kV & mAs and Flouro kV & mA and cine kV & mA spot kV & mAs.
- Integrated touch monitor display for various X-Ray functions display over X-ray tube.
- Peak mA display over touch screen console.
- Manual and Automatic Brightness Stabilization (ABS) in fluoroscopic Modes.
- Exposure indication on Acquisition Software.
- Self-diagnostic Program with Indicators for Inverter Fault, Filament error & Tube's Thermal Overload, Rotor fault and Phase failure indications.
- Anatomical Programming Radiography (i.e., APR) should be provided in which exposure parameters are automatically selected depending upon the physique of the patient and part of the body to be exposed.
- More than 200 preprogrammed APR programs are provided that can be edited or expandable as per the user's requirement.
- Foot switch is provided for initiating the exposure for performing Fluoro and Cine and Digital Spot Procedures
- Hand switch with retractable cord for initiating the exposure in radiography mode.
- 2-Point and 3-point exposure technique in Radiography mode.
- Touch panel on Console table and Tube stand for SID, Tube and Table angle display.

X-RAY TUBE (01No.):

- A Dual focus Rotating Anode X-Ray tube thermally protected having focal spot of 0.6 & 1.2
- Anode rotation speed should 9000RPM minimum.
- Anode heat storage capacity of tube should be 600KHU
- One Pair of H.V. Cable of suitable length should be provided.

COLLIMATOR:

High LUX (white power LED) for Higher Luminosity and lower power consumption with provision of Auto Shut Off after 45 seconds. Motorized parallel shutters for adjustment of Exposure area with preview on software.

HV TANK:

- A very compact H.V. tank filled with high dielectric transformer oil. The H.V. tank contains H.V. transformer, filament transformers, H.V. rectifiers and H.V. cable receptacles.

TUBE STAND:-

Motorized Ceiling Free tube stand with new generation technology provides the user servo assisted movements of the tube head covering a huge area and noiseless, swift up/down movement of the tube head.

TABLE: Table with Horizontal & vertical mode should be provided. Servo controlled noise free motorized movement should be available

Table should have below mechanicals

- Length of Table Top: 1965
- Width of Table To: 705
- Height of Table Top: 835
- Maximum height of table in Horizontal Position: 927
- Maximum width of table: 1036
- Maximum height of table in Vertical Position: 2000
- Table's Movements: Angular -12° / $+90^{\circ}$
- Distance of table top to film: 65 mm
- Patient Load carrying capacity : 250 kg

MOTORIZED VERTICAL BUCKY STAND

Floor mounted Motorized Vertical Bucky stand with inbuilt FPD (FLAT PANEL DETECTOR) for lung and skeleton x-ray examinations with user friendly design and handling.

Minimum height of detector centre from ground: $400 \pm 10\text{mm}$

Minimum height of detector centre from ground: $1700 \pm 10\text{mm}$

Up-down movement of Detector bucky: $1300 \pm 10\text{mm}$

DYNAMIC FLAT PANEL DETECTOR (FPD): (Inbuilt in Table)

A complete imaging solution with cutting edge of performance integrated with our X-ray systems

FPD should have following specifications or better

Receptor type: Amorphous Silicon

Scintillator: Cesium iodide (CsI)

Size of detector: 43 x 43cm or more

Image matrix size: 3K x 3K or more

A/D conversion: 16bits

Pixel size: less than $150\mu\text{m}$.

Detector resolution should be more than 3.3 lp/mm.

DQE: 75% or more at 0 lp/mm.

STATIC FLAT PANEL DETECTOR (FPD): (Inbuilt in vertical bucky stand)

FPD should have following specifications or better

Receptor type: Amorphous Silicon

Scintillator: Cesium iodide (CsI)

Size of detector: 43 x 43cm or more

Image matrix size: 3K x 3K or more

A/D conversion: 16bits

Pixel size: less than 150µm.

Detector resolution should be more than 3.3 lp/mm.

DQE: 65% or more at 0 lp/mm.

Automatic Exposure Control	Automatic Exposure Control (AEC) System with 3- state ion chamber.
Intercom System	Two ways intercom system is provided for Voice Communication.

