



NOT TRANSFERABLE

JAMMU AND KASHMIR MEDICAL SUPPLIES CORPORATION LTD.
(Public Sector Undertaking of the Government of Jammu and Kashmir)

Corporate Head Office: Plot No. 58, Friends Colony Satyam Road Trikuta Nagar Jammu
Corporate Office: Opposite J&K Motor Garage Deptt near Hajj House Bemina
Srinagar **Telefax:** 0194-2432008 **email:** jkmsclj@gmail.com;
jkmsclepm@gmail.com **website:** www.jkmsclbusiness.com.



**E BID FOR THE PROCUREMENT OF MACHINERY & EQUIPMENT
(FOR CANCER INSTITUTE)**

(REFERENCE No: NIT/JKMSCL/M&E/2021/488)

DATED: 24 -07-2021

LAST DATE OF SUBMISSION OF ONLINE BIDS: 07-2021 upto 1600 hrs

BIDDING DOCUMENT FOR PROCUREMENT of MACHIUNERY & EQUIPMENTS

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(To be submitted on letter head of Firm)

Bid Submission Letter
(Declaration Form)

Sub: - Regarding Bid submission for **NIT/JKMSCL/M&E/2021/ 488**

DATED 24 -07-2021

I/We..... *(Name, Designation and Address of Bidder)* having our office at..... *(Address of Firm)* do hereby declare that I/We have read all the terms & conditions of the bid document floated by JKMSCL and agree to abide by all the terms & conditions set forth therein.

I/We declare that we are participating in this bid in the capacity of *(Manufacturer /Direct Importer/ Authorized representative of the original manufacturer)* I/We have enclosed all the requisite documents and are as per the requirement of the NIT.

I/We further declare that the rates offered by us shall remain valid for the period of 24 months extendable for a further period of three months and shall reduce the rates, if the rates are reduced by us for any other buyer during this period within Union of India. **I/We have enclosed the documents as per details given in Annexure I of the NIB and other documents asked in NIT.**

We further undertake to abide by all the terms & conditions of the NIB.

Dated

Name and signature of bidder with seal



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Srinagar **Telefax:** 0194-2432008 **email:** jkmsclj@gmail.com;
jkmsclepm@gmail.com **website:** www.jkmscl.nic.in

Tender No. **NIT/JKMSCL/M&E/2021/488.**

Dated:

24.07.2021

NOTICE INVITING TENDER

On Behalf of Jammu & Kashmir Medical Supplies Corporation Limited, e-bid under two cover system (Technical bid in cover 1 and Financial bid in cover-2) is invited for the finalization of Rate Contract for the procurement of **“Machinery & Equipment”** from the Original manufacturers / Direct importers/ Authorized Representatives of the manufacturers/ direct importers. Detailed tender document may be downloaded at J&K Govt. Portal www.jktenders.gov.in, www.jkmsclbusiness.com. The cost of the tender along with tender processing charges of Rs.10,000/- (Rupees Ten thousand only/-) i.e. Rs.1,000/- (Rupees one thousand only) as cost of tender & Rs.9,000/- (Rupees Nine thousand only) as tender processing charges shall have to be paid either through NEFT in the Corporation's Bank Account No.0373040500000032 maintained at J&K Bank Limited, Branch Medical College Jammu, IFSC Code JAKA0MEDJAM or by depositing the amount directly into the above account No. Payable at Jammu/Srinagar (**IMPS money transfer shall not be entertained**).

- i. Scanned copies of Bank transfer/deposit receipt of cost of tender documents and Tender Processing charges in the shape of FDR/CDR shall have to be uploaded along with Technical Bid.
- ii. In place of EMD/Bid Security, only Bid security declaration accepting that ***“If the bidders withdraw or modify their bids during the period of validity and if they are awarded the contract and they fail to sign the contract, or to submit performance security before the deadline defined in the request for bids document, they will be suspended for the period of time specified in the request for bid documents from being eligible to submit Bids”***
- iii. Physical hard copy of technical bid is not required to be submitted.

Sd/-

Managing Director

Jammu and Kashmir Medical Supplies Corporation Ltd.



JAMMU AND KASHMIR MEDICAL SUPPLIES CORPORATION LTD.
(Public Sector Undertaking of the Government of Jammu and Kashmir)

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Corporate Office: Opp. J&K Motor Garage Deptt near Hajj House Bemina Srinagar

Telefax: 0194-2432008 **email:** jkmsclj@gmail.com; jkmsclepm@gmail.com

website: www.jkmscl.nic.in

BIDDING DOCUMENT FOR
Procurement of Machinery & Equipment

Tender No. **NIT/JKMSCL/M&E/ 488**

Dated: 24-07-2021

Date of publication of e-bid

: 24.07.2021

Start date and time for download of bid document

: 24.07.2021

Last date and time for download of bid document

: 27.08.2021 at 1600 hrs

Clarification start date

: 24.07.2021 at 1100 hrs

Clarification end date

: 04.08.2021 upto 1000 hrs

Pre- bid conference

: 04.08.2021 AT 11.00 A.M

(at Corporate Office, Jammu)

Start date and time for submission of online bids

: 24.07.2021 at 1000 hrs

Last date and time for submission of online bids

: 27.08.2021 at 1600 hrs

Date and time for online opening of technical bids

: 28.08.2021 at 1100 hrs

Cost of tender document

: Rs. 1000/-

Tender Processing charges

: Rs. 9000/-

ADDRESS FOR COMMUNICATION:

Managing Director or General Manager,
J&K Medical Supplies Corporation Ltd,

Address- Plot No. 58, Friends Colony
Satyam Road Trikuta Nagar, Jammu

Bemina Near Haj House- Srinagar (Kashmir)

Note: -

1. The bidder shall have to get themselves updated with the date & time fixed for Pre-bid as per the item list. After pre-bid meeting necessary changes in bid conditions shall be done with the recommendations of panel of technical experts drawn from the intending department after the approval of the competent authority. Bid should be submitted through e-portal www.jktenders.gov.in after pre-bid meeting including all the clarifications/ modifications/ amendments.
2. Corrigendum/addendum shall be the integral part of terms & conditions of bid which shall be duly signed and attached with the bid document by the bidder.
3. The JKMSCL is not bound to accept the lowest bid and may reject any/part thereof or all bids without assigning any reason thereof.

4. The bidders shall have to submit a **GST No. and valid 'GST'** clearance certificate/returns submitted from the State taxes Officer and the 'PAN' issued by income tax department.
5. It is clarified that the information required in bidding document should be submitted only in enclosed format bidding forms without any change or modification in its formats. Bids submitted with changed or modified annexure/ formats shall be rejected.
6. Information of award of contract shall be communicated to all participating bidders on the website www.jktenders.gov.in, www.jkmsclbuisness.com

Note: -

1. *If any amendment/clarification is carried out in the technical specifications and bid terms & conditions following pre-bid meeting or any other information, the same shall also be uploaded on the websites mentioned above and the bidders shall keep themselves updated by regularly visiting the website/jk portal.*

Important Note :

1. **No representation shall be allowed, accepted and entertained after the Pre-bid meeting. Bidders are requested to submit their queries/clarifications in advance so that the same can be discussed and clarified during the Pre-bid meeting.**
2. **In view of the COVID19 Pandemic, the Pre-bid meeting may be arranged through Google link which shall be uploaded on the e.portal prior to Pre-bid Meeting**

TABLE-1

S.No.	Item code	Name of the item	Average Annual turnover for last 03 years
1.	ONC01	PET –CT IMAGING SYSTEM	50 crore
2.	ONC02	DUAL ENERGY LINEAR ACCELERATOR	50 crore
3.	ONC03	LOW ENERGY LINEAR ACCELERATOR	50 crore
4.	ONC04	HIGH DOSE RATE BRACHYTHERAPY SYSTEM	50 crore
5.	ONC05	CT SIMULATOR 16 SLICE	50 crore
6.	ONC06	CT SIMULATOR 64 SLICE	50 crore

The Average Annual Turn Over required for the above items pertaining to Group “Procurement of Machinery & Equipment” is mentioned above. Only the bid(s) falling under the category as specified under Annual Turnover is accepted. The bid(s) not falling under the Annual Turnover clause shall be out rightly rejected. Only manufacturer(s) or Importer(s) fulfilling the turnover clause shall be eligible to participate the e.bid.

Note:

1. The catalogues/brochures of the item shall be submitted along with the demand drafts in separate envelopes, 01 day prior to submission of online bids. The catalogues/brochures pertaining to the equipment information should be signed by the authorized signatory of the manufacturer.
2. No minimum quantity is guaranteed and the bidder shall not claim or compensation from the Jammu & Kashmir Medical Supplies Corporation Ltd.
3. Unsigned catalogues/brochures pertaining to the equipment information shall not be considered & the tender for the said firm shall be out-rightly rejected.

DISCLAIMER

The information contained in this bid document for proposed procurement or subsequently provided to the Bidder(s), in documentary or any other form by or on behalf of the Jammu and Kashmir Medical Supplies Corporation Ltd. (procuring entity) or any of its employees or advisors, is provided to bidder(s) on the terms and conditions set out in this bid and such other terms and conditions subject to which such information is provided to the bidder.

Whilst the information in this bid has been prepared in good faith and contains general information in respect of the proposed procurement, the bid is not and does not purport to contain all the information which the bidder may require.

Jammu and Kashmir Medical Supplies Corporation Ltd., does not accept any liability or responsibility for the accuracy, reasonableness or completeness of, or for any errors, omissions or misstatements, negligent or otherwise, relating to the proposed procurement, or makes any representation or warranty, express or implied, with respect to the information contained in this bid or on which this bid is based or with respect to any written or oral information made or to be made available to any of the recipients or their professional advisers and liability therefore is hereby expressly disclaimed.

This document is neither an agreement and nor an offer or invitation by the Jammu and Kashmir Medical Supplies Corporation Limited, (hereinafter referred to as "procuring entity") to the prospective bidders or any other person. The purpose of the bid document is to provide interested parties with information to assist the formulation of their proposal/offer. The information contained in this bid document is selective and is subject to updating expansion, revision, and amendment. Each recipient must conduct its own analysis of the information contained in this bid document or to connect any inaccuracies therein that may be in this bid document and is advised to carry out its own investigation into the proposed procurement, the legislative and regulatory regime which applies thereto and by and all matters pertinent to the proposed procurement and seek its own professional advice on the legal, financial, regulatory and taxation consequences of the entering into any agreement or arrangement relating to the proposed procurement.

This bid document includes certain statements, estimates and targets with respect to the procurement. Such statements, estimates and targets reflect various assumptions made by the procuring entity, (and the base information on which they are made) which may or may not prove to be correct. No representation or warranty is given as to the reasonableness of forecasts or the assumptions on which they may be based and nothing in this bid document is, or should be relied on as, a promise, representation, or warranty. Bid document and the information contained therein is meant only for those applying for this procurement, it may not be copied or distributed by the recipient to third parties, or used as information source by the bidder or any other in any context, other than applying for this proposed procurement.

The procuring entity is, its employees and advisors make no representation or warranty and shall have no liability to any person, including any bidder under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred

or suffered on account of anything contained in this bid document or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the bid document and any assessment, assumption, statement or information contained therein or deemed to form part of this bid document or arising in any way for participation in this bidding process.

The procuring entity also accepts no liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance of any bidder upon the statements contained in this bid document.

The procuring entity may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, assessment or assumptions contained in this bid document.

The issue of this bid document does not imply that the procuring entity is bound to select a bidder or to appoint the selected bidder or bidder, as the case may be, for the procurement and the procuring entity reserves the right to reject all or any of the bidders or bids at any point to time without assigning any reason whatsoever.

The bidder shall bear all its costs associated with or relating to the preparation and submission of its bid including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by the procuring entity or any other costs incurred in connection with or relating to its bid. All such costs and expenses shall remain with the bidder and the procuring entity shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a bidder in preparation or submission of the bid, regardless of the conduct or outcome of the bidding process.

Any information/documents including information/ documents pertaining to this bid or subsequently provided to bidder and/or selected bidder and information/documents relating to the bidding process; the disclosure of which is prejudicial and/or detrimental to, or endangers, the implementation of the procurement is not subject to disclosure as public information/documents.

Managing Director
Jammu and Kashmir Medical Supplies Corporation Ltd

Section-I Instruction To Bidders (ITB)

Before uploading bid, kindly go through the following instructions carefully so that your bid may not be considered invalid:

Clause No.	Description
1.	Go through the terms and conditions, annexure and other forms of the document carefully and meticulously & get your digital signatures available for uploading.
2.	Bid form must conform the terms & conditions of the bid documents and Technical Bid in Cover-'A' & Financial Bid in Cover-'B' to be uploaded on www.jktenders.gov.in. The cost of tender, tender processing fee, in case of DD/FDR and catalogues of the quoted items shall be submitted in the office of JKMSCL atleast one day prior to submission of online bids.
3.	It is expected from all bidders that DD/CDR/FDR/BG in separate envelope shall be deposited with the authorised person of JKMSCL at reception against proper receipt from the concerned.
4.	Correspondences/Complaints lodged to JKMSCL should bear signature, name, I.D proof and mobile number of the complainant. Unauthenticated correspondence/complaints may not be acted upon. If any bidder intends to lodge a complaint or make a suggestion with regards to some bid condition, it shall be done in the Pre-bid conference, in the office of JKMSCL in writing. After the stipulated period as decided by the JKMSCL, no such complaint/suggestion would normally be considered.
5	Certificates/Licenses/Documents which are required should be complete and updated. The bidder shall submit acceptance of terms and conditions of the tender document as annexure All.
6	If there is any query in bid document/uploading process, bidder may contact JKMSCL office at Jammu/Srinagar during working hours i.e 1000 hrs to 1600 hrs on ph. 0191-2580842, 0194-2432008 or e-mail on gmkjkmssl@gmail.com / jkmssclem@gmail.com / gmiijkmscl@gmail.com
7.	In case a bidder is given any assurance what so ever of being provided with any advantage in JKMSCL by anybody or if a bidder is directly or indirectly threatened of being put to some deliberate disadvantage in the bidding process & in the bidder's subsequent association/ working with JKMSCL, it is requested that the concerned must immediately inform about the same to the Managing Director, JKMSCL/G.M-J(Adm), JKMSCL in writing or through e-mail on gmiijkmscl@gmail.com . It is advised that evidence of such unfair activity of such person, if available, is produced along with the complaint, so that action can be taken against such a person(s) and that their details can be put on the website so that other bidders can be forewarned in this regard.

8	The Bidders shall have to submit a GST No. & GST clearance certificate/return submitted from the concerned commercial taxes officer and the 'PAN' issued by income tax department.
9	It is clarified that the information required in bidding document should be uploaded as per enclosed bidding form without any change or modification in its formats. Bids submitted with changed or modified annexure/ formats shall out rightly be rejected.
10	The declaration of technical bid in respect of responsive/non responsive bidders shall be uploaded on website www.jktenders.gov.in Similarly, information regarding financial bid (L-1) shall also be provided to bidders on above websites. Individual bidders shall not be informed separately.
11	No firm/bidder/manufacture/importer shall provide/supply any of the product item at the rate contract /approved by JKMSCL to any of the department/NGO/other procuring institute within or outside the State. In case any supply is made in violation to the said condition (or), the supplier/firm shall be liable to be penalised to the tune of 7.5% of order placed/blacklisting for a period not less than five years (or) both as deemed fit, to the competent/Tender Inviting Authority. However, JKMSCL can procure the items for any of the departments within /outside the Union Territory of J&K/after charging the administrative expenses.
12	The qualified bidders are required to submit the relevant documents and annexure uploaded with their e.bid in original alongwith catalogues at the time of issuance of LOI /execution of agreement before issuance of rate contract.
13	The bidder shall not under any circumstances quote "Zero" anywhere in the BOQ.

14	<p><u>Important Instructions to bidders</u></p> <p>The bidders shall have to abide the clauses/restrictions interms of Rule 144 (xi) of the General Financial Rules (GFRs) issued by the Ministry of Finance, Department of Expenditure, Public Procurement Division vide No. F.No.6/18/2019-PDD dated 23.07.2020.</p> <p>The bidders are required to submit a certificate/ declaration regarding their compliance with this order. If such certificate given by a bidder whose bid is accepted and is found to be false, it will be a ground for immediate termination & further legal action in accordance with law. Bidders are required to go through the said order & Office Memorandum (s) for the necessary compliance</p> <p>Model Certificate for tenders</p> <p><i>"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India. I hereby certify that this border is not from such a country and is eligible to be considered."</i></p> <p>Model Certificate for Tenders</p> <p><i>"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered (where applicable, evidence of valid registration by the competent Authority shall be attached"</i></p>
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Section-II: Bid Data Sheet (BDS)
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Section-II: Bid Data Sheet (BDS)

Clause No.	Description
1.	Introduction
1.1	The Procuring Entity is : Jammu & Kashmir Medical Supplies Corporation Ltd (J&K)
1.2	The expenditure on the subject matter of procurement shall be met by budgetary resources of demanding / indenting officers of the concerned department. The goods and related services to be procured are as per table 1 and <i>as per technical specifications</i>
1.3	The rate contract shall be valid for a period of two years which may be extended for a further period of three months.
2.	Bidding document
2.1	Bids are invited from manufacturers/direct importers/ authorised representatives of the original manufacturers/direct importers. Joint venture will not be allowed.
2.2	The price of the bidding document Rs. 1000/- as tender fee and Rs. 9000/- as tender processing charges (non-refundable)
2.3	BID SECURITY: <ul style="list-style-type: none"> i. Scanned copies of Bank transfer/deposit receipt of cost of tender documents and Tender Processing charges in the shape of FDR/CDR shall have to be uploaded along with Technical Bid. ii. In place of EMD/Bid Security, only Bid security declaration accepting that <i>"If the bidders withdraw or modify their bids during the period of validity and if they are awarded the contract and they fail to sign the contract, or to submit performance security before the deadline defined in the request for bids document, they will be suspended for the period of time specified in the request for bid documents from being eligible to submit Bids"</i>
2.3	The Pre-bid meeting shall be held at the office of JKMSCL, Jammu and Srinagar as per critical dates.
3.	Preparation of Bids
3.1	The language of the bid shall be in English only The Bidder shall uploaded as per the documents reflected in the bid submission letter
3.2	No rate should be quoted/uploaded along with technical bid in all such cases bid shall be rejected outrightly. Rates are to be uploaded on BOQ only.
3.3	Alternative bids are not permitted.
3.4	Discounts or award of combination of lots shall not be offered.
3.5	For goods offered from outside India/direct importer, the bidder shall quote prices including all kinds of costs like inland transportation, taxes, installation and commissioning charges up to the consignee site, complete in all respect including consumables kit for demonstration (if any).

