GOVERNMENT OF ANDHRA PRADESH

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Web Site : https://tender.apeprocurement.gov.in

TENDER DOCUMENT

FOR

Procurement and supply of Medical Equipment to 5 New Medical Colleges/Hospitals in Andhra Pradesh with a period of Two Years Rate Contract (e- Procurement) (Reverse Tender)

Tender Notice No.	**:**	**11.1D/APMSIDC/2022-23, Dt: 20.09.2022.**
Name of the Work	**:**	**Procurement and supply of Medical Equipment to 5 New Medical Colleges/ Hospitals in Andhra Pradesh with a period of Two Years Rate Contract**
Name of the Agency and Address	**:**	**……** **……** **……**

Implementing Agency :

ANDHRA PRADESH MEDICAL SERVICES & INFRASTRUCTURE DEVELOPMENT CORPORATION

(Formerly APHMHIDC)

(AN ENTERPRISE OF GOVT. OF A.P.)

2nd Floor, Plot No:09, survey number: 49, IT Park, Mangalagiri, Guntur District- 522503.

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INTRODUCTION

1.1. The Andhra Pradesh Medical Services & Infrastructure Development Corporation – APMSIDC (formerly APHMHIDC) (Tender Inviting Authority) is a fully owned Government of Andhra Pradesh for providing services to the various health care institutions under the Department of Family Welfare and Health. One of the key objectives of the APMSIDC is to act as the central procurement agency for all essential drugs and equipments for all health care institutions (hereinafter referred to as user institutions) under the department. The corporation has also been entrusted with the setting up and running of all kinds of modern Medical and Paramedical or medical based ancillary facilities such as hospitals, pathological labs, diagnostic centres, x-ray/scanning facilities.

1.2. Over the last decades, several equipments have been procured and installed in the various health care institutions under the government under different schemes. One of the major problems encountered is the maintenance of the equipments. Site preparation, timely replacement of consumables, calibration of sensitive equipments, up gradation of technology, training to the doctors and paramedical staff- all poses problems. The corporation has been formed by the government to fill in these grey areas and to act as total service providers to the all the government health care institutions. Of course, this mammoth task could be achieved only with the active involvement and support of the manufacturers/dealers of the equipments.

1.3. In this tender, the lowest price is the sole criteria for selecting the equipment/supplier. The two-bid system, which is followed, has been designed to eliminate those equipments which do not match the technical specifications, or not having the proven technology and to eliminate firms that do not have the financial or technical capability to supply, install and maintain the equipments. i.e., to provide after sales support for a period of minimum 5 years from the date of installation and to ensure 98 % uptime in performance/operation of the equipment.

1.4. The payment to the successful tenders will be settled after obtaining a 'three month performance certificate' from the head of the user institution - three month period is a period of trail run- during which the performance of the equipments will be keenly observed. At the same time, it may be noted that the Corporation is not the agency finalizing the requirements of equipments and their technical specifications. These parameters are finalized by the user institutions and funding agencies and forwarded to the corporation for procurement. On our side, we ensure that the technical

specifications are not biased towards a particular equipment/firm, through consultations during the pre-tender meetings with the prospective tenderers. Amendments in the terms and conditions of the tender documents may be resorted to on the basis of expert advice to see that more than one firm qualifies for the final round. Technology specific specifications/conditions and entertaining direct purchase will be undertaken, if and only if, the user agency certifies the equipment required is of proprietary nature. Since the equipments procured are dealing with precious human life in government hospitals, depended by the poor and downtrodden of the society, it is our endeavor to ensure that most modern, but proven and durable equipments are procured and supplied. The tender documents are prepared after assessing the market to meet such objectives.

1.5. Every paisa spend by the corporation is public money and hence accountable. Therefore, after sales service and up-time guarantee on the performance of the equipment purchased by the Corporation have to be given paramount importance. Corporation will be dealing with defaulters in these fronts with a firm hand, which may lead to black listing and recovery of damages. We request our valuable suppliers to avoid such unpleasant situations.

1.6. It is also essential while dealing with public money that utmost transparency has to be maintained in the procurements of the corporation. All decisions will be published from time to time on our website www.msidc.ap.nic.in. The corporation will not wait for the mandatory 30 days period to provide any information under Right to Information Act and will provide the information within the minimum possible time. The Corporation will uphold the fundamental "right to be heard' enshrined under the Constitution of India and will take harsh decisions only after providing opportunity for hearing/submission of facts. Tenderers could prefer appeal to the government against all decisions of the corporation.

SECTION - I: INVITATION FOR BIDS (IFB)

GOVERNMENT OF ANDHRA PRADESH

ANDHRA PRADESH MEDICAL SERVICES & INFRASTRUCTURE DEVELOPMENT CORPORATION (APMSIDC)

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Tender Notice No.11.1D/APMSIDC/2022-23 Dt: 20.09.2022.

1. Bids are invited on the e-procurement platform for certain medical equipment as described in the Section V- Schedule of Requirements from the eligible manufacturers/Authorized Distributors. The details of bidding conditions and other terms can be downloaded from the electronic procurement platform of Government of Andhra Pradesh i.e. https://tender.apeprocurement.gov.in.

2. Bidders would be required to register on the e-Procurement market place "www.eprocurement.gov.in" and submit their bids online. On registration with the e-Procurement market place they will be provided with a user id and password by the system through which they can submit their bids online.

3. The bidders need to scan and upload the required documents as per the Check list given in **Annexure XIV**. Such uploaded documents pertaining to technical bid need to be attached to the tender while submitting the bids on line. The attested copies of all these uploaded documents of technical bid, signed undertaking of tenderer should be submitted off line to Managing Director, APMSIDC, Mangalagiri, Guntur on or before the next day of the last date of submission of bids. The Corporation will consider only the bids submitted through on-line over the copies of the paper based bids.

4. a) The participating bidder/s will have to pay tender processing fee (non-refundable) for the amounts specified in the Schedule of Requirements (Section –V), in the form of Demand Draft drawn in favour of Managing Director, APMSIDC, Guntur.

   b) Further the bidder/s shall furnish, as part of it bid, the Bid security for the amounts specified in the Schedule of Requirements (Section –V) to be paid in the form of crossed Demand Draft drawn in favour of Managing Director, APMSIDC, Guntur along with bids. The bidders should note that the local MSME units are exempted from payment of E.M.D, subject to the production of necessary documentation to that extent by them.

   c) Further all the participating bidders have to electronically pay a non-refundable transaction fee to M/s. APTS, the service provider through "Payment Gateway Service on E-Procurement platform", as per the Government Orders placed on the e-procurement website.

   d) APMSIDC will not accept the tenders from blacklisted companies or undependable Suppliers whose past performance with APMSIDC was found poor due to delayed and/or erratic supplies and those with frequent product

failures, and also against whom there have been adverse reports of **Sub-Standard Quality / Poor Service of** Equipment supplies, as defined in the other parts of the Bidding document.

e) "Complaint/s: Any complaints/representation regarding tender will be entertained only after depositing of Rs. 25,000/- in form of Demand Draft in the name of Managing director, APMSIDC, Mangalagiri, Guntur. Subsequently necessary action will be taken by the Managing Director and decision of Managing Director will be binding upon the complainant. If the complaint turns out to the false or invalid the amount will be forfeited. The amount shall be refunded if after scrutiny the complaint is found to be true. No further complaint/representation from the same complainant for the same tender will be entertained. If the complaint or allegation made is found to be false or baseless and without any valid point, the tender inviting authority in its discretion, can prevent / blacklist / declare ineligible, such bidder from participating in its procurement process, either indefinitely or for a stated period of time."

5. **Period of Delivery: 60** Days from the date of receipt of the Notification of Award (Purchase Order) of Contract. The delivery terms include the total time given for supply, installation, testing and training of staff.

Time Limits prescribed

Sl. No	Activity	Time Limit
5.1.1.	Installation & Delivery period	60 days from date of issuance of Supply Order
5.1.2.	Comprehensive warranty period	as specified at section V schedule of requirements against each equipment.
5.1.3.	Frequency of visits to all User Institution concerned during Warranty	One visit every three months (4 visits in a year) for periodic/preventive maintenance and any time for attending repairs/break down calls.
5.1.4	Submission of Performance Security and entering into contract	15 days from the date of issuance of Supply Order
5.1.5	Payment Installments of Price of equipments and ratio	Three Installments and in the ratio 60:30:10
5.1.6	Time for making payments by Tender Inviting Authority	Within 60 days from the date of submission of proper documents
5.1.7.	Maximum time to attend any Repair call	*Within 48 hours*
5.1.8	Uptime in a year	*95%*

6. Bidders eligibility and qualifications: Defined at Clause 13 of Instructions to Bidders (Section II) and Qualification Criteria (Section-VI)

7. Details of Tender Process:

1.	Downloading of documents	from 16-10-2022 to 31-10-2022 up to 02.59 PM
2.	Queries up to	20-10-2022 @ 11.00 A.M
3.	Due date for Receipt of tenders	31-10-2022 up to 03.00 P.M
4.	Time and date of opening of technical Bids	31-10-2022 @ 03.01 PM
5.	Time and date of opening of financial bids	31-10-2022 @ 5.00 PM

Note: The dates stipulated above are firm and under no circumstances they will be relaxed unless otherwise extended by an official notification or happen to be Public Holidays. For the assistance in the online submission issues, the bidder may contact the help desk of M/s Vupadhi Techno Services Pvt. Ltd. (e-procurement) at their e-mail address: eprocsupport@vupadhi.com or on the mobile nos. **8645-246370 / 71 / 72 / 73 / 74**

8. Procedure for Bid Submission

a. The Tenderers/Bidders who are desirous of participating in e-procurement shall submit their Technical bids, price bids etc., in the Standard formats prescribed in the Tender documents, displayed at e-procurement market place.

b. The bidders shall sign on all the statements, documents, certificates, uploaded by them, owning responsibility for their correctness / authenticity.

c. The hard copies of all the uploaded Technical / Price bid, to be attested by a Gazetted Officer or properly notarized.

d. The Corporation shall not hold any risk on account of postal delay. Similarly, if any of the certificates, documents, etc., furnished by the tenderer are found to be false / fabricated / bogus, the bidder will be disqualified, blacklisted, action will be initiated as deemed fit and the EMD will be forfeited.

e. The Corporation will not hold any risk and responsibility for the loss in transit during uploading of the scanned document, for the invisibility of the scanned document online, and any other problem(s) encountered by the Tenderers while submitting his bids online.

9. Important Instructions to the Bidders:

9.1 Quality of Supplied Equipment throughout its life cycle period, timely supplies and prompt maintenance support during the warranty and CMC period without default are being given paramount importance by the Corporation. The Corporation will be dealing with the defaulters with firm hand, which may lead to blacklisting for a specified period in addition to levying penalties.

9.2 In case of complaints on the quality and poor maintenance support of the products supplied, bills will be withheld till receipt of Satisfactory reports. Further:

- If one item of any Supplier is found of 'Sub-Standard Quality' during the Contract period, then that particular item will be blacklisted for a period of (3) three years immediately succeeding the Contract year
- If two items of any Supplier are found of 'Sub-standard Quality' during the Contract period, then Supplier will be blacklisted for a period of (3) three years immediately succeeding the Contract year

9.3 The Corporation will blacklist the Supplier, who is declared as 'Undependable for two (2) items or in two (2) instances during the Contract period, for a period of one year immediately succeeding the Contract year apart from taking other penal actions under the Contract.

9.4 The decision of the Managing Director, APMSIDC, or any officer authorized by him in respect of the quality of the supplied Equipment and other goods etc., shall be final and binding.

9.5 No claims shall be allowed against the APMSIDC in respect of interest on Earnest Money Deposit or on Security Deposit or late payments.

9.6 Savings Clause: No suit, prosecution or any legal proceedings shall lie against APMSIDC or any person for anything, which is done in good faith or intended to be done in pursuance of bid.

10. Reverse tendering process on e-procurement portal

a) APMSIDC will schedule reverse tendering process on the e-Procurement portal. Qualified technical bidders will also be communicated through e-mail the date and time for the conduct of reverse tendering process.

b) Online reverse tendering process

i) The online Reverse tendering process will be run on the total amount.

ii) Only the technically qualified bidders will be permitted to participate in the reverse tendering.

iii) The 'opening price' i.e. start price for Reverse tendering will be the lowest (L1) price quoted by the Bidders amongst all technically qualified bidders.

iv) Bidders can modify the total price, based on the minimum bid decrement or the multiples thereof, to displace a standing lowest bid and become "L1", and this will continue as an iterative process. The total price, will be used to determine the total cost of the bid.

v) For the purpose of Reverse tendering, the minimum bid decrement value on 0.5% of L1 value or as specified by TIA.

vi) Reverse tendering duration: The duration of the reverse tendering is 3 Hours. All bidders are required to submit their online bids during this period.

vii) In case, if any bidder decides to lower the price in the last fifteen (15) minutes of the reverse tendering duration, then the duration of the reverse tender will be extended for additional 15 minutes (Bid Received time + 15 minutes) to enable other bidders to participate further. Such extensions will continue as long as there is no bid received in the last 15 minutes.

viii) After the completion of reverse tendering, the system will calculate the total price of the bid.

SECTION - II : INSTRUCTIONS TO BIDDERS

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3	Eligible Goods & Services	20	Late Bids
4	Cost of Bidding	21	Modification & Withdrawal of Bids
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16	Period of validity of Bids	32	Purchasers right to accept any bid or reject any or all bids.
17	Format & signing of Bid Bids.	33.	Notification of award
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A. Introduction

1. Source of funds:

The funds are made available by the State Government of Andhra Pradesh, to the Managing Director, APMSIDC Scheme wise towards the procurement processed under this tender notification.

2**. Eligible Bidder**

2.1 This invitation for Bids is open to all Manufacturers or their authorized distributors, who fulfill the eligibility criteria mentioned in the Clause 13 and who meet qualification criteria mentioned in the Section VI.

3 Eligible Goods and services

3.1 All goods and ancillary services to be supplied under the contract shall have their origin in eligible source country. The goods shall meet the requirements as specified in the Technical Specifications. And meet the eligibility criteria as given at Clause 14 of ITB.

3.2. For purpose of this clause, "origin" means the place where the goods are mined, grown, or produced or from which the ancillary services are supplied. Goods are produced, through manufacturing processing or substantial and major assembling of components, a commercially recognized product results that is substantially different in basic characteristics or in purpose or utility from its components.

3.3 The origin of goods and services is distinct from the nationality of the Bidder.

4. Cost of bidding.

4.1 The Bidder shall bear all costs associated with the preparation and submission of its bid, and the Managing Director, APMSIDC, Mangalagiri, Guntur here in after referred to as " the purchaser", will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

B. The Bidding Documents

5. Content of Bidding Documents

5.1 In addition to the Invitation for Bids, the bidding documents include:

(a) Instruction to Bidders;
(b) General conditions of contract;
(c) Special conditions of contract;
(d) Schedule of requirements;
(e) Technical specifications;
(f) Bid form and price schedules;
(g) Bid security form;
(h) Performance security form.
(i) Firm Registration/manufacturer license
(j) Performance statement form.
(k) Declaration Form
(l) Check List of the documents uploaded on e-platform as part of the bid

5.2 The bidder is expected to examine all instructions, forms, terms and specifications in the bidding documents. Failure to furnish all information required by the bidding documents or submission of a bid not substantially responsive to the bidding documents in every respect will be at the bidders risk and may result in rejection of its bid.

6. Clarification of bidding documents

6.1 A prospective Bidder requiring any clarification of the bidding documents may notify the purchaser in writing at the purchasers mailing address indicated in the Invitation for bids. The purchaser will respond in writing to any request for clarification of the Bidding documents if the same is received in the first week of the tender notice prescribed by the purchaser. Written copies of the purchaser's response (including an explanation of the query but without identifying the source or inquiry) will be sent to all prospective bidders which have received the bidding documents.

7. Amendment of bidding documents

7.1 At any time prior to the deadline for submission of bids, the purchaser may, for any reason, whether at its own initiative or in response to a clarification requested by prospective bidder, modify the bidding documents by amendment.

7.2 The amendment will be notified online.

7.3 In order to afford prospective Bidders reasonable time in which to take the amendment into account in preparing their bid, the purchaser may, at its discretion, extend the deadline for the submission of bids.

C. Preparation of Bids

8. Language of Bid.

8.1. The Bid prepared by the Bidder and all correspondence and documents relating to the bid exchanged by the bidder and the purchaser, shall be written in the English language, provided that any printed literature furnished by the Bidder may be written in another language so long as accompanied by an English translation of its pertinent passages in which case, for purposes of interpretation of the bid, the English translation shall govern.

9. Documents comprising the bid

9.1 The bid prepared by the bidder shall comprise the following components:

1. Technical Bid:

(a) A Bid form completed in accordance with clause 10

(b) Documentary evidence established in accordance with clause 13 that the bidder is eligible to bid and is qualified to perform the contract if its bid is accepted.

(c) Documentary evidence established in accordance with clause 14 that the goods and ancillary services to be supplied by the Bidder are eligible goods and services confirm to the Bidding Documents; and

(d) Bid security furnished in accordance with clause 15.

2. The Price Bid completed in accordance with clauses 11 and 12.

10. Bid Form

10.1 The Bidder shall complete the bid form provided in the Bidding documents, indicating for the goods to be supplied, brief description of the goods, their country of origin and quantity and other declaration statements.

11. Bid prices.

11.1 The Bidder shall indicate on the appropriate price schedule, made available in the e-procurement platform and a model format is also attached to these documents, the unit prices and total bid prices of the goods it proposes to supply under the contract, for each item separately. The unit prices shall be rounded off to nearest Indian rupee. The bidder may quote one or more items for which copy of necessary documents, wherever necessary have to be produced along with the bid.

11.2. Prices indicated on the price schedule shall be entered separately in the following manner:

(i) The price of the goods, quoted ex-factory, ex-showroom, ex-warehouse, or off-the-shelf, or delivered, as applicable, including all duties and sales

and other taxes including transportation, installation, commissioning at site and all incidental charges associated with the contract.

(ii) Cost of 4 years Comprehensive Maintenance Contract as defined in the Clause 18 of the Special Conditions of the Contract.

11.3 The Bidder's separation of the price components in accordance with para 11.2 above will be solely for the purpose of facilitating the comparison of bids by the purchaser and will not in any way limit the purchaser's right to contract on any of the terms offered.

11.4 Fixed Price. Price quoted by the Bidder shall be fixed during the Bidder's performance of the contract and not subject to variation except for any changes made by the Statute in respect of local taxes. A bid submitted with an adjustable price quotation will be treated as non-responsive and rejected, pursuant to clause 24.

12. Bid currencies.

12.1 Prices shall be quoted in Indian Rupees; Bids quoted other than Indian currency will be rejected.

13. Documents Establishing Bidder's Eligibility and Qualifications.

13.1 Pursuant to clause 9, the bidder shall furnish, as part of its bid, documents establishing the bidder's eligibility to bid and its qualifications to perform the contract if its bid is accepted

13.2 The documentary evidence of the Bidder's eligibility to bid shall establish to the purchaser's satisfaction that the bidder, at the time of submission of the bid, is an eligible bidder as defined under clause 2.

13.3 The documentary evidence of the Bidders qualifications to perform the contract if its bid is accepted, shall establish to the purchaser satisfaction;

(a) That, in the case of bidder offering to supply goods under the contract which the bidder is manufacture produce, Firm Registration/manufacturer license that the bidder is manufacturer & also Memorandum of Articles. or otherwise produce, the bidder has been duly authorized (as per authorization form in section XII a).

(b) that, in the case of bidder offering to supply goods under the contract which the bidder did not manufacture or otherwise produce, the bidder has been duly authorized (as per authorization form in section XII b) by the goods manufacturer or producer to supply the goods in India.

(i) the legal status, place of registration and principle place of business of the company or firm or partnership etc.

(ii) Details of experience and past performance of the bidder on specified item offered in the bid within the past three years and

details of current contracts in hand and other commitments (suggested proforma given in section XI);

(iii) Copy of the GST Certificate and Details of IT Returns- PAN & TIN copies

(iv) The details in compliance to the Qualification Criteria (Section VI).

13.4 The check list for the details of documents to be submitted is given at Annexure XIV

14. Documents Establishing Goods Eligibility and conformity to bidding documents.

14.1 Pursuant to clause 9 the bidder shall furnish, as part of its bid, documents establishing the eligibility and conformity to the bidding document of all goods and services which the bidder proposes to supply under the contract.

14.2 The documentary evidence of the goods and services eligibility shall consist and of statement in the price schedule on the country of origin of the goods and services offered which shall be confirmed by a certificate of origin at the time of shipment.

14.3 The documentary evidence of the goods and services conformity to the bidding documents may be in the form of literature, drawings and data, and shall furnish:

(a) A detailed description of the goods essential technical and performance characteristics of the goods.

(b) A clause by clause commentary on the purchaser technical specifications demonstrating the goods and services substantial responsiveness to those specifications or statement of deviations and exceptions of the Technical specifications.

14.4 For purpose of the commentary to be furnished pursuant to clause 14.3 above, the bidder shall note that standards for workmanship, material and goods, and references to brand names or catalogue numbers designated by the purchaser in its technical specifications are intended to be descriptive only and not restrictive. The bidder may substitute alternative standards, brand name and / or catalogue numbers in its bid, provided that it demonstrates to the purchasers satisfaction that the substitutes are substantially equivalent or superior to those designated in the Technical specifications.

15. Bid security

15.1 Pursuant to Clause 9, the Bidder shall furnish, as part of it bid, the Bid security for the amounts specified in the Invitation for Bids (Section -1)

15.2 The bid security is required to protect the purchaser against risk of bidders conduct which would warrant the security forfeiture, pursuant to clause 15.7

15.3 The bid security shall be in Indian Rupees and shall be in online only.

15.4 Any bid not secured in accordance with para 15.1 and 15.3 above will be rejected by the purchaser as non-responsive pursuant to clause 24.

15.5 Unsuccessful Bidder's bid security will be discharged/ returned as promptly as possible but not later than 30 days after the expiration of the period of bid validity prescribed by the purchaser pursuant to clause 16.

15.6 The successful Bidder's bid security will be discharged upon the Bidders executing the contract, pursuant to clause 34 and furnishing the performance security pursuant to clause 35.

15.7 The bid security may be forfeited;

(a) If a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Bid form; or

(b) In case of successful Bidder, if the Bidder fails;

(i) to sign the contract in accordance with clause 34; or

(ii) to furnish performance security in accordance with clause 35.

(c) If the Bidder does not accept the corrected amount the Bid will be rejected, and the Bid security may be forfeited.

16. Period of validity of Bids.

16.1 Bids shall remain valid for 90 days after the date of bid opening prescribed by the purchaser pursuant to Clause 19.1. A bid valid for shorter period may be rejected by the purchaser as non-responsive.

16.2 In exceptional circumstances, the Purchaser may solicit the Bidders consent to an extension of the period of validity the request and the responses thereto shall be made in writing (or by mail). The bid security provided under clause 15 shall also be suitably extended. A bidder may refuse the request without forfeiting its bid security.

17. Format and signing of Bid.

17.1 The bid shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized to bind the bidder to the

contract. The latter authorization shall be indicated by written power-of-attorney accompanying the bid. All pages of the bid, except for unammended printed literature, shall be initialed by the person or persons signing the bid.

17.2 The bid shall contain no interlineations, erasures or overwriting except as necessary to correct errors and made by the bidder in which case such corrections shall be initialed by the person or persons signing the bid.

D. Submission of Bids

18. Sealing and Marking of bids.

18.1 The bids shall be uploaded (submitted) electronically, as described in the Invitation for Bids (Section –I). The hard copies of the bids in sealed covers must be received by the Purchaser at the address specified above on or before the due date of submission of bids (Section –I).

18.2 The Bids shall be addressed to the purchaser at the following address:

The Managing Director, APMSIDC, 2nd Floor, Plot No:09, survey number: 49, IT Park, Mangalagiri, Guntur District- 522503**.**

18.3 The Bids shall bear the name of the invitation for bids (IFB) and Number and also the words "Do not open before 03.00 P.M Hrs **on 31-10-2022**. The envelopes shall indicate the name and address of the Bidder to enable the bid to be returned unopened in case it declared “late".

18.4 If the envelope is not sealed and marked as required by Para 18.2 and 18.3 above, the purchaser will assume no responsibility for the bids misplacement or premature opening.

19. Deadline, for submission of bids.

19.1 The Bids (both electronic and Hard copies) must be received by the purchaser, no later than the time and date specified in the Invitation for Bids (Section I). In the event of the specified date for the submission of Bids being declared a holiday for the purchaser, the Bids will be received up to the appointed time on the next working day.

19.2 The purchaser may, at its discretion, extend this deadline for submission of bids by amending the bid documents in accordance with clause 7, in which case all rights and obligations of the purchaser and bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

20. Late Bids.

20.1 Any bid received by the purchaser after the deadline for submission of bids prescribed by the purchaser, pursuant to clause 19, will be rejected and/ or returned unopened to the Bidder.

21. Modification and Withdrawal of Bids.

21.1 No bid may be modified subsequent to the deadline for submission of bids.

21.2 No bid may be withdrawn in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Bid form. Withdrawal of bid during this interval may result in the Bidders forfeiture of its bid security , pursuant to Clause 15.7

E. Bid Opening and Evaluation

22. Opening of Bids by Purchaser

22.1 The Purchaser/or his authorized representative will download the technical bids on **31-10-2022** at 03.01 PM.

22.2 The Financial Bids of the Technically responsive bidder would be downloaded subsequently from the e-platform, once the technical evaluation is completed.

23. Clarification of Bids.

23.1 To assist in the examination, evaluation and comparison of bids the purchaser may at his discretion, ask the Bidder for clarification of his bid. The request for clarification and the response shall be in writing and no change in price or substance of the bid shall be sought, offered or permitted.

24. Technical Evaluation (Preliminary Examination and Pre-Qualification)

24.1 The purchaser will examine the bids to determine whether they are complete, whether required securities have been furnished, whether the documents have been properly signed, and whether the bids are generally in order.