IMAGE ACQUISITION SOFTWARE should have following features available

Exposure Modes	RF (Flouro, Cine and Spot) DX (Radiography)
Image Size/ Frame Rate	• RF:1536×1536 (1.5K×1.5K Image resolution) Up-to 18 FPS Pulsed X-Ray • DX: 3072×3072 (3K×3K Image resolution)
Major Module	• Patient Entry Module • Examination Module: ➤ RF Module ➤ DX Module • Viewing Module Print Module
Generator Controls	• kVp • mAs • ABS ON/OFF • AEC ON/OFF • AEC Chamber • Filament Selection
Examination Layout	• 1x1 (Live) • 1x2 (1st: Live, 2nd: Reference)
Live Parameters	• WW/WL • Zoom • Flip • Frame Rate • Software Shuttering
DICOM Compatibility	DICOM 3.0 compatible: DICOM MWL DICOM Send
WL/WW Adjustment	Automatic WW/WL adjustment for Radiography Automatic WW/WL adjustment for Fluoro, Cine , Spot according to the selected procedures Manual WL/WW adjustment
Post processing	• WW/WL

Parameters	• Zoom • Magnify • Invert • Flip Horizontal • Flip Vertical • Annotations • Image Layouts • Play DICOM Loops • Frame by Frame Image View • Software Shutter • Crop • Tagging of Images • Angle and Length measurement
Advance Features	• ABS for Fluoro and Cine • AEC for Radiography • Configurable RF Procedures and Radiography Protocols • Live image WL/WW adjustment • Stenosis • Patient Workbook
Image Acquisition System Configuration	• Image Acquisition system with Intel core i7 processor (3.1GHz), 24GB RAM, 1TB SSD & 500GB SSD and Window 10 OS or Higher Specifications • Keyboard • Mouse • 3KVA online UPS • A High-Resolution Graphic Card • Gigabit LAN Ports (3No.)
Monitor and Examination Layouts	Monitor Size: 27 Inch Monitor with 2K Resolution (2 Nos.) for Live Image or Live & Reference Image, one for Console Room & other for Examination Room. Trolley: Specially designed integrated keyboard having feather touch keys and touch pad is provided instead of double unit keyboard and mouse. Large size wheels for better mobility with kick stop provision in two wheels for parking stability.
ADDITIONAL WORKSTATION (RF WORKSTATION)	Addition workstation for image viewing, processing and printing should be provided with high resolution monitor.

POWER REQUIREMENT: The unit should be operable on 400V AC, 50 HZ 3 Phase – Max. Allowable line Regulation $\pm 10\%$.

ACCESSORY :

- A servo voltage stabilizer of suitable rating for complete uni -01No.

- Lead Apron 0.25mm - 10Nos
- Thyroid Guard - 10Nos
- Gonard shield - 05Nos
- 2 tray Printer -01No
- 2 ton 5star rating A/c -04Nos

Turnkey Works

- Civil , Electrical, Denting & Painting as per AERB HGuideline

OTHER REQUIREMENTS:

- The company should be ISO And ICMED certified.
- The unit should be approved by AERB.
- The company should have a dedicated local service centre in the state.
- The company should have proven track record in Govt. sector.
- The Company should be ISO 9001:2015 certified with make of Detector mentioned on it.
- The unit should be European CE from notified body should be provided.
- The unit equipment should have Central Drugs Standard Control Organization (CDSCO) (Medical Device & Diagnostic Division) License to manufacture for Sale or for Distribution of Class C or Class D medical devices in Form MD-9 under Medical Device Rules, 2017.

41. DIGITAL MAMMOGRAPHY(Qty-1)

TECHNICAL SPECIFICATIONS OF 3D DIGITAL MAMMOGRAPHY MACHINE

Full filed digital Mammography providing outstanding image quality at lower radiation for screening & for diagnosis.

A) X-RAY GENERATOR

- The Machine should have a high frequency integrated generator in main gantry column and the frequency of the generator should be 50KHZ or more.
- Power of generator should be 8KW.
- Maximum mA output should be 220mA
- KV Range should be 20 to 49KV in steps of increment of 1 KV each.
- mAs Range should be from 1 mAs to 700 mAs or more.
- 1 No. High Voltage Cable should be provided.
- Anti scatter motorized grid of 5:1 ratio, 31lp/cm lines should be provided.