3.6	The terms of quoting price of equipments are inclusive of all taxes/charges with installation and commissioning etc. complete in all respect.
3.7	The prices quoted by the bidder shall be fixed for entire contractual period of equipments. The contract price shall be fixed for a contract period of 24 months of the goods and related services; extendable upto 03 months with mutual consent.
3.8	The currency of the bid shall be multi-currency.
3.9	The bid validity period shall be minimum 180 working days from the opening of technical bid.
3.10	The scanned copy of complete bid document filled and signed on each page as per Instructions to bid (ITB) and other requirements need not to uploaded on website www.jktenders.gov.in . However, declaration regarding acceptance of all the terms & conditions and other clauses as given in the tender document duly notarised shall have to be uploaded along with technical bid.
3.12	The authorisation to sign on behalf of the bidder shall consist of power of attorney by the bidder/any valid certification or the change in bidder shall be resolved in the board of firm/ company which shall be immediately communicated to the JKMSCL. No authorised agent/dealer/supplier shall be allowed to make any declaration which is mandatory required to be made by the MD/chairman/Directors/authorised person designated by the manufacturing company/importer.
4.	Evaluation and comparison of bid
4.1	The price preference shall apply as per GCC and SCC provisions.
5.	Award of Contract
5.1	If the procuring entity does not procure any subject matter of procurements, the bidder shall not be entitled for any claim or compensation. No minimum quantity is guaranteed.
5.2	The period within which the contract agreement is to be executed and performance security is to be submitted is 15 days from the date of receipt of letter of intent (LOI) through email, fax/correspondence etc.
5.3	The performance security shall be required as per GCC-10 @5 % of the value of the indicative quantity in favour of JKMSCL payable at Jammu/Srinagar.
6.	Redressal Grievances during Procurement Process
6.1	<p>I. In case of any dispute, the decision of Managing Director, JKMSCL shall be final and binding.</p> <p>II. If any dispute arise out of the contract with regard to the interpretation, meaning and breach of the terms of the contract, the matter shall be referred by the parties to the Managing Director JKMSCL, J&K who will appoint his senior most officer as the sole arbitrator of the dispute who will not be related to this contract and whose decision shall be final.</p> <p>III. If any bidder or prospective bidder is aggrieved that any decision, action, omission of the procuring entity is in contradiction to the provisions of the Act/Rules of the guidelines issued there under; he may file an appeal to first & final appellate authority, i.e Financial Commissioner to Govt. Health &</p>

	<p>Medical Education Department, J&K within 10 days from the date of such decision, action, omission as the case may be, clearly giving the specific ground(s) on which he/she feels aggrieved. Fee for such appeal shall be Rs. 10,000/- (ten thousand only), 50% of which shall be refundable, if the decision is announced in his/her favour.</p> <p>IV. Any legal dispute shall be within the jurisdiction of Hon'ble High Court of Jammu / Srinagar (J&K).</p>
7.2	<p>Name & Address of the Bidder:</p> <p>Name and Designation.....</p> <p>M/S</p> <p>Telephone No.....</p> <p>Telegram Code Fax No.....</p> <p>Mobile No e-mail address (email of responsible person be intimated)</p>

SECTION III – QUALIFICATION AND EVALUATION CRITERIA

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Section III: Evaluation and Qualification Criteria

2. Qualification Criteria

The lowest evaluated bidder shall have the necessary qualifications to successfully fulfil its obligation under the contract. Minimum acceptable levels with regards to bidder's experience in supply of goods and related services with comparable technical parameters, its financial capability and other factors are defined.

Clause No.	Description
1.	Contractual experience:- The bidder shall be a original manufacturer; direct importer; (or) authorised representative of the original manufacturer/direct importer, who must have manufactured/ imported, supplied and installed such equipments in India satisfactorily. The list of such installations may be asked from the bidder and the bidder should submit self attested copy of purchase order, indent and invoice (inclusive of quantity & rate).
2.	Technical experience:- The goods (similar) offered/ being procured by JKMSCL have been produced and sold for at least three years and have been in operation satisfactorily.
3.	Production capacity : The JKMSCL may fix the minimum supply and/ or production capacity required to assure that the bidder is capable of supplying the type, size and quantity of goods required. It should be dedicated quantity to JKMSCL on monthly and annual basis. Production capacity certificate be attached with uploaded document.
4.	Financial position:- The soundness of the bidders financial position showing long term profitability demonstrated through audited annual financial statement (balance sheet, income statement etc.) for last three years.
5.	Cash Flow capacity : The bidder should have sufficient availability of/ access to liquid assets, lines of credit and other finances to meet the possible cash flow requirement which may arise during the execution of the rate contract.
6.	Litigation history:- The information regarding all pending claims, arbitration, or other litigation is asked by the JKMSCL
7.	Tax clearance certificates:- The GST returns and other tax clearance certificate (latest) or declaration to be submitted by the bidder. Bidders shall have to submit a valid & latest 'GST' clearance certificate/return submitted online as per GST rules alongwith GST No. and the 'PAN' issued by concerned department.
8.	Declaration regarding qualifications :- Declaration regarding qualifications of the bidder shall be given in specified format provided in bidding forms.

1. Evaluation Criteria

Claus	Description
1.	Scope
1.1	Local handling and inland transportation:- The cost for Inland transportation, insurance, related services, installation, commissioning, demonstration and other incidental costs for delivery of goods, or port of entry, or supply point to consignee site, schedule of supply shall be quoted in price schedule.
1.2	Minor omission and missing items:- Pursuant to the relevant clauses, the cost of all quantifiable non-material non-conformities or omissions from the contractual and commercial conditions shall be evaluated. The procuring entity will make its own assessment of the cost of any non-material non-conformities and omissions for the purpose of ensuring fare comparison of bids.
2.	Technical Criteria:- The minimum technical level that the goods and related services shall have in order to comply with the Section V, schedule of supply are specified. These criteria are evaluated on a pass-fail system, with a minimum acceptable level for each criteria enumerated in technical specifications of item. However, a minor deficiency in technical compliance may not be cause for rejection of the bid.
3.	Economic Criteria: - The economic criteria are most important when evaluating a Bid. The price, however, may not be the only criterion, as there could be technical evaluation that may be expressed in mandatory terms <i>i.e.</i> cost per test etc. The following may be examples: - 3.1, 3.2....
3.1	Adjustment for deviations in the delivery and completion schedule: - The deviation from the delivery and completion schedule specified in Section V, schedule of supply are permitted. No credit will be given for earlier completion.
3.2	Operation and maintenance cost : The operation and maintenance costs of equipments are taken into account for bid evaluation purposes. The methodology is elaborated at BOQ for determining lowest bid (L-1) Generally, the life cycle of equipment and its comprehensive maintenance period is defined in technical specifications. Presently, maintenance costs are evaluated at their present value over the life cycle of the goods and then added to the price of the goods for comparison of bids.
3.2	Spare parts: - Only those spare parts and tools which are specified on an item wise basis in the list of goods and related services Section V, schedule of supply shall be taken in account in bid evaluation. Supplier recommended spare parts for specified operating requirement shall not be considered in bid evaluation. The price for evaluating L1 (as per BOQs) shall be decided on the basis of cumulative rates of Main item, Accessories (wherever asked) /Indian items (wherever asked) i.e cost of main item + cost of Accessories = Total cost of equipment.
3.3	Performance and productivity of goods:- The performance and productivity of the equipments shall be as per the reference value or norms specified in technical specification of an item and corresponding value guaranteed by the bidder in its bid.
4.	Price preference:-

4.1	The price preference shall be given in evaluation of bids and award of contract as per MSME Policy in vogue.
4.2	Taxes as applicable, should be mentioned clearly and separately.

Section IV: Bidding Forms

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10.	List of Items Quoted (Annexure IX)	

(To be submitted on Firms' letter head)
Technical Bid Submission Sheet (Cover 'A')

Managing Director

Jammu & Kashmir Medical Supplies Corporation Ltd.

J&K

We, the undersigned, declare that:

1. I/Wehave examined and have no reservations to the bidding document of NIB No. dated.....including addenda/clarification No.:.....dated We offer to supply in conformity with the bidding document and in accordance with the delivery schedule specified in Section V, schedule of supply, the following goods and related services..... *Name of the item and Guarantee period plus etc.*
2. Our bid shall be valid for a period of minimum 180 working days from the date of technical bid opening in accordance with the bidding document, and it shall remain bidding upon us and may be accepted at any time before the expiration of that period. However, validity may also be extended with mutual consent;
3. If our bid is accepted, we commit to submit a performance security in the amount of 5% of the contract price or as specified in bid document for the due performance of the contract;
4. Our firm, including authorised representative for any part of the contract, have nationalities from the eligible countries;
5. I/We are not participating, as bidders, in more than one bid in this bidding process, in the bidding document;
6. Our firm, its affiliates or subsidiaries, including authorised representative has not been debarred by the Union Govt/any State Government or the procuring entity.
7. I/We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed;
8. I/We agree to permit the JKMSCL to ask any relevant documents. I/We shall be bound to provide the said relevant document within the specified period.
9. My/our quoted items..... *(Name of item)*.....fully comply with the technical specifications as per bid document Section V, schedule of supply.
10. **The bidder shall ensure that the bid document sheet shall be properly filled with particulars, page numbering and tender document should be properly numbered.**
11. I/We certify that I/We have annexed the following documents with particulars & page No. mentioned against each column :

S. No	Item	Particular	Attached at (Page No.)
1.	Technical bid submission sheet duly filled	Annexure I	
2.	Bid security (as mentioned above)		
3.	Bid / Tender charges (Incl. Tender processing fee)		
4.	Self attested photocopy of IEC certificate of the Importer		
5.	Copy of GST Registration of the Bidder		
6.	Latest GST Returns of the Bidder		
7.	Copy of the PAN Card of the Bidder		

8.	Nature of the Firm/Public Company / Private Company/ Partnership/ Proprietorship/any other with Documentary proof.		
9.	Authorisation from principal manufacturer / Importer <i>(On the letterhead of Principal manufacturer / Sole Importer) In case authorization to the bidder is furnished by the Sole Importer/Indian Subsidiary, document confirming authorization from foreign Principal Manufacturer in favour of Indian Subsidiary / Sole Importer is to be submitted.</i>	Annexure VI	
10.	Average Annual Turnover Statement for Last 3 financial Years of the Principal Manufacturer / Indian Subsidiary of Principal Manufacturer/ Sole Importer issued by Chartered Accountant/competent authority with UDIN.	Annexure VIII	
11.	Copies of Audited Balance sheet & profit loss account for last three financial years certified by Chartered Accountant or Solvency Certificate issued by the Banker of the Manufacturer / Importer/Indian Subsidiary		
12.	Affidavit for Latest Non Conviction and Non blacklisting on non judicial Stamp paper of Rs 100 furnished by the Principal Manufacturer / Sole Importer/Indian Subsidiary as per proforma.	Annexure IV B	
13.	Affidavit for Latest Non Conviction and non blacklisting on non judicial Stamp paper of Rs 100 furnished by the Bidder as per proforma.	Annexure IV A	
14.	Client Base in India on Letter Head of the Bidder / Manufacture/Indian Subsidiary of Principal Manufacturer with references of the supply orders, for the last three years (Copies of reference supply orders needs to be attached)	Annexure V	
15.	Copy of GST Registration of the Manufacturer/Importer/Indian Subsidiary		
16.	Acknowledgement of EM-II SSI unit for each quoted Product and a certificate from NSIC/MSME for the production capacity & the quality control measures properly installed at the production unit, If applicable		
17.	Acknowledgement of EM-II for SSI Units of J&K from Industries Department (if applicable). Applicable for the firms Registered under SSI Units of J&K		
18.	Quality Certifications on the products viz. ISI/CE/USFDA etc. whichever applicable.		
19.	Name, photograph & specimen signature of the designated officer/ representative of the Bidder who is authorized to make correspondence with the JKMSCL, if any.		
20.	Specify point of supply with full Address. NB: Specifying of point of supply does not means authorization to raise, invoice and receive payments on behalf of bidder(s)		
21.	List of Items quoted by the Bidder mentioning name of manufacturer/ importer, make & model as per annexure.	Annexure IX	
22.	Letter of acceptance for terms & conditions		
23.	Copy of Catalogue of the Quoted product (self attested)		

24.	Compliance Sheet for each equipment (self attested)		
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I/we understand that our bid shall liable to be declared non responsive in case of any deficiency in fulfilment of above requirements on our part.

I/we accept all the terms, conditions and provisions of this bid document.

Name/Address.....

in the capacity of.....

(Designation)..... Signed.....

duly authorized to sign the bid for and on behalf of.....

(Name of Firm).....

Dated..... Tel:.....Fax:.....e-mail:.....

N.B : The original manufacturer/direct importer of the bidding items/their sole authorised representative shall execute tri-partite agreement with the Corporation i.e JKMSCL, inter-alia, stating that :

i. The invoice submitted by the authorised representative for such supplies shall be endorsed by the original manufacturer/direct importer of bidding items. Original copy of the delivery challan of the manufacturer towards authorised representative for such supplies shall be endorsed along with invoice submitted by Authorised representative.

ii. JKMSCL may secure confirmation/or authenticating of such supplies from manufacturer/direct importer before releasing the payment.

iii. **No original manufacturer/direct importer shall be allowed to authorize more than one representatives to bid, to negotiate/to raise invoice or to receive payments & to enter into tripartite agreement with regard to business against this specific tender.**

iv. ***In case, original manufacturer/direct importer wish to authorise any representative to bid, to negotiate, to raise invoice to receive payments on behalf of original manufacturer/direct importer/against invoice raised by representative, Annexure All duly filled shall need to be uploaded alongwith e.bid ; otherwise no representation in this matter shall be entertained in the later stage.***

**ITEM WISE FINANCIAL BID (BOQ)
For Uploading Rates of Equipment**

S. No.	Item Description	Item Code	Unit	Qty	Currency type	Basic Equipment cost for one unit	Packing & forwarding charges/freight insurance charges	Indian Agency Commission for 1 unit in foreign	Custom Duty	SGST	CGST	IGST	Custom clearance in foreign	Total Amount including Taxes
1	2	3	4	5	6	7	8	9	10	11			12	13
	Main item													
	Accessories, if any.													
	Indian items													

CMC for 1st Year	CMC for 2 nd Year	CMC for 3 rd Year	CMC for 4 th Year	CMC for 5 th Year	Total amount including CMC
14	15	16	17	18	19

Note: -

- The rate quote should be as per BOQ.
- CGST , SGST OR IGST should be separately shown.
- Rate should be quoted only for packing units as mentioned in the bid
- No quantity or cash discounts should be offered.
- Read all the terms & conditions before filling the Annexure III.
- Please quote rates in absolute amount only.
- Please quote rates per unit only
- The bidder shall not under any circumstances quoted "Zero" anywhere in the BOQ including CMC. If the Bidder wishes to provide CMC "**free of cost**", same should be indicated in the relevant column of BOQ by quoting Re 1.00
- Finalization of the rates shall be made on the basis of price quoted in BOQ including CMC of five years i.e Total amount including cumulative CMC for 05 years (after 05 years guarantee period)
- Custom duty, if applicable shall be indicated separately.
- The final rates quoted at Column No. 19 shall be considered as final rates and shall be considered for evaluating financial bid. L1 rate shall be finalised on the basis rate + CMC and taxes as applicable at the time of execution.
- The price for evaluating L1 (as per BOQs) shall be decided on the basis of cumulative rates of Main item, Accessories (wherever asked) and CMC i.e cost of main item + cost of Accessories+ Indian items + CMC = Total cost of equipment.**

The bidder may quote in foreign currency as per the BOQ uploaded in the e.portal on the following terms & conditions

(For Imported equipment)

Letter of credit would be opened subject to following additional conditions :

- At site LC would be opened.

2. LLOYD A level vessel would be used for shipment of supplies which should not be more than 15 years old.
3. Supplies shall be insured vide comprehensive Insurance Policy including machine insurance by the OEM till the final delivery site shall also include "Force Majeure".
4. Pre-dispatch inspection shall be carried out by OEM by certified inspection agency before shipment of supply.
5. **The CIF (cost insurance freight)/CIP (cost insurance price) upto New Delhi, should be in Foreign Currency, payable by the Principal company in that currency only as per the mode of L.C stipulations. The CIF prices shall be borne by the firm upto site.**
6. **The custom duty shall be paid as actual on the production of documentary proof. No Custom duty exemption certificate shall be issued by JKMSCL to facilitate custom clearance on the concessional rates.**
7. **CIF price of optional accessories, if any, Percentage of Indian direct Importer/authorized representative's percentage (Indian agency commission), if any, on FOB (Freight on board) Price which shall be payable to the Indian direct Importer (Indian Agency) in Indian currency at the exchange rate as mentioned below. However local accessories, if quoted in Indian currency, GST shall be paid as admissible under rules.**
8. **The prices quoted should be as per the international price of the manufacturer applicable to all the countries including India.**
9. **The L1 shall be calculated on the basis of conversion of currency as on date of opening of financial bid.**

Exchange Rate :

Rates prevailing at the time of opening of financial bid or at the time of actual delivery of Ordered Material whichever is lower shall be applicable.

PLEASE DON'T WRITE 00 AGAINST THE ITEMS FOR WHICH YOU DIDN'T WISH TO QUOTE ; INSTEAD, LEAVE THE COLUMN BLANK" AGAINST THE SAID ITEM; AS THE SYSTEM TAKES RS. 00.00 AS L1.

Declaration and Undertaking by the Bidder

(On Non Judicial Stamp Paper worth Rs. 100/- Attested by Notary Public and submitted with Cover-'A')

1. I/We..... (Name of firm) certify that the quoted model (of quoted item) is of latest technology and is not outdated.
2. I/We certify that the rates (of quoted item) are reasonable and not sold on lower rates to anyone than charged from JKMSCL.
3. I/We do hereby accept condition of guarantee period with spare parts of each quoted equipment as per terms & conditions and/or technical specifications. (From the date of installation/ demonstration).
4. (a) I/We do hereby undertake that our company/firm has not been **black listed/banned/debarred/Convicted** by Union Govt. or any State Govt. or their subordinate departments from participation in bidding.
- (b) I/We do hereby declare that our company/firm has been black listed/banned/debarred/convicted by..... (Name, Address of Govt./dept./State) and detailed information is as given below:
 - (i) Cause of blacklisting/banning/debarring/conviction.
 - (ii) For which item.....
 - (iii) Period of black listing/banning/debarring/ conviction.
 - (iv) Latest Status of black listing/banning/debarring/ conviction.
4. I/We hereby confirm that we have deposited all the GST/all applicable taxes as on date of submission of tender with the concerned authority/department. No GST/other taxes is due on the firm as on date of submission of tender.
5. I/we do hereby agree to the condition that JKMSCL may, if deemed fit go for the third party maintenance under Comprehensive equipment maintenance programme of Govt. of India.

VERIFICATION & DECLARATION

I/we.....S/o.....age d.....years residing at authorized bidder/proprietor/ partner/director of firm M/s..... verify and confirm that the contents of bidding documents , its bidding forms, Annexures and other information submitted for bid no.

..... are true and correct to the best of my knowledge and nothing has been concealed therein.

In case, any variation/discrepancy/wrong declaration is found during scrutiny at later stages, I/We shall be held personally responsible & JKMSCL may take any action including blacklisting/debarring of my/our firm for a period not less than 05 years

Place :-
Dated:-

Signature of the Deponent
Name :
Designation

**Declaration of Manufacturer/Direct Importer/Indian Subsidiary
To be submitted on non judicial stamp paper of Rs. 100 duly notarised**

Date:_____ NIB No.:_____

I/We a legally constituted firm/body..... (Name of Firm/Company with address) and represented by Mr..... (Name of Bidder/Sole proprietor/ CMD/ Chairman) declare that I am/we are (manufacturers/direct importer) in the goods and related services for which I/we have bid.

I/we further declare that:-

1. The items **(as per Annexure IX)** (Name of item) is/ are (manufactured/imported) at our premises at (Address of factory & office).
2. I/We..... (Name of firm) certify that the quoted model (of quoted item) is of latest technology and is not outdated.
3. I/We do hereby accept condition of guarantee period with spare parts of each quoted item as per terms & conditions or technical specifications. (From the date of installation/ demonstration).
 - a. Our company/firm has not been **black listed/ banned/ debarred/convicted** by Union Govt. or any State Govt. or their subordinate departments from participation in bidding.
 - b. Our company/firm has been black listed/banned/debarred/ convicted by (Name, Address of Govt./dept./State) and detailed information is as given below:
 - (i) Cause of black listing/banning/debarring/ conviction.
 - (ii) For which item.....
 - (iii) Period of black listing/banning/debarring/ conviction.
 - (iv) Latest Status of black listing/banning/debarring/ conviction.
4. I/We hereby confirm that we have deposited all the GST/all applicable taxes upto the date of submission of tenders with the concerned authority/department. No GST/other taxes is due on the firm as on date.
5. We undertake that in case of change of dealership, we shall be responsible for providing preventive services and maintenance of the equipment free of cost during the warranty period.
6. We fully qualify the laid down terms & conditions of the NIB including Turnover class.

VERIFICATION & DECLARATION

I/we.....S/o.....aged..... years residing at authorized bidder/proprietor/partner/director of firm M/s..... verify and confirm that the contents of bidding documents , its bidding forms Annexure I to Annexure VIII and other information submitted for bid no. are true and correct to the best of my knowledge and nothing has been concealed therein.

In case, any variation/discrepancy/wrong declaration is found during scrutiny at later stages, I/We shall be held personally responsible & JKMSCL may take any action including blacklisting/debarring of my/our firm for a period not less than 05 years

Place :-
Dated:-

Signature of the Deponent
Name :
Designation

Client Base In India (Item wise)

On letter Head of Bidder / Manufacture/Indian Subsidiary of Principal Manufacturer

I/We..... (Name of firm.....) do hereby certify that our client base in India for the offered equipments are as under (please give references of the supply orders, for the last three years).:-

Item Code	Name of the Item	Client list	Reference to supply order

1. It shall be submitted with technical bid and the above information should be verifiable from relevant documents of the bidder.
2. Firm should have market standing of the quoted product in last three financial years.
3. The different variants of same equipment may be considered.
4. In case of supply of imported item(s), the suppliers may be asked to furnish a certificate and other information to the effect that the firm has completed all the formalities including bill of entries in custom in connection with import of the item in question.