24.2 Prior to the financial evaluation, pursuant to clause 26, the purchaser will determine the responsiveness of each bid to the bidding documents. For purposes of these clauses, a responsive bid is one which conforms to all the terms and conditions of the bidding documents without material deviations. The purchaser's determination of bids responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.

24.3 Further the purchaser will determine to his satisfaction whether the Bidder is qualified to satisfactorily perform the contract. The determination will take into account the Bidder's financial, technical and production capabilities. It will be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder pursuant to clause 13 as well as such other information as the purchaser deems necessary and appropriate.

24.4 An affirmative determination will be prerequisite for the opening of the financial bids. A negative determination will result in rejection of the Bidder's bid.

24.5 A bid determined as not substantially responsive will be rejected by the purchaser.

24.6 The Purchaser may waive any minor informality or non-conformity or irregularity in a bid which does not constitute a material deviation, provided such a waiver does not prejudice or affect the relative ranking of any bidder.

24.7 The Preliminary Evaluations of the bidders are kept available at APMSIDC website http://msidc.ap.nic.in

25. Deleted.

26. Evaluation and comparison of Bids.

26.1 The Purchaser will evaluate and compare bids previously determined to be substantially responsive, pursuant to clause 24 for each schedule separately.

26.2 The purchasers evaluation of a bid will take into account; in addition to the bid price (ex-factory/ex-warehouse/off-the-shelf price of the goods offered from within India, such price to include all costs as well as duties and taxes paid or payable on components and raw material incorporated or to be incorporated in the goods, on the finished goods and cost of incidental services required. The following costs to the extent specified:

a. cost of inland transportation, insurance and other costs within India incidental to the delivery of goods to their final destination;
b. The comprehensive annual maintenance charges (inclusive of four Preventive Maintenance visits and all distress calls in a year and costs of all spares required during the repairs) for a period mentioned against equipment at section V- (Schedule of requirements) subsequent to free guarantee maintenance period mentioned against equipment at section V- (Schedule of requirements).
c. the availability in India (Preferably in Andhra Pradesh) of spare parts and after-sales services for the equipment offered in the bid. To this extent the bidders shall give:

- An undertaking for the uninterrupted supply of adequate spares for at least a period of 7 years shall be furnished.
- An Undertaking Availability/ establishment of after sales service facility at least in (1) region of Andhra Pradesh to ensure uninterrupted after sales service during warranty period shall be confirmed. The details of service facility available / proposed to be set up shall be furnished with their bid.

27. Deleted

28. Contacting the purchaser.

28.1 Subject to clause 23, no Bidder shall contact the purchaser on any matter relating to the bid, from the time of the bid opening to the time, the contract is awarded.

28.2 Any effort by a Bidder to influence the Purchaser in the purchaser's bid evaluation, bid comparison or contract award decisions may result in rejection of the Bidders bid.

F. Award of Contract

29. Post - Qualification

Not Applicable

30. Award Criteria

30.1 Subject to clause 32, the purchaser will award the contract to the successful Bidder whose bid has been determined to be substantially responsive and has been determined as the lowest evaluated bid, provided further that the Bidder is determined to be qualified to perform the contract satisfactorily.

31. Purchaser's right to vary quantities at Time of Award

31.1 The purchaser reserves the right, at the time of award of contract to increase or decrease to any extent of the quantity of goods and services specified in the schedule of requirements without any change in price or other terms and conditions.

32. Purchaser's right to accept any Bid and to reject any or all Bids.

32.1 The purchaser reserves the right to accept or reject any bid and to annul the bidding process and reject all bids at any time prior to award of contract, without there by incurring any liabilities to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for the Purchaser's action.

33. Notification of Award.

33.1 Prior to the expiry of the period of the bid validity, the purchaser will notify the successful Bidder in writing by registered letter or cable or telex, duly confirming that the bid has been accepted.

33.2 The notification of award will constitute the formation of the contract.

33.3 Upon the successful Bidder's furnishing of performance security, pursuant to clause 34, the purchaser will promptly notify each unsuccessful Bidder and will discharge their bid security, pursuant to clause 15.

34. Signing of contract

34.1. Within 15 days of receipt of the notification of award the successful Bidder shall sign the contract.

35. Performance security

35.1 Within 15 days of the receipt of notification of award from the purchaser, the successful Bidder shall furnish the performance security in accordance with the conditions of contract, in the performance security form provided in the Bidding documents or another form acceptable to the purchaser and signs the agreement.

35.2 Failure of the successful Bidder to comply with the requirement of clause 34 shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security, in which event the purchaser may make the award to the next lowest evaluated bidder or call for new bids.

36 Fraud and corruption

36.1 It is the **purchaser'**s policy that requires that the bidders, suppliers and contractors and their subcontractor observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, the **purchaser;**

(a) defines, for the purposes of this provision, the terms set forth below as follows:

(i) **"corrupt practice"** is the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
(ii) **"fraudulent practice"** is any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;
(iii) **"collusive practice"** is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;
(iv) **"coercive practice"** is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
(v) **"obstructive practice"** is

(aa) deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; and/or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or
(bb) acts intended to materially impede the exercise of the purchaser's inspection and audit rights provided for under sub-clause 36.2 (d) below.

36.2 The purchaser may, without prejudice to other terms of the bidding:

(a) will reject a proposal for award if it determines that the bidder considered for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for the contract in question;

(b) will cancel the contract if the purchaser determines at any time that the bidder, supplier and contractors and their sub contractors engaged in corrupt, fraudulent, collusive, or coercive practices.

(c) will sanction a firm or individual, including declaring ineligible, either indefinitely or for a stated period of time, to be awarded a contract if it at any time determines that the firm has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for, or in executing, a contract; and

(d) will have the right to inspect the accounts and records of the bidders,
supplier, and contractors and their subcontractors and to have them audited by auditors appointed by the Purchaser.

SECTION - III: GENERAL CONDITIONS OF CONTRACT

TABLE OF CLAUSES

Clause Number	Topic
1.	Definitions
2.	Application
3.	Country of Origin
4.	Standards
5.	Use of contract Documents and Information
6.	Patent Rights
7.	Performance Security
8.	Inspection and Tests
9.	Packing.
10.	Delivery and Documents
11.	Insurance
12.	Transportation
13.	Incidental services
14.	Spare Parts
15.	Warranty
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20.	Assignment
21.	Subcontracts
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29.	Governing Languages
30.	Applicable Law.
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Section III: General Conditions Of Contract

1. Definitions

1.1 In this contract, the following terms shall be interpreted as indicated;

(a) "The contract" means the agreement entered into between the purchaser and the supplier, as recorded in the contract form signed by the parties, including all the attachments and appendices thereto and all documents incorporated by references therein.

(b) "The Contract Price" means the price payable to the supplier under the contract for the full and proper performance of its contractual obligations.

(c) "The Goods" means all the equipment and / or other materials which the supplier is required to supply to the purchaser under the contract.

(d) "Services" means services ancillary to the supply of the goods, such as transportation, insurance and any other incidental services, such as installation, commissioning, provision of technical assistance, training and other obligations of the supplier covered under the contract.

(e) "An undependable Supplier/s' under contract means any Supplier who do not accept the purchase order or who delays the supply of required quantities beyond the permitted delays with liquidated damages

(f) "The Purchaser or Corporation" means the APMSIDC, the purchasing agency

(g) "The Supplier" means the individual or firm supplying the goods under this contract.

(h) "The Government" means the Government of Andhra Pradesh or its authorized representatives

(i) "The Project Site", where applicable means the place or places named in Schedule of Requirements

(j) "The End-User" means the authorized user of the equipment/the Medical Superintendent/Head of the Department of the concerned specialty.

(k) "Day" means calendar day

(l) "Delivery period" means the period applicable up to completion of supply,
Installation and testing of the equipment and the training of the staff on the equipment, by the supplier at the Project site and accepted by the Purchaser or its representative

2. Application

2.1. These General conditions shall apply to the extent that they are not superseded by provisions in other parts of the contract.

3. Country of Origin: Deleted.

4. Standards

4.1 The Goods supplied under this contract shall conform to the standards mentioned in the Technical specifications and when no applicable standard is mentioned the authoritative standard appropriate to the goods country of origin shall be followed and such standard shall be the latest issued by the concerned institution.

5. Use of contract documents and Information

5.1 The supplier shall not without the purchaser's prior written consent, disclose the contract or any provision thereof or any specification, plan, drawing, pattern, sample or information furnished by or on behalf of the purchaser in connection therewith to any person other than a person employed by the supplier in performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purposes of such performance.

5.2 The supplier shall not, without the purchasers prior written consent make use of any document or information enumerated in para 5.1 except for purposes of performing the contract.

5.3 Any document other than the contract itself enumerated in para 5.1 shall remain the property of the purchaser and shall be returned (in all copies) to the purchaser on completion of the suppliers performance under the contract if so required by the purchaser.

6. Patent Rights

6.1 The supplier shall indemnify the purchaser against all third party claims of infringement of patent, trademark for industrial design rights arising from use of the goods or any part thereof in India.

7. Performance Security

7.1 Within 15 days after the supplier's receipt of notification of award of the contract, the supplier shall furnish performance security to the purchaser for the amount specified in the special conditions of contract.

7.2 The proceeds of the performance security shall be payable to the purchaser as compensation for any loss resulting from the supplier's failure to complete its obligations under the contract

7.3 The performance security shall be denominated in Indian Rupees and shall be in one of the following forms:

(a) A bank guarantee [in favour of Managing Director, APMSIDC, Guntur] issued by any scheduled commercial bank located in India acceptable to the purchaser and in the form provided in the Bidding documents or in any other form acceptable to the purchaser: or.

(b) A Banker's cheque or Demand Draft in favour of Managing Director, APMSIDC, Guntur.

7.4 Fifty percent (50%) of the performance security will be discharged by the Purchaser and returned to the supplier not later than 60 days following the date of completion of the supplier's performance obligations, including any warranty obligations. The balance 50% of the performance security will be retained towards performance security for the maintenance services to be provided for 4 years after the 3 years warranty period and this 50% will be discharged after completion of performance obligations under maintenance services after 7 years.

7.5 The supplier shall accordingly; either furnishes a fresh bank guarantee for the 50% value or an extension of bank guarantee for 50% of the value covering the 4 years maintenance period after 3 years warranty period. Only after receipt of the above, the 50% of the performance security will be discharged after the warranty period.

8. Inspections and Tests.

8.1 The purchaser or his representatives shall have the right to inspect and / or to test the Goods to confirm their conformity to the contract. The special conditions of contract and / or the Technical specifications shall specify what inspections and tests the purchaser requires and where they are to be conducted. The purchaser shall notify the supplier in writing of the identity of any representatives retained for these purposes.

8.2 The inspections and tests may be conducted in the premises of the supplier or its subcontractor(s) at point of delivery and/or at the goods final destination. Where conducted on the premises of the supplier or its subcontractor(s) all reasonable facilities and assistance including access to drawings and production data shall be furnished to the inspectors at no charge to the purchaser.

8.3 Should any inspected or tested goods fail to conform to the specifications the purchaser may reject them and the supplier shall either replace the rejected goods or make alternatives necessary to meet specifications, requirements free of cost to the purchaser.

8.4 The purchasers right to inspect test and where necessary reject the goods after the goods arrival at site and shall in no way be limited or waived by reason of the goods having previously been inspected, tested and passed by the purchaser or its representative prior to the goods shipment from the country of origin.

8.5 Nothing in clause 8 shall in any way release the supplier from any warranty or other obligations under this contract.

9. Packing

9.1 The supplier shall provide such packing of the goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage. Packing case size and weights shall take into consideration where appropriated the remoteness of the Goods final destination and the absence of heavy handling facilities at all points in transit.

9.2 The packing, marking and documentation within and outside the packages shall comply strictly with such special requirements, as shall be provided for in the contract and subject to clause 18 and any subsequent instructions ordered by the purchaser.

10. Delivery and Documents

10.1 Delivery of the Goods shall be made by the supplier in accordance with the terms specified by the purchaser in the Notification of Award.

11. Insurance

The goods supplied under the contract shall be fully insured in Indian Rupees against the loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified in the special conditions of contract.

12. Transportation

12.1 The supplier is required to deliver the goods to the destinations specified in the contract and the cost thereof shall be included in the contract price.

12.2 The transportation of the Goods after the delivery at the final destination shall be the responsibility of the Purchaser.

13. Incidental services.

13.1 The supplier is required to provide the following services, including additional services, if any, specified in SCC:

(a) Performance of the on-site assembly and start-up of the supplied Goods;

(b) Furnishing of tools required for assembly and maintenance of the supplied Goods;

(c) Furnishing of detailed operations and maintenance manual for each appropriate unit of supplied Goods;

(d) Performance of maintenance and repair of the supplied Goods, for a period of 7 years, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract; and

(e) Training of the users and maintenance personnel, in operation, maintenance and repair of the supplied Goods.

13.2 Prices charged by the Supplier for incidental services, if not included in the contract price of the Goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.

14. Spare Parts:

14.1 As specified in the special conditions of contract, the supplier may be required to provide the following materials and notifications pertaining to spare parts manufacturer:

(a) Such of spare parts as the purchaser may select to purchase from the supplier providing that this selection shall not relieve the supplier of any warranty obligations under the contract and

(b) In the event of termination of production of the spare parts;

(i) advance notification to the purchaser of the pending terminating in sufficient time to permit the purchaser to procure needed requirements: and

(ii) Following such termination, furnishing at no cost to the purchaser, the blueprints, drawing and specifications of the spare parts, if and when requested.

15. Warranty

15.1 The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract. The supplier further warrants that the goods supplied under this contract shall have no defect arising from design materials or workmanship (except insofar as the design or material is required by the purchasers

specifications) or from any act or omission the supplied goods in conditions obtaining in the country of final destination.

15.2 This warranty shall remain valid for as specified at section V schedule of requirements against each equipment or any portion thereof as the case may be have been delivered at the final destination indicated in the contract, unless specified otherwise in the special conditions of the contract. The warranty period starts from date of commissioning after installation by the firm.

15.3 The purchaser shall promptly notify the supplier in writing of any claims arising under this warranty.

15.4 Upon receipt of such notice, the supplier shall, with all reasonable speed, repair or replace the defective goods or parts thereof without cost to the purchaser other than, where applicable, the cost of inland delivery of the repaired or replaced goods or parts from the port of entry to the final destination.

15.5 If the supplier, having been notified, fails to remedy the defect (s) within a reasonable period, the purchaser may proceed to take such remedial action as may be necessary, at the suppliers risk and expenses and without prejudices to any other right which the purchaser may have against the supplier under the contract.

15.6 Site Visits: The successful tenderer shall visit each User Institution as part of preventive maintenance as per the frequency mentioned under clause 5.1.3 (section-I of IFB) during the warranty period. The tenderer shall attend any number of break down/repair calls as and when informed by the Tender Inviting Authority/User Institution.

15.7 During every visit, a copy of the service report/break down call report, duly signed by the custodian of the equipment/head of the health care institution and stamped shall be forwarded by email/fax/post to the APMSIDC office within 10 days from the due date.

15.8 A warranty certificate (as per format in Annexure III) duly signed and with proper stamp of the institution concerned and also signed by the authorized signatory with the stamp of the successful tenderer shall be submitted to the Tender Inviting Authority for keeping it under safe custody along with the Installation Certificate. A copy of the original warranty papers has to be given to the institution head concerned.

15.9 The tenderer shall submit the activities to be carried out during the preventive maintenance visit as per the format in Annexure IV.

16. Payment

16.1 The method and conditions of payment to be made to supplier under the contract shall be specified in the special conditions

16.2 The Suppliers request (s) for payment shall be made to the purchaser in writing accompanied by an invoice describing as appropriate the goods delivered and the services performed and by shipping document, submitted pursuant to clause 10, and upon fulfillment of other obligations stipulated in the contract.

16.3 Payments shall be made promptly by the purchaser within sixty (60) days of submission of the invoices / claims by the supplier duly furnishing the certificate specified in the bid document from the competent authority.

16.4 Payment shall be made in Indian Rupees.

17. Prices

17.1 Prices charged by the supplier for goods delivered and services performed under the contract shall not with the exception of any price adjustments authorized by the special conditions of contract, vary from the prices quoted by the supplier in its bid.

18. Change Orders

18.1 The Purchaser may at any time by written orders given to the supplier pursuant to clause 31 , make changes within the general scope of the contract in any one or more of the following;

(a) drawings, designs or specifications, where goods to be furnishing under the contract are to be specifically manufactured for the purchaser;
(b) the method of shipping or packing;
(c) the place of delivery; or
(d) the services to be provided by the supplier;

18.2 If any such changes causes an increase or decrease in the cost of or the time required for the suppliers performance of any part of the work under the contract, whether changed or not changed by the order, an equitable adjustment shall be made in the contract price or delivery schedule or both and the contract shall accordingly be amended. Any claims by the supplier for adjustment under this clause must be asserted within thirty (30) days from the date of the suppliers receipt of the purchasers change order.

19. Contract Amendments

19.1 Subject to clause 18, no variation in an modification of the terms of the contract shall be made except by written amendment signed by the parties.

20. Assignment

19.2 The supplier shall not assign in whole or in part, its obligations to perform under the contract, except with the purchasers prior written consent.

21. Sub-contracts

21.1 The supplier shall notify the purchaser in writing of all subcontracts awarded under the contract if not already specified in his bid. Such notification, in his original bid or later, shall not relieve the supplier from any liability or obligation under the contract.

22. Delays in the suppliers performance

22.1 Delivery of the goods and performance of the services shall be made by the supplier in accordance with the time schedule specified by the purchaser in its schedule of requirements.

22.2 Any unexcused delay by the supplier in the performance of its delivery obligations shall render the supplier liable for any or all of the following; i.e. forfeiture of its performance security, imposition of liquidation damages and or termination of the contract for default.

22.3 If at any time during the performance of the contract, the supplier or its subcontractor (s) should encounter performance of the services the supplier shall promptly notify the purchaser in writing of the fact of the delay its likely duration and its causes. As soon as practicable after receipt of the suppliers notice, the purchaser shall evaluate the situation and may at its discretion extend the suppliers time for performance, in which case the extension shall be ratified by the parties by amendment of the contract.

23. Liquidated Damages

23.1 Subject to clause 25, if the supplier fails to deliver any or all of the goods within the time period specified in the contract, the purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price as liquidated damages, an amount as specified in the SCC for the period of delay, until actual delivery or performance, up to a maximum deduction of **10 percent of the total contract value**. Once the maximum is reached, the purchaser may consider termination of the contract.

24. Termination for Default

24.1 The purchaser may, without prejudice to any other remedy for breach of contract by written notice of default sent to the supplier, terminate the contract in whole or part:

(a) if the supplier fails to deliver any or all of the goods within the time periods specified in the contract or any extension thereof granted by the purchaser pursuant to clause 22; or
(b) if the supplier fails to perform any other obligations under the contract.

24.2 In the event the purchaser terminates the contract in whole or in part, 24.1 the purchaser may procure, upon such terms and in such manner as it deems appropriate, Goods similar to those undelivered, and the supplier shall be liable to the purchaser for any excess costs for such similar Goods. However, the supplier shall continue the performance of the contract to the extent not terminated.

25. Force Majeure

25.1 Notwithstanding the provisions of clauses 22,23,24, the supplier shall not be liable for forfeiture of its performance security liquidated damages or termination or default, if and to the extent that, its delay in performance or other failure to perform its obligations under the contract is the result of an event of Force Majeure.

25.2 For purposes of this clause "Force Majeure" means an event beyond the control of the supplier and not involving the suppliers fault or 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, floods, epidemics, quarantine restrictions and freight embargoes.

25.3 If a force majeure situation arises, the supplier shall promptly notify the purchaser in writing of such conditions and the cause thereof. Unless otherwise directed by the purchaser in writing the supplier shall continue to perform its obligations under the contract as far as is reasonably practical and shall seek all reasonable alternative means for performance not prevented by the force majeure event.

26. Termination for Insolvency.

26.1 The purchaser may at any time terminate the contract by giving written notice to the supplier, if the supplier becomes bankrupt or otherwise insolvent, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the purchaser.

27. Termination for convenience.

27.1 The purchaser may by written notice sent to the supplier terminate the contract, in whole or in part at any time for its convenience. The notice of termination shall specify that termination is for the purchasers convenience the extent to which performance of work under the contract is terminated and the date upon which such termination becomes effective.

27.2 The goods that are complete and ready for shipment within 30 days after the suppliers receipt for notice of termination shall be purchased by the purchaser and the contract terms and prices. For the remaining goods the purchaser may elect.

(a) to have completed and delivered at the contract terms and prices; and / or

(b) to cancel the remainder and pay to the supplier and agreed amount for partially completed goods and for materials and parts previously procured by the supplier.

28. Resolution of Disputes

28.1 The purchaser and the supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the contract.

28.2 If after thirty (30) days from the commencement of such informal negotiations the purchaser and the supplier have been unable to resolve amicably contract dispute, either party may require that the dispute be referred for resolution to the formal mechanisms specified in the special conditions of contract. These mechanisms may include but are not limited to conciliation, mediation by third party justification in an agreed national or international forum and / or international arbitration. The mechanism shall be specified in the special conditions of contract.

29. Governing Language

29.1 The contract shall be written in English language, as specified by the purchaser in the instructions to bidders. Subject to clause 30, English language version of the contract shall govern

30. **Applicable law**

30.1 The contract shall be interpreted in accordance with the laws of the union of India and the legal jurisdiction is Hyderabad

31. Notices

31.1 Any notices given by one party to the other pursuant to the contract shall be sent in writing and confirmed in writing to the address specified for that purpose in the special conditions of the contract. A notice shall be

effective when delivered or on the notices effective date, whichever is later.

32. Taxes and duties

32.1 The rates quoted by the bidder shall be deemed to be inclusive of the sales and other taxes that the bidder will have to pay for the performance of this contract, at the prevailing rates notified by the Government. The purchaser will perform such duties in regard to the deduction of such taxes at source as per applicable law.

SECTION - IV: SPECIAL CONDITIONS OF CONTRACT

TABLE OF CLAUSES

(The corresponding clause number of the General condition is in parenthesis)

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4.	Performance security (Clause 7)
5.	Inspection and Tests (Clause 8)
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19.	Actions against Misconduct of the Supplier
20.	Progress of Supplies

Section IV: Special Conditions of the Contract

1. The following special conditions of contract shall supplement the general Conditions of contract. Whenever there is conflict, the provisions herein shall prevail over those of the general conditions of contract the corresponding clause number of the general conditions in parentheses.

2. Definitions (Clause I)

(a) The Purchaser is Mangalagiri, : The Managing Director, APMSIDC, Guntur.

(b) The Supplier is : ----------

3. Country of origin (Clause 3): All goods and related services to be supplied under the contract / agreement shall have their origin in India or any other country with which India has not banned trade relations.

4. Performance security (Clause 7)

4.1 Performance security is 5% of the contract value and shall be valid up to 60 days after the date of completion of performance obligations including warrant obligations, as applicable.

4.2 Add clause 7.5 to the GCC as the following:

In the event of any contract amendment, the supplier shall within 7 days of receipt of such amendment furnish the amendment to the performance security rendering the same valid for the duration of the contract, as amended for further period of 60 days thereafter

5. Inspection and Tests (clause 8)

The following inspection procedures and tests are required by the Purchaser:

5.1 The Supplier shall get each equipment inspected by a competent authority in manufacturer's works and also provide a guarantee/warranty certificate that the instrument conforms to all specifications contained in the contract.

5.2 The *Purchaser* or its representative may inspect and/or test any or all the equipment to confirm their conformity to the Contract specifications, prior to dispatch from the manufacturer’s premises. Such inspection and clearance will not prejudice the right of the consignee to inspect and test the equipment on receipt at destination.

5.3 However, on arrival of the equipments at destinations, the purchaser or its representative shall have the right to inspect and/or test any or all the equipments to confirm their conformity to the contract.

5.4 If the equipment or its performance is not as per specified conditions, deficiency or replace the equipment (s) to the satisfaction of the purchaser's representative.

6. Packing (Clause 9)

The Supplier will be required to mark separate packages for each consignee on three sides with proper paint/indelible ink, the following: i. Name of the contract, ii. Contract No., iii. Country of origin of Goods, iv. Supplier's Name and v. Packing of list reference number

7. Delivery and Documents (Clause 10)

(i) Three copies of the Supplier invoice showing Goods description, quantity, unit price, total amount;
(ii) Railway receipt/acknowledgement of receipt of goods from the Consignee
(iii) Manufacture's/Supplier's Warranty and Factory Test certificate;
(iv) Acceptance Certificate issued by the End-User
(v) Inspection Certificate issued by the nominated inspection agency, as applicable

8. Insurance (Clause 11)

i) **For delivery of goods at site, the insurance shall be obtained by the Supplier at his cost for an amount equal to 110% of the value of the goods from "warehouse to warehouse" on "All Risks" basis including war Risks and Strike clauses period in the name of consignee authorized by the purchaser i.e. M.D. APMSIDC. The supplier shall also provide insurance coverage against fire and theft in the name of consignee upto end of the warranty period.**

ii) To submit a copy of insurance document duly attested by the consignee to APMSIDC along with bills for making payment. Otherwise the bills may not be processed.

9. Incidental Services (Clause 13)

No additional services are required to be provided over the services already covered under clause 13 of GCC.

10. Spare parts: (Clause 14)

Add as clause 14.2 to the GCC the following:

Supplier shall carry sufficient inventories to assure ex stock supply of consumables spares such as gaskets, plugs, washers, belts etc., other spare parts and components shall be promptly as possible but, in any case, within (3) days of placement of order.

11. Warranty (Clause 15)

11.1 In partial modification of the provisions, the warranty period shall be as specified at section V schedule of requirements against each equipment, or any portion thereof, as the case may be, have been delivered at site, installed, commissioned, successfully tested and accepted by the Purchaser or its authorized representative

11.2 Substitute Clause 15.4 of the GCC with the following:

Upon receipt of such notice, the Supplier shall within 3 days, repair or replace the defective goods or parts thereof, free of cost at the ultimate destination. The Supplier shall take over the replaced parts/goods at the time of their replacement.