B) X-RAY TUBE

- Rotating Anode X-Ray Tube having dual focus should be provided.
- Focal Spots should be Small Focus = 0.1mm & Large Focus = 0.3mm

- Target Material: Tungsten, rhenium faced molybdenum
- Anode Heat Storage Capacity should be more than 250KHU.
- Collimator: Light Beam Collimator for 24cmx30cm field size with Auto shut off timer. Face Shield for Protection.
- Should have facility for Auto collimation and automatic filter selection.
- Rhodium and Aluminium filter should be provided.

C) PANEL

ACQUISITION SOFTWARE: Integrated panel for control of Exposure parameters as well as image parameters.

OPERATING MODES:

- APR Modes for automatic selection of Exposure parameters (KV & mAS) as per Fatty, Normal & Dense breasts with manual override to select parameters manually.
- AEC mode (Dual shot) for automatic selection of exposure parameters. Automatic density selection as per breast anatomy for optimum Image quality.

- **3D TOMOSYNTHESIS MODE**

The Digital Mammography should have 3modes of Tomography with different scan angles. Maximum Scan angle in wide angle Tomography should be $\pm 15^\circ$ exposure or better.

DIGITAL DISPLAY: Following Parameter Displayed on LCD:

- KV
- mAs
- Error/interlocks message indicating the fault in the machine.
- Focal Spot Selected

SWITCHES ON GUI BASED SOFTWARE:

- Mode Selection Switch
- Focal Spot Selection Switch
- KV Selection Switch
- mAS Selection Switch

CONTROL BOX:

- Hand Switch with Retractable Cord for initiation of Exposure.
- Emergency off Switch
- Compression Release Switch
- LBD ON Switch
- Exposure Switch

D) SOFTWARE FEATURES:

Integrated panel for control of Exposure parameters as well as image parameters

Standard Features Detail: -

- Dedicated Imaging software for Image acquisition provides complete control of all image capture functions & exposure factors controls within the examination room.
- Enhances the entire workflow by delivering diagnostic images instantly.
- Allows user to transfer X-Ray images electronically to remote workstations, image archives, and printers.

X-ray generator control: -

- KV & mAS increase/ decrease switches.
- Manual & AEC Mode selection switches
- Focal Spot Large/ Small selection
- Exposure ON Indication

Pre-Processing Features: -

- Separate log in for Manager and Technician.
- DICOM Modality work list for the patient details
- Manual & Emergency Patient details Entry
- Exam Specific Algorithms image processing for consistent image quality of breast.
- Image processing tools for different anatomy.

Post Processing Features: -

- Symphony tools for image processing.
- Add image accept/reject comments.
- Rejected images archival with provision of converting them to
- Image mirror & Flip, Image rotation in steps & in 90 degree steps.
- Dynamic Zoom with PAN
- Negative Image
- True Image & Fit to screen.
- Brightness & Contrast adjustment with change of Window width & Window level
- DICOM Tags/Information view
- Protect/ Un-protect the patient study.

Text & Annotation: -

- Distance, angle and Cobb angle.

- Rectangle, circle, polygon and hand-free drawing area
- Text annotation.

Measurements Features

- Length / Distance measurement
- Angle measurement.

Image Print: -

- User defined print settings.
- Selection of different film sizes
- Image Print on Normal printer & on DICOM printer.

Connectivity & storage Features: -

- Storage of Images on CD/DVD with inbuilt DICOM viewer software enables to view images on any PC.
- DICOM 3.0 ready to connect with any DICOM 3.0 modality (like PACS, RIS/HIS/ Dry laser printer)

MONITOR: 01No. 24" medical display monitor for acquisition of minimum 2MP Display.

E) ADDITIONAL REPORTING WORKSTATION: 1no. 19" monitor for work list & 21" Medical display Dual Head 5MP monitors compatible for 3D Images views.

F) STAND ASSEMBLY

- A compact Stand supporting an Iso-Centric gantry containing X-Ray Tube & Bucky Assembly should be provided.

- Vertical Movement (Motor operated) should be 800mm.