Place

:

Date

d :

Signature of bidder with Seal.

AUTHORISATION from principal manufacturer/importer/Indian Subsidiary

(On the letterhead of Principal manufacturer / Sole Importer/Indian Subsidiary)
In case authorization to the bidder is furnished by the Sole Importer/Indian Subsidiary, document confirming authorization from foreign Principal Manufacturer in favour of Indian Subsidiary / Sole Importer is to be submitted.

The Managing Director
 Jammu and Kashmir Medical Supplies Corporation Limited
 J&K

Subject: Regarding authorisation for our products.

Ref.: Your NIB no.dated.....

Name of items.....

Dear Sirs,

I/we.....(Name) for M/S.....(Name of firm) who are proven and reputable manufacturers(Name of item) having factory at (Address of Factory and Office) hereby authorize M/S..... (Name of Bidder firm) to submit a bid, process the same further and enter into a contract with you against your requirement as contained in the above referred bid documents/NIB for the above goods manufactured / imported 2by us.

I/we further confirm that no supplier or firm or individual other than M/S..... (Name of bidder firm), is authorised to submit a Bid, process the same further and enter into a contract with you against your requirement as contained in the above referred bid documents for the above goods manufactured by us.

I/we also hereby extend our full guarantee, as applicable as per bid conditions of contract, read with modifications/addendum, if any, in the general/special conditions of contract for the goods and services offered for supply by the above firm against this bid document.

I/we also hereby confirm that we shall also be responsible for the satisfactory execution of contract placed on the authorized Firm. In case of default of authorised representative (or) otherwise, we shall also be responsible for the satisfactory execution of contract placed on the authorized Firm & penalty, if any, for non-execution of contract by the authorised representative shall be borne by us.

This authorization shall be valid till the completion of rate contract period and related services i.e. guarantee and comprehensive maintenance obligations, etc., whichever is later.

Yours faithfully,

(Name & Signature)..... verification and signature by bidder
 For M/s Seal and address of bidder
 AUTHORISED SIGNATORY

Accepted by the authorized Bidder Mr.....
 (Signature, Name & Address).....

(On Firm's letter head)
Memorandum of Appeal

Appeal no..... of..... Before the.....
(appellate authority)

1. Particulars of appellant:
(i) Name of the appellant:
(ii) Official address, if any:
(iii) Residential address:
2. Name and address of the respondent(s):
(i)
(ii)
(iii)
3. Number and date of the order appealed against and name and designation of the officer/ authority that passed the order (enclose copy), or a statement of a decision, action or omission of the procuring entity in contravention to the provisions of the Act by which the appellant is aggrieved:
4. If the appellant proposes to be represented by a representative, the name and postal address of the representative:
5. Number of affidavits and documents enclosed with the appeal:
6. Ground of appeal:
.....
.....
..... (supported by an affidavit)
7. Prayer:.....
.....
.....

Demand Draft of Rs..... bearing No.dated
..... as appeal fees

Place
Dated

Appellant's signature

((On letter head of Chartered Accountant))

ANNUAL TURN OVER STATEMENT

The average annual turnover of M/S..... (Name of Firm)..... and address

..... for the past three years are given below and certified that the statement is true and correct:-

It is further certified that the Annual Turnover Statement has been prepared strictly as per returns filed with Taxation Department for the year 1st year, 2nd year & 3rd year and shall be responsible, if any variation/discrepancy is found during evaluation /later stage.

Sl. No.	Financial Years	Turnover in Lakhs (Rs.)
1.	1 st year	-
2.	2 nd year	-
3.	3 rd year	-
Total		- Lakhs

Average gross annual turnover _____ Lakhs

Note :

1. To be prepared strictly as per returns filed with Taxation Department & the statement should be supported with returns filed for the last three financial years.
2. The turnover should be supported by the balance sheets of the respective years.
3. The Certificate issued by Taxation Department shall also be considered for turn over certification.
4. **The Average Annual Turn Over required for the item(s) pertaining to the Group "Procurement of Machinery & Equipment" is as per Table 1. Only the bid(s) falling under the category as specified under Annual Turnover is accepted. The bid(s) not falling under the Annual Turnover clause shall be outrightly rejected.**

Date

Signature of the bidder

Signature of Auditor/Seal
Chartered Accountant
(Name & Address.)

Tel. No.
UDIN NO.

(Annexure IX)

On Firm's letter head

LIST OF ITEMS QUOTED IN THE BID

S. No.	Ten der Sr. No.	Code	Name of Item	Manufactured By	Imported by	Model quoted/ offered configuration	<u>Quality Certification</u>			
							BIS License	ISO	CE/ 	USFDA

Section V: Schedule of Supply

Table of Contents

S. No.	Description	Pages
1.	List of goods and related services	
2.	Delivery and completion schedule	
3.	Technical specifications	
4.	Drawings	
5.	Inspections and tests	

Section V: Schedule of Supply

Clause No.	Description
1	List of goods and related services
1.1	Name of item.....
1.2	Related services are delivery, local transportation, installation, commissioning, demonstration and training etc.
1.3	Guarantee period starts from the date of successful installation for a period of five years.
1.4	Comprehensive maintenance contract shall be executed for a period of five years from the date of completion of guarantee period. However, JKMSCL may, if deemed fit, enter into third party agreement under comprehensive equipment maintenance programme, Govt. of India.
2	Delivery and completion schedule
2.1	SUPPLY ORDERS AND SUPPLY SCHEDULE:
2.1.1	Supply order shall be placed through registered post/e-mail/any communication medium by the JKMSCL. The date of receipt of e mail/fax/other communication shall be treated as the date of order for calculating the period of execution of order. The successful bidder shall execute the orders within a delivery period of 60 days or as specified in the supply order from the date of issuing supply order and handing over of space with the availability of power & other requisite installations by the end users.
2.1.2	In case of imported items, 30 days will be given in addition to above mentioned period, as mentioned in condition No. 2.1.1 above.
2.1.3	The successful bidder shall acknowledge the receipt of orders, if any, within 7 days from the date of dispatch of order, failing which the procuring entity may be at liberty to initiate action to purchase the items on risk & cost purchase provision. However finalization of annual Rate contract does not mean mandatory issuance of supply order. Supply order shall be as per the requirements of items at various end-users.
2.1.4	The Site of delivery shall be Drug ware House of JKMSCL or as per the requirement of the Department . The bidders can visit the site after seeking permission from the competent authority before quoting their rates.
2.1.5	To ensure sustained supply without any interruption, the JKMSCL reserves the right to have more than one approved supplier from amongst the qualified bidders on L1 matched rates only. In such a case, the requirement may be met by dividing be quantity among the R/C holders considering the quantity required and dedicated capacity of the successful bidders.
2.1.6	The ready stock position of the item, if provided by the firm, may be considered by the corporation for the placement of supply orders.
2.1.7	It may be noted that the JKMSCL does not undertake to assist in the procurement of raw material, whether imported or controlled or restricted, and as such the bidders must offer their rates to supply the

	specific items from own quota of raw material stock by visualizing the prospect of availability and requirement. Any of the above points if taken, as argument for non-supply/delayed supply will not be entertained.
2.1.8	The figures indicated, if any, do not constitute any commitment on the part of JKMSCL to purchase any of the articles and the quantities shown therein against each or in any quantity whatsoever and no objection against the quantity of the indent of approved item being more or less than the indicative quantity will be entertained and shall not be acceptable as a ground for non supply of the quantity indented.
2.2	PROCURING ENTITY'S RIGHT TO VARY QUANTITY:
2.2.1	If the JKMSCL procures less than the quantity indicated in the bidding documents (if asked) the bidder shall not be entitled for any claim or compensation except otherwise provided in the conditions of contract.
2.2.2	If the bidder fails to supply, the JKMSCL shall be free to arrange / procure the item(s) from other sources and the extra cost incurred shall be recovered from the supplier.
2.3	SUBMISSION OF CONTRACT COMPLETION REPORT
2.3.1.	A consolidated statement shall be submitted to General Manager, EPM by the 10 th of each month. Every time the statement should contain details of all orders placed under the contract.
2.3.2	Firms shall have to submit consolidated statement in duplicate at the end of rate contract as well as after expiry of equipment / instrument guarantee period (as provided in guarantee clause of the contract) to enable the corporation to examine the case for refund of performance security.
2.3.3	The consignee shall intimate the contract /supplier about the defect (s) at once in such a manner, so as to reach the office of the firm immediately and before completion of guarantee period. It shall be the responsibility of the consignee to get the complaint of guarantee period. It shall be the responsibility of the consignee to get the complaint of defective equipment of defective performance registered immediately with the office of JKMSCL.
2.5	PACKING & INSURANCE:
2.5.1	The good shall be delivered at the destination in perfect condition. The firm if so desires may insure valuable goods against loss by theft, destruction or damages by fire, flood, under exposure to weather of otherwise in any situation. The insurance charges will have to be borne by the supplier and the corporation shall not be required to pay any such charges, if incurred.
2.5.2	The firm shall be responsible for the proper packing so as to avoid damages under normal conditions of transport by sea, rail, road or air and delivery of material in good condition to the procurement officer's store. In the event of any loss, damage, breakage or leakage or any shortage the firm shall be liable to make good such loss and shortage found at destination after the checking/inspection of

	material by the consignee. No extra cost on such account shall be admissible. The firm may keep its representative to verify any damage or loss discovered at the consignee's store, if it so likes.
2.5.3	The material received with damaged packing (or) without packing as per terms & conditions of NIT (or) in damaged state, shall be liable to the minimum penalty of 2.5% of the value of the damaged item (or) quantity received with damaged packing. Further packing, cases, containers and other allied material if any shall be supplied free, except where otherwise specified by the firm(s) and agreed by the corporation and the same shall not be returned to him.
2.5.4.	<p>Packing specifications</p> <p>Schedule for packing – General specifications</p> <ol style="list-style-type: none"> 1. All items should be packed only in first hand boxes only. 2. Label: Every box should carry a large outer label clearly indicated that the product is for <u>“JKMSCL Supply” for the year, “Not for Sale”</u> and it should carry the correct technical name, strength or the product, date of manufacturing, date of expiry, quantity packed and net weight of the box in bold letters. <p>Note: The weight/size of the box for packing the item may vary for the safe delivery/installation of equipment. Any deviation in the packing, if necessary shall be made after getting permission from JKMSCL.</p>
2.6	REJECTION OF GOODS:
2.6.1	Articles not as per specification/ or not approved shall be rejected by the corporation / consignee and will have to be replaced by the supplier firm at its own cost within 15 days or with time limit fixed by the corporation.
2.6.2	All the stores supplied shall be of the best quality and conforming to the specification, trademark laid down in the schedule attached to agreement and in strict accordance with and equal to the approved, standard/specifications/ samples. In case of any material of which there are no standards or approved samples, the supply shall be of the best quality to be substantiated by documents/specifications. The decision of JKMSCL as to the quality of stores is final and binding upon the bidder. In case any of the articles supplied are not found as per specification or declared sub-standard, that shall be liable to be rejected and any expenses of loss caused to the supplier as a result of rejection of supplies shall be entirely at his account.
2.6.3	The rejected item must be removed by the firm, within 15 days of the date of intimation of rejection. The officials concerned shall take reasonable care of such material upto 15 days from the date of intimation only but in no case shall be responsible for any loss, damage, shortage that may occur while it is in their premises. In case firm fails to remove the items within fifteen days, JKMSCL shall have full right to get the said item(s) removed & destroyed at the cost & risk of supplier/bidder, without any further correspondence. The destroying charges as per the actual plus 1% penalty shall be deducted from any amount payable to the firm.

2.6.4	No payment shall be made for defective/incorrect items.
2.6.5	In case firm wants to take back item to their service station for rectification then firm has to deposit payment received against such defective supplies. In case supplier has not received any payment then material be returned to supplier firm for rectification. In no case the defective equipment is allowed to be installed after rectification.
2.6.7	The bidder shall be responsible for the proper packing and delivery of the material to the consignee. In the event of any loss, damage, or breakage, leakage or shortage in transit, the bidder shall be responsible. No extra cost on such account shall be admissible.
2.7	Payment Terms (For items quoted in foreign currency)
2.7.1	<p>For Payment through Letter of Credit</p> <p>80% payment shall be released against presentation of shipping documents against submission of bank guarantee and 20% after satisfactory installation certificate issued by the user department.</p> <p>Letter of credit would be opened subject to following additional conditions:-</p> <ol style="list-style-type: none"> 1. At site LC would be opened. 2. In case of supply through sea, LLOYD A level vessel would be used for shipment of supplies which should not be more than 15 years old. 3. Supplies shall be insured by the OEM till the final delivery site shall also include "Force Majeure" 4. Pre-dispatch inspection shall be carried out by OEM by certified inspection agency before shipment of supply. 5. The product shall be comprehensively insured upto site of installation for all type of insurance. <p>For Indian items :</p> <p>Payment shall be made after successful installation and commissioning of the equipment duly certified by Head of the concerned department.</p>
2.7.2	Payment shall be made by RTGS. Expenses on this account, if any, shall be borne by the firm.
2.7.3	Payment to the authorised representative shall be made as per the tripartite agreement with the Corporation i.e JKMSCL on the basis of Annexure All to be uploaded alongwith e.bid.
2.7.4	No advance payments towards cost of items shall be made to the bidder.
2.7.5	If at any time during the period of contract, the price of bid items is reduced or brought down by any law or Act of the Central or State Government or by the bidder himself, the bidder shall be bound to inform Managing Director JKMSCL immediately about it. Purchasing authority shall be empowered to unilaterally effect such reduction as is necessary in rates in case the bidder fails to notify or fails to agree for such reduction of rates. In case this reduction of rates comes to the knowledge of JKMSCL in later stage, additional payment made w.e.f of the details of rates shall be charged from the firm with 1.5% monthly interest from the date/till rates have been reduced besides action as

	desired fit by JKMSCL which may be debarring/any other penalty as per penalty clause.
2.7.6	In case of any enhancement in taxes/duty due to notification of the Government after the date of submission of bids and during the bid period, the quantum of additional taxes/duty so levied shall be allowed to be charged extra as a separate item without any change in the basic price structure of the items approved under the bid. For claiming the additional cost on account of the increase in tax/ duty, the bidder should produce a letter from the concerned authorities for having paid additional tax/duty on the goods supplied to ordering authority and also must claim the same in the invoice separately. Similarly if there is any reduction in the rate of taxes/duty of items, as notified by the Government, after the date of submission of bid, the quantum of the price to the extent of reduction of taxes/duty of items will be deducted without any change in the basic price structure of the items approved under the bidder.
2.7.7	In case of successful bidder has been enjoying exemption on any criteria, such bidder will not be allowed to claim taxes/duty at later point of time during the tenure of contract, if the taxes/ duty become chargeable on goods manufactured due to any reason.
2.7.8	If there is any hindrance by the consignee to provide the required site for installation the part payment of equipment shall be made / decided by JKMSCL. In that case, the firm has to inform JKMSCL immediately.
2.8	LIQUIDATED DAMAGES:
2.8.1	The time specified for delivery in the bid form shall be deemed to be the essence of the contract and the successful bidder shall arrange supplies within the period on receipt of order from the purchasing officers.
2.8.2	In case of extension in the delivery period with liquidated damages, recovery of liquidated damages shall be made at the rate of 0.25% per day for every day of delay subject to maximum of 10%. Rest of the terms and conditions of SPP with regard to penalty clause shall remained unchanged Penalty shall not be imposed if claim with regard to any supply i.e. Drugs/Equipment is complete in all respects i.e. QC verification/Board verified etc. is not cleared by the JKMSCL within a period of 60 days
2.8.3	If the supplier requires an extension of time in completion of contractual supply on account of occurrence of any hindrances, he shall apply in writing to Managing Director JKMSCL, J&K, for the same immediately on occurrence of the hindrances but not after the stipulated date of completion of supply. The firms shall ensure extension of delivery period for delayed supplies. The payment shall only be released by corporation after sanction of extension in delivery period.
2.8.4	Delivery period may be extended with or without liquidated damages. If the delay in the supply of goods is on account of force majeure i.e., which is beyond the control of the bidder, the extension in delivery period may be granted without liquidated damage.
2.8.5	If the bidder is unable to complete the supply within the specified or

	<p>extended period, the corporation shall be entitled to purchase the goods or any part thereof from elsewhere without notice to the bidder on his (i.e., bidders) account at his cost and risk, with the prior approval of Managing Director JKMSCL, J&K. The bidder shall be liable to pay any loss or damage which the purchasing officer may sustain by reasons of such failure on the part of the bidder.</p> <p>The bidder shall not be entitled to any gain on such purchases made against default. The recovery of such loss or damage shall be made from any sums accruing to the bidder under this or any other contract with the corporation/government. If recovery is not possible from the bill and the bidder fails to pay the loss or damage within one month of the demand, the recovery of such amount or sum due from the bidder shall be made from the bidder. In case supplier fails to deliver ordered goods, the risk purchases may be made at market rate from any other firm. It is mandatory for the approved supplier to acknowledge receipt of orders within seven days from the date of dispatch of order, failing which the procuring entity will be at liberty to initiate action to purchase the items on risk purchase provision at the expiry of the prescribed supply period.</p>
2.8.6	LD for damaged packing or loose packing equivalent to 2.5% of the value of the products received with damaged packing or in loose packing or with packing not conforming to the terms and conditions, specified in the tender document.
2.9	RECOVERIES:-
2.9.1	Recoveries of liquidated damages, short supplies, breakage, rejected articles shall ordinarily be made from bills. Such amount may also be recovered from any other untied dues & security deposits available with the JKMSCL. In case recovery is not possible, action will be taken as per prevailing Acts/rules in J&K State.
2.9.2	Any recovery on account of liquidated damage charges/risk & cost charges in respect of previous rate contracts/supply orders placed on them by the JKMSCL can also be recovered from any sum accrued against this bid after accounting for untied sum or due payment lying with JKMSCL against previous rate contracts/supply orders. Firm shall submit details of pending amount lying with JKMSCL but decision of Managing Director JKMSCL, J&K regarding authenticity of sum payable shall be final.
2.9.3	Testing & Handling Charges : the testing and handling charges to the tune of 1.5% of total cost shall be deducted from the invoices raised by the approved bidder against the supply orders placed from time to time.

3. Technical Specifications:

Annexure: AVI (technical specifications attached for Table I)

General features:

- i. Bidders are requested to send printed descriptive literature/catalogue of the quoted items duly sealed by MD/Chairman/authorised signatory of the firm/bidder in the office of Jammu and Kashmir Medical Supplies Corporation Ltd. one day prior to last day of uploading of the bid. The catalogues alongwith compliance sheets should also be uploaded with the technical bid.
- ii. If bidder supplied to or have rate contract of quoted items with any other Govt. institutions within one year, he may be asked to provide copies of purchase orders, invoices and rate contract.

4) .Drawings if any to be attached with the technical bid.

5. Inspection and Tests

Clause No.	Description
5.1	INSPECTION OF EQUIPMENTS AND INSTRUMENTS:-
5.2	The equipments supplies shall be according to technical specifications and shall be inspected by the committee constituted by JKMSCL as mentioned in the supply order or amended thereafter by competent authority. In case of BIS Items, inspection shall be strictly as per relevant BIS specifications with latest amendments and have been made applicable by B.I.S. at the time of inspection. The inspection and testing of the material may be got done by any inspecting Agency/team of experts at site of installation/commissioning. The supplier shall provide all facilities for inspection/testing free of cost.
5.3	Notwithstanding the fact that the authorized inspecting team had inspected and/or has approved the stores/articles, any officer(s)/team of officer nominated by the corporation may inspect the item/material as soon as it is received in the stores to ensure that the supply is in accordance with the specifications laid down in rate contract/supply order.
5.4	In case of doubts in inspection/ test, same may be got inspected or tested in any laboratory. If the material is not found as per specifications or defective, consignee shall not accept the material and shall inform the corporation within 3 days. Consignee may also simultaneously ask the firm for removal of defect/replacement. The firm shall be bound to replace the defective equipment/item within 15 days of receipt of intimation from the consignee/corporation. However, the date of delivery, in case of defective item shall be taken as the date on which the JKMSCL accepts the item after replacement of defective material/removal of defects as the case may be. Wherever defective item is replaced, the inspection/testing charges, if any, shall be borne by the supplier.
5.5	The corporation/technical expert or team shall match the specification with available reserved sample with the corporation which is submitted by the firm/supplier at the time of technical approval before release to end user. .
5.6	In case of imported item, the supplier shall ensure that the item shall be inspected by the third party inspection agency before dispatched to the consignee. In case any un- inspected item has been found in the item received by consignee, the firm shall be solely responsible for it and the JKMSCL shall be free to take suitable necessary action as per terms and conditions of bid documents/agreement against the firm.