11.3 If the supplier has not done repair/replacement within the time specified above the purchaser will assess the cost of having the repairs/replacements done and the supplier will pay this amount.

11.4 Overall an uptime guarantees of 95% shall be maintained out of total usage period of the equipment by the end users during the warranty period

11.5 All software updates, if any required, should be provided free of cost during Warranty period.

12 Payment (Clause 16)

12.1 Payment for goods and services shall be made in Indian Rupees as follows:

a) 60% of the contract value of the supply part after necessary deduction will be paid to the supplier on submission of copy of invoice with original Delivery Challan as proof of supply to destinations duly certified by the Head of the Institution and RTGS details
b) 30% of payment will be paid on submission of original invoice with stock entries, delivery challan and Installation Certificates (Annexure 1), warranty certificate (Annexure III), copy of insurance document duly attested by the consignee to APMSIDC, calibration, quality assurance certificate test certificate if required as per technical specification after completion of all the performance obligations.
c) The balance 10% will be paid after three months from the date of installation on submission of performance satisfactory report (Annexure-ll), obtained from the Head of the institute or concerned authorities.

d) In case any difficulty is experienced by the successful tenderer in obtaining three-month performance certificate from any of the User Institution after the installation of the equipment, the same shall be

brought to the notice of the Tender Inviting Authority immediately in writing. In such event(s), if the Tender Inviting Authority is convinced, the reasons are beyond the control of the successful tenderer, the Tender Inviting Authority, in case of supply orders placed by it, shall release payments at its discretion. In such case the letter sent to the Tender Inviting Authority shall be submitted along with the invoices while claiming payment.

12.2 If there is a delay in installation of the equipment due to reasons not attributable to the supplier such as non readiness of site, 60% of the supply part of the contract value will be released against supply and a confirmation letter from the consignee / end user, on submission of original delivery challan & Invoice copy.

12.3 Cost of Comprehensive Maintenance Contract for each year will be paid, at the end of each year by the Purchaser's representatives/hospital authorities, upon submission of the service reports to the extent of the service delivered as per the contract terms.

13. Prices (Clause 17)

Prices payable to the Supplier as stated in the Contract shall not be subject to adjustment during performance of the Contract.

14 Sub-contracts (Clause 21)

Add at the end of sub-clause 21.1 of the GCC the following. "Sub-contract shall be only for bought-out items and sub-assemblies".

15 Liquidated Damages (Clause 23)

15.1 <u>For delays</u>

Substitute Clause 23.1 of the GCC by the following:

Subject to clause 25 of GCC, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to 0.5 percent of the delivered price of the delayed Goods or unperformed Services for each week of delay or part thereof until actual delivery or performance, up to a maximum deduction of **10% of the total Contract value**. Once the maximum deduction is reached, the Purchaser may consider termination of the Contract.

15.2 For Short fall in Equipment Maintenance services

Any major repair intimated by the *Purchaser or the end-user* shall be rectified by the Supplier from the date of intimation within a period of 3 calendar days and repair the equipment to the satisfaction of the Purchaser or the End User. Failing which the Purchaser has a right to

levy a penalty on the Supplier a sum of Rs.10,000/- per day of delay, until the equipment is repaired and brought to the normal working condition to the satisfaction of the Purchaser.

16 **Resolution of Disputes (Clause 28)**

Add as Clauses 28.3 and 28.4 of the GCC the following:

28.3 The dispute resolution mechanism to be applied pursuant to clause 28 of the General Conditions shall be as follows:

(a) In the case of dispute or difference arising between the Purchaser and a Domestic Supplier relating to any matter arising out of or connected with this agreement, such dispute or difference shall be referred to the award of two Arbitrators, one Arbitrator to be nominated by the Purchaser and the other to be nominated by the Supplier or in the case of the said Arbitrators not agreeing, then at the award of an Umpire to be appointed by the Arbitrators in writing before proceeding with the reference, and in case the Arbitrators cannot agree to the Umpire, he may be nominated by the Arbitration committee of the Indian Council of Arbitration, India. The award of the Arbitrators, and in the event of their not agreeing, of the Umpire appointed by them or by the Arbitration Council of India, India, shall be final and binding on the parties.

(b) The Indian Arbitration Act 1996, the rules thereunder and any statutory modification or re-enactments thereof, shall apply to the arbitration proceedings.

28.4 The venue of arbitration shall be the place from where the Contract is issued.

17 Notices (Clause 31)

For the purpose of all notices, the following shall be the address of the purchaser and supplier.

Purchaser: The Managing Director, APMSIDC, 2nd Floor, Plot No:09, survey number: 49, IT Park, Mangalagiri, Guntur District- 522503

Supplier: (To be filled in at the time of Contract Signature)

18 Comprehensive Maintenance Contract (CMC)

a) The Comprehensive Maintenance Contract includes 4 visits in a year preventive maintenance visits and all the distress calls during the year and also include the probable cost of spares required towards the repairs carried out to bring a not working equipment to its normal working condition, during the year.

b) The supplier shall under take at least one half-yearly preventive maintenance visit and attend to all the break down calls during the year. The payment for the maintenance services will be made at the end of each half-year, upon submission of necessary service reports signed by the end-users.

19 Actions Against the Misconduct of the Supplier

19.1 A Supplier found being supplied similar items with similar tender conditions to any other agency in the country during the validity of the contract with the APMSIDC, at a rate lower than the rate at which they supplied under this tender, the difference amount is liable to be recovered apart from blacklisting the firm for a minimum period of 3 years. The Supplier should furnish undertaking (Annexure-XIII) that they will remit the differential cost, if they quote lower rate than the rate quoted to the APMSIDC to any other agency or department or state, during the period of contract.

19.2 Any substandard supplies without meeting the quality specifications made under the contract shall also entail blacklisting of the firm for a minimum period of three years for that particular product.

19.3 If the bidder fails to demonstrate on asked to do so, of the products quoted with their bid, without any valid or convincing reason to the satisfaction of the Purchaser, the bids for other items offered against the bid notice will not be considered and he may be debarred for a certain period as decided by the Purchaser.

20 Progress of Supply

Supplier shall intimate progress of supply, in writing, to the Purchaser as under:

- Qty offered for inspection and date;
- Qty. accepted/rejected by inspecting agency and date;
- Qty. dispatched/delivered to consignees and date;
- Qty. where incidental services have been satisfactorily completed with date;
- Quantity where rectification/repair/replacement effected/completed, on receipt of any communication from consignee/Purchaser with date;
- Date of completion of entire Contract including incidental services, if any; and
- Date of receipt of entire payments under the Contract.

SECTION V

SCHEDULE OF REQUIREMENTS AND TECHNICAL SPECIFICATIONS

Sl. No	Item Name	Qty	Warranty (in Years)	CMC (in Years)	EMD (in Rs.)	Average Annual turnover of the Authorized Bidder in the last three years i.e. 2018-19, 2019-20 and 2020-21
1.	Flexible Video End viewing Oesophago-Gastroduodenoscope	10	3	4	3,00,000	2,50,00,000
2.	Hemo Dialysis Machine	20	3	4	9,00,000	7,50,00,000
3.	Fiber optic bronchoscope (May be shared with TB&CD)	24	3	4	14,40,000	12,00,00,000
4.	ICU Ventilator	80	3	4	48,00,000	40,00,00,000
5.	Ventilator – Neonatal	20	3	4	9,00,000	7,50,00,000
6.	Anesthesia machine	92	3	4	19,32,000	16,10,00,000
7.	Electro-surgical cautery unit	100	3	4	12,00,000	10,00,00,000
8.	Cryo Unit	10	3	4	3,00,000	2,50,00,000
9.	Diagnostic and Operative laparoscope including one High Definition with all accessories and hand instruments.	15	3	4	9,00,000	7,50,00,000
10.	Operating microscope for major Operation Theatre	9	3	4	4,05,000	3,37,50,000
11.	Portable ultrasound	20	3	4	6,00,000	5,00,00,000
12.	Ultra Sound Machine	19	3	4	11,40,000	9,50,00,000
13.	Monitor – 5 Para with ECTO2	10	3	4	3,00,000	2,50,00,000
14.	OT Table	20	3	4	3,00,000	2,50,00,000
15.	OT Light – Celling Double Dome	20	3	4	4,20,000	3,50,00,000
16.	OT Light – Celling Single Dome	20	3	4	3,00,000	2,50,00,000
17.	OT Light – Celling Double Dome with HD camera	20	3	4	7,20,000	6,00,00,000
18.	Focus Lamp/Examination Lamp	100	3	-	30,000	25,00,000
19.	Portable X-ray Machine 100mA	24	3	4	3,00,000	2,50,00,000

20.	Upper GI Endoscope	5	3	4	6,75,000	5,62,50,000
21.	Sigmoidoscope	5	3	4	3,00,000	2,50,00,000
22.	Flexible Video Colonoscope	9	3	4	4,05,000	3,37,50,000
23.	X-ray machine -300mA	5	3	4	3,00,000	2,50,00,000
24.	X-ray machine -500mA	5	3	4	3,75,000	3,12,50,000
25.	X-ray machine -800mA	5	3	4	4,50,000	3,75,00,000
26.	C-arm image intensifier	18	3	4	10,80,000	9,00,00,000
27.	CR system	10	3	4	3,60,000	3,00,00,000
28.	Digital x-ray machine with 2 detectors	5	3	4	3,75,000	3,12,50,000
29.	Digital x-ray machine with 1 detector	5	3	4	3,00,000	2,50,00,000
30.	Flexible Naso pharyngolaryngoscope	5	3	4	3,00,000	2,50,00,000
31.	Vehicles for transport of students/interns/faculty/ paramedical staff to the RHTC and UHTC (BUS with 32 capacity)	5	3	4	3,60,000	3,00,00,000

Processing fee: The participating bidders will have to pay tender processing fee (non-refundable) of **Rs. 11,800/-** in the form of Demand Draft drawn in favour of Managing Director, APMSIDC, Guntur.

1. **To allow the authorized distributors duly obtaining an agreement/ MOU from the Manufacturer for binding on Post Supply Services i.e. Warranty, CMC, AMC etc., and on agreement executed by the authorized distributor with the Corporation. Further an undertaking from Manufacturer to take responsibility in case of authorized distributor's failure in performing the Contractual Obligations also may be obtained. Proforma will be provided.**
2. EMD shall be furnished in the form of Demand Draft/BG/Online drawn in favour of Managing Director, APMSIDC, Guntur.

Note: For bidders quoting for more than one equipment, the bidder must have an average annual turnover equal to the sum of the average annual turnovers mentioned against each equipment. However, a bidder having an average

turnover of 10 Crores in the last three financial years and EMD 10 lakhs shall be eligible to bid for any number of equipment.

Technical Specifications

General Information

1. Bidders are requested to offer the equipment as per the specifications attached.

2. For each item of equipment the bidder should include all the cost associated with fixing, cables, connectors, accessories and ancillary items necessary for the satisfactory operation of that item of equipment. Bidders should make the provisions of starter packs for consumables for demonstration and three months of operation period for the supplied equipment.

3. Spare parts list, listing spare likely to be required for (7) years operations shall be attached with the Bid

4. (i) Bidders are requested to provide, referenced by given equipment code and item name, with their tender offer, the following information for all the items of equipment offered.
   - Name of the Manufacturer
   - Brand Name & Model Number
   - Country of Origin

   (ii) Catalogue, Pamphlet, descriptive literature, spare parts list and technical specifications for each unit of item must be forwarded with the offer.

5. Operating Environment:

   Electrical Supply: The Equipment supplied shall be suitable in all respect for use on the local electricity supply of 200- 270 Volts, 50 Cycles. A suitable stabilizer/CVT to be offered as an optional accessory in case of specific Voltage requirement for the supplied Equipment. Resettable over current breaker shall be fitted for protection wherever applicable.

   Humidity: The unit shall be capable of operating continuously in ambient temperature of 30^0C and relative humidity of around 80%.

7. After Sales Service:

   Bidders are requested to confirm in writing in their bid offer the after sales service they would provide, after the expiry of three-year warranty period, for four more years including an estimated cost an annual servicing

contract. The maintenance capability of the bidders currently existing in Hyderabad and Andhra Pradesh should also be clearly stated.

8. All items should be of high quality, durable, and suitable for use in a Hospital. The technical specification and standards of each item delivered shall be that currently in use at the time of delivery.
   a) Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450.
   b) Radiation safety: Safety aspects of Radiation dosage leakage should be spelt out and all the X-ray related products should comply with AERB Guidelines for radiation leakage.

10 a) The Manufacturer, must have necessary quality certifications for both processes and products such as ISO 9001 (Quality Management System for Organization) and ISO 13485 (Quality Management System for Medical Devices).

b) Full Quality Assurance System Approval certificate Management System Certification for Medical Devices and their equivalent International Standards certificates as BIS/ CE/USFDA etc.

11. If the bidder fails to demonstrate any of the products quoted, the bid for that product would be considered as withdrawn and suitable action will be taken as per the Clause 15 of ITB. i.e., forfeiture of the Bid security and also the bidder may be debarred for a certain period as decided by the Managing Director.

Note:

1. **The bidder should submit the details of spares which are covered or not covered under warranty.**
2. **The above items supply to 5 New Medical Colleges (Eluru, Nandyal, Machilipatnam, Rajahmundry and Vizianagaram) in Andhra Pradesh**

Technical specifications

1. Flexible Video End Viewing Oesophago-Gastroduodenoscope Specifications:

A. Flexible Video End viewing Oesophago-Gastroduodenoscope –

1. Should have built in HDTV compatible CMOS/CCD with Close observation capacity up to 2 mm.
2. Should have LCI (Linked Colour imaging) /RDI & TXI – Advance Image Enhancement Endoscopy, Special light function for detection of surface patterns and vessels and slight color difference should be visualized with natural tone using Red Component.
3. Suitable for BLI/BLI-Bright/NBI/ISCAN-OE real time optical chromo endoscopy system.
4. Should have Electronic Zoom function up to 2X or more.
5. In built scope identification memory chip for monitor display of scope's model no. serial no., white balancing memory, no. of connections/cumulative uses etc.
6. Fully immersible in disinfectant solution (no need to attach water resistant cap) & one touch connectivity Should have Electronic Zoom function up to 2X.
7. Scope should be latest launch in India at the time of quoting the tender.

Field of view	140°
Observation range	2.0mm-100mm
Bending capability	Up 210° /Down 90°
	Right 100°/Left 100°
Distal end diameter	9.2 mm or less
Insertion tube diameter	9.3 mm or less
Working channel diameter	2.8 mm or more
Working length	1100 mm or less
Total length	1400 mm or less

B. <u>Full HD Video Processor Module</u>:

- Should be compatible with Analog, HD-SDI/3G-SDI/DVI-D(Any two HD Outputs), RGB-TV x 1, S VIDEO x 1, VIDEO x 1(Any two SD Outputs) for a HDTV monitor should be available.
- Should contain the electronics to operate Multi optical zoom for clear visibility of near & far objects.
- Suitable for Optical enhancement technology to provide high Contrast Images while performing Optical Magnifying Endoscopy and while observing microvascular and micro surface patterns of the mucosal layer.
- System should support Close focus up to 1.5 mm to get enhanced image for diagnosis
- Should have LCI (Linked Colour imaging) /RDI & TXI – Advance Image Enhancement Endoscopy, Special light function for detection of surface patterns and vessels and slight color difference should be visualized with natural tone using Red Component.

- Suitable for BLI/BLI-Bright/ NBI/ISCAN-OE, Optical enhancement technology to provide high Contrast Images while observing microvascular and micro surface patterns of the mucosal layer.
- Should be compatible with Optical zoom with provision of Step wise & continuous zoom.
- System should be compatible and upgradable with AI (Artificial Intelligence) in future.
- Equipped with high resolution HDTV Imaging capacity and have stand by option to exchange the Scopes.
- No white balance compulsion.
- Compact, lightweight (10-15 kg) and ergonomically designed.
- Recording of both still & moving images.
- Should be compatible and upgradable with Enteroscopy scopes & EUS system for future up gradation.
- System should be equipped with one touch connection of scopes and should have Contact free technology with Power feed should be through Wireless electrical supply, Image Transmission should be through high-speed optical fiber.
- Portable Memory & USB Slot for image recording with 4 GB internal memory and external USB (2GB) Automatic IRIS control & automatic white balance
- Electronic Zoom 2.0 X or more with Recording of both still & moving images.
- Equipped with automatic light adjustment forced air cooling, regulated air feeding pump and fan with low noise.
- Light weight not more than 12 kg.
- Processor should be latest launch in India at the time of quoting the tender.

C. <u>Light Source (Quantity 1):</u>

- Long life Multi LED light source (3 or more LED bulb) with minimum lamp life of 6000 hours/Xenon 300 watt (additional 5 bulbs to supplied to equate lamp life)
- Backlit front panel indicators.
- Equipped with automatic light adjustment forced air cooling, regulated air feeding pump and fan with low noise.
- Compatible for waterproof one touch connector.
- Compact & light weight design weight up to 15 Kg.
- Integrated/Separate, light weight and ergonomically designed.
- Should be latest launch in India at the time of quoting the tender.

D. <u>Medical Grade Monitor (Quantity 2)</u>

- 26” or more medical grade monitor compatible with the above quoted system.

- Screen size 26 inches or more.
- Medical Grade monitor
- Full HD display (1920x1080)
- Compatible picture in picture display with compatible video processor and endoscopes.

E. <u>System should be supplied with below mentioned items -</u>

- Compatible trolley to mount the system
- HD Reporting and Reporting Software
- Computer system with i5 processor, 8GB RAM & 1 TB HDD or higher
- Laser color printer.
- Biopsy Forceps (2 No.)

<u>Terms and conditions:</u>

- The system must have standard comprehensive warranty of 5 years and should quote CMC for next 5 years.
- Should be European CE/US FDA certified/BIS/CDSCO/Indian Standards.
- CMC offered for the quoted equipment should not be more than 5% of the quoted model with not more than 5% escalation per year after completion of CMC period.
- CMC offered for the quoted equipment must be on OEM letterhead for further years. CMC offered on distributors / vendor letterhead will not be considered
- Installation process should be performed by OEM trained service engineer/ service representative on OEM's letter head/ service report, with a mandatory provision of providing preventive service visits of OEM trained service engineer/ service representative quarterly per year till completion of warranty period (i.e. 20 visits for first five years) and further quarterly visit (04 visits/ year) till the completion of CMC period.
- The installation process must be completed by the OEM/ Service provider within 30 days of supply.
- The accessories/ consumables utilized during the period of installation process should be taken care FOC by OEM/ Service provider.
- The equipment complies with the requirement of the Medical Device Directive of class I equipment and Electromagnetic compatibility; all supporting documents must be provided.
- Equipment should have brand name / model number embossed/ etched on the equipment.

In case of technical snag/ failure/ breakdown, the response time for Inspection should be within 72 Hour and repair within 10 days, otherwise provide a service machine until the period of recovery of breakdown of the unit. Failing which will

attract penal action as per the decision of the INSTITUTE (Uptime guarantee of 95%).

2.Hemodialysis machine

Description of Function

- Haemodialysis is a method for removing waste products as well• as free water from the blood when the Kidneys are incapable of this.

Operational Requirement

- Bicarbonate/Acetate Haemodialysis.
- The blood pump should run even in the absence of water or dialysate flow.
- Single needle dialysis using one blood pump.
- Isolated ultrafiltration/Sequential dialysis should be possible.

Technical Specification.

- Should have facility for conventional & high flux dialysis.
- The Machine should have a colour monitor display.
- Blood flow rate range should be 50 – 600ml/minute & adaptable to standard AV blood lines.
- Dialysate flow rate ranges from 300 – 800 ml/minute.
- Heparin pump: Delivery range 0 ml/min – 10 ml/min, Bolusfunction Max 5 ml per bolus.
- Automatic set up and priming is preferred.
- Positive and negative extracorporeal circuit pressure shall notaffect the infusion rate.
- Optical Detector should be there to sense light and dark (blood and saline) and should not be affected by ambient light.
- Self-check test.
- Inbuilt NIBP monitoring.
- Should have inbuilt facility of hot & chemical disinfection with both short & long disinfection and 2 nos of 5 litres pack of hot disinfectant competent with quoted model with each machine should be supplied.
- Should have arterial & venous pressure monitoring range.
- Alarm should be activated for air bubbles and microbubbles over the entire blood flow.
- Should have facility to change sodium range 130 – 150 mmol/l
- Temperature control range should be 35.0 degree C to 39.0degree C.
- The dialysate conductivity shall be adjusted by setting the sodium concentration.
- Machine should have inbuilt sodium & ultrafiltration profiling.

- Machine should have blood leak detector alarm.
- Ultrafiltration rate should be 0 to 4L/ hr given by the set values of UF volume and treatment time.
- Treatment Time adjustable up to 9 hr 59 min. in 1 minincrement.
- TMP Monitoring should be displayed.
- Built-in device for measurement and monitor of effective ureaclearance (K) dialysis dose (Kt/V), and plasma sodium (Na) automatically during treatment.
- The measurement of effective urea clearance (K), dialysis dose• (kt/V and plasma sodium (Na) shall be preformed in noninvasive, real-time mode without additional disposable required during treatment.
- Facility for heat, chemical disinfection and auto-switch off.
- Should have inbuilt Dry Bicarbonate powder module to provide hygiene online mixing to avoid precipitation and it should be supplied with each machine (10 nos) and should be competent with quoted model.
- Machine should have inbuilt facility of endotoxin retention filter and should have automatic programme and guidance message for changing the filter.

System Configuration Accessories, Spares and consumables

- All consumables required for installation and standardization of system to be given free of cost.
- Company must supply Bacterial filters-6 sets extra and 100 dialyzers with tubings free of cost.

Environmental Factors

- Machine should operate & being stored under extreme temperature conditions of lowest 2 degrees C and highest 48 degree C and humidity of > 80%.

Power supply

- Power input to be 220-240VAC, 50Hz fitted with Indian plug.
- Machine should have battery backup for at least 15 min in case of AC power failure.
- One 3 KVA online UPS with at least 30 min power backup must• be supplied with each machine.

Standard, Safety and Training

- The machine should be US FDA/European CE approved. The certificate should be provided.
- Shall comply with IEC 60601-2-16 SAFETY requirements of• medical electric equipment Part-2.
- Comprehensive training for lab staff and support services till familiarity with the system.
- The principal company should have its own office, distribution and service network in India. The company should have excellent service

backup with resident engineers based in major cities of Rajasthan. The names of service engineers must be given along with the proof of employment of principal company.

- In case of breakdown it should be attended within 24 hours and repaired within 72 hours.

Documentation

- User/Technical/Maintenance manuals to be supplied in English.
- Certificate of calibration and inspection.
- List of Equipment's available for providing calibration and routine Preventive Maintenance Support. As per manufacturer documentation in service/technical manual.
- List of important spare parts and accessories with their part number and costing.
- Log book with instruction for daily, weekly, monthly and quarterly maintenance checklist.
- Web site of the parent company to be mentioned, for verification of the detail and specification, if required.
- Machine at the time of supply will be of same year of manufacture.
- Company must ensure uninterrupted supply of consumables.
- The job description of the hospital technician and company service engineer should be clearly spelt out.
- Demonstration Is Must As And When Required.
- Hemoperfusion Charcoal filters for paraquat poisoning treatment – 5000 Nos

3.Fiber Optic bronchoscope (may be shared with TB & CD)

Specifications:

Fiberoptic Bronchoscope:

Should have following specifications:

1. Lighter and possess high-definition image quality with camera on the tip.
2. Fully immersible in disinfectant solution.
3. Scope should have image enhancement function.
4. Two or more no. of remote-control switches on control body.
5. Compatible with leakage testing device Manual/Automatic.

Field of view	:	120 degree or more
Direction of view	:	0-degree, forward viewing
Depth of field	:	3 to 50 mm or better
Distal end outer diameter	:	5.9 mm or less
Insertion tube outer diameter	:	5.9 mm or less
Tip Bending rage more	:	Up 180 deg & more, Down 130 deg &
Working length	:	600 mm or more
Channel inner diameter	:	2.8 mm or more

Fiberoptic Bronchoscope Full HD Video Processor Module:

1. Equipped with high resolution HDTV Imaging capacity.
2. Should be compatible with Analog and Digital output with 1920X1080P output.
3. Minimum 2 HDTV image output (HD-SDI/DVI/HDTV) for HD image transfer.
4. Integrated/Separate, light weight and ergonomically designed.
5. Suitable for BLI/FICE/ NBI/ISCAN-OE, Optical enhancement technology to provide high Contrast Images while observing microvascular and micro surface patterns of the mucosal layer.
6. Should have advanced LCI (Linked Color imaging) /RDI & TXI – Advance Image Enhancement Endoscopy facility or equivalent.
7. Should have Special light function for detection of surface patterns and vessels and slight color difference should be visualized with natural tone using Red Component.
8. System should support Close focus up to 1.5 mm to get enhanced image for diagnosis.
9. System should have Edge & Structure enhancement.
10. No white balance compulsion would be added advantage.
11. Recording of both still & moving images
12. Portable Memory & USB Slot for image recording with 4 GB internal memory and external USB (8GB) Automatic IRIS control & automatic white balance.
13. Automatic IRIS control & automatic white balance
14. Should be compatible with Pead bronchoscope (4mm OD or less), Latest EBUS scopes, for future upgradation.
15. Electronic Zoom up to 2X or more.
16. Equipped with memory back up for settings & Lithium battery.

Fiberoptic Bronchoscope Light Source:

1. Long life Multi LED light source (3 or more LED bulb) with minimum lamp life of 6000 hours, & light intensity equivalent to Xenon 300 watt/300-watt xenon with extra 5 xenon bulbs.
2. Backlit front panel indicators.
3. Equipped with automatic light adjustment forced air cooling, regulated air feeding pump and fan with low noise.
4. Compatible for waterproof one touch connector
5. Compact & light weight design weight up to 15 Kg.
6. Integrated/Separate, light weight and ergonomically designed.