- Motorized rotation: +180 degree to -180 degree or more

- Source to image distance (SID) should be 650mm

- SWITCHES:

- 2 No's "Emergency OFF" switches on each side of machine frame are provided to shut down the machine in case of emergency.
 - Compression up & down Switches on both side of Gantry Column.
 - Gantry up & down Switches and rotation switches on both side of machine's frame.
- PROTECTIVE BARRIER: Lead Glass Screen for Operator Protection

G) COMPRESSION

MAIN FEATURES:

- Should have facility of Automatic release of compression after each exposure, Automatic release of compression in case of power failure. Motorized installation and removal/auto retract of grid/ breast support assembly should be available for geometric magnification.
- Compression paddle with dual speed movements.
- Automatic compression locking after maximum compression of compression paddle.

DIGITAL DISPLAY

- Digital display of applied Compression Force (In Newton).
- Compression Force up to 196N
- Digital Display of Compression Breast Thickness (CBT)
- Movement of Compression Paddle up to 180 ± 10 mm

COMPRESSION PADDLES

- Normal with size of 24 x 30 cm
- Spot paddle (Square)

FOOT SWITCH: 2set of foot switches for compression & Gantry up & Down movements.

H) FLAT PANEL DETECTOR (FPD):

A complete imaging solution with cutting-edge performance integrated with our X-ray systems should be provided.

SPECIFICATIONS OF FLAT PANEL DETECTOR:

In-Direct conversion type solid state flat panel detector.

Size: 24cm x 30 cm.

CONVERSION SCREEN/ SCINTILLATOR: Cesium Iodide (CsI).

PHOTODIODE: amorphous silicon (a-si)

Pixel pitch should be $83\mu\text{m}$

j) Breast Density Software should be provided.

L) POWER SUPPLY REQUIREMENT

- Single Phase, 230 Volts $\pm 10\%$, AC, 50 Hz, 15 Amps with Independent earthing on the wall socket.

- Suitable rating UPS should be provided for the backup of software & Complete system.

M) ACCESSORIES: -

- Radiation protection Face Shield
- Magnification device 1.8X
- Compression paddles 24x 30cm & 18x24cm
- Spot compression paddle used with Magnification stand.

N) OTHER REQUIREMENTS:

- The company should be ICMED 13485 certified and should have import/manufacturing license from Central licensing Authority or State licensing authority of CDSCO for Medical Devices and copy of valid license should be submitted for the quoted model.
- The Company should be European CE Certified from Notified Body.
- The unit should be approved by AERB.
- The company should have a local Service center.
- The company should have proven track record in Govt. sector.

42. 300m.A. HIGH FREQUENCY X-RAY MACHINE (Qty-3)

SPECIFICATIONS OF 300m.A. HIGH FREQUENCY X-RAY MACHINE

High frequency X-Ray machine suitable for general radiography.

X-RAY GENERATOR:

- B)** High Frequency X-Ray Generator having frequency of 50KHz should be provided.
- C)** Oil filled based generator for high dielectric strength, better heat dissipation, and easy service stability.
- D)** Power output of generator should be 30 KW.
- E)** Radiographic KV Range should be 40 to 125KV.
- F)** mA Range (Rad.): Upto 400mA.
- G)** Exposure time (Rad.): 2.5ms to 3Sec.
- H)** mAs Range (Rad.): 1 to 200mAs.

CONTROL:

A very compact, Soft Feather Touch Control Panel having following functions & indications should be provided. The panel can be supplied in Floor mount with Spill Proof design.

Following features should be available on the control panel.

- Machine ON/OFF Switch.
- Digital Display of KV & mAs.
- KV & mAs increase and decrease switches.
- Tube focal spot selection Switch.
- Ready and X-Ray on switch with Indicators

- Bucky Selection Switch.
- Self diagnostic Programme with Indicators for Earth fault error, KV error, filament error & Tube's Thermal Overload.
 - Anatomical preprogrammed parameters of human Anatomy should be available to select exposure parameters based on body part, examination view and size of the patient.
Anatomical Programming up to 200 programmes or more

A dual action hand switch with retractable cord should be provided for Radiation Protection of Operator.

X-RAY TUBE:

- I) One No. Dual focus Rotating Anode X-Ray tube thermally protected.
- J) Anode heat storage capacity of tube should be 140 KHU.
- K) One Pair of 8-meter H.V. Cable.
- L) One No. Collimator with auto shut off facility should be provided.