Section VI A: - General Conditions of Contract (GCC)

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SECTION VI A: - GENERAL CONDITIONS OF CONTRACT (GCC)

Bidder should read these terms & conditions carefully and comply strictly while submitting their bids. If a bidder has any doubt regarding the terms & conditions and specifications mentioned in the bid notice/ catalogue, he should refer these to the Jammu and Kashmir Medical Supplies Corporation, J&K, before submitting bids and obtains clarifications. The decision of the Managing Director Jammu and Kashmir Medical Supplies Corporation, J&K, shall be final and binding on the bidder. The clauses of terms & conditions are as follows:-


Clause No.	Description
1.	Definitions
	<p>The following words and expressions shall have the meanings hereby assigned to them:</p> <p>'Act/Rules' means Acts & rules prevailing in J&K Union Territory in terms of procurement.</p> <p>'Completion' Means the fulfilment of the supplies and Related Services by the supplier in accordance with the terms and conditions set forth in the contract.</p> <p>"Contract" Means the Agreement entered into between the procuring entity and supplier, together with the contract documents referred to therein, including all attachments, appendices, specifications and codes and all documents incorporated by reference therein.</p> <p>"Contract Documents" Means the documents listed in the agreement, including any amendments thereto.</p> <p>"Contract Price/Rate" Means the price payable to the supplier as specified in the agreement, subject to such additions and adjustments thereto or deductions there from, as may be made pursuant to the contract.</p> <p>"Day" Means calendar day.</p> <p>"Delivery" Means the transfer of the goods from the supplier to the procuring entity in accordance with the terms and conditions set forth in the contract.</p> <p>"GCC" Means the general conditions of rate contract.</p> <p>"SCC" Means the special conditions of rate contract".</p> <p>"Goods" Means all of the commodities, raw material, machinery and equipment, documents, warranties and /or other materials that the supplier is required to supply to the Procuring Entity under the Contract.</p> <p>"Procuring Entity" Means the entity purchasing the goods and related services, Managing Director Jammu and Kashmir Medical Supplies Corporation, J&K, or as specified in the special conditions of the contract (SCC).</p> <p>"Related Services" Means the services incidental to the supply of the goods, such insurance, installation, training and initial maintenance, commissioning of equipment or machinery and other similar obligations of the supplier under the contract. "Subcontractor" Means any natural person, private or government entity, or a combination of the above,</p>

	<p>including its legal successors or permitted assigns, to whom any part of the goods to be supplied is subcontracted by the supplier.</p> <p>"Supplier" Means the natural person, private or government entity, or a combination of the above, whose bid to perform the contract has been accepted by the procuring entity and is named as such in the agreement, and includes the legal successors or permitted assigns of the supplier.</p> <p>Authorised representative : Means the natural person, proprietor or Govt entity, duly authorised by the Managing Director/Prop/Chairman/Board of Director of original manufacturer/direct importer under their seal signatures duly notarized ; to bid, negotiate, raise the invoice, receive the payment against the supplies made, enter into tripartite agreement within the Corporation i.e JKMSCL, inter-alia.</p> <p>Authorised signatory : Means the natural person authorised by the proprietor, Managing Director/Chairman/Board of Director of original manufacturer/direct importer under their seal signatures duly notarized to sign on behalf of the company.</p> <p>"The Site" where applicable, means the place of delivery, installation, testing/ commissioning of the goods /equipment or machinery or as mentioned in the supply order.</p> <p>"Consignee" Means the receiver of the stores as mentioned in supply order.</p>
2.	General terms
2.1	Bids are invited from original manufacturers /direct importers/authorized representative of the original manufacturer/direct importer.
2.2	Bid shall have to uploaded as per schedule, to JK e-portal : www.jktenders.gov.in . At any time prior to the date of uploading of bid, bid inviting authority may, for any reason, whether on his own initiative or in response to a clarification requested by a prospective bidder, modify the condition in bid document by an amendment. In order to provide reasonable time to take the amendment into account in preparing their bid, bid inviting authority may at his discretion, extend the date and time for submission of bid. Interested eligible bidders may obtain further information in this regard from the office of the bid inviting authority.
2.3	Supplies shall be made directly by the bidder to be called as "Supplier" after finalization of rate contract, and suppliers. Manufacturer bidder should have permission to manufacture the item quoted as per specification given in the bid from the competent authority.
2.4.1	Direct importer should authenticate import/sale license for the product quoted in the bid issued by the competent authority.
2.4.2	In case, the item/product is supplied through authorised representative, product manufacturing permission, import/sale license of the principal manufacturer (s) direct importer (s) shall have to be uploaded along with technical bid.
2.5	Bid shall be have to be loaded on e-portal i.e www.jktenders.gov.in submitted to Managing Director, Jammu and Kashmir Medical Supplies Corporation, J&K

2.6	<p>The bidder shall also submit the following documents and certificates along with the bid as per technical bid submission letter :-</p> <p>(i) A combined undertaking/declaration regarding that the quoted item :</p> <ul style="list-style-type: none"> a. Model is of latest technology, the item has not become outdated, that the rate quoted is not more than the rate charged from anyone else, b. That the bidder is not black listed or banned or debarred by central or any state government or its append gages, c. Availability of spare parts and consumables for the quoted equipment for at least 10 years/life of the item, from the date of installation. <p>Note : Bid should not be submitted for the quoted item(s) for which the bidder has been blacklisted/banned/debarred either by bid inviting authority or Govt. of J&K or by any other State/Central Govt. and its agencies. This also applies to the bidder for its sister/ allied firm(s)/ unit(s).</p> <p>(ii) The bidder, in case of representative of the manufacturer/direct importer shall submit fresh authorization of the manufacturer/direct importer duly authenticated and notarized.</p> <p>PLEASE ALSO NOTE THAT: -</p> <p>(A) All attested documents must be submitted in English language. If the documents are not in English, translated version of the same, in English, duly signed and attested by authorized translator must be submitted along with copy of original document.</p> <p>(B) All the above mentioned documents should be under the name and address of the premises where the quoted items are actually manufactured/ stored for supply.</p>
2.7	<p>Financial Bid duly filled in (Annexure III/BOQ) giving the rates for quoted items should be uploaded through e portal www.jktenders.gov.in. The rate should not be disclosed/uploaded in the technical bid. Rates uploaded along with technical bid shall means out rightly rejection of bid of the concerned person.</p>
2.8	<p>The required amounts towards cost of bid document and tender processing charges shall be deposited as mentioned at page 5, 01 day before the last date and time of bid submission.</p> <p>All bids received will be opened in the presence of bidders, who choose to be present. Financial bid will be opened only for those bidders, who satisfy the criteria laid down by the JKMSCL on the details furnished by the bidder in technical bid in compliance of terms & conditions of the bid.</p>
2.9	<p>(i) In case of the bid being submitted by a proprietary firm, the bid must be signed by the sole proprietor. In case of a partnership firm, bid must be signed on behalf of the firm by a person authorized, holding a</p>

	<p>power of attorney in his favour to do so; and in the case of a company, the bid must be signed by an authorized signatory, in the manner laid down in the articles of association of the bidder company.</p> <p>(ii) Any change in the constitution of the firm/ company shall be notified forthwith by the bidder/contractor in writing to the Jammu and Kashmir Medical Supplies Corporation, J&K and such change shall not relieve any former member of the firm/ company from the liability under the conditions of the bid/contract. No new partner / partners shall be accepted in the firm by the bidder/contractor in respect of the bid/contract unless he/ they agree to abide by all its terms and conditions and submit a written agreement to this effect. The bidder's/contractor's receipt for acknowledgement or date of any new partner subsequently inducted, as above, shall bind all of them and will be a sufficient discharge for any of the purposes of the contract.</p>
3	BID SECURITY:
	<p>(i) Bid shall have to be accompanied with a scanned copy of FDR/CDR/BG as bid security. However, the FDR/CDR/BG as bid security shall have to be submitted before the opening of technical bid with a validity of 30 months. Bids submitted without sufficient bid security & validity shall be summarily rejected.</p> <p>(ii) The bid security of bidder shall be refunded after the earliest of the following events, namely:-</p> <ol style="list-style-type: none"> the expiry of validity of bid security; the cancellation of the procurement process; or the withdrawal of bid prior to the deadline for presenting bids, unless the bidding documents stipulate that no such withdrawal is permitted. <p>(iii) The bid security lying with the JKMSCL in respect of other bids awaiting approval or rejection or on account of contracts being completed, shall not be adjusted towards bid security for the fresh bids. The bid security may, however, be taken into consideration in case bids are re-invited for the same item.</p> <p>(vi) In case any document submitted by the bidder or by his authorized representative is found to be forged, false or fabricated, the bid shall be rejected and bid security may be forfeited. Bidder/his representative may also be banned / debarred. Report with police station may also be filed against such bidder/his representative.</p>
4	FORFEITURE OF BID SECURITY: -
	<p>The bid security shall be forfeited if:</p> <ol style="list-style-type: none"> The bidder withdraws or modifies the offer after opening of financial bid, but before acceptance of bid, The bidder does not execute the agreement, if any, prescribed within the specified time or extended time by competent authority (on the request of the bidder), The bidder does not deposit the 'performance security' after the supply order is placed/requested for signing the agreement, The bidder fails to commence the supply of the items as per supply

	<p>order within the time prescribed,</p> <p>(v) The bidder fails to submit samples/demonstration of quoted item on demand</p> <p>(vi) The bidder violates any of the terms & conditions of the bid document.</p>
5	WARRANTY CLAUSE:-
	<p>(i) The bidder would guarantee that the subject matter of procurement would continue to conform to the description and quality as per technical specifications and performs as per descriptions, from the date of delivery/ installation of the said subject matter of procurement. Notwithstanding the fact that the purchaser may have inspected and/or approved the said subject matter of procurement during the guarantee period, if the said subject matter of procurement is discovered not to conform to the description and quality as aforesaid or not performing, as described, the procuring entity will be entitled to reject the said subject matter of procurement or such portion thereof as may be discovered not to conform to the said description and quality or not performing as described. On such rejection, the subject matter of procurement will be at the seller's risk and all the provisions relating to rejection of goods, etc., shall apply. The successful bidder shall, if called upon to do so, replace the goods etc. or such portion thereof, as rejected by the procuring entity. Otherwise, the bidder shall pay such damages, as may arise by reason of such breach of the condition herein contained. Nothing herein contained shall prejudice any other right of the procuring entity in that behalf under this contract or otherwise.</p> <p>(ii) The bidder shall, during the Guarantee period appearing in the contract, replace the whole subject matter of procurement or part(s), if any, and remove the manufacturing defects, if found during the above period so as to make the machinery and equipment/ordered items operative.</p> <p>(iii) In case of the machinery or equipment/ordered items, the successful bidder shall be responsible for carrying out annual maintenance and repairs on the terms & conditions, as agreed. The bidder shall have to ensure that consumables required for the maintenance of machine/equipment are being supplied free of cost during warranty period. The adequate regular supply of spare parts and consumables per incident for the machinery or equipment, whether under their annual maintenance and repairs contract or otherwise shall be ensured. In case of change of model the bidder shall notify the procuring entity sufficiently in advance, to facilitate procurement of sufficient quantity of consumables/ spare parts from the bidder to maintain the machinery or equipment. In case, any item supplied by the successful bidder does not conform to the required specifications, the payment thereof, if received by the supplier, shall have to be refunded to the Jammu and Kashmir Medical Supplies Corporation, J&K along with interest to the tune of</p>

	1.5% per month from the date of release of payment. The supplier will not have any rightful claim to the payment of cost for substandard supplies, which may have been consumed, either in part or whole, pending receipt of laboratory test / inspection report, wherever required. Supply of goods less in weight and volume than those mentioned on the label of the container, the same will be dealt with in the manner prescribed under rules.
6	MARKING
	<p>All items and accessories supplied should bear marking "JKMSCL SUPPLY _____(engraved or non removable material) "NOT FOR SALE" or as mentioned in supply order in English, without which the supply will not be entertained. JKMSCL may ask change in art work to be printed on the item at any stage of the contract.</p> <div style="text-align: center;">  </div> <p style="text-align: center;">JKMSCL SUPPLY (_____) NOT FOR SALE</p>
7	COMPARISON OF RATES:
	<ul style="list-style-type: none"> (i) Only net rates should be quoted. No separate free goods or cash discounts should be offered. Rates must be valid for the entire period of contract. (ii) Consignee may be located at a district headquarter (except equipment/ machinery requiring installation and commissioning, the place may be any other station) or as directed by Jammu and Kashmir Medical Supplies Corporation Limited, J&K and the rates must be quoted accordingly. No cartage or transportation charges shall be payable. (iv) The net rate must be inclusive of all charges by way of packing, forwarding, incidental or transit charges, including transit insurance, and any other levies or duties etc. on the subject matter of procurement. (v) In the event of any subsequent variation (increase or decrease) in the rate of GST or nay other taxes by the government (state /UT or central), the same will be admissible accordingly. (vi) If the rates of item quoted are found same from two for more bidders, then the bidders shall be asked to submit revised financial bid, containing reduced rates within given time by Managing Director, Jammu and Kashmir Medical Supplies Corporation Limited, J&K. (vii) The bidder will exercise all due diligence at their own level regarding applicability of other taxes, duties and fees etc. for the unit of supplies as specified in the bid document and accordingly include the same in their quotes. Any additional/extra

	<p>claims over and above the rates agreed pertaining to taxes, duties and fees etc. will not be entertained later on any account.</p> <p>(viii) No part of the bid document should be detached / deleted.</p> <p>(ix) For comparison of rates, the average comprehensive annual maintenance charges shall be added to the rate quoted for the equipments, if comprehensive annual maintenance is applicable.</p>
8	SUBMISSION OF SAMPLES/CATALOGUES AND DEMONSTRATION
	<p>(i) Catalogues/samples of the quoted item(s) must be sent free of cost to JKMSCL even though the specifications or description etc. are mentioned in the bid form are complied.</p> <p>(ii) Samples of items(s) should be collected back from the JKMSCL, J&K within 15 days from the date of finalization of list of successful bidder/demonstration of product before the expert panel. The corporation shall not be responsible for any damage, wear and tear or loss during the course of testing / examination, etc. The corporation may retain the sample of approved item for one month beyond expiry of contract. The corporation shall not be responsible for any damage, wear and tear or loss in this period. The corporation shall not make any arrangement for return of samples even if the bidder agrees to pay the cost of transportation.</p> <p>(iii) The bidder may be asked to demonstrate the technique, procedure and utility of item as per specifications given in the bid document before the technical committee constituted by the Corporation for the purpose. In case of heavy equipment, the demonstration may be carried out at the nearby place where the equipment has been installed by the bidder. In that case, the decision of the technical committee shall be final. The firm shall keep ready the quoted item and arrange all logistics within the time frame as and when asked by the JKMSCL. After the due date, no request of the bidder/firm shall be entertained for demonstration.</p> <p>(iv) Sample should be strictly according to the item quoted in the bid form failing which the bid will not be considered. Sample must be submitted duly sealed and marked suitably either by writing on the sample or on a slip or durable paper securely fastened to the sample with the particulars as mentioned below:</p> <ol style="list-style-type: none"> Name and full address of the firm Catalogue no. and name of the item Name of section Name of manufacturer Brand <p>(v) No change in marking on sample will be allowed after the submission of the sample.</p>
10	PERFORMANCE SECURITY (P.S.) AND AGREEMENT:
	<p>(i) The successful bidder shall submit the original copy of Bid document signed on each page at the time of agreement. However, while</p>

	<p>uploading the technical bid, only the declaration regarding acceptance of terms & conditions shall be uploaded.</p> <p>(ii) The period of rate contract shall be 24 months from the date of issuance of rate contract. The Managing Director, JKMSCL can extend the original rate contract subject to original terms and conditions for a period deemed fit by them, but not exceeding three months, for which the bidder shall abide.</p> <p>(iii) Successful bidders, whose offers are accepted, shall have to deposit performance security @5% of the value of the supply order in favour of Chief Accounts Officer, JKMSCL within 15 days from the date of issuance of letter of intent. The performance security shall be deposited in the form of FDR/CDR/B.G (Bank Guarantee). However, the bank guarantee shall be for a validity period of six months, beyond the guarantee period sought for the item.</p> <p>(iv) In case of successful bidder(s), the amount of bid security shall be adjusted for performance security for the supply order placed to the firms/bidders. The amount of performance security, if exceeds the bid security, it shall be deposited by the firm against the supply orders issued from time to time.</p> <p>(v) The firm may submit bank guarantee issued by any scheduled/nationalised bank. The minimum validity of bank guarantee should be six months after completion of guarantee period for the item.</p> <p>(vi) The Performance Security: The Performance Security (P.S.) shall be 5% of the total value of stores ordered for supply. The payment shall not be released against supplies until the additional Performance Security due is deposited by the supplier or additional.</p> <p>(vii) The performance security shall be refunded after six months after satisfactory completion of contract and after satisfying that there are no dues outstanding against the bidder subject to guarantee provisions.</p> <p>(viii) It is to be noted that earlier year's bid security and performance security, even if lying in the JKMSCL shall not be considered towards this contract and therefore fresh bid security/performance security shall be deposited. The JKMSCL shall pay no interest on bid security or performance security amount.</p> <p>(ix) Successful bidders shall have to execute an agreement on a Non-Judicial stamp paper of an amount mentioned in the offer letter, in the prescribed form with the JKMSCL and deposit performance security within 15 days from the date of acceptance of the bid is communicated to him. However, Managing Director JKMSCL, J&K may condone the delay in execution of contract by the bidder. The expenses in this regard shall be borne by the successful bidder. The validity of contract under this agreement shall be for a period as mentioned.</p>
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	<p>(x) The bidder shall furnish the following documents at the time of execution of agreement:-</p> <p>(i) Attested copy of partnership deed in case of partnership firms.</p> <p>(ii) Registration number and year of registration, in case partnership firm is registered with registrar of firms;</p> <p>(xi) Address of residence and office, telephone numbers, in case of sole proprietorship with :</p> <p>(i) Registration issued by registrar of companies under Registrar of companies Act 1956, in case of company.</p> <p>(ii) Comprehensive maintenance agreement, if applicable.</p> <p>(xiv) In case of breach of any terms and conditions of the contract or on unsatisfactory performance, the amount of performance security shall be liable to forfeiture by JKMSCL, J&K and decision of Managing Director JKMSCL J&K shall be final.</p> <p>(xv) The rate contract can be repudiate/rejected at any time by the Managing Director JKMSCL, J&K if the supplies are not made to his satisfaction after giving an opportunity to the bidder of being heard and after reasons for repudiation being recorded by him in writing. However, Managing Director JKMSCL, J&K may terminate the agreement of contract at any time without notice/intimation to the successful bidder.</p>
11	SUPPLY ORDERS:
	<p>(i) Supply order shall be placed through registered post/e-mail/any communication medium by the JKMSCL. The date of receipt of letter of communication date will be treated as the date of order for calculating the period of execution of order. The successful bidder will execute the orders within a period of 60 days or as specified in the supply order.</p> <p>(ii) The successful bidder acknowledge receipt of orders within 7 days from the date of dispatch of order, failing which the procuring entity may be at liberty to initiate action to purchase the items on risk & cost purchase provision.</p> <p>(iii) In case of imported items, 30 days shall be given in addition to above mentioned period,</p> <p>(iv) Except, for equipments / machinery, which requires installation / commissioning, all other supplies shall have to be to FOR district drug warehouse only. In case of non-viable size of order for supplies, the corporation shall take appropriate decision on representation from the supplier on case to case basis. The consignee for supplies shall be JKMSCL.</p> <p>(v) To ensure sustained supply without any interruption, the Managing Director, JKMSCL reserves the right to have more than one approved supplier from amongst the qualified bidders as matched L1 supplied at matched L1 rates. In such a case, the requirement may be met by dividing the quantity among the rate contract holders considering the quantity required and dedicated capacity of the successful bidders.</p>