Fiberoptic Bronchoscope Medical Grade Monitor

26" or more medical grade monitor compatible with the above quoted system.

Fiberoptic Bronchoscope system should be supplied with below mentioned items -

- Compatible trolley to mount the system
- HD Reporting and Reporting Software
- Computer system with i5 processor, 8GB RAM & 1 TB HDD or higher
- Laser color printer.
- Biopsy Forceps (2 No.)
- Mouth Guard (2No.)

Terms and conditions:

- The system must have standard comprehensive warranty of 5 years and should quote CMC for next 5 years.
- Should be European CE/US FDA certified/BIS/CDSCO/Indian Standards.
- CMC offered for the quoted equipment should not be more than 5% of the quoted model with not more than 5% escalation per year after completion of CMC period.
- CMC offered for the quoted equipment must be on OEM letterhead for further years. CMC offered on distributors / vendor letterhead will not be considered
- Installation process should be performed by OEM trained service engineer/ service representative on OEM's letter head/ service report, with a mandatory provision of providing preventive service visits of OEM trained service engineer/ service representative quarterly per year till completion of warranty period (i.e. 20 visits for first five years) and further quarterly visit (04 visits/ year) till the completion of CMC period.
- The installation process must be completed by the OEM/ Service provider within 30 days of supply.

- The accessories/ consumables utilized during the period of installation process should be taken care FOC by OEM/ Service provider.
- The equipment complies with the requirement of the Medical Device Directive of class I equipment and Electromagnetic compatibility; all supporting documents must be provided.
- Equipment should have brand name / model number embossed/ etched on the equipment.

In case of technical snag/ failure/ breakdown, the response time for Inspection should be within 72 Hour and repair within 10 days, otherwise provide a service machine until the period of recovery of breakdown of the unit. Failing which will attract penal action as per the decision of the INSTITUTE (Uptime guarantee of 95%).

4.Specification of ICU Ventilator

1. Should have facility for Invasive and Non-Invasive ventilation.

2. Microprocessor Control suitable for Pediatric and adult ventilation.

3. Electromagnetic Compatible Hinged arm holder for holding the circuit.

4. Should have built in touch color screen TFT display of minimum 10” or more for display of waveforms and Monitored value.

5. Should have inbuilt facility to upgrade with EtcO2.

6. Facility to Measure and display:- a) Status indicator for ventilator mode. b) Battery indication. c) Pressure Vs time Vs volume Vs time, flow Vs time 3 curves/ waveforms. d) Alarm setting.

7. Automatic compliance and leakage compensation for circuit and ET Tube.

8. Should have facility of log book, for events and alarms with date & time.

9. Should have following settings. a) Tidal volume (Minimum at least 50ml, Maximum up to 2000ml) b) Inspiratory Pressure (upto 80 cm of H20) c) Respiratory rate 1 to 80 bpm. d) Apnoea back up rate. e) CPAP/PEEP f) Pressure support. g) Fi02 h) Pause Time i) Pressure & flow Trigger j) Inspiratory flow up to 120 Lpm.

10. Monitoring and Display of the following Parameters. a) Airway Pressure (Peak & Mean). b) Tidal volume (Inspired & Expired). c) Minute volume (Inspired & Expired d) Respiratory mechanics. e) Spontaneous Minute Volume. f) Total Frequency. g) F102 dynamic. h) Intrinsic PEEP. i) Plateau Pressure. j) Resistance & Compliance. k) Use selector Alarms for all measured & monitored parameters. l) Occlusion Pressure. m) Pressure Flow & Volume curves.

11. Modes of Ventilation equipped with newer modes of ventilation:- a) Assist /control. b) Volume Control. c) Pressure control. d) Pressure support. e) SIMV with pressure support (Pressure and volume control). f) PEEP. g) Inverse ratio Ventilation. h) Non invasive ventilator- BIPAP, CPAP. i) Apnea Ventilation, User selectable, volume & pressure control.

12. Should have built in safety alarms for Airway Pressure High & low, Minute volume, High & low, power failure, Low oxygen, High Respiratory Rate, Air Source in-operable.

13. Should have inbuilt exhalation filter.

14. Compressor should be of same company inbuilt/ mounted with ventilator assembly.

15. Should have compatibility with existing central pipe line.

16. Humidifier a) Servo controlled heated Respiratory Humidifier. b) Temperature of delivered Gas on LED display. c) Temperature should be adjustable. d) Jar should be autoclavable

17. Quality Certification : Valid CE/BIS/US FDA

18. Demonstration of the quoted model is must, preferable on site.

19. Nebulization assembly compatible with ventilator and circuit.

20. Should have interface facility.

21. Flow sensor-Should have life more than 1 year.

22. Expiratory Unit- Life should be more than 3yrs.

23. Data storage facility for at least 24hrs.

24. Internal rechargeable battery at least 30min. backup.

25. Should be supplied with compatible UPS.

26. Should have flow sensors having long life and the company shall specify the life cycle and the cost of the flow sensors at the time of quoting the tender.

27. CMC/ AMC for the atleast7yrs and Cost of consumables spares after warranty.

29. Warranty 3 years from the date of installation.

30. Standard Accessories alongwith: a) Patient breathing circuit of silicone for Adult &Paediatric (reusable). b) Non invasive ventilator mask reusable for adult

(3sizes) and paediatric according to age- 4set each. c) ET tube cuff pressure monitor and HME filter - 10.

5.Specification of Neonatal Ventilator

1. Advanced microprocessor based continuous flow – pressure limited time cycled dedicated neonatal ventilator for very low body weight infants (premature, newborn)- 450gm to 20Kg.

2. The neonatal ventilator should have the following ventilation modes: CMV, Assist control, SIMV, CPAP and PSV. Volume Guarantee, PRVC or equivalent (alternate modes are not acceptable) should possible in Assist control and SIMV or equivalent mode.

3. Monitor with 12" or more LCD/TFT graphical display for real time simultaneous display of two waveforms. Should display minimum 3 graphs and 2 loops and may not simultaneously.

4. Should have settings for a. Peak Inspiratory Pressure : 0 – 50 cmH2O b. PEEP : 0 – 20 cmH2O c. Fraction of inspired oxygen : 21 – 100% d. Inspiratory Time : 0.1 – 3 sec e. Expiratory Time : 0.2 – 25 sec or automatic f. Inspiratory flow : 1 – 30Lpm g. Base flow Automatic : 1 – 20 lpm h. Volume guarantee : 2 - 100ml i. Respiratory Rate : 5 - 150 bpm j. Tidal volume range : 2 - 100 ml EP division Running Contract Notice Page 3/5

5.Should have real time monitoring for: a. Pressure – Peak, Plateau, Mean, PEEP b. Expired Tidal Volume (Monitored), Expired Minute Volume, leakage in %. c. Frequency/Rate – Set (Inspiratory), Spontaneous MV in %, total, I.E ratio d. FiO2, Pressure and Flow wave forms and loops e. Should have lung Mechanics monitoring with numeric display of Resistance, compliance, lung over distension index (C20/C) to avoid lung over distension index (C20/C) to avoid lung over distension, Time Constant Tc, RVR.

6. Should have battery / UPS backup for ventilator.

7. Should have automatic compliance and leak compensation for circuits and ET tubes.

8. Should have backup ventilation / apnea alarm in CPAP/PSV.

9. Expiratory Transducer/ sensor/ valves should be sterilizable and reusable.

10. Should have automatic alarm settings.

11. It should have trending of measured parameters – 12Hrs to 72 Hrs.

12. MV alarm can be manually adjusted along with audio and visual alarms for: a. High/low pressure b. High/low Minute Volume/Tidal Volume c. Apnoea alarm d. Compressor failure e. Failure of Sensor's f. Tube obstruction g. Power failure h. Ventilator failure

13. Standard accessories (for each equipment) A. Standard accessories to be supplied with each Equipment a. Modular corrosion free Original Trolley b. Servo controlled humidifier with heated wire type and reusable chamber c. Temperature probe & adaptor-1No d. Original Hinged arm for rail (support for patient circuit) e. Neonatal Test Lung-2Nos f. Servo heated Humidifier with Temp Display-1No g. Hose plug for O2 and air-1each h. Expiratory Valve per ventilator-2Nos B. Additional Accessories (Rate to be offered separately in BOQ and amount to be given additionally for purchasing these items.) a. Reusable Heated Circuit setfor neonates-2set b. Temperature probe & adaptor-1No c. Probe,Airway Temp& flow for 1.5m Ckts-1No d. Electrical Adaptor- Single heated , Reusable-1No e. Flow sensor - Reusable-1No f. Neonatal flow sensorinsert (5x)-1No g. Neonatal Flow sensor ,Y Piece-1No h. Ultrasonic Nebuliser /electronic micro pump withless than5micro particle size i. Neonate T- Adaptor w,plug, Box 5-1No j. Hose for O2 connection-5mts k. Hose for compressed air-5mts l. O2 pressure regulator with 5 meters hose (conversion kit)-1No m. Draw wire-1No n. Disposable patient circuit (Single heated)-1No o. Hose Heater adaptor for Dual Heated Circuit-1No

14. Should have a Gas delivery system by soundless (not more than 50 decibel at 1 meter distance) external integrated compressor from the same manufacturer of ventilator. In case of compressor failure it should also be operable with compressed air/oxygen supply of 45 to 60 psi.

15. Replacement guarantee should be provided for battery, expiratory valve and oxygen sensor for the entire 3 years warranty period and also the rate offered for CMC should include the replacement guarantee for battery, and oxygen sensor and expiratory valve.

16. The PM KIT shall be replaced at free of cost during the warranty and CMC period when ever required as per the recommendation of manufacturer.

17. Trolley/ Cart mounting for easy transport.

18. Should work with input 200 to 240Vac 50 Hz supply. EP division Running Contract Notice Page 4/5

19. Should have CE/USFDA/BIS etc.

20. PEEP valve should be built in.

21. Patient circuit with water trap.

22. The unit rate of Flow sensor shall be quoted separately which will not be taken for evaluation.

23. Should have proximal sensor for real time monitoring of flow at Y-piece with heated wire anemometer type sensor.

5.Anaesthesia Machine

Technical specifications:

- Anesthesia system should be high end three gas system with three gas Oxygen, Nitrous Oxide and Medical Air
- double scale flowmeter with high and low flow and minimal flow provisions.
- Should have an independent Oxygen flow meter for Oxygen delivery and an integrated variable flow suction unit.
- System should have at least three drawers and an additional writing surface that can be easily accessed.
- Drawers shall have the ability to lock , and shall be easily removed for the purposes of cleaning and sterilisation.
- Pipeline, cylinder and Airway pressures should all be displayed on colour coded gauges and be visible at all times during operation. Should have provision to attach 2 cylinders 1 each for O2 and N2O.
- Should have facility of delivering basal flow of oxygen on switiching on the machine.
- System should have a second user accessible port for extraction of Anesthetic gas when using a nonrebreathing patient circuit.
- System should also provide the option of returning sample gas to the scavenging system with a dedicated port.
- A single pneumatic/electric on/off switch should activate the gas flow and vaporization.
- The unit should have a battery back up facility for the ventilator in the event of power failure and should operate for a minimum of one hour.
- In the event of complete power loss and battery failure it shall still be possible to manually ventilate and deliver anaesthetic agent.
- System ahould have easily accessible common gas outlet in the event of an emergency and for use of alternate breathing circuits.
- Should have unlockable Oxygen flush to deliver oxygen flow of approximately 40l/min.
- Should have built in safety features like O2 failure alarm, N2O cutoff, Low O2 pressure etc., Should have motion sensitive back lighting for vaporizer dial adjustment.

- Should also have mandatory illumination of the writing table. The frame should have integrated power outlets to supply a minimum of four external devices.
- Should have locking of the front castors by a single central brake mechanism. Gas Flow The unit shall have a mechanical hypoxic guard system to control the ratio of Oxygen and Nitrous oxide to ensure a minimum of 25% of oxygen delivery at all times to avoid delivery of hypoxic mixture.
- It shall be possible to deliver Air with only basal flow oxygen independent of the above mentioned hypoxic control.
- Gas flow shall be controlled mechanically to avoid errors during power failure and electronic malfunction.
- Visual display of the gas flow shall be by physical means independent of electrical power.
- Cascade or dual flow tubes should be available for all gases to allow suitable resolution and accurate control at low total fresh gas flows.
- Flow meters should have backlight and antiglare illumination.
- The unit should have an independent measurement and display of fresh gas flow offering safety for low and minimal flow anaesthesia. A bag arm with height and positional adjustment shall be available as an option.
- Vaporizers The unit should accommodate two vaporizers for anesthetic agent delivery to allow easy selection of agent to be used.
- A third vaporiser storage area shall be available as an option.
- Vaporiser should be selectatec type, tool free installation and vaporiser of user choice can be mounted at will with interlocking facility to allow operation of only one vaporiser at one time.
- Vaporizers supplied with the unit shall be routine maintenance free for the life of the product.
- Should provide Isoflurane and Sevoflurane key filled vaporisers. Breathing System All parts of the breathing system that are in contact with patient gas should be latex free and autoclavable.
- Should not require tools when dismantled for cleaning and sterilization. Should accept large and small volume absorber canisters.
- The ventilator bellows shall be clearly visible and should ascend on expiration to provide a quick visual indicator for system leaks.
- Breathing system should have the option of C02 Absorber bypass control that will allow the absorber canisters to be removed without introducing system leaks.
- Should have bag / vent selecting valve integrated onto the absorber and should automatically turn on the ventilator when positioned to vent mode.
- Ventilatior Ventilator should be pneumatically driven, electronically controlled and should be ascending bellows type.

- Ventilator should automatically change drive gas should there be a gas depletion. Ventilator shall have a color display with touch screen user interface.
- Ventilator should have the following ventilation abilities, volume control, decelerating flow pressure control, SIMV with pressure support and pressure support.
- Ventilator should be capable of ventilating diverse range of patient groups from neonates to adult patients with restictive airways with tidal volume range between 20 ml to 1500 ml with single bellows system.
- Assisted modes of breathing should be flow triggered. Ventilator should have an active proportional exhalation valve to prevent the potential of over delivery during pressure modes of ventilation.
- Ventilator should have a leak and compliance test that can be done independently of the full system check.
- On switching on, the ventilator system should be able to and shall give the user a choice of doing a unit test or bypassing in the case of an emergency.
- Ventilator shall compensate for fresh gas flow and compliance of the entire circuit dynamically.
- Measurement at the patient end of the circuit (sensor at the patient end) should be provided to compensate for small leakages and compressible volume variability that occur during ventilation.
- User should also have the option of setting a pre set compliance correction where similar circuits are used constantly.
- Should provide constant fresh gas flow into the breathing circuit during the inspiratory phase as mandatory.
- Ventilator should have the ability to set and store a hospital default as well as individual user preferences for easy selection of ventilation parameters and include screen layout, alarm preferences and ventilation settings.
- User should be able to set their own password. Apnea alarms must be user adjustable to allow for all operating conditions and phases during Anesthesia.
- Ventilator should have the ability to display and store Patient Spirometery loops including Flow-Volume and Pressure Volume curves.
- Ventilator should also display waveforms for flow and airway pressure.
- Ventilator should display measured fresh gas independent of the flow meters.
- Ventilator should display a dynamic compliance measurement. Integrated Monitoring system: Anesthesia Monitoring system should be of modular type and capable of monitoring adult, pediatric and neonatal patients.
- Should be from the same manufacturer as of the anesthesia system.
- Monitor should have minimum 19” independent flat panel display with multi color touch screen user interface to ensure all parameters are visible simultaneously.

- Module rack / housing should be independent and should be able to be placed near to the patient. Should be capable of 8 traces display.
- Should have facility to monitor: ECG, NIBP, SpO2, Respiration, Invasive pressures (3), temperatures (2), Capnography and Bispectral index.
- Should have Cardiac output port enabled.
- Should have automatic identification and measurement of anesthetic agents, EtCo2, O2 and N2O and MAC value.
- Should have depth of anesthesia monitoring using Bispectral index. Cardiac output monitoring facility with all accessories.
- ECG should have capability for 3, 5 and / or 10 lead monitoring and should have built in arrhythmia monitoring on all 12 leads Inbuilt ST segment analysis and arrhythmia detection for all the leads should be available.
- Should have haemodynamic, oxygenation and drug dose calculations. EtCO2 should have both mainstream and side stream in one module.
- Respiration should be available with Cardio Vascular Artifact filter.
- OCRG(oxy cardio respiro gram) should be available for monitoring neonates.
- Alarm parameter should flash red in the presence of high priority alarms (e.g. ventricular fibrillation and asystole) and flash yellow in the presence of medium or low priority alarms (e.g. noisy signal, etc.) 24 hours trend data should be displayed.
- All monitors including central station should have similar user interface for usage among all clinicians. Modules should be compatible with transport monitors.
- Monitor shall provide capability to remote view of real time waveforms via the internet.
- Should be able to upgrade to softwares for electronic flow sheet and full dislcosure of all waveforms.
- On-screen keyboard for entering this data should have USB ports to connect mouse, key board, bar code scanner.
- Alarm limit status (ON/OFF) must be indicated on-screen for each parameter and actual parameter alarm settings must be displayed on-screen when alarms are on.
- Position of the displayed waveforms and color of the waveform must be user configurable.
- Monitor shall permit the optional ability to receive and display information from other patient devices such as ventilators, infusion pumps and other standalone devices.
- All modules should be compatible with all monitors quoted. Should be supplied with necessary accessories for adult , pediatric and neonatal accessories.

- Should be US FDA Approved Should be compatible with HIS and Should be HL7 compliant Monitor should have capability to accommodate remote viewing of real time waveforms through internet.
- Accessories and spares
- ECG / respiration: 5 lead ECG cable and lead wire set and 10 lead ECG cable and lead wire set per monitor
- NIBP: Adult: 2 sizes and Pediatric 2 sizes and neonatal, 1 size per monitor
- SPo2 Sensor: Adult sensor with cable, pediatric sensor with cable and neonatal sensor with cable per monitor
- IBP: Include 10 nos of disposable pressure transducer with bracket and interface cable per monitor
- Temperature: Skin and nasopharyngeal probes per monitor
- BIS: 25 nos of disposable sensors per monitor
- Environmental factors:
- Safe disposal system : AGSS – Anesthetic Gas Scavenging System, should be in place

7. Electro-surgical cautery unit

Specification

- Instant response technology ensures that the power delivered remains virtually constant, regardless of the tissue type.
- Improved performance at lower power setting minimizes the risk of tissue damage and neuromuscular stimulation.
- Three internal microcontrollers reduce system reaction time and increase the system processing speed.
- Spray coagulation voltage of no more than 9000 volts peak-to-peak output for board, but superficial coagulation with limited capacitive coupling.
- A power efficiency rating of approximately 98 or more for cut Performance.

Three cut modes, all controlled by instant response technology, offer surgeons a Varity of choices.

- Low cut for delicate tissue or endoscopic cases.
- Pure cut for clean, precise cut
- Blend for cutting with heomstasis.

Coagulation modes:

- Desiccate for low Voltage contact coagulation suitable in endoscopic and delicate tissue work.
- High crest factor for efficient non-contact coagulation in most applications.

- Low crest factor for lower voltage coagulation in requirements. d. Spray for coagulating large tissue areas with superficial depth of necrosis.

Three Bipolar modes:

- Different setting in bipolar are controlled by the instant response System.
- Precise and standard setting utilizes low voltage to prevent sparking.

System compatible with other devices, including :

- Argon coagulation system.
- Ultrasonic surgical aspirators.
- Smoke evacuator
- Bipolar current monitor

Compatible with and used as the electrosurgical energy source for:

- Control RF ablation system.
- Electro blade rotary resection system
- Pacemaker lead extraction system.
- Compatible with and the exclusive electrosurgical generator for the computer Motion herms Voice command system.
- Unit should be advanced – microcontroller based Technology Unit should have Digital Display with push Button.
- Unit should perform self-test During Power ON.
- Unit should have programming facility for different surgeries.
- Unit should have Digital Wattage Indications for Bipolar, Monopolar Cut and Coagulation. Unit should have isolated Monopolar and bipolar outputs.
- Unit should have Split Type Patient Plate contact monitoring System for Maximum Patient Safety (Unit should not be deliver power until and unless Maximum area of the patient plate is not covered to completely minimize the risk' of post-operative H. F. burns)
- Unit should have Audio Visual Patient plate Error Monitoring System.
- Unit should Have at least 3 monopolar coagulation mode.
- Monopolar Coagulation Should consist Spray for Non-contact Coagulation, Fulgurate for under water coagulation, Desiccate/Force for open..
- Unit should have at least Three Bipolar Mode including Precise,Standard and macro.
- Unit should Have Facility to use monopolar and bipolar function without Switch over.
- Unit should have simultaneous coagulation facility in monopolar coag.
- Unit should have HF leakage monitoring system.
- Unit should have Time-out Facility to prevent accidental activation

OUTPUT WAVEFORMS: Bipolar

- Precise - more than 300 kHz

- sinusoid Standard - more than 300 kHz
- sinusoid Macro - more than 300 kHz sinusoid

Monopolar Cut

- Low - more than 300 kHz sinusoid.
- Similar to the Pure Cut mode except the maximum
- Voltage is limited to lower value.
- Pure - more than 300 kHz sinusoid
- Blend - more than 300 kHz sinusoid bursts of sinusoid, recurring at 27 kHz intervals. 50% duty cycle envelope.

Monopolar Coag

- Desiccate - more than 300 kHz sinusoid repeated at 39 kHz, 8% duty cycle
- Fulgurate - more than 300 kHz sinusoid damped sinusoidal bursts with a repletion
- frequency of 30 or 57 kHz into 500 ohms.
- Spray - more than 300 kHz sinusoid damped sinusoidal bursts with a randomized
- repetition centered at 28 KHz Frequencies include 21 kHz <35khz
- Output is further modulated by a random 250 Hz envelope with a variable duty cycle.
- Output power changes by less than 15% of 5 watts, whichever is greater as the line Voltage varies from 104-132 volts and 208-264 volts (at rated load).
- Accessories
- Ruber Silicone/split T type patient plate (pediatric and adult) – 2 each
- Monopolar forceps with hand control with accessories
- Bipolar forceps (straight long, straight short, bayonet) with accessories with non-stick coating.
- Double paddle foot switch with cable
- Bipolar foot switch
- Power cord to connect to diathermy machine (if not in build) able to fit in Indian type of electricity socket
- The Equipment should be US FDA or European CE approved

8.Cryo unit

Cryotherapy is the use of extreme cold **to freeze and remove abnormal tissue**. Doctors use it to treat many skin conditions (including warts and skin tags) and some cancers, including prostate, cervical and liver cancer. This treatment is also called cryoablation.

1. Front panel gauze indicates incoming cylinder gas pressure

2. Temp. Selection - 25deg, -55deg,-85deg, tolerance +/-5deg.

3. Front panel On/off switch turns console on/off

4. Foot switch controls freezing operation (Depress to freeze & release to defrost)

5. Power source run on CO2 & N 2O gas

6. Tip should have protective cover

7. Cryo tube enhanced flexibility, 9 ft long, reduced coil memory

8. Probes a) curved retinal probe 2.8 mm dia X17.3mm length b) Curved glaucoma probe 3.4 mm dia*X19 mm length c) Vitreous probe 1.5 mm dia X27 mmLength

9. Diagnostic and Operative laparoscope including one High Definition with all accessories and hand instruments.

The system should have following features:

- It should have Pure digital signal with high definition video of 1920x1080p (min) native resolution and progressive scan technology both on camera head and console
- It should be compatible with Aspect ratio of 4:3 and 16:9
- The system should have Digital and Optical Zoom to enhance the quality of Image size & cross specialty standardization of the camera system, regardless of the telescope used.
- Digital zoom, white balance control and two peripheral controls on camera Head
- Integrated Gain/Shutter/Enhancement with automatic brightness control
- Video Outputs: two DVI, one SVHS and one (optional) direct fiber optic output
- The system should automatically optimize all settings.
- The system should be readyto- use as soon as it is connected to the camera control unit.
- The system should be Menu driven, thus allowing the surgeon to program the camera head functions as per the surgical needs & requirement.
- Should be USFDA or European CE approved.

Technical Specifications:

- Image System: 1/3” Progressive Scan CCD
- Pixels 1920 X 1080p pixels per chip (min)
- Camera Head Weight 150-250 Gms.

- AGC: Microprocessor controlled
- Signal-to-noise ratio 65-75 dB
- Video output: S-video signal
- Digital Video Interface
- Power Supply 100-240 VAC, 50/60HZ

High Resolution Monitor

- The system should have: HDTV display in original 16: 9 HDTV format.
- 1080 p/ 50 & 1080 p/60 displays possible.
- Dripwaterprotected , dustproof housing.
- LED crystal display.
- Max. Resolution of 1920X1080.
- Desk top with pedestal.
- Should have the facility of PIP mode.
- HD medical grade Monitor with screen diagonal “26”,
- Aspect Ratio 16:9 HD format
- Brightness : 400 cd/m2
- Maximum viewing angle : 178°
- vertical Contrast ratio: 1000 : 1
- Reaction Time – 8ms
- Rated power : 115 watts
- Power Supply 100-240 VAC
- Screen Dimensions : 673 x 418 x 88mm
- Video Inputs : 2* DVI , 2* 3G SDI, 1* S Video, 1* SOG, 1* RGB/VGA, 1* RS 232, 1* RJ 45 Interface.
- Output: 1* DVI , 1* 3G SDI, 1* S-Video
- Accessories External 24VDC Power Supply, Mains Cord, Pedstal.
- Certified to : EN 60601-1, protection class IPX 1
- Should be USFDA or European CE approved.