HV TANK:

A very compact H.V. Tank filled with high dielectric transformer oil should be provided. The H.V. Tank should contain H.V. transformer, Filament Transformers, H.V. Rectifiers & H.V. Cable receptacles.

TUBE STAND:

- Floor mounted ceiling free tube stand with counter balanced movements & with easy installation at site.
- Manual movements with electromagnet locks in longitudinal, transverse & vertical movements are provided with release switches on electromagnet panel mounted on Tube collimator assembly
- Tiltometer on electromagnet panel to show tube angle position
- Continuous tube rotation around horizontal axis with lock

F. TABLE:

- Floatex table with 4-way movement of the table top i.e. along x axis and y axis is to be provided. Longitudinal movement of tabletop is 500mm or more & transverse movement is 180mm or more.
- The Table should consist of bucky motorized reciprocating Grid of Ratio 8:1 – 85 lines/inch.
- The Bucky should be locked at any desired length position by an Electromagnetic lock.
- The tabletop should be made of low radiation absorption, waterproof material.
- Table Accessories like stainless steel cassette tray, Compression band is to be provided.

G. VERTICAL BUCKY STAND:-

- Vertical Bucky Stand with oscillating Grid of Ratio 8:1, 85 lines / inch is provided.

- The Bucky moves up & down & is equipped with a stainless steel cassette tray.
- The stand is floor-mounted type & can accommodate cassettes up to 14" X 17". The Bucky is tilted in 6 steps of 15 degree Angle each for various Radiographs.
- VBS should have provision for without grid exposure.

POWER REQUIREMENT: The unit should be operable on 3 Phase, 400Volts AC 50Hz with line resist less than 0.2 Ohms. Line Regulation $\pm 10\%$.

ACCESSORIES: supply along with unit

1. Servo Stabilizer of suitable rating -01 No.
2. Lead Apron of 0.25 mm lead equivalence- 02 Nos.
3. Gonad Shield- 02 Nos.
4. Thyroid Guard- 02 Nos.
5. Chest Stand 01 No.
6. Lead Partition With Lead Glass
7. AC 1.5 Ton 5 Star- 01 Nos.

OTHER REQUIREMENTS:

- The company should be ISO and EN-ISO certified.
- The company should be CE certified from Notified Body Number.
- The unit should be approved by AERB.
- The equipment should have import/manufacturing license from Central licensing Authority or State licensing authority of CDSCO for Medical Devices and copy of valid license should be submitted.
- The company should have proven track record in Govt. sector & Local Service center.
- The Turnkey including lead door, lead lining on walls and Earthing work as per AERB norm and should be provided by the company

43. Digital Radiography System With Dual Flat Panel Detector(Qty-1)

System should be capable of performing exposure in vertical, horizontal and oblique position to perform all skeleton body (upright and lying down) radiographs.

Unit should be completely integrated (integrated generator and Image acquisition).

It is possible to do all the general radiological imaging like abdomen, musculoskeletal, joints, PNS, Skull and Spine etc. with movement of tube assembly with auto position/auto tracking in vertical position.

Unit should be High frequency Digital Radiography system with rotating anode X-Ray tube. 3D ceiling suspended stand with Auto tracking & 2 separate fixed detectors in table bucky and vertical bucky each.

System should have following features.

HIGH FREQUENCY GENERATOR:

Generator should be of latest technology with high frequency 40 KHz or more X-Ray generator.
Power output of 80KW.
KV range should be 40 to 150KV in 1KV/step.
mA output: up to 1000 mA.
mAs range should be from 1 to 200mAs.
It should have solid state automatic exposure control device in table & vertical bucky stand.

X-RAY TUBE:

A Dual focus High speed Rotating anode X-ray tube.
Focal spots of tube should be:
Small focus: 0.6
Large focus: 1.2
Anode Heat storage capacity 300 KHU.
Collimator: Automatic Multileaf collimator with LED light source with high lux output. Rotation +/-90 degree.
DAP meter should be provided to display the dose given to patient on monitor.
HV Cable: 1 Pair of HV cable of suitable length.