	<p>(vi) The ready stock position of the item, if provided by the firm, may be considered by the corporation for the placement of supply orders.</p> <p>(vi) It may be noted that the JKMSCL does not undertake to assist in the procurement of raw material, whether imported or controlled or restricted, and as such the bidders must offer their rates to supply the specific items from own quota of raw material stock by visualizing the prospect of availability and requirement. Any of the above points if taken, as argument for non-supply/delayed supply will not be entertained.</p>
12	SUBMISSION OF CONTRACT COMPLETION REPORT
12.1	A consolidated statement shall be submitted to General Manager, EPM by the 10 th of each month. Every time the statement should contain details of all orders placed under the contract.
12.2	Firms shall have to submit consolidated statement in duplicate at the end of rate contract well as after expiry of equipment / instrument guarantee period (as provided in guarantee clause of the contract) to enable JKMSCL to examine the case for refund of performance security.
12.3	The end user shall intimate the complaint/defect arise immediately to the manufacturer/importer/representative with copy to JKMSCL for further follow up..
13	LIQUIDATED DAMAGES:
	<p>I. The time specified for delivery in the tender form shall be deemed to be the essence of the contract and the successful Bidder shall arrange supplies within the period on receipt of order from the Purchasing Officers.</p> <p>II. In case of extension in the delivery period with liquidated damages, recovery of liquidated damages shall be made at the rate of 0.25% per day for every day of delay subject to maximum of 20%.</p> <p>III. Penalty shall not be imposed if claim with regard to any supply i.e. Drugs/Equipment is complete in all respects i.e. QC verification/Board verified etc. is not cleared by the JKMSCL within a period of 60 days</p> <p>IV. Fraction of a day in reckoning the period of delay in supplies shall be eliminated if it is less than half a day.</p> <p>V. The maximum amount of agreed liquidated damage shall be 20%.</p> <p>VI. If the supplier requires an extension of time in completion of contractual supply on account of occurrence of any hindrance, he shall apply in writing to M.D, JKMSCL, Jammu / Srinagar (J&K), which has placed the supply order, for the same immediately on occurrence of the hindrance but not after the stipulated date of completion of supply. The firms shall ensure extension of delivery period for delayed supplies. The payment shall only released by purchase officer after sanction of extension in delivery period by M.D., JKMSCL</p> <p>VII. Delivery period may be extended with or without liquidated damages. If the delay in the supply of goods is on account of hindrances beyond the control of the Bidder, the extension in delivery period may be granted without Liquidated Damage</p> <p>VIII. If the Bidder is unable to complete the supply within the specified or extended period, the purchasing officer (JKMSCL) shall be entitled to purchase the goods or any part thereof from elsewhere without notice</p>

	<p>to the Bidder on his (i.e. Bidders) account and risk only with the prior approval from M.D., JKMSCL, Jammu / Srinagar (J&K). The Bidder shall be liable to pay any loss or damage which the purchasing officer may sustain by reasons of such failure on the part of the Bidder. The Bidder shall not be entitled to any gain on such purchases made against default. The recovery of such loss or damage shall be made from any sums accruing to the Bidder under this or any other contract with the government. If recovery is not possible from the bill and the Bidder fails to pay the loss or damage, within one month of the demand, the recovery of such amount or sum due from the Bidder shall be made under the law for the time being in force. In case more than one supplier has been approved for any item under the approved list circulated to the purchasing officers, the risk purchases may be made at a higher rate from any other firm whose rate is duly approved. It is mandatory for the approved supplier to acknowledge receipt of orders within fifteen days from the date of dispatch of order, failing which the purchasing officer will be at liberty to initiate action to purchase the items on risk purchase system at the expiry of the prescribed supply period, after taking required approval from M.D., JKMSCL (J&K).</p> <p>(i) If the bidder is unable to complete the supply within the specified or extended period, the purchasing officer shall be entitled to purchase the goods or any part thereof from elsewhere without notice to the bidder on his (i.e., bidders) account at his cost and risk, with the prior approval from JKMSCL. The bidder shall be liable to pay any loss or damage which the purchasing officer may sustain by reasons of such failure on the part of the bidder. The bidder shall not be entitled to any gain on such purchases made against default. The recovery of such loss or damage shall be made from any sums accruing to the bidder under this or any other contract with the corporation/government. If recovery is not possible from the bill and the bidder fails to pay the loss or damage within one month of the demand, the recovery of such amount or sum due from the bidder shall be made or any other law for the time being in force. In case supplier fails to deliver ordered goods, the risk purchases may be made at market rate from any other firm. It is mandatory for the approved supplier to acknowledge receipt of orders within seven days from the date of dispatch of order, failing which the procuring entity will be at liberty to initiate action to purchase the items on risk purchase provision at the expiry of the prescribed supply period.</p> <p>(ii) In case of wrong quoting, (or) if successful bidder refuses (or) fails to execute the supplies on the basis of wrong quoting of rates, the bidder shall be penalized with forfeiting of amount equivalent to the Performance security for the said product (or) debarring/ blacklisting of firm for that particular product(s) for a period not less than 02 years (or) both as deemed fit by TIA i.e. MD, JKMSCL.</p>
14	<p>(i) JKMSCL shall procure the machinery & equipment for the Health & Medical Education Institutes of J&K State, inter-alia.</p> <p>(ii) The funds shall be transferred to JKMSCL with indent form and supply orders shall be placed by JKMSCL to suppliers.</p>
15	RECOVERIES
	<p>(i) Recoveries of liquidated damages, short supplies, breakage, rejected articles shall ordinary be made from bills. Such amount may also be recovered from any other untied dues & security deposits available with</p>

	<p>Corporation. In case recovery is not possible, recourse will be taken under law in force.</p> <p>(ii) Any recovery on account of L.D. charges/risk & cost charges in respect of previous rate contracts/ supply orders placed on them by the corporation can also be recovered from any sum accrued against this tender after accounting for untied sum or due payment sum lying with corporation against previous rate contracts/supply orders. Firm shall submit details of pending amount lying with corporation but decision of M.D., JKMSCL, J&K regarding authenticity of sum payable shall be final.</p>
16	INSPECTION:-
	<p>(i) The equipments supplied shall be according to specifications provided at Section IV (3) schedule of supply and may be inspected by the technical panel/team constituted for the purpose by JKMSCL deemed fit on the site of manufacturer (in case of Indian manufacturer)/ importer (importer site). The manufacturer/importer shall facilitate the demonstration of the said machine/equipment/on the site only. After the receipt of "Certificate of satisfaction" from the technical panel, the supply order shall placed. In case of BIS Items, inspection shall be strictly as per relevant BIS specifications with latest amendments and have been made applicable by B.I.S. at the time of inspection. The machine/equipment shall be further inspected at the time of installation/commissioning at site i.e the end user site. The supplier shall provide all facilities for inspection/testing free of cost.</p> <p>(ii) Notwithstanding the fact that the authorized inspecting agency had inspected and/or has approved the stores/articles, the procurement officer or his representative may inspect the item/material as soon as it is received in the stores to ensure that the supply is in accordance with the specifications laid down in rate contract.</p> <p>(iii) In case of doubts in inspection/ test, same may be got inspected or tested in any laboratory. If the material is not found as per specifications or defective, consignee will not accept the material and shall inform the JKMSCL, J&K within 3 days. Consignee may also simultaneously ask the firm for removal of defect/replacement. The firm shall be bound to remove the defect or replace the defective equipment/item within 15 days of receipt of intimation from the consignee. However, the date of delivery, in case of defective item shall be taken as the date on which the JKMSCL accepts the item after replacement of defective material/removal of defects as the case may be. Wherever defective item is replaced, the inspection / testing charges, if any, shall be borne by the supplier.</p> <p>(iv) If required, the consignee may refer inspection committee to match the specification with available reserved sample with the corporation which is submitted by the firm/supplier at the time of technical approval.</p> <p>(v) In case of imported item, the supplier shall ensure that the item shall be inspected by the third party inspection agency before dispatched to the consignee. In case any un-inspected item has been found in</p>

	the item received by consignee, the firm shall be solely responsible for it and the JKMSCL shall be free to take suitable necessary action as per terms and conditions of bid documents/agreement against the firm.
17	PACKING AND INSURANCE
	<p>(i) The goods will be delivered at the destination in perfect condition. The firm if so desires may insure valuable goods against loss by theft, destruction or damages by fire, flood, under exposure to weather or otherwise in any situation. The insurance charges will have to be borne by the supplier and the corporation shall not be required to pay any such charges, if incurred.</p> <p>(ii) The firm shall be responsible for the proper packing so as to avoid damages under normal conditions of transport by sea, rail, road or air and delivery of material in good condition to the procurement officer's store. In the event of any loss, damage, breakage or leakage or any shortage the firm shall be liable to make good such loss and shortage found at destination after the checking/inspection of material by the consignee. No extra cost on such account shall be admissible. The firm may keep its representative to verify any damage or loss discovered at the consignee's store, if it so likes.</p> <p>(iii) Packing, cases, containers and other allied material if any shall be supplied free, except where otherwise specified by the firm(s) and agreed by the JKMSCL and the same shall not be returned to him.</p>
18	REJECTION
	<p>(i) Articles not as per specifications/or not approved shall be rejected by the JKMSCL and will have to be replaced by the supplier firm at his own cost within 15 days or as time limit fixed by the JKMSCL.</p> <p>(ii) All the stores supplied shall be of the best quality and conforming to the specification, trademark laid down in the schedule attached to agreement and in strict accordance with and equal to the approved, standard, samples. In case of any material of which there are no standards or approved samples, the supply shall be of the best quality to be substantiated by documents. The decision of Managing Director JKMSCL as to the quality of stores be final and binding upon the bidder. In case any of the articles supplied are not found as per specification or declared sub-standard/spurious, that shall be liable to be rejected and any expenses of loss caused to the supplier as a result of rejection of supplies shall be entirely at his account.</p> <p>(iii) The rejected item must be removed by the firm, within 15 days of the date of intimation of rejection. The officials concerned will take reasonable care of such material but in no case shall be responsible for any loss, damage, shortage that may occur while it is in their premises.</p> <p>(iv) No payment shall be made for defective/incorrect items. However, if payment has been made, then defective items shall be allowed to be removed only after the firm replaces material as per specifications, duly inspected. If the payment has not been made, the firm may be allowed to remove the material without prior replacement (provided firm has performance security as per condition No. 18). Joint inspection of defective material may be carried out as required by the JKMSCL. However sample of ISI marked material found defective shall be kept by consignee for reference</p>

	<p>to BIS.</p> <p>(v) In case firm wants to take back item to their works for rectification then firm has to deposit payment received against such defective supplies. In case supplier has not received any payment then material be returned to supplier firm for rectification.</p> <p>The Bidder shall be responsible for the proper packing and delivery of the material to the consignee. In the event of any loss, damage, or breakage, leakage or shortage in transit, the Bidder shall be responsible. No extra cost on such account shall be admissible.</p>
19.	CORRECTION OF ARITHMETIC ERRORS
	<p>Provided that a financial bid is substantially responsive, the procuring entity will correct arithmetical errors during evaluation of financial bids on the following basis:</p> <p>(i) If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the procuring entity there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected;</p> <p>(ii) If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected.</p> <p>(iii) If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to clause (a) and (b) above.</p> <p>If the bidder that submitted the lowest evaluated bid does not accept the correction of errors, its bid shall be disqualified and its bid security shall be forfeited or its bid securing declaration shall be executed.</p>
20	PROCURING ENTITY'S RIGHT TO VARY QUANTITY:
	<p>(i) The quantity of equipments and instruments originally indicated in the bidding document may vary without any change in the unit prices and other terms and conditions of the bid and the conditions of contract.</p> <p>(ii) If the Managing Director JKMSCL J&K procures less than the quantity indicated in the bidding documents the bidder shall not be entitled for any claim or compensation except otherwise provided in the conditions of contract.</p> <p>(i) If the Bidder fails to supply the Managing Director JKMSCL J&K shall be free to arrange/procure the items and the extra cost incurred shall be recovered from the Supplier.</p>
21.	PARALLEL RATE CONTRACT
	<p>The JKMSCL may also execute parallel rate contract to with more than one firm for each item on the lowest approved rates on the same terms and</p>

	<p>conditions, if the original lowest one each not in a position to supply material as per JKMSCL requirement.</p> <ul style="list-style-type: none"> (i) To ensure sustained supply without any interruption, the bid inviting authority reserves the right to approve more than one supplier to supply the requirement among the qualified bidders. (ii) Orders will be placed with Lowest I (L-1) firm. However in case of any exigency at the discretion of the bid inviting authority, the orders may also be placed with the other firms, in the ascending order, L-2, L-3 and so on who have matched with the L-1 rates and executed agreement with corporation on same rates (L1), terms and conditions. (iii) After the conclusion of financial bid opening (Cover B) the lowest offer of the bidder is considered for negotiation and rate arrived after negotiations is declared as L-1 rate and L-1 supplier for an item for which the bid has been invited. (iv) The bid who has been declared as L-1 supplier for certain item shall execute necessary agreement for the supply of the required quantity of such item on depositing the required amount performance security and on execution of the agreement such bidder is eligible for the placement of supply orders. (v) JKMSCL will inform the L-1 rate to the bidders who had qualified for financial bid (Cover B) opening, inviting their consent to match with the L-1 rates for the item/items quoted by them and the bidders who agree to match L-1 rate, will be considered as matched L-1 (vi) The bidder who agrees to match L-1 rate shall furnish the breakup detail (Rate, GST, CUSTOM DUTY etc.) of rates (L-1 rates). (vii) The supplier, on receipt of the supply orders deems that the purchase orders exceeds the production capacity declared in the bid documents and the delay would occur in executing the order, shall inform the JKMSCL immediately without loss of time and in executing the order, shall be returned within 7 days from the date of issuing order, failing which the supplier would be deprived from disputing the imposition of liquidated damages, and penalty for the delayed supplies. (viii) If the L-1 supplier has failed to supply / intimated JKMSCL about his inability / delay in supply as per the supply order, the required items within the stipulated time or as the case may be, JKMSCL may also place purchase orders with the matched L-1 Bidders for purchase of the items provided such matched L-1. Bidders shall execute necessary agreement indicating the production capacity as specified in the bid document on depositing the required amount. Such bidder is eligible for the placement of purchase orders for the item quoted by them. (ix) Subject to para (vii) above, while JKMSCL has chosen to place purchase orders with matched L-1 supplier and there are more than one such matched L-1 supplier, then the purchase orders for the requirement of items will be place with L-2 first on matched rates of L-1
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	<p>and in case L-2 does not have the required capacity than L-3 would be considered on matched L-1 rates and the same order would be flowed in case of L-3, L-4, etc.</p> <p>(x) The matched L-1 supplier, on placement of purchase orders, will be deemed as L-1 rate supplier for the purpose of the bid and all provisions of the bid document applicable to L-1 rate bidder will apply to the matched L-1 supplier.</p> <p>(xi) If the supplier fails to supply the item for the purchase orders, at any point of time, either fully or partly, within the stipulated time, JKMSCL is at liberty to place purchase orders with other bidders (in ascending order, viz, L-2, L-3 and so on) at the price offered by then and in such cases the supplier is liable to indemnify JKMSCL, without any protest or demur, for the difference in cost incurred by JKMSCL and the JKMSCL is entitled to recover the difference in cost from the amount due / payable to the supplier.</p> <p>(xii) Parallel rate contract may be concluded as described above during any time / currency of rate contract subject to matching of L-1 rates, price fall clause and on same terms and conditions.</p>
22	VALIDITY OF BID:
	Bids shall be valid for a minimum period of 120 days from the date of opening of technical bid. Prior to the expiry of the period of validity of bid, the procuring entity, may request the bidders to extend the bid validity period for an additional specified period of time. A bidder may refuse the request and such refusal shall be treated as withdrawal of the bid but in such circumstances bid security shall not be forfeited.
23	PRICE ESCALATION:
	Price escalation or price variation shall not be applicable or considered under any circumstances for the purchases made under this bid or agreement. However, the provisions provided for tax variations are exclusive to this clause.
24	SUBLETTING OF CONTRACT:
	Subletting or assigning contract to third party is prohibited. In the event of bidder violating this condition, the Jammu and Kashmir Medical Supplies Corporation Limited shall be at liberty to place the contract elsewhere on the Bidder's account and at his risk. The bidder shall be liable for any loss or damage, which the Government may sustain in consequence or arising out of such replacement of the contract.
25	FALL CLAUSE:-
	<p>(i) The prices under contract shall be subject to price fall clause. The prices charged for the store supplies under the contract by successful bidder shall in no event exceed the lowest price at which the successful bidder sells the stores of identical description to any other persons during the period of the contract in the Union Territory of J&K. If any time, during the period of the contract, the bidder reduces the sales price chargeable</p>

	<p>under the contract, he shall forth with notify such reduction to the JKMSCL, J&K and the price payable under the contract for the stores supplied after the date of coming into force of such reduction or sale shall stand reduced correspondingly. It imply that if the contract holder quotes/ reduces its price to render similar goods at a price lower than the contract price to anyone in the State /UT at any time during the currency of contract including extension period, the contract price shall be automatically reduced with effect from the date of reducing or quoting lower price for all delivery of subject matter of procurement under contract and the contract shall be amended accordingly.</p> <p>(ii) The firms holding parallel rate contract shall also reduce their price. Firms shall notify their reduced price and intimate their acceptance to the revised price within 15 days to JKMSCL. Similarly, if parallel rate contract holding firm reduced its price during currency of the rate contract, its reduced price shall be conveyed to other parallel rate contract holding firms and the original rate contract holding firms for corresponding reduction in their prices. If any rate contract holding firm does not agree to reduce price, further transaction with it, shall not be conducted.</p>
26	<p>COMPLIANCE WITH THE CODE OF INTEGRITY AND NO CONFLICT OF INTEREST:</p> <p>Any person participating in a procurement process shall-</p> <ol style="list-style-type: none"> Not offer any bribe, reward or gift or any material benefit either directly or indirectly in exchange for an unfair advantage in procurement process or to otherwise influence the procurement process; Not misrepresent or omit misleads or attempts to mislead so as to obtain a financial or other benefit or avoid an obligation; Not indulge in any collusion, bid rigging or any-competitive behaviour to impair the transparency, fairness and progress of the procurement process; Not misuse any information shared between the procuring entity and the bidders with an intent to gain unfair advantage in the procurement process; Not indulge in any coercion including impairing or harming or threatening to do the same, directly or indirectly, to any part or to its property to influence the procurement process; Not obstruct any investigation or audit of a procurement process; Disclose conflict of interest, if any; and Disclose any previous transgressions with any entity in India or any other country during the last three years or any debarment by any other procuring entity. <p>Conflict of Interest :</p> <p>The bidder participating in a bidding process must not have a conflict of interest. A conflict of interest is considered to be a situation in which a party has interests that could improperly influence that party's</p>

	<p>performance of official duties or responsibilities, contractual obligations, or compliance with applicable laws and regulations.</p> <p>A bidder may be considered to be in conflict of interest with one or more parties in bidding process if, including but not limited to :</p> <ol style="list-style-type: none"> Have controlling partners/shareholders in common; or Receive or have received any direct or indirect subsidy from any of them; or Have the same legal representative for purposes of the bid; or Have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another bidder, or influence the decisions of the procuring entity regarding the bidding process; or The bidder participates in more than one bid in a bidding process. Participation by a bidder in more than one bid will result in the disqualification of all bids in which the bidder is involved. However, this does not limit the inclusion of the same subcontractor, not otherwise participating as a bidder, in more than one bid; or The bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specification of the goods, works or services that are the subject of the bid; or bidder or any of its affiliates has been hired (or is proposed to be hired) by the procuring entity as engineer-in charge/consultant for the contract. <p>Bidder or any of its affiliates has been hired (or is proposed to be hired) by the Procuring Entity as engineer-in-charge / consultant for the contract.</p>
27	<p>All correspondence in this connection should be addressed to the Managing Director JKMSCL, J&K. Technical questions should be referred to the Managing Director JKMSCL, J&K direct by correspondence or by personal contact.</p>
28	<ol style="list-style-type: none"> Direct or indirect canvassing on the part of bidders or their representative shall disqualify their bids. Supplier may be disqualified, banned or suspended from business during the rate contract if : <ol style="list-style-type: none"> fails to execute a contract or fails to execute it satisfactorily ; no longer has the technical staff or equipment considered necessary ; is declared bankrupt or insolvent or its financial position has become unsound, and in the case of a limited company, it is wound-up or taken into liquidation ; The firm is suspected to be doubtful loyalty to state. The State Bureau of Investigation (SBI) or any other Investigating agency recommends such a course in respect of a case under investigation. Managing Director JKMSCL, J&K is prima- facie of the view that the firm is guilty of an offence involving moral turpitude in relation to business dealings, which if established would result in business dealing with it banned.