LED Light Source

- The system should have:
- 300 W
- 220 Volts ,
- Light Engine: Red, Green & Blue LED’s
- Increased patient safety & added protection in OR with safelight technology
- Intuitive simple user interface with LCD touch screen
- Stand by Mode
- Universal Jaw Assembly to adapt any make of Fiber Optic Cable
- More than 5000 Hours bulb life

- Light intensity adjustment continuously adjustable from 0 to 100% manually
- Should be USFDA or European CE approved.

Fiber Optic Light Cable

- Size should be diameter > 3.5mm, length 300 cm

Insufflator:

- Flow rate 35- 45 Liter/mints .
- High flow with LCD display
- Microprocessor controlled & Software driven for upgradeability Soft approach pressure control for safe recovery of abdominal pressure
- Should have Neonatal mode & visual and audible alarms with min 0.1 L flow rate Internal leakage detection capability
- Integrated Gas heating
- Having internal venting system for safety
- Should have video on screen display
- Unit should include heated tubing, hose & yoke
- Shoud be able select either central supply (4.5 kg/cm2) input pressure from central supply as well as direct connection to high pressure co2 cylinder and should indicate the right inlet pressure of co2 gas supply of front panel of machine.
- Should be USFDA or European CE approved.

Laparoscope:

- Wide Angle Full Screen, Autoclavable, Forward-Oblique and lateral scope
- Optimal centre-to-edge resolution for enhanced picture quality
- Angle of view:, 30º and 0º of 10mm diameter 1 each
- 5 mm diameter 30 degree 1
- Length 30 cm
- Fiber optic light transmission incorporated
- Standard ocular window for coupling the camera head
- Scratch resistance sapphire coated tip lens
- Should be USFDA or European CE approved.

High Definition Digital Documentation System (Recorder System)

- The system should have:
- High Definition Digital Documentation System (Recorder System)
- Should be real time, MPEG 2 HD, 1or 2 compression engine with full IBP encoding
- Should have video inputs minimum 2 nos. S-Video, 2 nos. Composite, 1 XGA (1024 X 768) and 1 High-Definition (1280 X 1024).
- Should have video outputs S-Video, Composite, DVI & XGA (1024 X 768, 1280 X 1024, and 1600 X 1200)

- Should be capable of Progressive scan image capture: Analog (640 x 480), Hi-Res (1024 X 768), and Hi-Def (1280 X 1024)
- Should have Stereo audio Input
- Should have Disc Capacity of 250 GB/1 Tera bite
- Should have touch screen (min 10”) control panel interface
- Multi session disc recording capability
- Should support file formats for Images: Bitmap (BMP), JPEG, JPEG2K, Tagged Image File Format (TIFF) Videos: MPEG-1, MPEG-2, and MPEG-4
- Should have CD-R, DVD-R, DVD+R (single session), DVD+RW Disc Recording Formats
- Real time Broadcasting facilities over internet in HD formats should be there
- Should be USFDA or European CE approved

10.Operating microscope for major Operation Theatre

Magnification	25x
Usage/Application	Surgery
Color	Silver
Automation Grade	Automatic
Power	240 V
Packing Type	Export
Weight	55kg (Approx.)
Is It Portable	Portable
Illumination	Through Fiber Optic Light Source 15V/150W twin LED
Field Of View	50mm

I deal in	New Only
Light Intensity	80,000 Lux max. at standard conditions
Eye Pieces	10x W.F.
Objective Lens	F=200mm
Optics	German
IPD Adjustment	55 mm
Fine Focusing	Motorized Fine Focusing by Foot Control System
Field of Illumination	70mm
Vertical Range of Counter Balanced Arm	250 mm
Base	600mm x 500mm (Approx)
Height	1500mm (Approx.)
Accessories	Motorized Stand,LED,BeamSplitter,CMount,HD Camera,Floor Stand
Arm	Counter balanced pantographic arm with 320 degree Rotation
Certificates	CE ISO
Binocular Tubes	45 Degree C
Minimum Order Quantity	1
Suitable UPS	With 30 minutes backup

Product description

Magnifications	5 Step- 4x, 6x, 10x, 16x & 25x	Binocular Tubes:	45 Degree
Light Intensity:	80,000 Lux max. at standard conditions	Eye Pieces:	10x W.F.
Field of Illumination:	70mm	Brand:	Dr.Onic
Vertical Range of Counter Balanced Arm:	250mm to 300mm	Objective Lens:	F=200mm
Base:	600mm x 500mm (Approx)	Field of View:	50mm
Height:	1500mm (Approx.)	Optics:	German
Weight:	55kg (Approx.)	Model:	Ophthalmic
Power:	110-240V	Country/Region of Manufacture:	India
Model	DRON-45i	IPD Adjustment:	55mm to 75mm
Accessories:	Motorized Stand,LED ,Beam Splitter,CMount,HDCamera,Floor Stand	Fine Focusing:	Motorized Fine Focusing by Foot Control System
Arm:	Counter balanced pantographic arm with 320 degree Rotation	Illumination:	Through Fiber Optic Light Source 15V/150W twin LED
Certificates	ISO,CE,FREE SALE	Condition	New

11.Portable ultrasound with color doppler

Specifications :

1. Fully digital portable ultrasound machine with provision for Doppler examinations.

2. The unit should have a laptop type console design. The unit should be compact, lightweight and portable. Weight should not exceed 7kg including battery (excluding cart and accessories).

3. It should be suitable for abdominal, small parts and vascular applications in adults and pediatric patient. Multiple preloaded as well as user configurable application presets should be available.

4. Minimum grey scale resolutions to be 256 with 1024 or more digital processing channels.

5. Maximum scanning depth to be 30 cm or more.

6. The system to have a dynamic range of 165 decibels or more.

7. The system should support Convex and Linear probes.

8. Transducers (one each):

(1) Convex electronic phased array transducer:2-6 MHz for abdominal imaging.

(2) Linear transducer: 5-12 MHz for vascular and small part imaging.

9. All transducers should be lightweight digital phased array broadband type transducers with at least 1024 elements.

10. The system should have a frame rate of at least 600 frames per seconds (fps) in B mode and more than 300 fps in /Colour mode.

11. The system should have an ergonomic full alphanumeric soft keys keyboards with easy access scans control and trackball. Provision for attaching an external keyboard and mouse should be present.

12. The System must have integrated high-resolution TFT/LCD/Single monitor of 15 Includes or more.

13. The Systems should have cine loop review facility of not less than60 sec/1000 frames.

14. System should have 120 GB or higher capacity internal HDD.

15. The system should have the facility of digital storage and retrieval of B/W and color image data on built in CD/DVD Drive. Provision for USB port and LAN transfer of data should also be present.

16. Imaging modes of Real time 2D, Colour Doppler, Pulsed wave Doppler and Power (energy) Doppler should be available.

17. Controls for 2D mode: Total gain, depth, TCG, dynamic range, acoustic power output.

18. Controls for Colour Doppler: PRF, colour gain, position and size of ROI , steering of ROI, colour maps and colour invert.

19. Controls for pushed Doppler: variable sample volume size from 1 to 5mm or more, steer, PRF, baseline, gain angle correction, spectral invert duplex on/off.

20. Measurements for 2D mode: Multiple distances, area and volume.

21. Measurement for Doppler modes: Stenosis quantification in area percentage, Diameter, PSV, EDV, means, PI, RI, acceleration time and index. Automatic and manual measurements and display of pulsed Doppler calculations should be possible.

22. Facility for storage on CDR should be possible.

23. Unit should function with 200-240 V, 50 Hz AC, 5 amp power outlet power requirement to be specified

24. In built battery backup should be at least one hour or more.

25. Essential accessories: Black & White Thermal printer and color laser printer, UPS, mobile cart with transducer holder, jelly bottle holder and space for printer.

26. Paper and cartridges for 1000 image printouts should be provided with the unit.

27. The unit offered must be sturdy and should be able to withstand accidental hits and falls during transportation.

28. The unit offered in the tender will require technical demonstration.

29. Photocopy of purchase orders along with terms and conditions of contract received from twenty Govt. /Public Sectorinstitution/private teaching collage of repute in the last two years for supply of the offered equipment must be enclosed with the price bid.

30. Price of the main unit and accessories to be quoted separately.

31. Warranty: The unit transducers and all accessories should be covered with comprehensive onsite warranty for five (5) years commencing from the date of issue of installation certificate.

32. Rates for comprehensive maintenance contract CMC (including all spared and labour) for 5 years, after expiry of warranty period, must be quoted separately.

33. Photocopy of purchase order along with terms and conditions of contract received from any Govt. /Public Sector institution/Private teaching collage of repute in the last two years for supply of the offered equipments must be enclosed with the price bid.

34. Company should have an established Registered Service Centre with address and phone numbers at Delhi/Rajasthan. Company should give undertaking regarding the spare availability of the quoted model for next seven years.

35. The bidder should enclose the original product data sheet, brochure and compliance sheet, without which the bid rejected. Computer generated data sheet brochure will not be accepted. The serial number of specifications must be indicated against the relevant portion of the compliance sheet and data sheet.

36. The unit should be United States Food and Drug Administration (FDA) and ConformityEuropeans (CE) approved.

12.USG machine with color Doppler with Echo facility
A state of art fully digital, compact portable Colour Doppler Ultrasound machine (weight <4kg) is required with following
Unit should be able to give very high image quality with advance technologies like compound imaging for better cardiac contrast resolution, tissue differentiation and edge detection, equivalent to high end cart based systems. Please specify the technology
System should be able to support speckle reduction imaging for better tissue differentiation and edge enhancement please specify the technology
The system shall have the ability to enhance tissue margins and improve contrast resolution by reducing artifacts and improving visualization of texture patterns & needle tip within the image, please specify the technology
System should have both online (Read) as well as offline (Write) zoom facility
Imaging modes of Real time 2D, Colour Doppler, Pulsed wave Doppler, Continuous wave Doppler, Power Doppler must be available on all cardiac transducers.

System should non-windows based for virus free operation & faster boot up.
System should support transducer technologies like phased array, convex. Linear, TEE etc.
Cine memory on all modes
The system shall process a dynamic range that is at least 165db. The system must display at a maximum depth of 35 cm.
The system must have a dedicated cardiac calculation packages with PISA, TDI calculation packages, vascular calculations packages
The unit must be compact, portable and lightweight, weighing less then 4 kg.
Unit must be sturdy, resistant to breakage & damage on fall/hit against the wall or hard surface for out of the hospital use (Certified to be drop tested).
Flat LCD/TFT monitor of at least 10 inches with flicker free image
Alphanumeric soft keys keyboard with easy access scans controls, facility to sanitize the system keyboard to avoid cross contamination
The System must have the ability to function by AC/DC or battery power with same degree of functionality, the battery life (run time) shall be at least 2 (Two) hours, this need to be demonstrated.
The sytem must have archive capability for storage and retrieval of images and clips data.
Data Transfer facility should be available s standard, to transfer images etc. easily onto another system/computer etc
The system shall support the all DICOM functionality. Storage, Print and Work List, also ready to connect to PACS
System should posses software for enhanced needle visualization to track the needle clearly at steep angles during the procedures while maintaining striking image quality of the target structures and surrounding with simple on/off functionality
The equipment should be mountable on trolley & locking mechanism should be inbuilt into the trolley safety & security of the system
System should have both European CE and US FDA quality certification
Transducers to be supplied as standard
1. 2-5 (+/-1) MHz multi-frequency broadband curved array transducer for general purpose, abdominal, deep nerve access applications
2. 6-13(+/-1) MHz multi-frequency, broadband linear array transducer for vascular, nerve imaging with less then 40 mm size for vascular access, small parts, vascular, musculoskeletal application. Higher frequency will be preferred.
3. 1-5 (+/-1) MHz multi-frequency, broadband phased array transducer for cardiac/TVS applications
4. Mobile cart with transducer holder and space for printer

5. Triple Transducer Connector – TTC		
Warranty	**:**	**3 years warranty from date of installation**

13.Monitor 5 para with ECTO2

1. Should have modular Multiparameter monitor with TFT/LED/LCD/touch screen display with at least 17 inches or more with at least 8 wave forms and upgradable upto 14 waveforms & 22 parameter numerics on single display.

2. The waveforms should be user selectable.

3. Monitor should have in built Lithium-ion type battery for 2 Hour continuous operation

4. Should have keys for quick access to main functions.

5. Should be able to monitor ECG(3,5,12 leads), SPO2, NIBP, 2 IBP, Respiration Rate, 2 temp, ETCO2, for adult, pediatric and neonatal patients.

6. Monitor must have facility for at least 2 IBP measurements simultaneously. Also should have SPV/PPV monitoring facility

7. 5 Lead ECG monitoring with full range of lethal arrhythmia recognition capability and ST analysis upto 12 leads and 72hour trend facility.

8. Respiration, Apnea alarm, Prioritized audio visual alarms and snap shot facility.

9. Transport module with display and battery backup of at least 1 hour.

10. Pulse Oxymeter (SPO2) with Plethysmogragh&Pulse strength indicator With Variable pitch with change in SpO2 (low perfusion motion tolerance technology).

11. Side-stream Capnography with display of CO2 wave form & digital values (ETCO2, FiCO2, RR).

12. Monitor should have provisions for automatic identification and measurement of anesthesia agents, CO2, O2, N2O and facility to measure at least 5 volatile agents with automatic detection.

13. Should be upgradable to monitor cardiac output (Thermo dilution/ PICCO), BIS/DA and NMT.

14. It should have provision for automatic identification and measurement and anesthetic agents, Co2, O2, N2O and facility to measure MAC.

15. The display setting should have at least 10 user defined setups variable as per applications for flexible use of the monitor in various clinical environments as in OT, PACU, ICU, ER, NICU.

16. Monitor should have networking options with bidirectional & bed to bed communication. EP division Running Contract Notice Page 2/3

17. Should provide following accessories a) Should provide a facility/ net box to keep the accessories b) 20 Nos of Disposable IBP transducers with all standard accessories & 6 nos of reusable adapter cable (type as requested by the end user) c) Accessories for Anesthesia Gas/Co2 monitoring -25 Nos (disposable) d) Reusable adult 5 lead ECG cable set – 2 nos. e) NIBP cuffs for standard Adult(2 Nos), Obese Adult, Child and infant – all 1 each.(5 Nos) f) Temperature Probe(esophageal/ rectal)- 2Nos g) Accessosories: a. Spo2 probe adult (Reusable) – 2 Nos b. Spo2 probe pediatric (Reusable) – 2 Nos c. Fore Head Spo2 Sensor – 2 Nos

18. Equipment performance should not be affected by electromagnetic radiated or conducted through power lines from another device.

19. Should work on 200-240V AC/50Hz with inbuilt rechargeable battery.

20. Should have USFDA/CE/BIS etc.

14.O.T Table

Table must have the following standard features:

1. Radiolucent table top made up of Carbon Fiber for orthopedic use

2. Radiolucent top for orthopedic use:

a) Three or more sectional back plate with tow or more detachable shoulder segment.

b) Seat plate with detachable buttock support

c) Radiolucent Perineal Post- child and adult size

d) Detachable divided leg plates

e) Should be able to slide by half.

3. Eccentric base and rolls on heavy duty castors for longitudinal and lateral movement

4. Two foldable and detachable carbon fiber traction bars fixed beneath the seat plate with two adjustable pivot joints

5. Accessory side rails for attaching accessories entire length of the table top. Rail should accept standard accessories.

6. Chrome nickel steel base

7. Additional attachment made up of carbon fibre to allow intraoperative fluoroscopy examination in paediatric patients

8. Detachable pads made of foam core, approximately 50mm thick, should be molded and radiolucent

9. All supports for different positions should be included for children separately

10. Table measurements and control panel:

a) Table Top height range- 70cm – 120cm

b) Trendelenburg/ Reverse Trendeleburg –upto 30 degree

c) Lateral Tilt- 15-30 degree

d) Motorised back plate up and down-90 degree

e) Hand control and Battery control for various table functions.

f) Battery capacity for approximately 2 weeks with average use

g) Can be operated directly from the mains for all electro hydraulic and Manual override movements

h) Patient weight capacity 180kg

i) Handset can be connected on either side of the table (head or foot end).

j) Length: 210 – 220cm

k) Width: 65-70cm

Each table must be provided with the following accessories:

1. Hand operating table

2. Lateral brace kit for total hip replacement

3. Accessory for bilateral hip surgery

4. Body strap

5. Attachments for direct approach for MIS Hip replacement should be made of carbon fibre.

6. Femoral hook for direct anterior approach for MIS Hip replacement

7. Traction bars radiolucent-02

8. Total Knee Flexion and Support System for knee arthroscopy

9. Well Leg Support system

10. Traction boot small pair with multiplanner rotation

11. Traction boot large pair with multiplanner rotation

12. Radiolucent Arm Boards with Pad(2)

13. Beach chair position system with helmet type head rest for position of the patient along with shoulder plates made of carbon fibre.

14. Skull traction and head rest for cervical spine surgery

15. Accessories for genucubital position

16. Accessories for genupectoral position

17. Mayfield attachment for cervical spine

18. Accessories for interlocking nailing of humerus and tibia,

19. Accessories for interlocking nailing for femur in supine position

20. Accessories for Hip arthroscopy including large perineal post and traction system

21. Anaesthesia screen with clamp

22. Silicone Gel pads (One set each) for various patient

a) Gel pads as Head ring: open and closed type for both adult and pediatric use separately

b) Gel pads for head rest in supine, prone and lateral positions separately for adults and children

c) Gel pads as operating table pad, perineal table pad, sacral protector, arm protectors

d) Gel pads for flexed knee in positions for spine surgery

e) Gel pads thigh, leg, heel

f) Gel pads for different positions

23. Cushions (One set each): as foam pads for different positions: Head ring, lateral positioning, leg rest cushion, cushions especially for spine surgery

24. Quote prices in remarks column for additional accessories/attaments.

15. OT LIGHT TWIN DOME

Specifications

1. Dome Head :515mm Dia
2. LED lights-2 no's
3. Light intensity at 1 mt. :1,00,000 Lux
4. Intensity Control :Continuous
5. Height Adjustment :600 mm approx
6. Action Radius :1250mm
7. Possible Movements :Radial, Angular & Axial
8. Color Temperature :4500K or above
9. Temporize in field :3°-6° c from Amb.Temp
10. Control Panel at the dome
11. CR± 95000
12. Lamp life:40,000 hours
13. Battery back-up:1 hour
14. Auto-power off and over-charging cut-off.

Disinfection:

1. Parts of the Device that are designed to come into contact with the patient or the operator should either be capable of easy disinfection or be protected by a single use/disposable cover.

STANDARDS AND SAFETY

1. Performance and safety standards (specific to the device type);Local and/or international

2. Should be FDA/CE and BIS/ISO 13485 approved product

3. Electrical safety conforms to the standards for electrical safety IEC 60601-General requirements(or equivalent BIS Standard)
   Shall meet internationally recognized for Electromagnetic Compatibility(EMC)and Electromagnetic Interference(EMI) for electro medical equipment: IEC 60601-Certified to be compliant with IEC 60601-2-4 for usability.

4. Operating manuals, service manuals, other
   manual should provide 2 sets (hardcopy and soft-copy) of: -

5. User, technical and maintenance manuals to be supplied in English/ Telugu language along with machine diagrams;
   List of equipment and procedures required for local calibration and routine maintenance;

6. Service and operation manuals (original and copy) to be provided;
   Advanced maintenance tasks documentation;
   Certificate of calibration and inspection

16. OT Light -Single Dome

1. Dome Head :515mm Dia
2. LED lights-2 no's
3. Light intensity at 1 mt. :1,00,000 Lux
4. Intensity Control :Continuous
5. Height Adjustment :600 mm approx
6. Action Radius :1250mm
7. Possible Movements :Radial, Angular & Axial
8. Color Temperature :4500K or above

9. Temporize in field :3°-6° c from Amb.Temp
10. Control Panel at the dome
11. CR± 95000
12. Lamp life:40,000 hours
13. Battery back-up:1 hour
14. Auto-power off and over-charging cut-off.

Disinfection:

1. Parts of the Device that are designed to come into contact with the patient or the operator should either be capable of easy disinfection or be protected by a single use/disposable cover.

STANDARDS AND SAFETY

1. Performance and safety standards (specific to the device type);Local and/or international
2. Should be UFDA/CE and BIS/ISO 13485 approved product
3. Electrical safety conforms to the standards for electrical safety IEC 60601-General requirements(or equivalent BIS Standard)
   Shall meet internationally recognized for Electromagnetic Compatibility(EMC)and Electromagnetic Interference(EMI) for electro medical equipment: IEC 60601-Certified to be compliant with IEC 60601-2-4 for usability.
4. Operating manuals, service manuals, other
   manual should provide 2 sets (hardcopy and soft-copy) of: -
5. User, technical and maintenance manuals to be supplied in English/ Telugu language along with machine diagrams;
   List of equipment and procedures required for local calibration and routine maintenance;

6. Service and operation manuals (original and copy) to be provided; Advanced maintenance tasks documentation; Certificate of calibration and inspection

15. OT LIGHT TWIN DOME with HD Camera

1. Dome Head :515mm Dia with HD Camera
2. LED lights-2 no's
3. Light intensity at 1 mt. :1,00,000 Lux
4. Intensity Control :Continuous
5. Height Adjustment :600 mm approx
6. Action Radius :1250mm
7. Possible Movements :Radial, Angular & Axial
8. Color Temperature :4500K or above
9. Temporize in field :3°-6° c from Amb.Temp
10. Control Panel at the dome
11. CR± 95000
12. Lamp life:40,000 hours
13. Battery back-up:1 hour
14. Auto-power off and over-charging cut-off.
15. Camera should be in the center of the light preferable in the handle.

Disinfection:

1. Parts of the Device that are designed to come into contact with the patient or the operator should either be capable of easy disinfection or be protected by a single use/disposable cover.

STANDARDS AND SAFETY

1. Performance and safety standards (specific to the device type);Local and/or international

2. Should be UFDA/CE and BIS/ISO 13485 approved product

3. Electrical safety conforms to the standards for electrical safety IEC 60601-General requirements(or equivalent BIS Standard)

Shall meet internationally recognized for Electromagnetic Compatibility(EMC)and Electromagnetic Interference(EMI) for electro medical equipment: IEC 60601-Certified to be compliant with IEC 60601-2-4 for usability.

4. Operating manuals, service manuals, other

manual should provide 2 sets (hardcopy and soft-copy) of: -

5. User, technical and maintenance manuals to be supplied in English/ Telugu language along with machine diagrams;

List of equipment and procedures required for local calibration and routine maintenance;

6. Service and operation manuals (original and copy) to be provided;

Advanced maintenance tasks documentation; Certificate of calibration and inspection

18. Examination lamp/Focus Light

The LED technology should be of highly engineered optical system which delivers the precisely controlled natural white light that for an accurate examination.
Should have mobile Floor Stand with a diameter of light head should be 120 mm
STANDARD DESIGN FEATURES
• High-intensity of 25 ,000 lux
• CRI (Color Rendering Index) of 92
• Natural white light
• LED light module with min 40,000-hour life or more
• Universal input voltage
• IEC 60601-1/ 60601-2-41 certified
• Should have USFDA/BIS/CE certificate
• The material of base with strong ABS fiber material with heavy duty lockable wheels.
• Warranty 3 years.

19.Portable X-ray Machine 100mA

Mobile X-ray unit 100 mA		
Description	**:**	High Frequency mobile X-ray machine with following output:
		Focal Spot- 1.5X1.5
		High frequency 4 kw of 110KhZ frequency
		kV - 40kV to 120 kV
		mA - 13mA to 110mA
		mAS - atleast 0.32 to300 mAS
		The machine should have a good colimator with bright light.
		The X-ray machine should be light weight and easy to move around. It should have a disinfectable control panel for extensive use in Operation Theatre.
		The weight should be below 150 kg and height in parking position should be less than 150cm
		Display : Digital display of atleast mAS and kV for easy parameter settings
		The machine should be equiped with proper wheel locks and exposure switch. It should also have cassette storage box.
		Radiation safety is of extreme importance and the machine with less skin dose will be preferred.
		The machine should be provided with atleast 2No.s lead aprons of 0.5mm lead equivalence
		Should be AERB type approved
		standards like USFDA or CE certificate
Warranty	**:**	**With a warranty of 3 years**

If fixed x-ray machines 500mA and mobile X-ray units are purchased, then for film processing COMPUTED Radiography (CR) systems with at least 6 no cassettes each size of 17x14 size, 12x10 size and 10x8 size are to be taken along with each CR system

20.Upper GI endoscope (Optional)

Specifications:

F. Upper GI endoscope (Pead) –

8. Should have built in HDTV compatible CMOS/CCD.
9. Should have LCI (Linked Colour imaging) /RDI & TXI – Advance Image Enhancement Endoscopy, Special light function for detection of surface patterns and vessels and slight color difference should be visualized with natural tone using Red Component.
10. Suitable for BLI/BLI-Bright/NBI/ISCAN-OE real time optical chromo endoscopy system.
11. Should have Electronic Zoom function up to 2X or more.
12. In built scope identification memory chip for monitor display of scope's model no. serial no., white balancing memory, no. of connections/cumulative uses etc.
13. Fully immersible in disinfectant solution (no need to attach water resistant cap) & one touch connectivity Should have Electronic Zoom function up to 2X.
14. Scope should be latest launch in India at the time of quoting the tender.

Field of view	140°
Observation range	3.0mm-100mm or better
Bending capability	Up 210° /Down 90°
	Right 100°/Left 100°
Distal end diameter	5.8 mm or less
Insertion tube diameter	5.9 mm or less
Working channel diameter	2.2 mm or more
Working length	1100 mm or less
Total length	1400 mm or less

G. <u>Full HD Video Processor Module</u>:

- Should be compatible with Analog, HD-SDI/3G-SDI/DVI-D(Any two HD Outputs), RGB-TV x 1, S VIDEO x 1, VIDEO x 1(Any two SD Outputs) for a HDTV monitor should be available.
- Should contain the electronics to operate Multi optical zoom for clear visibility of near & far objects.
- Suitable for Optical enhancement technology to provide high Contrast Images while performing Optical Magnifying Endoscopy and while observing microvascular and micro surface patterns of the mucosal layer.
- System should support Close focus up to 1.5 mm to get enhanced image for diagnosis
- Should have LCI (Linked Colour imaging) /RDI & TXI – Advance Image Enhancement Endoscopy, Special light function for detection of surface patterns and vessels and slight color difference should be visualized with natural tone using Red Component.