TUBE STAND:

- Ceiling mounted tube stand with 3-dimensional motorized movements of the tube head covering a huge area.
- Motorized movements in longitudinal, Vertical and transverse direction with control from panel mounted on Tube collimator assembly
- Tube stand with actuator based/ telescopic noiseless swift motorized up/down movement.
- Manual Override of Longitudinal & Transverse direction movements with electromagnet locks
- Touch screen Console panel is provided for Exposure parameters display & tube inclination angle & SID display
- Smart Anti-collision software system is provided to avoid any collision.

Movements of stand should be:

- Motorized Longitudinal movement : more than 2500mm
- Motorized Transverse movement: more than 1500mm
- Motorized Vertical up/down movement: more than 1000mm
- Tube head Rotation (along vertical axis): $\pm 180^\circ$.
- Tube assembly should have 3D auto tracking/ auto positioning on its control for synchronization with the detector fitted inside the vertical bucky stand & table.

TABLE:

- Horizontal 6 way table with floating carbon fiber tabletop and adjustable height should be provided. Tabletop should have three-dimensional movement, which is ease of patients as it lowers down to a comfortable position.
- Table should be provided with Inbuilt FPD (FLAT PANEL DETECTOR) beneath the tabletop having motorized movement.
- Transverse and longitudinal movements of the tabletop should be locked by electromagnetic locks.
- Table should have up/ down motorized movement and it should be controlled by two up & down foot switches.
- Movements of table should be: Transverse movements: 18cm or more, longitudinal movements: 45cm or more. Height adjustment facility should be available.

- Maximum weight carrying capacity for the table during up/down movement should be more than 150Kg.
- AEC mode with use of ion chambers should be provided which enables auto selection of radiographic factors, saves time, eliminates retake, increases diagnostic capability and lowers radiation dose, calibrated to multiple exposure classes/densities.

VERTICAL BUCKY (VB) STAND:

Floor mounted Motorized Vertical bucky stand should have inbuilt FPD (FLAT PANEL DETECTOR) for lung and skeleton x-ray examinations. It should have user friendly design and handling

- VB stand should have provision to do chest radiography with and without grid.
- Motorized Tilting should be -30 degree to + 90 degree.
- Vertical up Down Movement should be 1200mm or more.
- AEC mode with use of ion chambers should be provided which enables auto selection of radiographic factors, saves time, eliminates retake, increases diagnostic capability and lowers radiation dose, calibrated to multiple exposure classes/densities.

FLAT PANEL DETECTOR (One NO. EACH FOR TABLE BUCKY AND VERTICAL BUCKY):

Specifications:

- The detector should be flat panel type with A-Si (amorphous silicon) and CSi as scintillator.
- Size of detector must be 43cm x 43cm.
- Active Image matrix 3K x 3K.
- Image depth should be 14bit or more.
- Pixel size should be less than 140um (Smaller pixel size is preferred)
- Detector resolution should be more than 3.3 lp/mm.
- DQE (Detector Quantum Efficiency) should be more than 60%.

OPERATING STATION/WORK STATION:

a. X- RAY/IMAGE CONTROL CONSOLE

Fully integrated system with following features:.

- Digital Display of KV &mAs
- KV &mAs increase and decrease control on G.U.I (Graphical user interface)
- Ready and X-Ray ON indication on G.U.I (Graphical user interface).
- Self diagnostic Program which can diagnose and display error messages such as Earth fault error,

KV error, Filament error & Tube's Thermal Overload.

- Anatomical Programming Radiography (i.e. APR): Preprogrammed parameters of human Anatomy which helps the user to select exposure parameters based on body part, examination view and size of the patient. Since it is a computer based system (full system integration) so any number of Organ programming combinations is possible. User can define his own Organ parameters and can edit the existing parameters to his satisfaction and comfort level.
- APR programs: More than 1000 programs. (Expandable as per user's requirement).