29	No action on the letter head of the bidder /firm regarding any complaints against the JKMSCL will be considered unless the letter head bears the signature of the bidder or the authority higher than the bid signatory of the firm.
30	<p>(i) If any certificate/documents/information submitted by the bidder found to be false/ forged/ fabricated/vexatious or frivolous or malicious appeals or complaints etc. than bidder shall be liable for the appropriate legal action along with disqualification, banning, suspension etc. for limited or unlimited period.</p> <p>(ii) Bidders are required to submit wanted information (if any) based on the facts. If the furnished information by the firm found to misleading or not based on facts disciplinary action against the firm may be taken as to banning concerned item/items for certain or uncertain period.</p>
31	The JKMSCL reserves the right to accept any bid not necessarily the lowest. The JKMSCL may reject any bid without assigning any reasons and accept bid for all or anyone or more of the articles for which bidder has been given or distribute items of stores to more than one firm/supplier.
32	GRIEVANCE
	Grievance regarding interpretation of any clause of the contract/agreement executed between the parties shall be referred to Managing Director, JKMSCL for its clarification.
33	ARBITRATION
	<p>34.1 Governing Law: This NIT shall be governed by and construed in accordance with the laws of the Union Territory of Jammu and Kashmir and the laws of India as applicable to the Union Territory of Jammu and Kashmir.</p> <p>34.2.1 Amicable Settlement: Either party is entitled to raise any claim, dispute or difference of whatever nature arising under out of or in connection with the NIT including its existence or validity or termination (collectively "dispute") by giving a written notice to the other party, which shall contain</p> <ol style="list-style-type: none"> i. a description of the dispute ii. the ground for such dispute iii. all written material in support of its claim <p>34.2.2 The other party shall, within thirty days of issuance of dispute notice issued, furnish:</p> <ol style="list-style-type: none"> I. Counter claim and defences, if any, regarding the dispute; and II. All written material in support of its defences and counter claim <p>34.2.3 Within thirty days of issuance of notice by any party pursuant to para 29.1.2 both the parties to the dispute shall meet to settle such dispute amicably. If the parties fail to resolve the dispute</p>

	<p>amicably within thirty days of the receipt of the notice referred to in the above para the dispute shall be referred to Managing Director, JKMSCL, J&K for its reference to arbitration.</p> <p>34.3 Dispute Resolution: Besides, as referred above in para 29.1.3 may also include any dispute arising out of contract with regard to the interpretation, meaning and breach of the terms of the contract, the matter shall be referred to the Managing Director, JKMSCL, J&K who will appoint his senior most officer as sole Arbitrator of the dispute, will not be related to this contract and whose decision shall be final and binding on both the parties. The Arbitrator proceedings shall be governed by the J&K Arbitration and Conciliation Act, 1997. The venue of the Arbitration shall be in the Union Territory of Jammu and Kashmir.</p> <p>Note: - Small grievances regarding interpretation of any clause of the Contract / Agreement executed between the parties shall be referred to Managing Director, JKMSCL for its clarification and such interpretation(s) given shall not become subject matter for reference to Arbitration</p>
34	The JKMSCL will have the right of rejection of all or any of the bids without assigning any reason for the same. The right to conclude parallel rate contracts with another firm for the stores detailed in Table I is also reserved by the Managing Director JKMSCL, J&K
35	Extra stipulation or any other condition contrary to the above bid conditions are not acceptable and may render the bid liable to rejection.
36	The bidder must sign all the pages of bid document at the below of terms & conditions agreeing to abide by all conditions of the bid and accept them in toto. The Signing of Annexure A1 shall be treated as acceptance of all the terms and conditions of the bid document.
37	The Managing Director JKMSCL, J&K may relax or change/ modification in terms and conditions in the exigency excluding fundamental changes. In case of such urgency the terms & conditions shall be got approved from Purchase committee of Managing Director JKMSCL, J&K as the case may be.
38	JURISDICTION:- All actions, legal proceedings and suits arising from or connected to this bid shall be subject to the exclusive jurisdiction of courts in J&K only.

Section VI B: - Special Conditions of Contract (SCC)

The following Special Conditions of Contract (SCC) shall supplement the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC. The clauses of special conditions of contract are as follows:-

Clause No.	Particulars
1.	Technical details, bid security, tender cost, tender processing fee and all other required documents should be uploaded under Cover "A" Technical Bid and financial details (BOQ) should be uploaded under Cover "B" . No document except financial instrument (DD/FDR) & catalogues of the bid items shall be entertained physically by the Corporation.
2.	Pre-requisite, if any, for installation, including UPS, computer, printer, and other items should be provided by the firm in technical bid and financial bid respectively.
3.	Firm shall provide comprehensive maintenance with spare parts for item(s), as mentioned in Technical specification (from the date of installation / demonstration). Acceptance of comprehensive maintenance contract after expiry of guarantee period should be submitted with the cover "A" and rates in cover "B" respectively.
4.	Conditional bids shall not be considered.
5.	Normally, payment shall be released after installation, demonstration and successful commissioning of equipment/ITEM and satisfactory operational training.
6.	All certificates should be valid on the date of submission of bids and issue of supply order.
7.	The bidder should have well equipped local service centre in India preferably in J&K.
8.	<ul style="list-style-type: none"> i. The bidder shall be a manufacturer/direct importer/authorised representative of the original manufacturer/importer who must have manufactured/ imported and supplied and installed this equipment(s) in India satisfactorily. ii. The merger / amalgamation / transfer of business / transfer of assets etc. of a firm affects the bid condition relating to 'past performance' in preceding years. In cases where bidder acquired an ongoing business or assets of another entity, eligibility in respect of the past performance and condition relating to minimum turn over in preceding years shall be decided based on specific mention in purchase and transfer of ownership agreement / agreement of sale of business and / or its assets / board of directors (B.O.D) resolution chartered accountant certification or any other document (s) in this regard, which the bidder shall have to submit preferably with the bid. The eligibility of a bidder in this regard shall be ascertained by the purchase committee on the basis of the above stated agreement or any other document(s) and the decision of purchase committee shall be final.

9.	The name, make, model and brand of equipments, which are offered, should be mentioned in against each item. Mere indication of English/USA/Indian will not serve the purpose.
10.	In the case of supply of imported item the suppliers may be asked to furnish a certificate to the effect that the firm has completed all the formalities in connection with import of the item in question.
11.	In case the item approved by the JKMSCL is procured by any other department on the rate contract of JKMSCL, the administrative charges to the extent of 5% of the invoice value shall be deposited by the approved firm or else, the firm/supplier shall be liable to be penalised which may lead to blacklisting/debarring from entering into the tender process for not less than 05 years by JKMSCL besides forfeiture of earnest money or any other action as
13	The Supplier/service providing firm shall be liable to pay a penalty of Rupees five thousand per day , if the firm didn't respond after 48 hours from the time of receiving first complaint. The complaint may be sent to firm by way of telephone /fax/letter or e-mail. The amount of liquidation damage shall be directly deducted from the security deposit of the firm at the time of refund or before by way of any adjustment order. All breakdown calls to be attended within 24 hrs at (within city limits) and 48 hrs for other districts/peripheral areas otherwise the penalty shall be imposed as per

APPLICABILITY OF CLAUSES: - All the clauses from 1 to 38 of general terms and conditions and from 1 to 13 of special terms and conditions and their annexure, formats & enclosures are applicable for the bid items.

Managing Director
Jammu and Kashmir Medical Supplies Corporation Limited

I/We have read the above terms and conditions and I/We agree to abide myself/ourselves by the above terms & conditions of the bid document

Signature of bid with seal

Section VI C: Contract Forms (CF)

Table of contents

S.No.	Description	Pages
1.	Letter of Acceptance (Annexure A1)	
2.	Agreement Form	To be downloaded from the website
3.	Form for bank guarantee (on bank letter head)	To be downloaded from the website
4.	Format-Authorized Representatives/Agents of Original Manufacturer/Direct Importer (Annexure AII)	
5.	Declaration regarding acceptance of terms & conditions of tender document by the bidder (Annexure AIII)	
6.	Technical Specifications (Annexure AIV)	

LETTER OF ACCEPTANCE

M/s

.....

Sub :- Acceptance of the bid rates for the item

Ref :- Your bid no. dated

1. Item (s) as per schedule enclosed/ noted/is/are approved in your favour against the rate (s) quoted by you in the above mentioned bid. According to the terms & conditions of the bid it is necessary to execute an agreement in the prescribed form enclosed, on a non judicial stamp paper of Rs. and furnish the requisite amount of performance security. The amount of performance security calculated on the basis of the approved items and indicative quantity mentioned in the bid from works out to only)
2. The performance security shall be furnished to Jammu and Kashmir Medical Supplies Corporation Limited through bank draft payable at Jammu.
3. All terms and conditions of the bid document shall be an integral part of the contract. You are informed to return the agreement form along with schedule of rates for approved item (s) in duplicate duly filled in and signed by you with signature and addresses of two witnesses below signature at the appropriate place mentioned in the agreement form. The copies of the agreement form must be send duly completed in all respect along with the amount as mentioned above falling which it will be treated as a breach of the terms and conditions of the bid and it will also be presumed that you are not interested in entering into the contract and approval of the rates shall be cancelled without notice or any reference.
4. The list of approved items may be checked and in case there is any difference between your offer and the approved rates, the same may be intimated immediately, failing which it will be presumed that it is correct as per your offer and technical specification.
5. The firm shall furnish consolidated statement of supplies made to JKMSCL by the 10th of the next month as per terms of conditions.
6. Please note that self attested/notarized copies of documents shall be considered valid. If photo copies are submitted, than at the time of signing the agreement, the firm shall bring original documents for confirmation.
7. Also please arrange to furnish the following documents required under the terms and conditions of the bid failing which the agreement will not be executed and the failure would lie at your part
 - (i) **The original copy of bid document signed on each page, which has been uploaded on e-procurement portal.**
8. You are therefore; requested to please complete the above formalities within 15 days from the date of issue of this letter. The duly signed duplicate copy of the agreement will be returned to you for reference.

Encl.: 1. Agreement form
2. Schedule of Rates
3. Any other

Managing Director
Jammu and Kashmir Medical Supplies Corporation Limited

Format-Authorized Representative of Original Manufacturer/Direct Importer

In case, original manufacturer/direct importer wish to authorise any representative to bid, to negotiate, to raise invoice to receive payments on behalf of original manufacturer/direct importer/against invoice raised by representative.

The Managing Director,
Jammu & Kashmir Medical Supplies Corporation Ltd.
J&K
Dear Sir,

We _____ who are established and reputed manufacturers of _____ having factories at _____ Registered office at _____ possessing manufacturing license No. _____ and do hereby authorize M/S _____ (Name and Address of Representative) to submit a bid and subsequently negotiate with you against the above mentioned tender, subject to the condition that I/we, the original manufacturer/direct Importer of the bidding items and our authorized representative _____ are ready to execute Tripartite agreement with the Corporation i.e JKMSCL stating inter-alia that:-

1. The invoice submitted by the authorised representative for such supplies shall be endorsed by me /us i.e. the original Manufacturer/Direct Importer of bidding items and original copy of the delivery challan of Manufacturer's towards authorised representative for such supplies shall also be endorsed along with invoice submitted by our Authorized Representative.
 2. JKMSCL may secure an e-mail /alternative confirmation for authenticity of such supplies from Manufacturer/Direct Importer, before releasing the payment, which we are committed to provide.
 3. The payment shall however be released on the terms and conditions of tripartite agreement to be signed between JKMSCL, Original Manufacturer / Direct Importer and the authorized representative of Original Manufacturer / Direct Importer of the bidding items for such supplies made by the authorized representative, on behalf of me / us.
 4. In case of change of Dealership we shall be responsible for providing after sales services and maintenance of the equipment free of cost during the warranty period..
- 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.

I / we, further agree to comply with the conditions specified under Clause 2(a) –Eligibility Conditions, of the tender document. We hereby extend our full guarantee as per the tender conditions 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 the manufacturer/Direct Importer)

Note: This letter of authority should be on the letter head of original Manufacturer/Direct Importer of bidding items and should be signed and sealed by the Proprietor/ Managing Director of the firm / authorized signatory and shall have to be duly notarised.

TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATION FOR COMMISSIONING OF POSITRON EMISSION TOMOGRAPHY AND COMPUTED TOMOGRAPHY (PET-CTIMAGING SYSTEM)

Overview:

The PET –CT should be of latest, state-of-art technology, sold worldwide. The unit must have good quality performance in all respects .The unit should be type approved by AERB and also should be approved in the country of its origin. The unit should be latest and current modal in production.

TECHNICAL COMPLIANCE SHEET

Instructions:

- 1) The Bidder should submit item wise technical compliance of every point in the specifications.
- 2) The deviations, if any, must be clearly mentioned with clarifications.
- 3) No point should be left unexplained.
- 4) All relevant technical information must be included with reference to each clause of the specifications. They must be clearly indexed for ready reference in the catalogue/ technical sheets attached.
- 5) All claims must be supported by authenticated pamphlets, brochures, documents etc.

SPECIFICATIONS OF PET-CT MACHINE:

Sl. No	Technical specifications	Confirm each specifications– Please Tick (v) in appropriate columns given below		Remarks
		YES	NO	
1	A latest technology Positron Emission Tomography system with integrated 64-slices or more spiral CT scanner, for commissioning by the vendor. The quoted machine should represent for more than 4 years in market.			
2	Scope of the work: Primary vendor shall be responsible for supply, installation and commissioning of the PET/CT on turn-key basis			
3	The final price comparison of rates for awarding the contract will be made after adding price of all the components - price of the PET/CT including accessories & CMC and turnkey part			

4	Vendor should visit the department to have a look at the space available for installation of the new system. A certificate should be attached that the space is adequate for the installation of the quoted systems.			
5	The radiation equipments offered against this tender shall duly conform to the prescribed international/national standards and norms of radiation safety. Type approval certificate/NOC from AERB, Mumbai for the quoted model MUST be attached with the technical bid or else the bid will be summarily rejected.			
6	All the QA / acceptance tests as per NEMA and AERB need to be carried out by company engineer in the presence of Nuclear Medicine Physicist of the department. A detailed report need to be submitted in a stipulated time frame for onwards transmission to AERB to get the license for operation of the equipment. All the required phantoms for QA tests will need to be arranged by the vendor. The Company will also arrange such phantoms during periodical QA tests.			
7	The tenders along with all the commitments, claims, specifications, guarantee, warranty etc. pertaining to the equipment should be submitted directly by the Manufacturer/Principal Company or their Vendors who shall be wholly and solely responsible for all the statements/commitments in this connection.			
8	Any options or added facilities not indicated in the specifications may also be given. Any improved modifications or updated versions of the system can be included in the quotation.			
9	The OEM should have at least 3 satisfactory installations in India/Abroad. In this regard a good performance certificate should be submitted.			
	General:			
10	A latest technology DICOM ready state of the art whole body Positron Emission Tomography system with integrated spiral CT scanner having 32 rows or more of CT detectors generating 64 slice per rotation, designed for providing volume measurements of metabolic and physiological processes using positron emitters, as well as for producing accurate structural and anatomical fusion images and making attenuation maps for CT based attenuation correction.			

11	The system should have capability for simultaneous data acquisition, processing, image reconstruction & analysis and fusion of PET with CT images.			
12	The system should operate on 220 (± 10) or 440V (± 20) V A/C, 50 HZ			
13	System should be on latest PET and CT platform. The acquisition & processing software should be of latest version			
14	System must be FDA/CE approved at time of bidding and shipping. Attach relevant certificates.			
15	All the Application, Operating and Service Manuals in English language in duplicates should be provided by the vendor at the time of handing over the machine. At least one of these manual sets to be provided in computer readable format, preferably as Word for Windows format document.	YES	NO	REMARKS
Gantry and Detector:				
16	Gantry should have integrated PET & CT hardware.			
17	The patient gantry aperture size should be ≥ 70 cm and uniform for both, PET and CT			
18	The PET scanner should employ non-hygroscopic high light yield (80%) and low decay time Lutetium based crystals for detecting 511 KeV gamma photons in coincidence.			
19	The scanner must have a continuous ring of detectors without any gaps			
20	PET crystal thickness should be ≥ 18mm			
21	The transverse field of view should be ≥ 70 cm			
22	Axial field of view (FOV) as measured from the outer edges of the crystals must be ≥ 15 cm.			

23	It must be capable of acquiring 64 or more transverse cross- sectional slices, simultaneously without undergoing any axial motion			
24	The scanner must have low power laser lines orthogonally mounted on the gantry for patient alignment and auto- contouring. The laser should be mounted in such a way that the patient can be positioned from either side of the gantry and the patient bed			
25	Efficient Gantry cooling system for continuous running of the machine, the detector performance should be maintained over temperature variations			
CT Specifications:				
26	Multi detector CT having 32 or more physical rows of detectors with capability of generating 64 transverse cross- sectional slices simultaneously in one rotation.			
27	Filters / Collimators and other specific features to reduce radiation dose to the patient (with separate adult and pediatric protocols)			
28	Laser alignment light should control the iso-centric position of the patient in all planes	YES	NO	REMARKS
29	Multiple pitch factor settings, variable between 0.5 to 1.5 or more and should be freely selectable by the user.			
30	The detector coverage should be at least 19 mm or higher.			
31	Rotation time should be ≤ 0.5 sec for 360 degree			
32	Image slice thickness should be from ≤ 0.625 mm to 10 mm and freely selectable			
33	High contrast spatial resolution should be ≥ 15.0 Lp/cm at 0% MTF			
34	Low contrast resolution should be at least ≤ 5 mm @ 0.3% with 20 cm CATPHAN phantom			
35	Microprocessor controlled high frequency ≥ 50 kW x-ray generator.			
36	Tube Voltage range should be between 80 - 140 kV			
37	Anode heat storage capacity of 5.0 MHU or more			
38	Tube Current of 30-400 mA or better			

39	Automatic self-testing system			
Patient Bed:				
40	Precision bed having low attenuation pallet and minimum sag of the patient table top.			
41	A separate flat table top should be provided for radiotherapy treatment planning.			
42	It should be able to bear 220 kg or more patient weight.			
43	A digital readout of the horizontal and vertical position of the bed must exist and must be located near the aperture controls for the bed to provide ease in positioning			
44	The horizontal motion of the patient bed must be electrically motorized and computer controlled with an independent operator control option as well. Operator controls accessible from both sides of the patient must be provided for both horizontal and vertical movements.			
45	Full body horizontal length should be ≥ 190 cm and cover whole body imaging (Head to Feet) in a single go.			
46	The table height should be good enough to unload the stretcher and wheel chair patients without footrest.	YES	NO	REMARKS
47	Low attenuation ergonomic head holder, pediatric pallet / restrain, knee-leg support and other accessory pallets.			
Performance Specifications:				
48	All specifications must comply with latest NEMA Standards Publication NU2 performance measurements (NEMA NU2 – 2012) without altering instrument parameters. QC Software to measure these parameters must be available in the system			
49	Additional feature that helps to enhance the NEMA spatial resolution values must be offered as a standard part.			
50	TOF based reconstruction algorithms for better lesion detectability			
51	Axial & Transverse spatial resolution at 1 cm & 10 cm from the central axis of the gantry should be ≤ 5 mm FWHM			
52	Timing Resolution should be ≤ 600 psec.			
53	System sensitivity must be ≥ 6.2 cps/KBq at center			
54	System energy resolution should be ≤ 12.0 %			