- Suitable for BLI/BLI-Bright/ NBI/ISCAN-OE, Optical enhancement technology to provide high Contrast Images while observing microvascular and micro surface patterns of the mucosal layer.
- Should be compatible with Optical zoom with provision of Step wise & continuous zoom.
- System should be compatible and upgradable with AI (Artificial Intelligence) in future.
- Equipped with high resolution HDTV Imaging capacity and have stand by option to exchange the Scopes.
- No white balance compulsion.
- Compact, lightweight (10-15 kg) and ergonomically designed.
- Recording of both still & moving images.
- Should be compatible and upgradable with Enteroscopy scopes & EUS system for future up gradation.
- System should be equipped with one touch connection of scopes and should have Contact free technology with Power feed should be through Wireless electrical supply, Image Transmission should be through high-speed optical fiber.
- Portable Memory & USB Slot for image recording with 4 GB internal memory and external USB (2GB) Automatic IRIS control & automatic white balance
- Electronic Zoom 2.0 X or more with Recording of both still & moving images.
- Equipped with automatic light adjustment forced air cooling, regulated air feeding pump and fan with low noise.
- Light weight not more than 12 kg.
- Processor should be latest launch in India at the time of quoting the tender.

H. <u>Light Source (Quantity 1):</u>

- Long life Multi LED light source (3 or more LED bulb) with minimum lamp life of 6000 hours/Xenon 300 watt (additional 5 bulbs to supplied to equate lamp life)
- Backlit front panel indicators.
- Equipped with automatic light adjustment forced air cooling, regulated air feeding pump and fan with low noise.
- Compatible for waterproof one touch connector.
- Compact & light weight design weight up to 15 Kg.
- Integrated/Separate, light weight and ergonomically designed.
- Should be latest launch in India at the time of quoting the tender.

I. <u>Medical Grade Monitor (Quantity 2)</u>

- 26” or more medical grade monitor compatible with the above quoted system.

- Screen size 26 inches or more.
- Medical Grade monitor
- Full HD display (1920x1080)
- Compatible picture in picture display with compatible video processor and endoscopes.

J. <u>System should be supplied with below mentioned items -</u>

- Compatible trolley to mount the system
- HD Reporting and Reporting Software
- Computer system with i5 processor, 8GB RAM & 1 TB HDD or higher
- Laser color printer.
- Biopsy Forceps (2 No.)

<u>Terms and conditions:</u>

- The system must have standard comprehensive warranty of 5 years and should quote CMC for next 5 years.
- Should be European CE/US FDA certified/BIS/CDSCO/Indian Standards.
- CMC offered for the quoted equipment should not be more than 5% of the quoted model with not more than 5% escalation per year after completion of CMC period.
- CMC offered for the quoted equipment must be on OEM letterhead for further years. CMC offered on distributors / vendor letterhead will not be considered
- Installation process should be performed by OEM trained service engineer/ service representative on OEM's letter head/ service report, with a mandatory provision of providing preventive service visits of OEM trained service engineer/ service representative quarterly per year till completion of warranty period (i.e. 20 visits for first five years) and further quarterly visit (04 visits/ year) till the completion of CMC period.
- The installation process must be completed by the OEM/ Service provider within 30 days of supply.
- The accessories/ consumables utilized during the period of installation process should be taken care FOC by OEM/ Service provider.
- The equipment complies with the requirement of the Medical Device Directive of class I equipment and Electromagnetic compatibility; all supporting documents must be provided.
- Equipment should have brand name / model number embossed/ etched on the equipment.

In case of technical snag/ failure/ breakdown, the response time for Inspection should be within 72 Hour and repair within 10 days, otherwise provide a service machine until the period of recovery of breakdown of the unit. Failing which will

attract penal action as per the decision of the INSTITUTE (Uptime guarantee of 95%).

21.Flexible Video Sigmoidoscope

Specifications:

A. Flexible Video Sigmoidoscope -

- Should have built in Full HD Endoscopy with Close observation capacity up to 3.0mm.
- Should be equipped with auxiliary water jet function for flushing (mucosal cleaning).
- Suitable for FICE/BLI/BLI-Bright/ NBI/ISCAN-OE, Digital/Optical enhancement technology to provide high Contrast Images while observing microvascular and micro surface patterns of the mucosal layer.
- In built scope identification memory chip for monitor display of scope's model no. serial no., white balancing memory, no. of connections/cumulative uses etc.

Field of view	140° or more
Observation range	3.0mm-100mm
Bending capability	Up 180° /Down 180°
	Right 160°/Left 160°
Distal end diameter	12.8 mm or less
Insertion tube diameter	12.8 mm or less
Working channel diameter	3.8 mm or more
Working length	790 mm or less
Total length	1090 or less

B. <u>Full HD Video Processor Module</u>:

- Should be compatible with Analog, HD-SDI/3G-SDI/DVI-D(Any two HD Outputs), RGB-TV x 1, S VIDEO x 1, VIDEO x 1(Any two SD Outputs) for a HDTV monitor should be available.
- Should contain the electronics to operate Multi optical zoom for clear visibility of near & far objects.
- Suitable for Optical enhancement technology to provide high Contrast Images while performing Optical Magnifying Endoscopy and while observing microvascular and micro surface patterns of the mucosal layer.
- System should support Close focus up to 1.5 mm to get enhanced image for diagnosis
- Should have LCI (Linked Colour imaging) /RDI & TXI – Advance Image Enhancement Endoscopy, Special light function for detection of surface

patterns and vessels and slight color difference should be visualized with natural tone using Red Component.

- Suitable for BLI/BLI-Bright/ NBI/ISCAN-OE, Optical enhancement technology to provide high Contrast Images while observing microvascular and micro surface patterns of the mucosal layer.
- Should be compatible with Optical zoom with provision of Step wise & continuous zoom.
- System should be compatible and upgradable with AI (Artificial Intelligence) in future.
- Equipped with high resolution HDTV Imaging capacity and have stand by option to exchange the Scopes.
- No white balance compulsion.
- Compact, lightweight (10-15 kg) and ergonomically designed.
- Recording of both still & moving images.
- Should be compatible and upgradable with Enteroscopy scopes & EUS system for future up gradation.
- System should be equipped with one touch connection of scopes and should have Contact free technology with Power feed should be through Wireless electrical supply, Image Transmission should be through high-speed optical fiber.
- Portable Memory & USB Slot for image recording with 4 GB internal memory and external USB (2GB) Automatic IRIS control & automatic white balance
- Electronic Zoom 2.0 X or more with Recording of both still & moving images.
- Equipped with automatic light adjustment forced air cooling, regulated air feeding pump and fan with low noise.
- Light weight not more than 12 kg.
- Processor should be latest launch in India at the time of quoting the tender.

C. Light Source (Quantity 1):

- Long life Multi LED light source (3 or more LED bulb) with minimum lamp life of 6000 hours/Xenon 300 watt (additional 5 bulbs to supplied to equate lamp life)
- Backlit front panel indicators.
- Equipped with automatic light adjustment forced air cooling, regulated air feeding pump and fan with low noise.
- Compatible for waterproof one touch connector.
- Compact & light weight design weight up to 15 Kg.
- Integrated/Separate, light weight and ergonomically designed.
- Should be latest launch in India at the time of quoting the tender.

D. Medical Grade Monitor (Quantity 2)

- 26” or more medical grade monitor compatible with the above quoted system.
- Screen size 26 inches or more.
- Medical Grade monitor
- Full HD display (1920x1080)
- Compatible picture in picture display with compatible video processor and endoscopes.

E. **System should be supplied with below mentioned items -**

- Compatible trolley to mount the system
- HD Reporting and Reporting Software
- Computer system with i5 processor, 8GB RAM & 1 TB HDD or higher
- Laser color printer.

Standard accessories - (2 No. Each)

- Biopsy forceps

Terms and conditions:

- The system must have standard comprehensive warranty of 5 years and should quote CMC for next 5 years.
- Should be European CE/US FDA certified/BIS/CDSCO/Indian Standards.
- CMC offered for the quoted equipment should not be more than 5% of the quoted model with not more than 5% escalation per year after completion of CMC period.
- CMC offered for the quoted equipment must be on OEM letterhead for further years. CMC offered on distributors / vendor letterhead will not be considered
- Installation process should be performed by OEM trained service engineer/ service representative on OEM’s letter head/ service report, with a mandatory provision of providing preventive service visits of OEM trained service engineer/ service representative quarterly per year till completion of warranty period (i.e. 20 visits for first five years) and further quarterly visit (04 visits/ year) till the completion of CMC period.
- The installation process must be completed by the OEM/ Service provider within 30 days of supply.
- The accessories/ consumables utilized during the period of installation process should be taken care FOC by OEM/ Service provider.
- The equipment complies with the requirement of the Medical Device Directive of class I equipment and Electromagnetic compatibility; all supporting documents must be provided.

- Equipment should have brand name / model number embossed/ etched on the equipment.

In case of technical snag/ failure/ breakdown, the response time for Inspection should be within 72 Hour and repair within 10 days, otherwise provide a service machine until the period of recovery of breakdown of the unit. Failing which will attract penal action as per the decision of the INSTITUTE (Uptime guarantee of 95%).

22.Flexible Video Colonoscope

Specifications:

F. Flexible Video Pead Colonoscope -

- Should have built in Megapixel compatible CMOS/Full HD CCD.
- Should be equipped with auxiliary water jet function for flushing (mucosal cleaning).
- Should have LCI (Linked Colour imaging) /RDI & TXI – Advance Image Enhancement Endoscopy, Special light function for detection of surface patterns and vessels and slight color difference should be visualized with natural tone using Red Component.
- Suitable for BLI/BLI-Bright/ NBI/ISCAN-OE, Optical enhancement technology to provide high Contrast Images while observing microvascular and micro surface patterns of the mucosal layer.
- In built scope identification memory chip for monitor display of scope's model no. serial no., white balancing memory, no. of connections/cumulative uses etc.
- Inbuilt features like Advance force transmission & adaptive bending & Gradual/Variable stiffness or equivalent for ease of insertion.
- Fully immersible in disinfectant solution (no need to attach water resistant cap) & one touch connectivity with Contact free technology.
- Scope should be compatible with the Artificial Intelligence technology for future up gradation (early cancer/polyp detection and characterization feature).
- Scope should be latest launch in India at the time of quoting the tender.

Field of view	140° or more
Observation range	3.0mm-100mm
Bending capability	Up 210° /Down 160° or more
	Right 160°/Left 160°
Distal end diameter	9.8 mm or less
Insertion tube diameter	10.7 mm or less
Working channel diameter	3.2 mm or more
Working length	1690 mm or more

Total length	2010 or more

G. <u>Full HD Video Processor Module</u>:

- Should be compatible with Analog, HD-SDI/3G-SDI/DVI-D(Any two HD Outputs), RGB-TV x 1, S VIDEO x 1, VIDEO x 1(Any two SD Outputs) for a HDTV monitor should be available.
- Should contain the electronics to operate Multi optical zoom for clear visibility of near & far objects.
- Suitable for Optical enhancement technology to provide high Contrast Images while performing Optical Magnifying Endoscopy and while observing microvascular and micro surface patterns of the mucosal layer.
- System should support Close focus up to 1.5 mm to get enhanced image for diagnosis
- Should have LCI (Linked Colour imaging) /RDI & TXI – Advance Image Enhancement Endoscopy, Special light function for detection of surface patterns and vessels and slight color difference should be visualized with natural tone using Red Component.
- Suitable for BLI/BLI-Bright/ NBI/ISCAN-OE, Optical enhancement technology to provide high Contrast Images while observing microvascular and micro surface patterns of the mucosal layer.
- Should be compatible with Optical zoom with provision of Step wise & continuous zoom.
- System should be compatible and upgradable with AI (Artificial Intelligence) in future.
- Equipped with high resolution HDTV Imaging capacity and have stand by option to exchange the Scopes.
- No white balance compulsion.
- Compact, lightweight (10-15 kg) and ergonomically designed.
- Recording of both still & moving images.
- Should be compatible and upgradable with Enteroscopy scopes & EUS system for future up gradation.
- System should be equipped with one touch connection of scopes and should have Contact free technology with Power feed should be through Wireless electrical supply, Image Transmission should be through high-speed optical fiber.
- Portable Memory & USB Slot for image recording with 4 GB internal memory and external USB (2GB) Automatic IRIS control & automatic white balance
- Electronic Zoom 2.0 X or more with Recording of both still & moving images.
- Equipped with automatic light adjustment forced air cooling, regulated air feeding pump and fan with low noise.

- Light weight not more than 12 kg.
- Processor should be latest launch in India at the time of quoting the tender.

H. Light Source (Quantity 1):

- Long life Multi LED light source (3 or more LED bulb) with minimum lamp life of 6000 hours/Xenon 300 watt (additional 5 bulbs to supplied to equate lamp life)
- Backlit front panel indicators.
- Equipped with automatic light adjustment forced air cooling, regulated air feeding pump and fan with low noise.
- Compatible for waterproof one touch connector.
- Compact & light weight design weight up to 15 Kg.
- Integrated/Separate, light weight and ergonomically designed.
- Should be latest launch in India at the time of quoting the tender.

I. Medical Grade Monitor (Quantity 2)

- 26" or more medical grade monitor compatible with the above quoted system.
- Screen size 26 inches or more.
- Medical Grade monitor
- Full HD display (1920x1080)
- Compatible picture in picture display with compatible video processor and endoscopes.

System should be supplied with below mentioned items -

- Compatible trolley to mount the system
- HD Reporting and Reporting Software
- Computer system with i5 processor, 8GB RAM & 1 TB HDD or higher
- Laser color printer.
- Biopsy Forceps (2 No.)

Terms and conditions:

- The system must have standard comprehensive warranty of 5 years and should quote CMC for next 5 years.
- Should be European CE/US FDA certified/BIS/CDSCO/Indian Standards.
- CMC offered for the quoted equipment should not be more than 5% of the quoted model with not more than 5% escalation per year after completion of CMC period.
- CMC offered for the quoted equipment must be on OEM letterhead for further years. CMC offered on distributors / vendor letterhead will not be considered
- Installation process should be performed by OEM trained service engineer/ service representative on OEM's letter head/ service report,

with a mandatory provision of providing preventive service visits of OEM trained service engineer/ service representative quarterly per year till completion of warranty period (i.e. 20 visits for first five years) and further quarterly visit (04 visits/ year) till the completion of CMC period.

- The installation process must be completed by the OEM/ Service provider within 30 days of supply.
- The accessories/ consumables utilized during the period of installation process should be taken care FOC by OEM/ Service provider.
- The equipment complies with the requirement of the Medical Device Directive of class I equipment and Electromagnetic compatibility; all supporting documents must be provided.
- Equipment should have brand name / model number embossed/ etched on the equipment.

In case of technical snag/ failure/ breakdown, the response time for Inspection should be within 72 Hour and repair within 10 days, otherwise provide a service machine until the period of recovery of breakdown of the unit. Failing which will attract penal action as per the decision of the INSTITUTE (Uptime guarantee of 95%).

23.X-ray machine -300mA

X-Ray Unit (300ma)
Technical Specification:
1. High frequency X-Ray machine suitable for general Radiography
X Ray Generator:
High Frequency X-Ray generator having Frequency of 50 KHZ more suitable for Radiography should be provided.
Power output of generator should be 30 KW or more.
Radiography KV range should be 40 to 125 KV or more.
mA range (Rad.): 300mA or more
Exposure time (Rad.): l ms to 2 sec. with maximum numbers of steps.
Control Panel:
The control panel should be supplied in floor or wall 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 Program with Indicators for Earth fault error, KV error, filament error & Tube's Thermal Overload.
X Ray Tubes:
One No Dual Focus Rotating Anode thermally protected having focal spot of 1mm or less small Focus
and 2mm or less large Focus.
Anode heat storage capacity of tube should be more than 140 KHU.

One No. manual collimator with aluminum filter & for adjustment of exposure area.
HV Tank:
A very compact HV tank filled with Dielectric transformer oil should be provided. The HV tank should contain HV transformer, filament transformers, HV rectifiers & HV cable receptacles
Column Stand:
It should have floor to ceiling stand with counter balanced tube head. 360 degree rotatable.
It should have atleast 150cm vertical travel or more and Horizontal travel of 45cm or more
It should be provided with one vertical Bucky stand with machine.
Table:
Weight bearing capacity of minimum 200kg.
Table top is made up of radiolucent material.
Five position manual tilt table having Bucky grid ratio of 8:1 with 85 lines per inches should be provided.
Size of the Grid should be 17x18” or more
The stainless steel cassette tray should accept cassette of 8'x1 0", 10"x12" and 14"x17" size.
Accessories:
Machine should be supplied with 4 No. light weight whole body lead aprons.
Power Supply:
Power unit: Input voltage- 400V-440V AC, 50 HZ; 3 -phase
Stabilizer of appropriate capacity to be installed.
Training, Installation & Other Requirements:
Availability of three phase uniform power supply.
Safety and operation check before handover.
To be installed in a separate room.
Certificate of calibration and inspection of parts from the manufacturer.
Should impart training of users on operation and basic maintenance.
Advanced maintenance tasks required shall be documented.
Should be USFDA/European CE/BIS approved product.
Manufacturer or Supplier should have ISO 13485 certification for quality standards.
The model should have AERB type approved.

24.X-Ray Unit (500ma)
Technical Specification:
2. High frequency X-Ray machine suitable for general Radiography
X Ray Generator:
High Frequency X-Ray generator having Frequency of 50 KHZ more suitable for Radiography should be provided.
Power output of generator should be 50 KW or more.
Radiography KV range should be 40 to 125 KV or more.
mA range (Rad.): 630m A or more
Exposure time (Rad.): l ms to 2 sec. with maximum numbers of steps.
Oil cooled generator with high dielectric strength, thermal conductivity & chemical stability
Control Panel:
The control panel should be supplied in floor or wall 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 Program with Indicators for Earth fault error, KV error, filament error & Tube's Thermal Overload.

X Ray Tubes:
One No Dual Focus Rotating Anode thermally protected having focal spot of 1mm or less for small Focus
and 2mm or less for large Focus.
Anode heat storage capacity of tube should be more than 200 KHU.
One No. manual collimator with aluminum filter & for adjustment of exposure area.
HV Tank:
A very compact HV tank filled with Dielectric transformer oil should be provided. The HV tank should contain HV transformer, filament transformers, HV rectifiers & HV cable receptacles
Column Stand:
It should have floor to ceiling stand with counter balanced tube head. 360 degree rotatable.
It should have at least 150cm vertical travel or more and Horizontal travel of 45cm or more
It should be provided with one vertical Bucky stand with machine.
Table:
Weight bearing capacity of minimum 200kg.
Table top is made up of radiolucent material.
Five position manual tilt table having Bucky grid ratio of 8:1 with 85 lines per inches should be provided.
Size of the Grid should be 17x18” or more
The stainless steel cassette tray should accept cassette of 8'x1 0", 10"x12" and 14"x17" size.
Accessories:
Machine should be supplied with 4 No. light weight whole body lead aprons.
Power Supply:
Power unit: Input voltage- 400V-440V AC, 50 HZ; 3 -phase
Stabilizer of appropriate capacity to be installed.
Training, Installation & Other Requirements:
Availability of three phase uniform power supply.
Safety and operation check before handover.
To be installed in a separate room.
Certificate of calibration and inspection of parts from the manufacturer.
Should impart training of users on operation and basic maintenance.
Advanced maintenance tasks required shall be documented.
Should be USFDA/European CE/BIS approved product.
Manufacturer or Supplier should have ISO 13485 certification for quality standards.
The model should have AERB type approved.

25.800m A DIGITAL FLUOROSCOPY UNIT
Digital Fluoroscopy System with dynamic fixed Flat Panel Detector in Remote Controlled RF table & Unit should be capable of doing all types of Fluoroscopic examinations like GI examination, ERCP, barium studies, along with routine radiography procedures.
Technical Specifications:
X Ray Generator:
High Frequency X-Ray generator having Frequency of 100 KHZ or more should be provided.
Power output of generator should be 65 KW or more.
Radiography KV range should be 40 to 150 KV or more. Fluoroscopy KV range should be 40 to 120 KV or more.
mA range (Radiography.): upto 800 m A or more at 80 KV mA range (Fluoroscopy): Normal fluoro mode: upto 3m A , HD/Boost Fluoro / Cine mode: up to 6m A

Exposure time (Rad.): l ms to 2 sec.or more mAs range : 1 to 300 mAs or more
Control Panel:
Digital Display of Radiography kV & mAs and Fluoro kV & mA and Cine kV & mA Spot kV and mAs.
Integrated touch panel TFT display for various X-Ray function and indications.
Exposure parameters can be controlled from Acquisition software as well as from Touch Panel Display.
Manual and Automatic brightness stabilization (ABS) in fluoroscopic Modes.
Exposure indication on Acquisition Software.
Self diagnostic Program with Indicators for Earth fault error, kV error, Filament error & Tube's Thermal Overload, Rotor fault and Phase failure indications.
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 for performing radiography Procedures.
2-Point mode and 3-point mode exposure technique for manual exposures in Radiography mode.
X Ray Tubes:
One No Dual Focus Rotating Anode thermally protected having focal spot of 0.6mm &1.2mm
Anode rotation speed should 9000RPM minimum
Anode heat storage capacity of tube should be more than 600 KHU.
Collimator with white LED bulb with provision for auto cut off after 45 seconds
HV Tank:
A very compact HV tank filled with Dielectric transformer oil should be provided. The HV tank should contain HV transformer, filament transformers, HV rectifiers & HV cable receptacles
X Ray Tubes:
One No Dual Focus Rotating Anode thermally protected having focal spot of 0.6mm &1.2mm
Anode rotation speed should 9000RPM minimum
Table:
Remote controlled, motorized RF Table should be provided. Table should have integrated console. Table should have scratch resistant tabletop.
Table should have soft start and stop with following minimum features.
Motorized Tilt: Vertical +90º to -30º or more Trendelenberg.
Table has automatic stop at Horizontal & Vertical position during tilt movement
Motorized Transverse movement of tabletop:30cm or more
Motorized Longitudinal movements of imaging unit i.e Tube column – detector movement: 100cm or more.
Integrated bucky for flat panel detector for general radiography and fluoroscopy.
Remotely operated compression device.
Foot switch for releasing fluoroscopy and acquisition.
Patient weight carrying capacity: 200kg.
Intercom system to communicate with the patients.
Table accessories: 1No. Each Handgrip, compression band, footrest.
Foot switch for releasing fluoroscopy and acquisition.
Patient weight carrying capacity: 200kg.
Detector:
Digital solid state Flat Panel Detector should have a detector size of 17x17" , image matrix size of 3K x3K or more with A/D conversion of 16bits, Pixel size of less than 150µm and detector resolution of 3.3.lp/mm with DQE of 65% or more
Image acquisition soft ware:
Should have features such as
Exposure modes : RF (Flouro, Cine and Spot), DX (Radiography) Frame rate of : Up-to 15 FPS Pulsed X-Ray , with 1024×1024 (1K×1K Image resolution) with live and reference examination layouts

Parameters such as WW/WL, Zoom, Flip, Frame rate, software shuttering Automatic WW/WL adjustment for Radiography ,Automatic WW/WL adjustment for Fluoro, Cine , Spot according to the selected procedures
Post processing Parameters :WW/WL, 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
Image Acquisition System Configuration: Image Acquisition system with Intel core i7 processor (3.1GHz), 24 GB RAM, 1TB HDD & 500GB SSD and OS Window 7 Pro, 64Bit or Higher. 27"wide screen Monitor with 4K Resolution (2 Nos.),3KVA online UPS , High Resolution Graphic Card,Gigabit LAN Ports (3 No.)
Additional reporting workstation with 19" Medical display monitor with DICOM Store, DICOM Print to be provided
Accessories:
Machine should be supplied with 4 No. light weight whole body lead aprons.
Power Supply:
Power unit: Input voltage- 400V-440V AC, 50 HZ; 3 -phase
Stabilizer of appropriate capacity to be installed.
Training, Installation & Other Requirements:
Availability of three phase uniform power supply.
Safety and operation check before handover.
To be installed in a separate room.
Certificate of calibration and inspection of parts from the manufacturer.
Should impart training of users on operation and basic maintenance.
Advanced maintenance tasks required shall be documented.
Should be USFDA/European CE/BIS approved product.
Manufacturer or Supplier should have ISO 13485 certification for quality standards.
The model should have AERB type approved.