A 2-Step hand switch with dual action for exposure release with retractable cord is provided for taking images from a safer distance.

b. IMAGE ACQUISITION SOFTWARE

SOFTWARE CHARACTERISTICS:

Software provides complete control of all image capture functions within the examination room. It enhances the entire workflow by delivering diagnostic images instantly. It also allows

user to transfer X-Ray images electronically to remote workstations, image archives, and printers, also has an excellent performance on image quality control such as:

Outstanding Image Quality	• Digital image processing technology. • Exam specific algorithms image processing
Shorter Patient's Waiting Time	• Instantaneous acquisition of image
Dose Reduction	• Dedicated firmware/software for quick image processing • Advanced noise reduction technology and optimized Image calibration technology which minimizes radiation dose.
Image processing	• Image processing tools for different anatomy • Image storage >50,000 Images • Image cropping (can be done automatically according to configuration) • Image mirror, rotate (can be done automatically according to configuration) • Add image accept/reject comments • True size for printing with Multiple printing formats
Excellent Maintainability	• Remote online system diagnosis • Remote online software upgrade • Image quality control tools • Easy and quick Offset and gain calibration with bad pixel removal algorithm.
Full DICOM 3.0 Compatibility	• DICOM work list • Support DICOM image print • DICOM Store • Support DICOM MPPS

Workstation along with monitor:1 No. 19" LCD high resolution monitor of 1MP should be provided.

Hardware Detail of Acquisition /Memory software:

- Compatible computer processor (i5 processor) of branded make
- 1TB Hard disk
- Window OS
- 64 Bit operating system
- CD/DVD writer.
- Wired keyboard & mouse.

Automatic Image stitching in VBS with Image stitching stand & Automatic Image stitching in table for 3 or more Images stitching.

POWER SUPPLY REQUIREMENT:3 Phase, 400Volts AC 50Hz with line resist 0.2 Ohms. Line Regulation $\pm 10\%$.

Accessories:-

1. Servo Voltage Stabilizer of Suitable Rating for the complete DR system - 01 No.
2. 01No. On line UPS with suitable rating and 30 minutes back up for console / digital system will be supplied along with the DR system
2. Three Tray Dry Chemistry Printer- 01 No.

Other Requirements:

- The company should be ISO and ICMED certified.
- The unit should be USFDA certified.
- The unit should be approved by AERB.
- The Company should be European CE Certified from Notified body.
- The company should have proven track record in Govt. sector.
- The company should have average annual turnover more than 100 crores.
- The company should have a local Service center.
- The Company should be ISO 9001:2015 certified with make of detector mentioned on it.

Bill Of Quantity				
SR NO	ITEM NAME	QTY	PER UNIT AMOUNT	TOTAL AMOUNT
	Dental Department			
1	Dental Surgical Microscope	1	16,50,000	16,50,000
2	Piezosurgery	1	4,50,000	4,50,000
3	2.5 Dental Loupe	2	2,25,000	4,50,000
4	3.5 Dental Loupe	2	2,99,000	5,98,000
5	Implantology Unit	1	9,50,000	9,50,000
6	Maxillofacial Surgery Instruments	2	2,94,400	5,88,800
7	General Dentistry Instruments	5	3,13,179	15,65,895
	Tuberculosis and Urology Department			
8	Multipara Monitor	5	5,04,000	25,20,000
9	Bronchoscope	1	11,61,440	11,61,440
	Ophthalmology Department			
10	Automated Perimeter	2	21,00,000	42,00,000
11	Autorefracto-Keratometer	6	4,40,000	26,40,000
12	Refraction chair unit with stool	5	89,600	4,48,000
13	Applanation Tonometer	4	90,000	3,60,000
14	Phacoemulsification Machine	1	21,00,000	21,00,000
15	Optical Coherence Tomography (OCT) System	1	45,00,000	45,00,000
16	Fundus Camera	1	24,75,000	24,75,000
17	Photodisrupting ND YAG Laser	1	20,05,000	20,05,000
18	Photocoagulating Green Laser	1	41,15,000	41,15,000
19	Slit lamp with imaging system	1	17,70,000	17,70,000
	ENT Department			
20	ENT Operating Microscope	2	58,00,000	1,16,00,000
21	Burrs & Micro Instrument set	4	1,30,011	5,20,044
22	General Instruments for ENT	4	1,03,469	4,13,876
23	FESS Set	2	15,00,000	30,00,000
24	Coblator	1	10,30,400	10,30,400
25	Fibreoptic Laryngoscope	1	8,73,600	8,73,600
26	OT Table	2	1,92,000	3,84,000
27	Pure Tone Audiometer	1	3,99,000	3,99,000
28	Impedance Audiometer	1	5,04,000	5,04,000
29	OAE	1	5,46,000	5,46,000
	Orthopaedic Department			
30	Small Fragment Set	2	2,30,000	4,60,000
31	Large Fragment Set	2	2,30,000	4,60,000
32	External Fixator Set	3	2,94,000	8,82,000
33	Volar distal Redaus plate (ss LVM)	2	2,95,000	5,90,000
34	Tourniquet	5	2,30,000	11,50,000
35	Electric Drill	3	2,88,000	8,64,000
36	High Vacuum Suction Machine	6	56,000	3,36,000
37	X-Ray Machine	2	2,75,000	5,50,000