55	3-D scatter fraction should be $\leq 40\%$ and peak NECR should be ≥ 80 Kcps, specify the activity concentration for the peak NECR.			
Data Acquisition Workstation and Software:				
56	One high performance multi-tasking Acquisition Workstation independent of main processing unit. The workstation should have a minimum 2TB SSD storage, high processor speed, and high resolution (1024 x 1024 or more) antiglare flat panel Dual LCD monitor of minimum 19" size. The workstation should be of latest specifications at the time of shipment.			
57	PET Acquisition Modes: Acquisition in full 3-D mode must include Static, Whole Body, Dynamic and Gated (cardiac & respiratory) acquisition			
58	Acquisition Protocols: The acquisition program should support preprogrammed scan protocols with acquisition and reconstruction parameters and patients information with simple, dynamic editing of parameters. These parameters would include all information necessary to acquire data on the PET scanner (e.g., scan duration, patient information, bed motion), as well as information necessary for reconstruction.			
59	Whole Body Acquisition: Multi bed acquisitions (e.g. for the purpose of whole body oncology studies) should advance the bed from one position to the next automatically.	YES	NO	REMARKS
60	Dynamic frame Mode Acquisition: The acquisition set-up software must support multi-frame acquisition of different (arbitrary) frame duration's with no loss of data between frames.			
61	List Mode Acquisition for cardiac studies should also be available as standard feature.			
62	ECG Gating should be part of the offer and is to be provided with necessary hardware and software.			
63	Intercom with user programmable patient instruction system			
64	Ultralow dose CT protocols should be available for hybrid PET/CT protocols.			
65	Same PET CT protocol should be used for Contrast CT in single acquisition			
66	CT based attenuation correction			

67	Reconstruction: PET data acquisition and image reconstruction should be concurrent process i.e., image reconstruction should simultaneously start for the acquired image while acquisition is still in process.			
68	Fully 3-D speedy iterative reconstruction with scatter correction, decay correction, deadtime correction, detector efficiency normalization, OSEM technique and Time-of-flight reconstruction algorithms must be standard features.			
69	Reconstruction time: At least 20 frames/sec			
70	Advanced 3-D Volume rendering with 3-D fusion, patientbased 3-D scatter correction, virtual endoscopy & bronchoscopy			
71	SUV analysis			
72	Low dose iterative reconstruction algorithm should also beprovided			
73	Pixel Size: The User should have the option to specify the pixel size for reconstruction. The reconstruction program should support reconstruction in image sizes of at least 256 x256 or higher.			
74	Scatter Correction: Scatter correction must be provided based on scan of the actual patient whose scan is being corrected and processed automatically.	YES	NO	REMARKS
75	System management software for computerized calibration, quality control for all scanner performance parameters, diagnostics.			
76	Data editing facility for acquired data			
77	Latest DICOM based networking and compatible software for both PET & advanced CT applications.			
78	Facility of DVD & CD writing and image transferring to processing workstation as well as the enterprise or mini PACS server.			
Processing Workstation and Clinical Application Software:				

79	Three high performance multi tasking post processing independent workstations/Server Client Architect having minimum 32 GB RAM, 2.67 GHz processor speed, minimum 512 MB graphic card, 2 TB or more SSD (if less, another SDD may be included) logically divided into 3-4 partitions, Optical Mouse, Key-board and high resolution anti-glare flat panel dual view LCD monitor of $\geq 21''$ size with minimum resolution of 1280 x 1024. It should also have CD and DVD combo drive with writer facility. It should have both, serial and USB ports. The graphical user inter-face (GUI) should be identical to that of the 6 acquisition unit. The computer workstation should be of latest specifications at the time of shipment. Necessary high quality computer table should be supplied.			
80	Communications - Ethernet with TCP/IP protocols and DICOM-3.0 or latest networking of all possible equipments in the facility with their peripherals, seamless connectivity to acquisition station and image server.			
81	Image comparison software for review with longitudinal evaluation of baseline-follow up studies using PERCIST/RECIST.			
82	Dynamic PET processing and viewing software			
83	Fusion software for PET/CT/MRI/SPECT data, including imported data and provision for multiple phases in 3-D demonstration.			
84	Respiratory gating software and hardware for PET/CT acquisition and processing should be a standard feature	YES	NO	REMARKS
85	Computer aided diagnosis software with quantification ability for neurological applications including assessment of dementia by measuring relative SUV			
86	Complete cardiac package with ECG gated studies (prospective and retrospective tagging) and ECG gated dose modulation.			
87	Cardiac PET viability review application software.			

88	CT application software's like 3D reconstruction and display, shaded surface display, MIP, mIP, volume rendering technique, cine display, real time multiplanar reconstruction and display,			
89	Workstation with software for myocardial blood flow measurement for absolute quantification using N-13 Ammonia and Rubidium-82 (4-DM)			
90	Brain 3D software with FDG normal data base with Z score images should be provided.			
91	PET DICOM 3.0 or higher version facilities for clinical applications must be implemented. It should have the ability to import MR /CT DICOM Data			
92	Provision to make DICOM/ PDF/ JPEG /AVI /MPEG digital output.			
93	On site remote service diagnostic facility with Wi-Fi enabled Gigabit broadband internet connection			
94	All future software updates during warranty and CMC period shall be free of cost			
Peripherals / Accessories:				
95	A 3 phase input/output UPS with maintenance free batteries (Exide, Amron, Base, Yuasa) for the complete system including CT with minimum 15 min. backup at full load should be provided. A few ordinary lights will also need to be connected through this UPS.	YES	NO	REMARKS
96	Latest dual head pressure injector compatible with CT and 200 sets of 200 ml disposable CT syringes with tubing and connector			
97	Machine specific source for calibration of the system to be replaced as and when required for the period of warranty and CMC.			
98	Required Phantoms for CT & PET Quality Assurance and system calibration			
99	One Scatter Phantom for PET (as per NEMA specifications).			

100	One Sensitivity Phantom for PET (as per NEMA Specifications)			
101	Two latest specifications PCs having licensed windows & MS office & antivirus and laserjet printers for patient reports and data maintenance			
102	Refrigerator of reputed make, gross volume of 230 litres- 2 in numbers			
103	Four single syringe pumps (ASCOR / AITECS / Graseby / B Braun), with delivery rate from 0.1 ml/h to over 100 ml/h in 0.1 ml increments & capable of using 10ml, 20ml and 50ml syringes commonly available in local market.			
104	Two biphasic defibrillator of reputed make			
105	Two Glucometers with 50 packs of blood glucose test strips			
106	One Syringe Needle Destroyer			
107	4 electrical digital weighing balances for human use for atleast 200 kg			
108	One digital analytical weighing balance having 0.01 mg resolution and weighing capacity up to 120 gm, of reputed make like Sartorius, Ishida etc			
109	4 light weight lead lined aprons of 0.5 mm Pb equivalent			
110	Three Tungsten shielded containers for F-18 (CF-18 T by Comcer or equivalent)	YES	NO	REMARKS
111	Tungsten syringe shields – Five of 2 ml and Two of 10 ml			
112	Tungsten syringe shield 5 ml with window glass – 5 in number			
113	Five Digital Pocket Dosimeters (Rad-60R by Rados or equivalent Technology)			
114	Three Area (Gamma Zone) Monitors to be installed at different places.			
115	One Decontamination kit (Biodex, Capintec)			
116	Two long handled tongs			

		YES	NO	REMARKS
117	<p>One PET/CT Dose cabinet which should have the front shield with built-in place and shield for dose calibrator, conventional dose dispenser with rotating handles with standard thickness (~6.5cm), PET sharps container shield, a lead cave covered with steel, key-locking doors, bottom shelves to accommodate PET shipping containers and upper shelves to store syringes, syringe shields, and other small items.</p> <p>PET CT Dose cabinet Specifications:Dimensions: 36.5"W x24"depth x36.5h (93x61x93cm) Lead shielding: 2.5"thick (6.35cm) Finish : Power coat Doors: Key locked Countertop: Stainless steel with 4" (10.2cm) backsplash and .5"(1.3cm)lip Weight capacity: 12240 lb (562Kg) <i>Compact L Block with dose calibrator Shield</i> Dimensions: 18"w x 21.5" depth x 26"h (45.7x54.6x66cm).Lead shielding Front: 1.5"thick (3.8cm)Base: 1" thick (2.5cm) Calibrator shield: 1"thick(2.5cm) Calibrator shield inside dimensions: 6.85"l.D x10.25"h(17.4 x26cm) Lead glass window: Dimensions: 8"w x 8"h x4" thick (20.3 x 20.3 x10.2 cm) Density: 5.2g/cm Finish: powder coat Weight: 590lb (259Kg) <i>High energy PET Sharps container Shield</i> Dimensions: 12"h x8.75"dia (30.5x22.2) Lead shielding: Sides and bottom: 1"thick (2.5cm) Rotating cover: .875" thick (2.2cm) Hinged door: .625"thick (1.5cm) Security: Key locked Weight: 175lb (79.4kg)</p>			
118	One stainless steel side trolley with lockable storage provisionin the PET/CT room for intervention procedures.			
119	One light weight IV stand			
120	2 two-step stool with hand support for patients, near theacquisition table			
121	Dose calibrator for PET agents with lead rings			
122	Survey cum contaminator monitor – 1 No			

		YES	NO	REMARKS
123	60 interlocking lead bricks			
124	L bench with lead glass for viewing for handling PET agents			
125	Lead dust bin – 2 No's			
126	Lead pot and dose drawing jaws for FDG			
127	Various positioning aids			
128	Infant immobilizers			
129	Dehumidifier – 2 in number			
130	High precision waterproof electronic thermometer for refrigerator			
131	Water bath – 1 in number			
132	Sentinel node probe with calibration phantom of reputable make should be supplied- Please give the specification (Crystalcam or equivalent product)			
133	Foot steps – 5 in number			
134	Syringe carrier – 4 in number			
135	Arteries, forceps and vial holders (long and short) – 3 each			
136	Steel trolleys to carry doses across the department – 5 in number			
137	Height calculator – 3 in number			
138	Decapper and recapper – 1 each			
139	Patient couch (Push back, recliner type) – 3 in number			
140	Elbow/foot operated sinks. Installation to be part of Turnkey works			
141	Syringe holders, syringe carrier, syringe shield (appropriate for Tc and FDG with lead glass window)) – 4 each			
142	Lead bin with appropriate thickness for Tc 99, FDG, I 131 (2 each)			

		YES	NO	REMARKS
143	Adjustable mobile barrier – 2 in number Dimensions: 37.75" w x 29" depth x 40.5" h (95.9x73.7x102.9cm) Height adjustable :36" to 40.5" (91.4 to 102.9cm) Finish : powder coat Weight: 446lb (203.3Kg) Shipping Weight: 560 lb (254Kg) Warranty: five years parts and labor.			
144	Lung Ventilation Aerosol Generator for SPECT – 01 number			
145	BP apparatus – standing 3, portable - 2			
146	Vital monitor with pulse oxymeter – 1 in number			
147	Lead goggles – 2 in number			
148	Induction based vessels (open type) – 1 in number			
149	Micropipettes - 1000µl , 200µl, 20 µl – 1 each			
150	32 inch LED TV - 5 in number			
151	Steel almirah with front glass type – 2 in number			
RADIOTHERAPY PLANNING (RTP)				
152	Flat table top insert			
153	Patient positioning and fixation accessories(head, arm etc)			
154	Laser tracking system(3 moving lasers)			
155	Network connectivity to Varian/Eclipse/Elekta			
156	Virtual simulation and software a) Image display b) Volume definition c) Contour tracing and editing d) Beam placement and beam shaping e) DRR feature A separate workstation is needed.			
Others:				
157	The supplier shall be required to undertake all the site preparatory work in the area where the PET/CT will be installed, as per the turnkey details.			

		YES	NO	REMARKS
158	Equipment is to be installed as per AERB requirements. Qualified personnel from the company should install and commission the scanner.			
159	Appropriate sized lead glass in the acquisition terminal room			
160	Warranty: The complete system should have a guarantee / warranty including the radioactive reference source, crystals, detectors and CT x-ray tubes replacement for a period of 05 years after the satisfactory commissioning and handing over of the equipment. Warranty for the air-conditioning system will also be part of the main equipment			
161	CMC: Comprehensive maintenance contract for whole system including CT x-ray tube replacement as and when required and accessories for a period of 5 years after the expiry of warranty period. CMC for the air-conditioning system will also be part of the main equipment.			
162	The peripherals / accessories, phantom source and calibration sources and UPS will also form part of the warranty and CMC. Service, repair and maintenance of all third party items will be the sole responsibility of primary vendor. Replacement / Replenishment of the coolant for gantry will also form the part of warranty as well as CMC			
163	At least 95% uptime should be maintained during warranty as well as CMC period. Other rules as per tender conditions.			
164	After sale service to be available locally in Jammu and Kashmir.			
165	Onsite training by trained Engineers and application specialists (both, PET and CT applications) working in good PET centers, for Physicians and Technologist/ Technicians for at least 2 weeks period, in two shifts.			
166	The acceptance of the installation shall be subject to satisfactory handing over of the system to the department and certificate to this effect will be issued by the institute. Warranty of equipment will start from the date of receiving the License from AERB.			

Specifications and Scope for the Turnkey Work in the PET Centre

General:

		YES	NO	REMARKS
167	The supplier shall be required to undertake all the site preparatory work in the area where the PET/CT will be installed. This would include planning, designing and execution of all the works pertaining to Civil, Electrical, Public health and Air Conditioning.			
168	The site in the PET centre should be inspected by the vendor and certified that it is satisfactory for installation of the equipment.			
169	The scope of turnkey work should be discussed with department and the engineering section of MCC			
170	The vendor can suggest minor modifications/changes for improving the function of the PET Centre in consultation with user.			

Broad outlines of the turnkey work are as following:

Civil & Plumbing Work

171	Need based changes to be made in the room where new PET/CT scanner will be installed. While designing the area, the existing room should be retained wherever possible and only unavoidable changes should be made.			
172	False ceiling in the PET/CT room should be done-specify the material used.			
173	PPGI sheet roofing in the electrical transformer room. The sheets shall be free from cracks, split edges, twists, surface flaws etc. – If necessary			
174	The main entrance door of the PET Centre need electronic locking for restricted entry-Access control system should be provided for existing door shutters.			

Electrical Work

175	The electrical work shall include the following:			
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		YES	NO	REMARKS
176	MCC shall provide main incoming cable to this location. Main machine panel UPS panel (in and output panel), AC control panel etc. are in the scope of contractor. All general electrical wiring including UPS, power, light, DB shall be provide by MCC.			
177	Any addition trench/tray core cutting , electrical power points,water points, net work point etc required for the satisfactory installation of machine are in the scope of contractor.			
178	Double earthing with copper plate for the main equipment and the air-conditioning equipment, with use of earth leakage circuit breaker, as per ISI specifications.			
179	General lights to be fixed should be of energy efficient (LED) mirror optic reflector type. All the switches/switch gears/wires/fittings should be as per ISI approved make			
180	Music and Public Address System need to be properly installed (connected with machine if needed)			
Fire Protection				
181	The existing fire alarm system is to be retained with need based changes. Additional sensors are needed to be installed at the left out areas			
182	Gas suppression system for electrical panel and UPS			
183	AHU/VRV tripping system and to be connected with main alarm panel			
184	Fire Extinguishers: a. Clean agent fire extinguishers of 2Kgcapacity = 06 Nos. b. Co2 Fire Extinguishers of 2 Kg capacity= 04 Nos. c. ABC Fire Extinguishers of 4 Kg Capacity = 06Nos.			
185	Battery isolation switch between battery bank and UPS is needed to be provided.			
186	LED based exit and fire signage to be installed as per location.			
Air Conditioning The scope comprises the Supply, Installation, Testing and Commissioning of Energy Efficient VRV System of Blue Star / Hitachi / Trane / Carrier make.				
187	Air cooled Variable Refrigerant flow Units having 100% inverter type IVRFB outdoor unit having capacity 84 H.P (28 HP x 3 nos.) and multiple indoor units. Should be varied basedon heat load.			

		YES	NO	REMARKS
188	The temperature range in the PET scanner rooms should be between 22 ± 2 degree Celsius. The variation in temperature should not exceed one degree Celsius per hour.			
189	The indoor units on any circuit can be of different type and also controlled individually. Compressor installed in each modular outdoor unit shall be equipped with Scroll / Rotary(100 % inverter).			
190	Outdoor unit shall be suitable for mix match connection of all type of indoor units.			
191	The refrigerant circuit shall include liquid & gas shut-off valves and a solenoid valves and an accumulator is the system demands. The refrigerant should be R410a Only			
192	Ducts required (supply & return) along with grills, dampers etc. for the satisfactory completion of HVAC system are in the scope of contractor.			
Variety of Indoor Units should be as under:				
193	Indoor units shall be either ceiling mounted cassette type, ceiling mounted Ductable type, wall mounted type, Package type etc. which shall be decided at the time of execution each unit shall have electronic control valve to control refrigerant flow rate in response to load variations of the rooms			
194	The ceiling mounted type units shall include pre-filter, fan section and DX-coil section. The housing of the unit shall be powder coated galvanized steel.			
195	Ceiling Mounted Ductable Type units shall be suitable for ceiling mounted type. The unit shall include pre filter, fan section & DX coil section.			
196	Ceiling Suspended type unit shall be suitable for ceiling suspended arrangement below false ceiling. The unit includes pre filter, fan section & DX coil section.			
197	A multifunctional compact centralized controller shall be provided with the system. It shall be able to control the Starting/stopping of Air-conditioners as a zone or group or individual unit. Temperature setting for each indoor unit or zone.			

		YES	NO	REMARKS
198	All refrigerant piping for the air conditioning system shall be constructed from soft seamless up to 19.1mm and hard drawn copper refrigerant pipes for above 19.1mm with copper fittings and silver-soldered joints. All joints in copper piping shall be sweat joints using low temperature brazing and/ or silver solder. The suction line pipe size and the liquid line pipe size shall be selected according to the manufacturers specified outside diameter. All refrigerant pipes shall be properly supported with cable trays of suitable size and anchored to the building structure using steel hangers, anchors, brackets and supports. Pipe Insulation on liquid and suction refrigerant lines including all fittings, valves and strainer bodies, etc. shall be insulated with 13 mm thick Elastomeric Nitrile rubber Class „O“.			
Package AC Units:				
199	Supply, Installation, Testing & commissioning of packaged Air conditioning units having Capacity- 8.75 TR x 2 nos. (NonVRF) (Air cooled) with Scroll compressors, statically dynamically balanced centrifugal blower having nominal air flow with eco friendly R407C/410a .Refrigerant and Inbuilt safety devices for compressor protection like thermal protector, Internal pressure, cutout enclosure etc shall be equipped with synthetic filters of following capacity complete with ducting work, Grill works, Insulation work and providing & fixing Electrical Panel along with cables etc. complete in all respect (make - Blue Star / Hitachi / Trane / Carrier). Appropriate specification of AC for UPS room is also the scope of the turnkey			
200	An electrical cable including controlling switches and protection system if required from / to the air-conditioning panel will be supplied and fixed by the vendor.			
201	The outlet drainage pipes from the air-conditioning units should be connected to the drainage ducts outside the building.If required, floor traps/manholes should be provided to collect the condensed water and connected with the drainage system of the Institute.			
202	Proper Ventilation in electrical, UPS rooms, Toilets			
203	6 digital temperature and humidity control reader to be provided (digital hygrometer) Humidity should be maintained below 55 and for that contractor should provide individual de-humidifier units.			