26.C-arm image intensifier
Make & Model
High End C-Arm with large LCD display. 1K X 1K High resolution imaging chain with progressive scan CCD/COMS camera, 9" to 12" Image Intensifier(IITV)/Flat penal and dedicated computer based acquisition system
Should be a mobile unit.
The movements should be smooth having very simple positioning mechanism.
X-RAY GENERATOR:
High Frequency 40 KHz X-Ray Generator with power output 3KW to 5KW should be provided
Radiography
Fluoroscopy selection of continuous, single pulse, multi pulse should be there.
KV Range (Rad /Fluoro): 40 to 120KVP in 1KV/Step.
Radiographic mA Range: 20mA to 100 mA or more
Fluoroscopy mA output: 4mA or more (Normal Fluoroscopy) and 8mA or more (Boosted fluoroscopy)
mAs output: 0.1 to 200mAs or more
X-RAY TUBE:
Dual focus Rotating/Stationary Anode X-Ray Tube of focal spot 0.3mm (small) & 0.6mm (large) to be provided.
Anode heat storage capacity should be more than 200KHU or more
Iris Collimator/Square Collimator should be provided.
CONTROL PANEL:

A very compact, soft touch control panel(A.P.R) LCD display on which KV, mAs, fluoro time, FmA, I.I ZOOM, Error inter lock for KV, filament, thermal are displayed on wide angle LCD. Console panel has following functions & indications.
Anatomical programming for radiography of 4 body parts (up to 8 programmes).
Selection of Continuous/multi pulse/single pulse fluoroscopy.
Machine ON/OFF switch.
Collimator‘s position adjustment.
I.I magnification(I.I field) selection switch
“Emergency Flouro” with or without Fluro is accepted.
Fluoro and Radio mode selection.
In built radio timer that enables to select mAs from 0.1 to 300 in 25steps for radiography.
Fluoroscopy timer (Five minute cumulative timer with buzzer that activates after the completion of 300seconds of exposure and to reinitiate the exposure reset switch is provided.) ABS (Automatic brightness Stabilization) selection for hands free operation.
KV and mAs increase and decrease switches.
X-Ray on switch with indicators.
Switches for up/down movement of “C”.
Emergency OFF Switch on the control panel.
STAND:
Up/Down movement (Noise free Actuator movement): At least 400mm or more
Horizontal Movement: At least 200 mm or more
Arc Orbital: 90º to 130º+ 20º or more
Wig wag: ± 10º to± 12.5º (25º)
Rotation: ± 180º to ± 360º (with I.I. Safety lock)
Focus Screen Distance: 850mm to 980mm or more
C Depth: 500mm to 640mm or more
Locks: Locks for all the movements.
Foot lock: Control Stand foot lock.
Steering wheel for easy steering & movement should be available.
High resolution Imaging Chain: 9” to 12” Image Intensifier
9 Inches, Triple Field Image Intensifier should be provided.
CCD/CMOS Camera with a progressive scan sensor upto 2/3” of 1K x1K Medical Grade
The acquisition should be made at 14 bits.
MEMORY SYSTEM:
PC based memory system with the following features should be provided:-
Image processing software with Real time image capturing, storage, and display in 1KX1K format
Boosted Fluoroscopy (CINE) up to 30 FPS with real time recording on Hard Disk Drive.
More than 1000 to 1 Lakh images storage capacity in 1KX1K format
DICOM 3.0 Ready
DICOM CD/DVD
Connectivity with PACS and HIS
Length and angle Measurements with Annotation
Pre Programming for Image setting for different operating Modes.
Image Flipping and Image rotation
WW/WL adjustments
Recursive Filters for image smoothening
Programmable Motion Detection facility
Gamma Curve adjustments for optimum image quality.
Image Zoom with Pan
Image Inversion
MONITORS:
02Nos. Medical Grade Monochrome high brightness, High contrast 19” or more LCD

Monitors should be provided. High-end monitor trolley with foldable monitors, actuator assisted height adjustable movement of monitors to facilitate viewing of images at most convenient eye level position, specially designed integrated keyboard having feather touch keys and touch pad should be provided instead of double unit keyboard and mouse, 5" wheels for better mobility
ACCESSORIES:
Lead Aprons – 10 No's
Lead Goggles – 10 No's
Thyroid Shied – 10 No's
Power unit: Input voltage- 220V to 240V AC, 50Hz ; Single phase
Stabilizer of appropriate capacity to be installed.
OTHER REQUIREMENTS:
Should have safety certificate from a competent authority BIS/CE/USFDA and ISO 13485 certificate
The Unit should be approved by AERB.
Warranty : 3 years warranty from date of installation

27.Computerized radiography (CR) with cassettes
Image Recording System (Cassettes & Imaging Plates)
PSP image plates and cassettes approved for general radiography use must be quoted with the system. The image plates should be rigid type for improved life and to reduce artefacts from dust or roller marks.
Cassettes with Image plates:
35x43 cm or 14" x 17" ----------06 nos
24x30 cm or 10" x 12" ----------06 nos
Image Reading (CR Reader / Digitizer)
a. It should be able to process standard size cassettes
b. It should have grey scale resolution of 16 bits / pixel
c. Time to preview image of should be less than 30 secs
d. The scanning resolution of 10 micron (10 pixel/mm) should be available for all cassette sixes
e. The highest through put should be 40 plates/hr or better of the largest size cassette at 10pixels/mm
f. It should have auto cropping feature to remove the unexposed pixels. This is to avoid zooming when smaller body parts are examined with larger image plates.
g. The digitizer should have the capability it change the scanning resolution depending upon examinations i.e. at 5pixel/mm, 6.6pixel/mm & 10pixel/mm
Processing Sever/CR Workstation with 19" LCD Panel
a. PC based unified server. Workstation for centralized patient identification & management of Images / Studies.

b. Process of identification should be ready for interface with existing Hospital Information System (HIS) or Radiology Information System (RIS) in DICOM protocols
c. This server must provide display of acquired images with greater details of demographics, like patient / study listing for easy access.
d. This server provide full amount of post processing features like Geometric Corrections, Window / Level, Algorithms, Annotations such as markers, predefined texts, drawing lines and geometrical shapes, measuring distances and angles and determining leg length differences, Shuttering, histograms, Zoom, Grey Scale Reversal, Edge Enhancement, Noise Reduction, Indicate Grey Scale Saturation Level, Latitude Reduction.
e. This terminal must provide a full fledge DICOM printing. Should be able to print in multiple formats (minimum 4) of a patient study, print a True Size image on any size of film.
f. Should be able to send DICOM images to a DICOM viewing stations or PACS.
g. Should be equipped with DICOM CD writer for allowing examination of a patient to be written onto a CD in DICOM format for referral purposes.
h. All the software's the digitiser and the printer must from the same manufacturer and the quoted model should be CE/FDA Approved.
i. It should possible to send images to the PACS installed at the hospital
Dry/Laser Imager (For Film Printing)
a. The system must be a Dry/laser Imager, without need of any wet chemistry
b. The system must be DICOM 3.0 Print Service Class Provider, allowing minimum of 10 associations
c. The system must be able to process at least 75 films / hour.
d. The system must deliver its first film within 80 seconds from print request
e. The system must have a spatial resolution of 320 PPI / DPI or more for all sizes printed
f. The system must have at least single online film sizes and should be capable to print on any of the 8" x 10". 10" x 12". 11" x 14", 14" x 17" sizes two film input trays should be freely configurable at user level for all the mentioned film sizes.
g. All the input trays should be freely configurable for loading any of the mentioned film sizes at user level
h. The printer should capable of printing first within 10 minutes after switching on.
Interconnectivity
a. Interconnectivity between various CR modules should be Ethernet/TCP IP Based i.e. RJ 45 Connection (10/100 Base T/LAN)
Essential Software / Feature / Accessories
a. Application related software like black border / black masking should be available
b. A set of CR image plate cleaner should be supplied with the unit

U.P.S		
a. A suitable UPS with at least 30 minutes back up should be quoted with the system.		
Warranty	**:**	**3 years warranty from date of installation**

28.Digital x-ray machine with 2 detectors

Ceiling suspendedDigital Radiography System: 500 mA with Dual detectors

(at least 2 No.s to be procured for each)

Digital Radiography System: 500 mA
Ceiling suspended Digital Radiography System with **dual detectors**for Whole Body Digital Radiography.
A fully digital radiography system capable of detector exposure and image acquisition in vertical, horizontal and oblique positions to perform all skeletal body and chest radiography. Complete system operation with control of generator, X-ray tube and imaging system from a single integrated user interface should be possible.
Generator
Generator should be of latest technology with High-frequency, multipulse generator with inverter principle and automatic exposure control (AEC) for constant output.
Output – Minimum 50 kW or more m A up to 630m A
kV range should be at least 40 kV- 150kV
Output at 100 kV should be 500mA
It should have automatic exposure control device (AEC)
It should have digital display or kV and mAs and ms in the console.
Anatomical programming for different radiography applications should be possible
It should have overloading protection
X-ray tube and Collimator
The X-ray tube should be ceiling suspended with rotating anode, fully compatible with the generator and must have dual focus. Focal spot of the following sizes are required:
Large focus: 1.2mm or less
Small focus: 0.6mm or less
Tube should be with anode heat storage capacity of 300 KHU or more.
Ceiling mounted column support
Ceiling mounted tube column stand support must be provided
Vertical movement of 150 cm or more should be available
Longitudinal movement of 300 cm or more should be available
Transverse movement of 200 cm or more should be available
Specify the SID of the system

Specify the horizontal and vertical tube rotation angle around the respective axes.
Motorized Rotation of tube about vertical axis at +/- 90 degree should be possible with stop position at 0 degree & 90 degree.
X-ray Patient Table
Horizontal Table with floating table top with minimum table height of 57 cm or less and maximum of 80cm or more
Longitudinal tabletop travel should be minimum +/- 47 cm and transverse tabletop travel should be minimum +/- 12 cm and the table movement should be have electromagnetic brakes.
Possibility of taking Patient weight 200kg or more
Whole body head to toe examination of patient should be possible without repositioning.
The grid supplied with the table should be of minimum grid ratio of 10: 1 at focus of 115 cm. Suitable removable grid should be provided
Patient coverage should be 180 cm or more without repositioning should be possible
It should be able to accommodate mobile flat detector system of 35 cm X 42 cm size (14x17" size) or more.
Automatic exposure control should be offered as standard.
Vertical Bucky stand :
The unit should be provided with Vertical Bucky
It should have provision to do chest radiography without grid
The vertical Bucky stand should have an inbuilt fixed flat panel detector system.
The minimum grid ratio of the moving grid on the vertical Bucky should be 10:1 and not less.
Detector systems:
The fixed detector should be of solid state flat detector with suitable scintillator material. Mention the scintillator material being offered CSI.
The size of detector should be 35 x 43cm and should be compatible to both patient table & Vertical Bucky.
The resolution should be minimum of 3.3 lines pair/millimeter
The pixel resolution should be 150 um
Image acquisition and image processing based on body part and viewing position.
The digital workstation should be based on the latest high speed processor of at least 12 bit.
It should have the possibility of acquiring the images from the detector system and retrieval of patient list and examination data from Hospital/Radiology Information systems (HIS/RIS) should be possible.
It should have image storage disk of 10,000images or more.
The system should have ready DICOM Interface and networking capability with RIS/HIS/PACS
Post processing function must be available.

Operating Console station must be provided for image processing , image display, post processing function and networking with anti glare color monitor of LCD type with size 19” with matrix of 1024 x 1024.
The workstation should have aimage storage disc of 1TB or more with a high speed latest processor.
Automatic and selective filming with virtual film sheet should be available
Essential Accessories:
• Dry / Laser Imager a. Resolution: 16 bits/ 500 dpi or more with minimum three trays. b. Support Multiple Film Sizes: one of which must be 17”x14”. c. DICOM Compatible
65KVA Voltage stabilizer for the complete DR system should be quoted along with the unit. It should be of required capacity and the make and capacity of the voltage stabilizer should be specified.
On line UPS with suitable rating and 30 minutes back up for console / digital system should be supplied along with the DR system.
X-Ray equipment offered should have USFDA or CE approvals for quality standard.
Lead glass of 4x2 feet - 1No. The machine should be provided with at least 2No.s lead aprons of 0.5mm lead equivalence
Planning, Installation and Turnkey to be provided by the bidder of approximate 1000sft.
Flooring vitreous, false ceiling, vitreous tiles on walls upto 10 feet high, trenches and railings wherever required.
Air conditioning with 5 star rating, split A/C type of at least 4 No.s
Others:
The generator and the X-ray tube of the system should preferably be from the same manufacturer so that the parameters match with accuracy. The system should be supplied only by reputed X-ray manufacturers with good track record of life of the DR systems including X-ray tube, detector etc.
The system should have all necessary approvals such as AERB Type approval certificate.

Warranty	**:**	**3 years warranty from date of installation**

29.Digital x-ray machine with 1 detector

Floor mounted Digital Radiography System: 500 mA with a single detector

(at least 2 No.s to be procured for each)

Digital Radiography System: 500 mA

Floor mounted Digital Radiography System with **One Portable Detector** for Whole Body Digital Radiography.
A fully digital radiography system capable of detector exposure and image acquisition in vertical, horizontal and oblique positions to perform all skeletal body and chest radiography. Complete system operation with control of generator, X-ray tube and imaging system from a single integrated user interface should be possible.
Generator
Generator should be of latest technology with High-frequency, multipulse generator with inverter principle and automatic exposure control (AEC) for constant output.
Output – Minimum 50 kW or more m A up to 630m A
kV range should be at least 40 kV- 150kV
Output at 100 kV should be 500mA
It should have automatic exposure control device (AEC)
It should have digital display or kV and mAs and ms in the console.
Anatomical programming for different radiography applications should be possible
It should have overloading protection
X-ray tube and Collimator
The X-ray tube should be floor mounted with rotating anode, fully compatible with the generator and must have dual focus. Focal spot of the following sizes are required:
Large focus: 1.2mm or less
Small focus: 0.6mm or less
Tube should be with anode heat storage capacity of 300 kHU or more.
Floor mounted column support
Floor mounted tube column stand support must be provided
Vertical movement of 150 cm or more should be available
Longitudinal movement of 300 cm or more should be available
Specify the SID of the system
Specify the horizontal and vertical tube rotation angle around the respective axes.
Motorized Rotation of tube about vertical axis at +/- 90 degree should be possible with stop position at 0 degree & 90 degree.
X-ray Patient Table
Horizontal Table with floating table top with minimum table height of 57 cm or less and a maximum of 80cm or more
Longitudinal tabletop travel should be minimum +/- 46 cm and transverse tabletop travel should be minimum +/- 12 cm and the table movement should be have electromagnetic brakes.
Possibility of taking Patient weight 200kg or more
Whole body head to toe examination of patient should be possible without repositioning.
The grid supplied with the table should be of minimum grid ratio of 10: 1 at focus of 115 cm.

Patient coverage should be 180 cm or more without repositioning should be possible
It should be able to accommodate mobile flat detector system of 35 cm X 42 cm size (14x17") or more.
Automatic exposure control should be offered as standard.
Vertical Bucky stand
The unit should be provided with Vertical Bucky
It should have provision to do chest radiography without grid
The vertical Bucky stand should also accommodate the same detector as in the table.
The minimum grid ratio of the moving grid on the vertical Bucky should be 10:1 and not less.
Detector systems:
The portable detector should be of solid state flat detector with suitable scintillator material. Mention the scintillator material being offered CSI.
The size of detector should be 35 x 43cm and should be compatible to both patient table & Vertical Bucky.
The resolution should be minimum of 3.3 lines pair/millimeter
The pixel resolution should be 150 um
Image acquisition and image processing based on body part and viewing position.
The digital workstation should be based on the latest high speed processor of at least 12 bit.
It should have the possibility of acquiring the images from the detector system and retrieval of patient list and examination data from Hospital/Radiology Information systems (HIS/RIS) should be possible.
It should have image storage disk of 10,000images or more.
The system should have ready DICOM Interface and networking capability with RIS/HIS/PACS
Post processing function must be available.
Operating Console station must be provided for image processing , image display, post processing function and networking with anti glare color monitor of LCD type with size 19" with matrix of 1024 x 1024. The workstation should have aimage storage disc of 1TB or more with a high speed latest processor
Automatic and selective filming with virtual film sheet should be available
Essential Accessories:
• Dry / Laser Imager a. Resolution: 16 bits/ 500 dpi or more with minimum three trays. b. Support Multiple Film Sizes: one of which must be 17"x14". c. DICOM Compatible
65 KVA Voltage stabilizer for the complete DR system should be quoted along with the unit. It should be of required capacity and the make and capacity of the voltage stabilizer should be specified.

On line UPS with suitable rating and 30 minutes back up for console / digital system should be supplied along with the DR system.		
X-Ray equipment offered should have USFDA or CE approvals for quality standard.		
Lead glass of 4x2 feet - 1No. The machine should be provided with atleast 2No.s lead aprons of 0.5mm lead equivalence		
Planning, Installation and Turnkey to be provided by the bidder of approximate 1000sft.		
Flooring vitreous, false ceiling, vitreous tiles on walls up to 10 feet high, trenches and railings wherever required.		
Air conditioning with 5 star rating, split A/C type of at least 4 No.s		
Others:		
The generator and the X-ray tube of the system should preferably be from the same manufacturer so that the parameters match with accuracy. The system should be supplied only by reputed X-ray manufacturers with good track record of life of the DR systems including X-ray tube, detector etc.		
The system should have all necessary approvals such as AERB Type approval certificate.		
standards like USFDA or CE certificate		
Warranty	**:**	**3 years warranty from date of installation**

30.Flexible nasopharyngolaryngoscope

Specifications:

A. <u>Flexible nasopharyngolaryngoscope endoscopes (Chip on Tip) -01 no</u>

- It should produce sharp images with color spectrum for laryngeal, oropharyngeal and hypopharygeal structure.
- It should have automatic and manual control light intensity.
- Should have electronic zoom upto 2X-1.5 X.

Field of view: 80° - 90°
Direction of view: 0°
Focal/Observation range: 3 mm – 50 mm or better
Working length: 300 mm- 350 mm
Distal End Width: 2.2 to 3.8 mm
Bending angle up / down: 130° / 130°
Ventilating cap: 01 Nos
Leakage Tester: 1

B. <u>Flexible nasopharyngolaryngoscope endoscopes (Chip on Tip) -01 no</u>

- It should produce sharp images with color spectrum for laryngeal, oropharyngeal and hypopharygeal structure.

Field of view:	80° - 140°
Direction of view:	0°
Focal range:	3 mm – 50 mm or better
Working length:	300 mm- 400 mm
Working Channel:	2.0mm or more
Distal End Width:	3.5 to 5.5 mm
Bending angle:	Up / down :130° / 130°
Flexible cleaning Brush:	1
Ventilating Cap:	1
Biopsy valve:	10
Leakage Tester:	1

C. <u>Full HD Video Processor Module</u>:

- Should be compatible with Analog, HD-SDI/3G-SDI/DVI-D(Any two HD Outputs), RGB-TV x 1, S VIDEO x 1, VIDEO x 1(Any two SD Outputs) for a HDTV monitor should be available.
- Should contain the electronics to operate Multi optical zoom for clear visibility of near & far objects.
- Suitable for Optical enhancement technology to provide high Contrast Images while performing Optical Magnifying Endoscopy and while observing microvascular and micro surface patterns of the mucosal layer.
- System should support Close focus up to 1.5 mm to get enhanced image for diagnosis
- Should have LCI (Linked Colour imaging) /RDI & TXI – Advance Image Enhancement Endoscopy, Special light function for detection of surface patterns and vessels and slight color difference should be visualized with natural tone using Red Component.
- Suitable for BLI/BLI-Bright/ NBI/ISCAN-OE, Optical enhancement technology to provide high Contrast Images while observing microvascular and micro surface patterns of the mucosal layer.
- Should be compatible with Optical zoom with provision of Step wise & continuous zoom.
- System should be compatible and upgradable with AI (Artificial Intelligence) in future.
- Equipped with high resolution HDTV Imaging capacity and have stand by option to exchange the Scopes.
- No white balance compulsion.
- Compact, lightweight (10-15 kg) and ergonomically designed.
- Recording of both still & moving images.

- Should be compatible and upgradable with Enteroscopy scopes & EUS system for future up gradation.
- System should be equipped with one touch connection of scopes and should have Contact free technology with Power feed should be through Wireless electrical supply, Image Transmission should be through high-speed optical fiber.
- Portable Memory & USB Slot for image recording with 4 GB internal memory and external USB (2GB) Automatic IRIS control & automatic white balance
- Electronic Zoom 2.0 X or more with Recording of both still & moving images.
- Equipped with automatic light adjustment forced air cooling, regulated air feeding pump and fan with low noise.
- Light weight not more than 12 kg.
- Processor should be latest launch in India at the time of quoting the tender.

D. <u>Light Source (Quantity 1):</u>

- Long life Multi LED light source (3 or more LED bulb) with minimum lamp life of 6000 hours/Xenon 300 watt (additional 5 bulbs to supplied to equate lamp life)
- Backlit front panel indicators.
- Equipped with automatic light adjustment forced air cooling, regulated air feeding pump and fan with low noise.
- Compatible for waterproof one touch connector.
- Compact & light weight design weight up to 15 Kg.
- Integrated/Separate, light weight and ergonomically designed.
- Should be latest launch in India at the time of quoting the tender.

E. <u>Medical Grade Monitor (Quantity 2)</u>

- 26” or more medical grade monitor compatible with the above quoted system.
- Screen size 26 inches or more.
- Medical Grade monitor
- Full HD display (1920x1080)
- Compatible picture in picture display with compatible video processor and endoscopes.

F. <u>System should be supplied with below mentioned items -</u>

- Compatible trolley to mount the system
- HD Reporting and Reporting Software
- Computer system with i5 processor, 8GB RAM & 1 TB HDD or higher
- Laser color printer.
- Biopsy Forceps (2 No.)

Terms and conditions:

- The system must have standard comprehensive warranty of 5 years and should quote CMC for next 5 years.
- Should be European CE/US FDA certified/BIS/CDSCO/Indian Standards.
- CMC offered for the quoted equipment should not be more than 5% of the quoted model with not more than 5% escalation per year after completion of CMC period.
- CMC offered for the quoted equipment must be on OEM letterhead for further years. CMC offered on distributors / vendor letterhead will not be considered
- Installation process should be performed by OEM trained service engineer/ service representative on OEM's letter head/ service report, with a mandatory provision of providing preventive service visits of OEM trained service engineer/ service representative quarterly per year till completion of warranty period (i.e. 20 visits for first five years) and further quarterly visit (04 visits/ year) till the completion of CMC period.
- The installation process must be completed by the OEM/ Service provider within 30 days of supply.
- The accessories/ consumables utilized during the period of installation process should be taken care FOC by OEM/ Service provider.
- The equipment complies with the requirement of the Medical Device Directive of class I equipment and Electromagnetic compatibility; all supporting documents must be provided.
- Equipment should have brand name / model number embossed/ etched on the equipment.

In case of technical snag/ failure/ breakdown, the response time for Inspection should be within 72 Hour and repair within 10 days, otherwise provide a service machine until the period of recovery of breakdown of the unit. Failing which will attract penal action as per the decision of the INSTITUTE (Uptime guarantee of 95%).

31.Vehicles for transport of students/interns/faculty/ paramedical staff to the RHTC and UHTC (BUS with 32 capacity SUV type)

S. NO.	CRITERIA	RANGE
Engine		
1	Engine	Diesel engine

2	Engine Aspiration	Turbocharged with intercooler
3	No. of Cylinders	3 or more cylinders
4	Emission norms	BS-VI
5	Engine Capacity	1999 cc and above
6	Max. Net Engine output	Engine output to be Minimum 100 HP (75KW)@3200RPM
7	Max. Net Torque	285 NM at 1200-2500 rpm
8	Fuel Injection Pump	BOSCH/ MICO/ DELPHI
9	Fire retardant Engine Hood	Insulated with fire retardant material from inside and dampening linerto be provided.
10	Air conditioning	Optional
11	Axle Drive	Rear
12	Color of the Vehicle	Yellow
13	TOP Speed	80 Kmph
14	Breaking Distance	37 mtrs
15	Type of Clutch	Dry, single play, Hydraulic
16	Vehicle Transmission System	Manual
17	No. of Free Services	Minimum 6
18	Warranty	36 months
19	Fuel tank capacity	60 Lt and above
20	Fuel Efficiency	Minimum 6 kmpl with AC on and Minimum of 8 kmpl with AC off

Other Than Engine		
1	Steering	Power steering system only
2	Suspension – Front / Rear	Independent or semi elliptic at front (with anti-roll bar), semi ellipticat rear with anti roll bar. or Parabolic suspension at front and rear with shock absorbers.
3	Tyres	As per ARAI

4	No. of Front and Rear Tyres, spare wheel	2+2 or 2+4 1
5	Turning circle radius	7600 mm to 8000 mm maximum
6	Body & Chassis Painting	Anti-rust coating before external painting must be given for body aswell as under chassis. The manufacturer to specify the treatment given.
7	Place for keeping tools	Extra space for keeping driver belongings along with other tools.
8	Spare wheel	One Spare wheel
9	Front and Rear Bumpers	as per OEM Design
10	Anti-Lock Braking System	Anti-Lock Braking System shall be provided for safety
11	Alternators	As per OEM design
12	Brakes – Front/Rear	As per ARAI (certificate should be enclosed)
13	Type of Shock Absorbers	Hydraulic, Telescopic double acting
14	Load Body Type	Closed Body with side door with low foot step along with Emergency exit and driver door . floor should be anti skid metiral . comfortable seats 2+2 pattern with arm rest . full length and wider hatrack. Fire extinguisher and first aid box should be fitted .

Overall, Body Dimensions:

1	Type of body	Monocoque or Chassis
2	Overall length	8000 mm to 9500 mm
3	Overall width	Minimum 2000 mm
4	Overall height for comfortable standing of 6'personnel without any obstruction to the head	2865 mm and above
5	Ground clearance to have a clear height not to touch speed breaker and stones underneath axle and suspension	Minimum 160 mm – 220 mm
6	Kerb Weight	Up to 5700 Kgs subject to assurance of minimum fuel efficiency as mentioned above
7	Gross Vehicle Weight to carry payload And equipment	9000 kg Maximum
8	Wheelbase to have a good length of vehicle	4000 mm to 6000 mm
9	Pay load	Upto 3300 kg
10	Seating & carrying capacity.	Maximum 38 seats + driver.
11	Floor mat for not to catch fire due to heat	Fire retardant Floor mat
12	Driver Seat with back rest	Adjustable and sliding seat as per ARAI with seat belt.

SECTION – VI

PRE - QUALIFICATION CRITERIA

(Referred to in clause 13.3 of ITB)

I. Terms of Qualification for Equipment:

The Authorized Distributor or manufacturer should have supplied equipment as specified in the schedule of requirements to any Indian Institutions, up to the following quantity in any one of the last three financial years and completed the supplies within the stipulated delivery period. The Supplied units should be in working condition without any adverse remarks for the last two years as on the date of bid notification.