38	ACL PLC Instruments	1	11,20,000	11,20,000
39	General ortho Instrumnet	5	2,96,000	14,80,000
	Radiology department			
40	Fluoroscopy (with digital radiography)	1	4,00,00,000	4,00,00,000
41	Digital Mammography	1	2,50,00,000	2,50,00,000
42	300mA Hlgh Frequency X-Ray Mahcine	3	11,20,000	33,60,000
43	Digital Radiography system with dual detector	1	1,25,00,000	1,25,00,000
	Total	99	11,85,44,099	14,25,70,055

ANNEXURE – XI

Consignee List

Sr. No.	Name of the Consignee	Address of the Consignee	Qty
1.	Government Medical College & hospital, Baramati	Government Medical College & hospital, Baramati	99
Total:			99

ANNEXURE – XII

AFFIDAVIT on Non-Judicial Stamp Paper of Rs. 100/-
(To be submitted to this office)

For rates

Reference: Tender No. **E-5128/HBPCL/PC/EQU / Various Medical Equipment of Group-A /2024-25**

This is to certify that the rates quoted in the above tender are not higher than D P C O, N P P A, or not higher than MRP

Seal

Signature

ANNEXURE – XIII

AFFIDAVIT on Non-Judicial Stamp Paper of Rs. 100/-
(To be submitted to this office)

Reference: Tender No. **E-5128/HBPCL/PC/EQU / Various Medical Equipment of Group-A /2024-25.**

The firm (Name of the Firm) has not been found guilty of malpractices, misconduct or blacklisted/debarred/ deregistered for the quoted product by Public Health Department, Govt. of Maharashtra or by any local authority and other State Government/Central Government's organizations as on the date of submission of tender document for the quoted items."

Seal

Signature

CHECK LIST OF THE TENDER DOCUMENTS

List of Documents/ Information should be Uploaded/ submitted with Tender.

The following documents should be uploaded / submitted with the Tender Document with page number on each document as per the order given below.

Sr. No.	PARTICULARS	Page No
<u>Envelope No. I</u> <u>(Technical Bid)</u>		
1)	Proforma as per Annex No. I	
2)	EMD : online	
3)	Copy of Value Added Tax (VAT)/TIN/GST Registration Certificate	
4)	Copy of Certificate of registration under company registration act 1913 & 1956 (If Applicable)	
5)	Manufacturer Authorization Letter as per Annex No. II	
6)	Technical Compliance Chart as per Annex No. III	
7)	User List of quoted model as per Annex No. IV	
8)	Detail of Products supplied to Govt. of Maharashtra in last 03 years as per Annex No. V	
9)	Details of After Sales Service Station as per Annex No. VI	
10)	Terms & Condition Acceptance Certificate as per Annex No. VII	
11)	Proforma for Price Justification as per Annex No. VIII (Treat As Deleted)	
12)	Proforma of Commercial Bid (without Price) as per Annex No. IX	
13)	Scope of Supply (Technical Offer)	
14)	Original Product Catalogue / Brochure	
15)	Original Tender Form duly signed and official seal of the company on every page of the tender. Original specification copy duly signed as per Annex X	
16)	Copy of memorandum and articles of Association (If Applicable)	
17)	The requisite certificate ISO, ISI, UL, BIS, CE, USFDA etc. as per Technical Specification in Annex. No. X (If Applicable)	
18)	Total Documents in Technical Bid Page No. _____ to _____	
<u>(Commercial Bid)</u>		
	COMMERCIAL OFFER as per Annex No. IX	

Note: - If, during online bid preparation, any need arises to upload additional documents, apart from the above mentioned documents, an option to upload additional documents has been provided in the e-Tendering software which will be available to bidders during online bid preparation stage.