(a). at least equal of the quantity offered or 25, whichever is lowest, if the tender quantity is ≤49 (or)
(b). at least 50% of the quantity offered or 70, whichever is lowest, if the tender quantity is between 50 and 199
(c). at least 35% of the quantity offered or 125, whichever is lowest, if the tender quantity is between 200 and 499
(d). at least 25% of the quantity offered, if the tender quantity is > 500

- The bidder should furnish the information on past supplies and satisfactory performance in the proforma given under Section XI- Format B1, duly attested by the Bid signatory

- Bidders shall invariably furnish documentary evidence (End-user Certificate) in support of the satisfactory operation of the equipment as specified or a CA/Statutory auditor Certificate to that extent as per the format provided in the Section XI- Format B2

- The Bidder shall have an Avg. annual turnover in the last three financial years of not less than the amount specified against each item in the Schedule of the Requirements and also to have a positive net worth as per the latest Annual Accounts.

- Towards the above, the bidder should furnish data as per the Format (B3) given in Section- XI, to support that he has the financial capacity to perform the contract. Further the bidder as to submit the corresponding Balance Sheets and Profit and Loss Accounts for verification

a) The Manufacturer, must have necessary quality certifications for both processes and products such as ISO 9001 (Quality Management System for Organization) and ISO 13485 (Quality Management System for Medical Devices).
b) Full Quality Assurance System Approval certificate Management System Certification for Medical Devices and their equivalent International Standards certificates as BIS/CE/USFDA etc.

II. Terms of Disqualification:

1. The Bidders who has withdrawn their bids in any of the previous tenders of APMSIDC

2. A bidder who is placed on the black-list by either APMSIDC or by any other State /Central government's department or organization for the product offered with his bid in the last 3 years

3. A bidder who is placed on the black-list by either APMSIDC or by any other State / Central government's department or organization in the last 3 years

4. A bidder who is currently blacklisted / debarred either by APMSIDC or by any State Government or Central Government Department or Organization

5. The bidder who has been declared as ‘undependable supplier’ for two (2) items or in two (2) instances in the last one year by the APMSIDC and

6. The bidders against whom there have been reports of substandard Equipment and/or service are liable for disqualification.

Note: In all the above cases, the disqualification cut-off date will be till the contract is signed

III. Not with standing anything stated above, the purchaser reserves the right to assess the Bidders capabilities and capacity to perform the contract should circumstances warrant such an assessment in the overall interest of the purchaser deciding on award.

SECTION – VII (A): BID FORM

(Name and Address of Purchaser)

Date_____

To

Contract No._____

The Managing Director,
APMSIDC, Mangalagiri, Guntur.

Gentlemen:

Having examined the Bidding Documents including Addenda No. _____ the receipt of which is hereby duly acknowledged, we, the under-signed, offer to supply and deliver _____ (Description of Goods and Services) in conformity with the said Bidding Documents for the sum as given in the Price Bid (electronically) or such other sums as may be ascertained in accordance with the schedule of prices furnished and made part of this bid.

We undertake, if our bid is accepted, to commence delivery within 60 (Number) days and to complete delivery of all the items and perform incidental services as specified in the contract within 60 (Number days calculated from the date of receipt of your Notification of Award/Letter of credit.

If our bid is accepted we will obtain the guarantee of a bank in a sum not exceeding 5% of the Contract price for the due performance of the Contract

We agree to abide by this bid for a period of 90 (Number) days from the date fixed for bid opening under Clause 22 of the Instruction to Bidders and shall remain binding upon us and may be accepted at any time before the expiration of that period.

We undertake that, in competing for (and, if the award is made to us, in executing) the above contract, we will strictly observe the laws against fraud and corruption in India like “The Prevention of Corruption Act 1988”

Until a formal contract is prepared and executed, this bid, together with your written acceptance thereof and your notification of award shall constitute a binding contract between us.

We understand that you are not bound to accept the lowest or any bid you may receive.

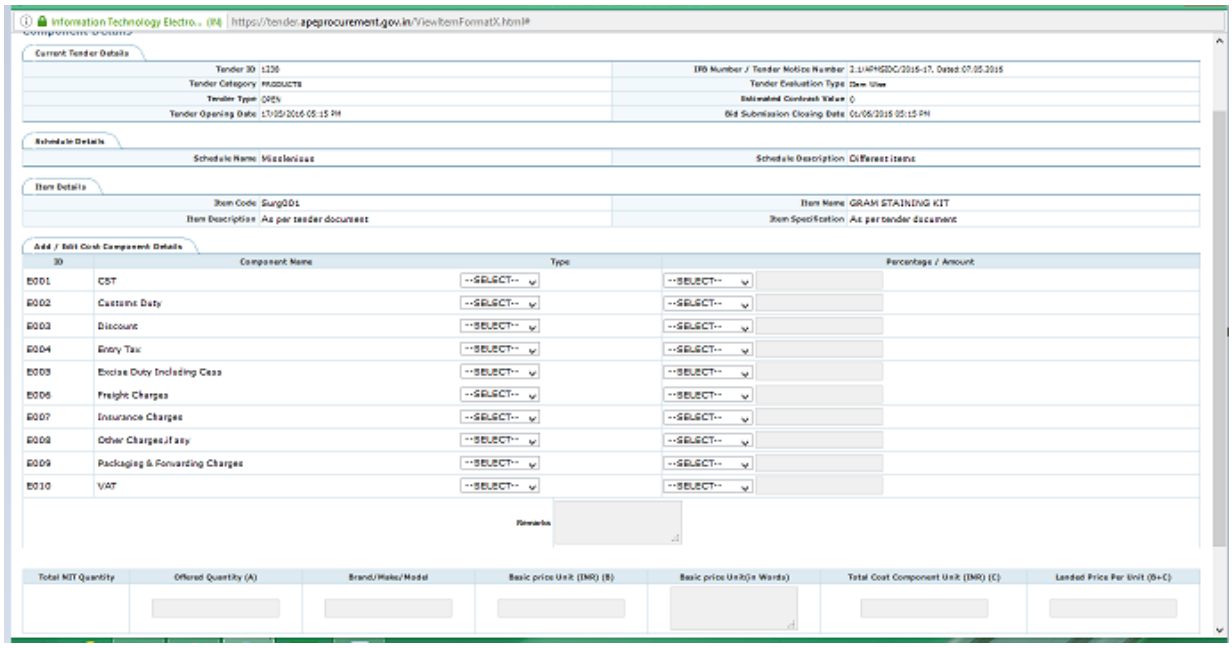
Dated this _____ day of _____

Signature: _____

(in the Capacity of) : _____

Duly Authorized to sign bid for and on behalf of

Section VII (B) - Model PRICE Schedules (available on e-procurement Platform)



SECTION – VIII
Bid Security Form

To

The Managing Director
APMSIDC, Mangalagiri, Guntur.

Whereas _____
(hereinafter called "the Bidder" has submitted its bid dated _____ for the supply of _____ (hereinafter called "the Bid")

KNOW ALL MEN by these presents that WE _____ of _____ having our registered office at _____ (hereinafter called the Bank") are bound unto

_____
____ (hereinafter called "the purchaser") in the sum of _____ for which payment will and truly to be made to the said purchaser, the Bank binds itself, its successors and assigns by these presents. Sealed with the common Seal of the said Bank this _____ day of _____.

THE CONDITIONS of this obligation are:

If the Bidder withdraws its Bid during the period of bid validity specified by the Bidder on the Bid form; or

If the Bidder, having been notified of the acceptance of its bid by the Purchaser during the
period of bid validity:

- Fails or refuses to execute the contract form if required
- Fails or refuses to furnish the performance security, in accordance with the Instruction to Bidders
- Does not accept the correction of the bid price pursuant to Clause 15.7(c).

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

This guarantee will remain in force up to and including 45 days after the period of the bid validity, and any demand in respect thereof should reach the Bank not later than the above date i.e., upto _____.

…….(Signature of the Bank)

SECTION – IX : CONTRACT FORM

THIS AGREEMENT made the _____ day of _____ between _____ (Name of Purchaser) of _____ (Country of Purchaser) (hereinafter "the Purchaser") of one part and _____(Name of the Supplier) of _____ (City and Country of Supplier) (hereinafter "the Supplier") of the other part.

WHEREAS the Purchaser is desirous that certain Goods and ancillary services should be provided by the supplier, viz, _____ (Brief description of Goods and Services) and has accepted a bid by the supply of Goods and services in the sum of _____ (Contract price in Words and Figures) (hereinafter "the Contract Price").

NOW THIC AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the conditions of Contract referred to;

2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz.:

   (a) The Technical and Price bid of the Supplier
   (b) The approved Technical Specifications,
   (c) The General Conditions of Contract,
   (d) The Special Conditions of Contract, and
   (e) The Purchaser's Notification of Award.

3. In consideration of the payments to be made by the purchaser to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Purchaser to provide the Goods and Services and to remedy defects therein in conformity in all respects with the provision of the Contract.

4. The Purchaser hereby covenants to pay the Supplier in consideration of the provision of the Goods and Services and the remedying of defects therein, the Contract price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

5. Brief particulars of goods and services which shall be supplied/provided by the Supplier are as under.

SL NO.	BRIEF DESCRIPTION TO GOODS & SERVICES	QUANTITY TO BE SUPPLIED	UNIT PRICE	DELIVERY TERMS

TOTAL VALUE:

DELIVERY SCHEDULE:

IN WITNESS whereof the parties here to have caused this Agreement to be executed in accordance with their respective laws the day and year first above written.

Signed, Sealed and Delivered by the

Said _____ (For the Purchaser)

in the presence of _____

Signed, sealed and Delivered by the

Said _____ (For the supplier)

In the presence of _____

SECTION- X: PERFORMANCE SECURITY FORM

To

The Managing Director
APMSIDC,
Mangalagiri, Guntur.

WHEREAS _____ (Name of the Supplier) hereinafter called "the Supplier" has undertaken, in pursuance of Contract No. _____ dated _____ to supply _____ (Description of Goods and Services) hereinafter called "the Contract".

AND WHEREAS it has been stipulated by you in the said contract that the Supplier shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with the Supplier's performance obligations in accordance with the Contract.

AND WHEREAS we have agreed to give the Supplier a Guarantee:

THEREFORE WE hereby affirm that we are Guarantors and responsible to you, on behalf of the Supplier, up to a total of _____ (Amount of the Guarantee in Words and Figures) and we under take to pay you, upon your first written demand declaring the Supplier to be in default under the Contract and without cavil or argument, any sum or sums within the limit of _____ (Amount of Guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This guarantee is valid until the _____ day of _____.

Signature and seal of Guarantors

_____

_____

Date _____
Address_____

_____

SECTION XI

FORMAT B1: PROFORMA FOR PERFORMANCE (for a period of last three years)

(Please see Section VI: Qualification Criteria)

Bid No. _____ Date of Opening _____ Time _____ Hours

Name of the Firm

_____

Order placed by _____ _ (Full address of Purchaser)	Order No	Date	Description of Item	Quantity of ordered Items.	Value of order	Date of completion of delivery		Remarks indicating reasons for late delivery, if any	Has the Supplier received full payment towards the supplies made
						Purchase terms	Actual		
1	2	3	4	5	6	7	8	9	10

Signature and seal of the Bid Signatory

_____

_____

_____

SECTION XI

FORMAT B2

CA (STATUTORY AUDITOR) CERTIFICATE

(Please see Section VI: Qualification Criteria)

Certificate from the Statutory Auditor

This is to certify that ..... (name of the Bidder) is a "Manufacturer/Authorized Distributor" of the required items offered under the Bid. The Bidder had supplied the quantities shown in the past performance statement and also completed the respective supplies within the stipulated delivery period/s.

Further it is certified that the previously supplied equipment are reported to be in working condition without any adverse remarks from the respective users and some are working for more than two year as per the records as on the date of this Tender notification.

The bidder has previous experience in maintenance and repairs of equipment for _____ years and has qualified service staff working with him".

Name of Authorized Signatory(CA):
Designation:
Name of firm:

(Signature of the Authorized Signatory)
Seal of the Firm

SECTION XI

B3- FINANCIAL CAPACITY OF THE MANUFACTURER

A. Details of Annual Turnover for Preceding 3 Years.

	Year 1 (2018-19)	Year 2 (2019-20)	Year 3 (2020-21)	Average Annual Turnover
Turn Over (In Rs. Crores)				

B. Details of Net Worth

	Year1 (Last Financial Year i.e. as on 31st March 2021)
Paid up Capital (Rs. Cr)	
(Add) Free Reserves (Rs. Cr)	
Total Net Worth (Rs. Cr)	

_____

(Signature of Bid Signatory)
Seal of the Firm

Certificate from the Statutory Auditor

This is to certify that .....(name of the Bidder) has an average annual turnover (in the last three financial years) and Net Worth (in the last financial year) as shown above

Name of Authorized Signatory(CA):
Designation:
Name of firm:

(Signature of the Authorized Signatory)
Seal of the Firm

SECTION XI

B3-A FINANCIAL CAPACITY OF THE DISTRIBUTOR

A. Details of Annual Turnover for Preceding 3 Years.

	Year 1 (2018-19)	Year 2 (2019-20)	Year 3 (2020-21)	Average Annual Turnover
Turn Over (In Rs. Crores)				

B. Details of Net Worth

	Year1 (Last Financial Year i.e. as on 31st March 2021)
Paid up Capital (Rs. Cr)	
(Add) Free Reserves (Rs. Cr)	
Total Net Worth (Rs. Cr)	

_____

(Signature of Bid Signatory)
Seal of the Firm

Certificate from the Statutory Auditor

This is to certify that .....(name of the Bidder) has an average annual turnover (in the last three financial years) and Net Worth (in the last financial year) as shown above

Name of Authorized Signatory(CA):
Designation:
Name of firm:

(Signature of the Authorized Signatory)
Seal of the Firm

SECTION – XII -A

(Please see Clause 13.3(a) of Instructions to Bidders)

(to be submitted by manufacturers)

MANUFACTURER'S AUTHORIZATION FORM

No._____ dated _____

To
The Managing Director
APMSIDC, Mangalagiri, Guntur.

Dear Sir,

Tender Notice No._____

We _____ who are established and reputable manufacturers of _____ having factories at _____ and _____ do hereby authorize M/s. _____ (Name and address of Agents) to bid, negotiate and conclude the contract with you against Tender Notice No._____ for the above goods manufactured by us.

No company or firm or individual other than M/s. _____ are authorized to bid, negotiate and conclude the contract in regard to this business against this specific Tender Notice.

We hereby declare that we are willing to provide guarantee/warranty and after sales service during the period of comprehensive warranty/CMC/AMC as per the above tender.

We also hereby declare that we have the capacity to manufacture and supply, install and commission the quantity of the equipments tendered within the stipulated time.

We hereby extend our full guarantee and warranty as per Clause 15 of the General Conditions of Contract and read with the Clause 10 of Special Conditions of Contract, for the Goods offered for supply against this invitation for bid by the above firm.

Yours faithfully,

(Name) for and on behalf of M/s.

_____

(Name of manufacturers)

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

SECTION – XII -B

(Please see Clause 13.3(a) of Instructions to Bidders)

(to be submitted by Authorized Distributors))

MANUFACTURER'S AUTHORIZATION FORM

No._____ dated _____

To
The Managing Director
APMSIDC, Mangalagiri, Guntur.
Dear Sir,

Tender Notice No._____

We _____ who are established and reputable manufacturers of _____ having factories at _____ and _____ do hereby authorize M/s. _____ (Name and address of Agents) to bid, negotiate and conclude the contract with you against Tender Notice No._____ for the above goods manufactured by us.

No company or firm or individual other than M/s. _____ are authorized to bid, negotiate and conclude the contract in regard to this business against this specific Tender Notice.

We also hereby undertake to provide full guarantee/warrantee/CMC/AMC as agreed by the tenderer in the event the tenderer is changed as the dealers or the tenderer fails to provide satisfactory after sales and service during such period of comprehensive warranty/CMC/AMC and to supply all the spares/ reagents during the said period.

We also hereby declare that we have the capacity to manufacture and supply, install and commission the quantity of the equipments tendered within the stipulated time.

We hereby extend our full guarantee and warranty as per Clause 15 of the General Conditions of Contract and read with the Clause 10 of Special Conditions of Contract, for the Goods offered for supply against this invitation for bid by the above firm.

Yours faithfully,
(Name) for and on behalf of M/s.

_____
(Name of manufacturers)

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

SECTION - XIII

DECLARATION FORM

I / We …….. having Our …….. office at ……. read and understood the terms and conditions contained in the bidding documents under this notification for bid and offer our bids unconditional, to the extent not stated at any other part of our bid.

We will not quote or supply the equipment/furniture similar to the ones offered under this bid notification to any agency or organization in the country, at the rate lower than the rate quoted in this present tender.

If we found quoting lower rate than the rate quoted to the APMSIDC, to any other agency in the country during the validity of the present contract, we will remit the differential cost to the APMSIDC, unconditionally.

Signature :

Date :

Name of the
Firm and address :

SECTION XIV

Check List of Documents to be Uploaded as part of the Bid and Notes to Bidders

I. Documents with the Technical Bid

Sl. No	Document Description	Documents to be submitted
1	Process Fee 11,800/-	Offline
2	EMD	Online & Offline
3	Bid Form Section VII-A	Online & Offline
4	List of items offered with Make and Model details without prices	Online & Offline
5	Manufacturers Authorization	Online & Offline
6	Past Performance Details Format B1 along with supporting documents	Online & Offline
7	End-User Certificates or CA Certificate as per Format B2	Online & Offline
8	Financial Capability Details Format B3 for Manufacturer	Online & Offline
9	Financial Capability Details Format B3-A Distributor	Online & Offline
10	Details and proof of After-Sales Service facilities	Online & Offline
11	Letter of authorization to sign the bids	Online & Offline
12	Clause-by-clause commentary on technical specifications	Online & Offline
13	Technical and Commercial deviations statements	Online & Offline
14	Copy of the GST Certificate and Details of IT Returns- (Last 3 years), PAN and GST copies.	Online & Offline
15	The Manufacturer, must have necessary quality certifications for both processes and products such as ISO 9001 (Quality Management System for Organization) and ISO 13485 (Quality Management System for Medical Devices)	Online & Offline
16	Full Quality Assurance System Approval Certificate Management System Certification for Medical Devices and their equivalent International Standards certificates (BIS/ CE/USFDA/AERB etc)	Online & Offline
17	Memorandum of Articles	Online & Offline
18	All the uploaded Technical bid, to be attested by a Gazette Officer or properly notarized or self attested	Online & Offline
19	General Information about the tenderer	Online & Offline
20	Declaration form	Online & Offline

Sl. No	Document Description	Documents to be submitted
21	DPIIT Approval, if required	Online & Offline

II. Financial (Price) Bid in the format available with the e-procurement platform

- Please note that the Bidder runs the risk of his bid being rejected if the price schedule contains any conditions.

Notes to Bidders

1. Upload the documents in ZIP format with suitable description as defined above.
2. The scanned documents shall be legible failing which they will not be considered.
3. Sign on all statements, documents, certificates uploaded owning responsibility for their correctness / authenticity.
4. All the statements copies of the certificates, documents etc., enclosed to the Technical bid shall be given page numbers on the right corner of each certificate
5. The tenderer is subjected to be blacklisted and the EMD forfeited if he is found to have mislead or furnished false information in the forms / statements / certificates submitted in proof of qualification requirements or record of performance (Please see Corrupt and Fraudulent Practices Clause)
6. All the Bidders are requested to quote with single option only, for the each item offered and please note that bids with multiple options, for any one or all of the items offered, will be rejected by the purchaser as Non-responsive.

(On Firm letter Head) **Annexure - I**

ANDHRA PRADESH MEDICAL SERVICES CORPORATION LTD

INSTALLATION CERTIFICATE

(to be fiiled jointly by the Tenderer, head of user institution & Representative of the Tender Inviting Authority individually for every equipment)

HOSP CODE/ Hospital Name:			
Equipment Details			
EQPT CODE/ Name of the equipment:		Purchase Order No:	
Make / Manufacturer		Purchase Order Date:	
Model		Purchase Amount	
Serial no.		Project Name	
Location / Department			
Installation Start Date		Completed Date.	
Comprehensive Warranty Start Date		Comprehensive Warranty End Date:	

Preventive Maintenance Schedule (Specify Year & Month)				
YEAR	Visit 1	Visit 2	Visit 3	Visit 4

Contact Details			
SUP.CODE / Name of the Supplier			
Name of Service Engineer		Mobile No.	
Service Centre Manager's name		Mobile No.	
Service center address			

Accessories supplied				
Sl. No.	Item	Qty.	Serial No.	Remarks

To be filled by Institution	
Whether the sticker affixed on all the key components of the equipment or on a conspicuous place in the installed room/storage area?	YES / NO (*tick one)*
Whether a digital Photograph of the installed equipment taken after affixing the sticker in the presence of the hospital personnel?	YES / NO
Whether the Demonstration of the equipment with accessories on the technical specification/key features was conducted to the satisfaction at	YES / NO

the time of installation?			
Whether training was conducted to the satisfaction at the time of installation?			YES / NO
Short supply items, if any			
Remarks of hospital authorities			
Recommend to release payment YES □ NO □		The equipment is working satisfactorily YES □ NO □	
The equipment was installed and handed over on *(Installation date to be fiiled in by the Head of the institution or by the end user)*			
Name of Service Engr.		Sign.	
Name of End User & Department Mobile No.		Sign.	
Name of Bio Medical Engr. & Organization		Sign.	
Signature of the Superintendent. Mobile No.		Sign. & Seal	
Date: Seal of supplier:		Date: Hospital Seal:	

Note: The installation report shall be submitted in a single sheet printed back to back and shall be submitted individually for each equipment installed.

Annexure - II

On Consignee letter Head

Dt:_____

ANDHRA PRADESH MEDICAL SERVICES & INFRASTRUCTURE DEVELOPMENT CORPORATION (APMSIDC)

THREE MONTHS PERFORMANCE CERTIFICATE

(to be fiiled by the head of user institution individually for every equipment)

HOSP CODE / Hospital Name:			
SUP.CODE / Name of the Supplier			
Equipment Details			
EQPT CODE /Name of the equipment:		Purchase Order No:	
Make / Manufacturer		Purchase Order Date:	
Model		Purchase Amount	
Serial no.		Project Name	
Date of Installation		Location / Department	
Whether Equipment working satisfactorily without any problem for one month?		YES □ NO □	
If No, provide details of equipment failure in the first month *(attach additional details if any in a separate sheet)*			

BREAK DOWN DETAILS				
Break down Reported Date	Attended date	Rectified date	Attended by	Details of beak down / service

Present status of the equipment	Working satisfactorily □	Not working satisfactorily □
Recommended to settle the final payment	YES □	NO □
Recommend for trial run for one more month	YES □	NO □
Performance of accessories supplied		
Further Training	Required □	Not required □
Remarks of hospital authorities		
Three month performance certificate was issued on *(date to be filed in by the Head of the institution or by the end user)*		

Name of End User & Department		Sign.	
Signature of the Superintendent.		Sign. & Seal	
Date: Seal of supplier:		Date: Hospital Seal :	

Annexure - III

ANDHRA PRADESH MEDICAL SERVICES & INFRASTRUCTURE DEVELOPMENT CORPORATION (APMSIDC)

WARRANTY CERTIFICATE

(to be fiiled jointly by the Tenderer, head of user institution & Representative of the Tender Inviting Authority individually for every equipment)

Date:

APMSIDC Supply order No: .....dated.....

The equipment ..... *(Equipment Name)* Model No..... bearing serial no ..... was installed successfully at ..... (*Institution Name*) is offered with a comprehensive warranty for a period of ..... Years starting from ..... to ..... including all the following accessories;

Sl. No	Name of the accessory	Manufacturer's name	Equipment Serial No.	Qty

Name of the Supplier: Signature: Seal:	Name of the Supdt. / End User: Signature: Seal:

Annexure - IV

ANDHRA PRADESH MEDICAL SERVICES & INFRASTRUCTURE DEVELOPMENT CORPORATION (APMSIDC)

PREVENTIVE MAINTENANCE CHECK LIST

Equipment Name.

Sl. No.	Activities carried out during Preventive Maintenance visit	Visit 1	Visit 2	Visit 3	Visit 4
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					

Annexure-V

ANDHRA PRADESH MEDICAL SERVICES & INFRASTRUCTURE DEVELOPMENT CORPORATION (APMSIDC)

CALIBRATION CHECK LIST

Equipment Name

Model.

Sl. No.	Parameters to be calibrated	Frequency of calibration required
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		

Annexure-VI

ANDHRA PRADESH MEDICAL SERVICES & INFRASTRUCTURE DEVELOPMENT CORPORATION (APMSIDC)

List of Spare Part

Equipment Name :

Make:

Model

Sl. No.	Spare name	Cost (inclusive of all charges)
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		

Signature :

Date :

Name of the
Firm and address :

Annexure-VII

ANDHRA PRADESH MEDICAL SERVICES & INFRASTRUCTURE DEVELOPMENT CORPORATION (APMSIDC)

GENERAL INFORMATION ABOUT THE TENDERER

Name of the Tenderer

Registered address of the firm

State: District

Telephone. No. Fax. No. Email.

3	Address			
	State		District	
	Telephone No.		Fax	
	Email		Website	

Type of Firm (Please □ relevant box)

4	Private Ltd.		Public Ltd.		Proprietorship	
	Partnership		Society		Others, specify	
	Registration No. & Date of Registration.					
	Nature of Bussiness (			-lease □ relevant box)		
5	Original Equipment Manufacturer		Authorized Dealer /Representative			
	Direct Importer		Others, specify.			

Annexure-VIII

SERVICE CENTRE DETAILS

TOLL FREE NUMBER, IF ANY			
Sl. No	Name and address of the service center (s)	Contact Details	
1		Telephone No:	
		Fax No:	
		Email ID.	
		Name of the Service Engr.	
		Mobile No.	
2		Telephone No:	
		Fax No:	
		Email ID.	
		Name of the Service Engr.	
		Mobile No.	
3		Telephone No:	
		Fax No:	
		Email ID.	
		Name of the Service Engr.	
		Mobile No.	