204	Warranty: 05 Years and CMC of 05 Years after the expiry of warranty period, as a part of the main PET/CT equipment.			
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Furniture				
		YES	NO	REMARKS
205	Control console and computer platform should include Tables with Keyboard drawers as per the requirement			
206	Fifteen sets (3 chairs each) of waiting chairs should be provided in the waiting area			
207	8 revolving type chairs on castor of reputed make			
208	One office table, One four drawer book cases			
209	Lead Glass of required size should be fixed in the console room window with lead frames			
210	Proper signage for each room including main signage board near entrance F Defect Liability All the works to be executed under turnkey (including civil, electrical, public health, fire fighting, HVAC etc.) shall be guaranteed for a period of five years from the date of commissioning against any defective material/workmanship. All the repairs/replacements/maintenance during the defect liability period shall be carried out by the vendor. Certification to the effect that the work has been executed as per the specifications incorporated in the above document will be by the Engineering Department of the institute.			
Others - Optional				
211	500 days of F18 – FDG should be ensured by the vendor. Price should be quoted separately			

	ADVANCED HIGH ENERGY LINEAR ACCELERATOR
	Please quote latest state-of-the-art machines capable of delivering advanced high precision Radio Therapy. Given below are minimum requirements. Equipment with better specification shall also be considered.
	Provide compliance to all points listed below
	ESSENTIAL PARAMETERS
	Parameters -Specifications
1	Photon Energy - 6 MV , 15 MV (BJR11/AERB)
	Electron Energy -Highest energy for electrons 15 MeV or above. Minimum 5 energy levels for electron starting from 4 MeV to 15 MeV or more. 6 MeV Should have HDR Mode.
	Minimum 5 energy levels for electron starting from 4 MeV to 15 MeV or more. 6 MeV Should have HDR Mode.
2	RF Source
	Magnetron / Klystron. Please specify
3	Waveguide Type
	Standing / Travelling, Please specify
4	Electron Gun
	Sealed / Unsealed
5	Treatment Modes
	Normal - TSD / TAD
	Rotation - CW / CCW
	ARC - CW / CCW
6	Dose rate - MU/degree
	Dose- 100 to 600 MU/min is steps or higher.
	Electrons: Minimum 600 MU/ minutes at the isocentre or higher.
7	Field Size Photons
	Maximum: 40 x 40 cm ² (or more)
	Minimum: 0.5 x 0.5 cm ² .
	Penumbra: ≤ 8 mm for 10 x 10 cm ² field at 10 cm depth
	Electrons 4-5 applicators,
	A method to obtain irregular field shapes should be provided.
8	Beam Flatness
	± 3% as defined in IEC 60976 / 60977 for entire range of field sizes.
	Stability of flatness with gantry rotation, please specify
9	Focal Spot size
	≤ 3 mm dia. at the X-ray target.
10	Beam Symmetry
	±2 % for 10x10 cm ² and above
11	Gantry

	Rotation $\pm 180^\circ$ (360° total)
	Read out - Digital and Mechanical
	Accuracy dig-readout 0.5°
	Control - Hand pendent and control-console
	Target - Axis Distance: 100 ± 0.2 cm
	ODI Range: 75 cm to 150 cm
	ODI Accuracy ± 0.1 cm
	Gantry Rotation Isocentre ≤ 2 mm dia. Sphere.
	Collimator Rotation: +/- 95 Degree or higher
12	Control: Hand pendant and control- console
	Readout accuracy: $\pm 0.5^\circ$
	Collimator Rotation Isocentre ≤ 2 mm dia. Sphere
	Motorized / Dynamic Wedge
13	Asymmetric Collimators
	X & Y both Asymmetrical
	Travel ranges & over travel range. Please specify
14	Multi-leaf collimator (MLC)
	No. of Leaves : 120 leaves or more, 5mm leaf size at iso-centre.
	Independent drives for each leaf
	Maximum field size 40×40 cm ²
	Please specify MLC motor specifications and endurance test report
	Capable of performing Conformal therapy (IMRT, SRT, SBRT) procedures.
	Interface between MLC & latest R&V System should be provided.
	Facility to treat patients conventionally, using blocks without MLC.
	Work Station HW/SW_Specify details
	In-Room monitor: numbers and type
	Integration (full Networking) with Planning System and Simulator / CT Simulators etc.
	Specify following parameters:
	Max. leaf retracting position
	Over travel (jaws)
	Over center travel of MLC leaves (>10 cm) for IMRT treatments
	Max. field length
	Leaf height & material.
	Coincidence of light & x-ray field
	Penumbra
	Transmission
	Interleaf leakage
	Leaf position accuracy
	Max. carriage speed
	Max. leaf speed
	Positional accuracy of the leaves during treatment.
	Inter-digitation of leaves if available
15	Flattening Filter Free beam
	Give any two energy with FFF with dose rate 1400MU/min and above
16	Volumetric Arc delivery

	IMRT/ SRT/ SBRT/ Volumetric IMRT
17	Auto Field Sequencing
	AFS should be available
18	Portal Imaging:
	Latest software for analysis (MV/KV/DRR)
	Should fully integrate with Accelerator
	Should be able to take images at any Gantry angles with variable X-Y-Z movements, Robotics Arm with remote control.
	Imaging area should be 40 x 30 cm ² with energy range 4 - 25 MV
	Should have latest Digital technology with High Resolution Imaging (Amorphous silicon flat panel technology) -
18	IGRT System
	Latest SW & HW
	Retractable arms
	X-ray tube: radiography, fluoroscopy, CBCT
	Flat panel detectors. Please specify resolution
	CBCT reconstruction, registration (MV-MV, KV-KV, KV-MV)
	Fully integrated with latest R & V system and TPS
	3D image data should be reconstructed from series of 2D projection images acquired as the linear accelerator gantry is rotated
	Phantoms used for dosimetry/QA, please specify.
19	Treatment Couch
	Versatile extended range couch with indexed immobilization
	Longitudinal, Lateral, Vertical and Rotation: please specify range of movements
	Electrical / Mechanical Control
	Control-Local and/or Remote
	Fully Carbon Fiber table top. Should have option for providing tools for fixing immobilisation devices.
	Electrical backup & Mechanical Control (in case of power failure)
	Minimum height from floor - specify
	Laser System
	Four (4) wall mounted Lasers should be provided for LINAC room. 3 lasers to be cross lasers (two side wall and one roof) and 1 laser to be inclined sagittal laser. In addition to this, one sagittal laser should be provided for mould room.
	Line width should be less than 1 mm
	Straightness deviation of line should be less than 0.05 mm
21	Networking
	An open Record & Verify System latest version (HW & SW) for Linear accelerators
	Transfer of all parameters from Simulator, CT-simulators, MRI, PET-CT, PACS etc. & Treatment Planning System, and other TPS to the Linear Accelerator for automatic treatment setup & delivery should be provided.
	Transfer of DRR/ Fluoroscopy images through R&V system for comparison with portal imaging
	Transfer & Execution of Conformal & IMRT treatment plans from Treatment Planning System should be provided.

	All required interfaces should be provided.
	Transfer and execution of MLC position parameter for normal and IMRT treatment including step & shoot and/or dynamic and/or rotational IMRT techniques from TPS.
22	Accessories
	Motorized Wedge
	Mechanical Front pointer (SSD indicator)
	Accessory mount - shadow block tray
	Blocks set of divergent / non-divergent
	Side Rails on both sides of Couch for Mounting Accessories.
	CCTV Camera & Monitor system (Two no's). One wide angle & one remote control with remote zoom & focus facility.
	In-room colour flat monitor LED of size 19" or larger.
	Interface Mount to be provided for Simulator to simulate accessories like ShadowBlock Tray etc. of the quoted Accelerator model.
	Manual retraction tool (manual crank) for couch in case of power failure
	Digital camera for taking patient-position photograph- 1 no.
	A two-way communication system between LINAC room & Control room.
23	Dosimetry System
	Built-in chambers. Two separate chambers
	Precision: $\pm 1\%$ or 1 MU
	Linearity: $\pm 1\%$ or 1 MU
	Reproducibility $\pm 2\%$ or 1 MU
	Dose Rate Dependence: please specify
24	Safety System as per IEC / AERB standards
	X-ray absorbed dose due to leakage radiation (excluding neutrons) outside usefulbeams (As per AERB)
	Emergency switches
	Door interlocks
	Collimator transmission: as per AERB specification-
	Neutron dose inside the treatment area and outside the treatment area, as per international standards
	Various Beam off interlocks
25	Leakage Radiation as per IEC / AERB standards
	Head leakage. Please specify.
	Collimator transmission. Please specify.
	Neutron Dose: Please specify
26	Treatment Planning System
	Monte Carlo Photons or equivalent.
	Five workstations (Two dose calculation engines (licences) and Three contouring stations)
	Latest HW/SW, upgradable for next 10 yrs
	DICOM3 and full DICOM family
	DICOM RT Import/export from all existing CT/MR/PET/PACS/C-ARM etc
	Image registration (rigid / deformable)
	Atlas based contouring (optional)

	Specify dose calculation algorithm for 3DCRT / IMRT/ VMAT / Electrons / other.
	Import /export- Image/structure set /plan/ dose etc. to all machines and integration with network. (HW/SW)
	Server (backup/restore)_latest HW/SW and SW should be free updatable for next 10yrs
	Latest Network colour Printer. .
27	Manuals / Data book
	Operator, System and Schematic manuals.
28	TRAINING OF STAFF
	2 Radiation Oncologist/ 2 Medical Physicist/ 2 Radio-Therapy Technician for two weeks in India. Additional Onsite training for minimum Two weeks.
29	EQUIPMENT CERTIFICATION
	AERB type approval: please enclose certification/ e-LORA Registration.
30	US FDA /European CE approvals: please enclose certification(s).
31	All consumables required for installation, standardization testing of system should be included in the cost
	room Colour flat Monitor LED of size 19" or larger.
32	Software Updations
	Free Software updation for 10 years
33	UPS
	Online UPS to support LINAC system, Workstations, Chiller, for minimum of 30 minutes.
34	Dosimetry and QA TOOLS - (price to be quoted separately)- Specific MAF is not required
	RADIATION THERAPY BEAM ANALYZER
	Require a full-fledged three dimensional Water Phantom & Dosimetry System and therapy beam analyser for performing Off-axis profiles, PDD, point dose measurement, beam symmetry tuning, D rate constancy check, vector scan and TG51 lead foil measurement for low and high energy Photon, electrons. All the measurements should be computer controlled and user friendly.
	All components comply with national and international regulations and safety rules. All components of the system; all available options are controlled by the same software that runs under Microsoft Windows of latest version of Windows 2000 and Windows XP. The system should be suitable to measure pulsed radiation with fluctuation dose rate on Chamber:
	Necessary thimble ionization chamber should be there for measurement of field and reference signal plane parallel chamber should be there for electron measurement. The necessary holding devices extension cables for the above chambers must be included. The chamber specification should be quoted. The position accuracy should be better than $\pm 0.1\text{mm}$. The chambers should be properly calibrated and given necessary calibration certificate.
	The positioning tool should be there to allow easy and exact positioning of the chamber's geometric centre in the central beam and at the water surface. Apart from this the exact position of the chamber the radiation beam should be possible via software.

	The detector unit should be driven by stepper motor and step length should be adjustable in steps of mm. The scanning speed should be adjustable between 5mm/s and 50mm/s in 5mm/s small steps. Further the delay times for each step should also be adjustable by the user. The acceleration of the step movement should also be changed as and when required.
	The system should allow simultaneous movement in available direction for any vector scan
	The zero point, reference point and limit of the different detector units should be stored separately and permanently in the control unit.
	The control pendant should display the actual position of the chamber position at any given measuring time.
	Water Phantom/ Radiation Field Analyzer:
	The scanning volume should be large enough to scan and should not be less than 48x40x48 cm To avoid bending of the tank's walls by water pressure and water absorption of the acrylic material 1 wall thickness should be not less than 2.0 cm
	The motor of the moving mechanism should not touch nor dip to the water to avoid mechanical stress to the acrylic tank.
	The reproducibility of a position should be ± 0.1 mm throughout the whole phantom
	The digitally driven stepper motors should provide hysteresis free movements (stick and slip free).
	The lift table should be electrically as well as manually operable.
	The velocity of the vertical motion should be quoted and preferably should have two vertical velocities. The Water Tank must be rotatable into positions 0 degree, ± 45 degree and ± 90 degree.
	A highly accurate Positioning device directly supplied by the principals must be included.
	Water reservoir
	The water reservoir should be large enough to store the water and can be pump and drain to the water phantom as quick as possible. The water Reservoir must be able to hold the entire weight of the water without any change
	The weight of the whole assembly can be push or pull through the wheel with polyethylene or equivalent. The lifting carriage should be electromechanical/elevating screw mechanism that keeps the height absolutely accurate
	The Lifting carriage and Water Reservoir must be imported and directly from the suppliers and must complete with all facilities including TPR and TMR measurements. Completely Integrated Lifting Carriage and Water Reservoir.
	The Water Reservoir must be compatible for TPR measurements and hence for TPR measurements 1 pump of the reservoir should drive automatically and electromagnetic valves makes sure that no water can flow the phantom tank to the reservoir during automatic TPR measurement.
	The water reservoir should have a safety circuit that avoids the dry pump running
	Control Unit/Electrometer:
	A separate control unit for controlling the movement of the detector in any three directions should be possible.

	A separate electrometer to collect the ions/dose from the chamber/detector should be there the voltage to the chamber should be adjusted in the electrometer in steps of 50 V. The polarity of the chamber should be toggled between +/- . The electrometer should also be able to measure absolute doses for low and high energy photon and electron.
	The gain of the electrometer should be automatic depending upon the signal collected by the field and reference detector. Further the user should also be given an option to change the gain to field and reference separately.
	Necessary software to use the electrometer for absolute measurements should be provided.
	The time constant should allow 10ms measurement times.
	The external dosimeter should also be connecting to the water phantom.
	The control unit should permanently store zero point, reference point and limit points for water phantom, air scanner and mechanical film densitometer separately.
	These different sets of limits , zero and reference points can be retrieved independently.
	The co-ordinates of the probe should display for all directions, simultaneously on a control pendant.
	The control pendant can be attached either to the water tank or to the control unit.
	The communication between the control unit and the computer should be performed by a standard RS232; interface.
	The high voltage for the probe should be switchable independently for each decreased in different voltage and sign of the measuring signal can be reversed.
	A solid, water equivalent phantom made up of slabs of different thicknesses shall be provided by the vendor for external beam teletherapy dosimetry. It shall be possible to use this phantom for both photon and electron beam dosimetry. The phantom shall be free of contaminants and air bubbles. The slab shall be of 30x30 cm or more size totalling a thickness of 30 cm.
	QA tools: Additional One Pressurised ION Chamber to be supplied.
	Control Computer:
	The latest version of windows computer should have all the latest features with colour monitor and with printer/plotter (colour) and branded UPS (45 min. back-up).
	The software:
	Measurements can be done against time, against a monitor signal or against reference chamber
	Within the moving range arbitrary points can be measured.
	An arbitrary vector scan measurement should be possible.
	Point dose measurement, Beam symmetry tuning and TG51 foil measurement should also be possible
	2D planes can be measured at any solid angle
	Isodose can be displayed and plotted that can be constructed out of profiles and depth dose curves or measured matrices. The Isodose level should be freely closable. Warning before unsaved data in the RAM should be overwritten.
	The Isodose levels can be chosen after the measurement and without the necessity to have the water phantom connected.
	Multiple closed Isodose lines and hot spots should be detected automatically.

	Single measuring points, complete curves and parts of curves should be re-measured from a user definable point.
	During the measurement the measuring curve should be display graphically and online on the screen.
	A special measuring program allows a dose rate constancy check including a statistical evaluation.
	Any kind of open, regular shaped, blocked or wedged field can be measured.
	Fields from asymmetric collimators can easily be measured.
	A special measuring routine for service purposes allows to easily checking the beam with respect to symmetry, flatness, homogeneity and energy.
	Implemented routines allow the measurement, formatting and transferring of basic data to all-important therapy planning systems.
	ION chamber based Survey meters to be provided.
	Secondary standard Dosimeter with appropriate thimble chamber and parallel plate chambers with latest calibrations to be provided. Including pin point chamber for small field dosimetry with phantoms, barometer and thermometer.
	Solid equivalent slab water phantom with adapters for the above mentioned chambers should be provided.
	Film Dosimetric software should be provided for treatment verification Administrative Data:
	Comprehensive documentation of the measured data by automatic saving of the used measuring environment should simplify the interpretation of data even a long time.
	The used measuring routine data can be reused either unchanged or with some of the parameter changed Data can be printed and plotted in numerical and graphical form on all printers and plotters that are supported by windows.
	The administrative data can be changed after saving the measuring data. All measuring data should be furnished automatically with their administrative information and comprehensive filter function allows the easy selection of specific data.
	The necessary software to network the 3D TBA system with the 3D TPS in the department of Radiotherapy must be offered.
	Data analysis:
	Various normalization should be possible viz. normalization to maximum for depth dose curves normalization to maximum or centre for profiles and normalization to maximum, entry, position and value for isodose lines.
	Homogeneity and symmetry should be calculated automatically and various national and international protocols can be selected.
	Depth dose curves can be analysed according to the protocols DIN 6800/2 IAEA TR277, ICRU 35 CRMRI no.2, AAPM TH21/TG 25 and NACP.
	Data transfer and data presentation
	Modules should allow automatic formatting and transferring of measured data to treatment planning system available in the department.
	The measured data can be stored in two different ASCII formats (with selectable separation characters).
	ASCII -data can be sent from external computers and be imported into the water phantom software Image data for film dosimetry can be imported into water phantom software. Data can be displayed graphically on the screen.
	Crosshairs should allow the easy manual evaluation of a curve.

	Plotting / printing of the measured data and correction functions can be printed (alphanumerically) and plotted (graphically).
	ARRAY DETECTOR
	One Array device must be based on ion chamber array resulting in an effective measuring field of 27 cm x 27 cm and giving the facility to use with slab phantom for measurements. The chamber must be vented plane-parallel square shaped ion chambers with 5mmx5mmx5mm size and centre to centre spacing must be 10mm.
	It should be able to use for the dose verification of IMRT beams and routine quality control of high energy photon and electron beams by using the software and also it should be able to check the MLC leaf positioning. It should be able to measure the dose from dynamic and static fields in one run and display the readings in both dose rate and absorbed dose mode.
	It should be able to perform the QA for high energy beams and dose verification for IMRT, IMAT, ARC beam techniques. It should be capable of doing complete pre- treatment patient plan verification with on measurement.
	Cylindrical & Rotational Phantom with inclinometer, lifting trolley & complete drive assembly with related software module for VMAT dynamic IMRT techniques. There should be a slot & provision to insert the 2D Ion Detector Array System into the Rotational Phantom for taking synchronous measurements with the Linac Gantry Rotation. The detector should always be perpendicular to the beam & thus removing the angular dependence.
	The software should have the functionality like 3D volume analysis and CT overlay.
	One additional Array Device with 900 or above liquid filled ionisation chamber for patient plane verification & quality control of small fields. Detector spacing should be 2.5mm & the maximum fit size should be above 10x10 cm & below 12 x 12cm essentially for use with Small field dosimetry. The Array device should also be usable for Stereotaxy work This Array device should be usable with the Cylindrical & Rotational Phantom
	One parallel plate chamber for electron dosimetry, one number of pin point chamber for small fit dosimetry along with the calibration certificate for all these chambers.
	Calibrated Barometer and thermometer to be included.
35	Immobilization devices
	4 set Universal treatment base plate Made of Carbon Fibre Immobilization devices having a total solution to treat Paediatric to Adult, Head and Neck, Breast, Thorax, Abdomen, Pelvic with facility to make custom made Supine and prone head rest for Individual Patients to maintain an accuracy of less than 2mm. along with appropriate thermo Sheets 200 nos: 40 for head, 40 H&N, 40 for breast, 40 for thorax, 40 for abdomen and pelvic.
	The same base plate shall be upgraded by adding localizer box, thorax abdomen bridges, wedges, Upper Arm support, lower arm support, Indexed Couch stoppers, knee rest, feet fix to adopt for SBRT and SRS/SRT frameless and there shall be 4 set of each to be provided.
	The vendor shall provide 4 set of carbon fibre based Head rest, prone Head rest universal, Paediatric Supine, Cushion for shoulder. Breast board Carbon fibre with all required Accessories.
	The vendor shall also provide the following :
	1. Water bath with digital Temperature control - 1 no

	2. Bolus : 0.5cm - 3 nos & 1.0cm - 3 nos
	3. Body calliper - 2 nos
	4. Heat Gun - 1 no
	5. Essential tools set - 1 no
	6. Electron Foam cutter - 1 no
	7. CT markers - 300 nos
	8. Alloy dispenser - 1 no
	9. Melting Alloy - 20 Kg
	10. Styrofoam foam 30 x 30 x 1.5 cm - 100 nos
	11. Vacuum cushions
	12. For Head and Neck - 6 nos
	13. For Thorax - 10 nos
	14. For Abdomen - 10 nos
	15. And for whole body - 10 nos
	16. Suitable Vacuum pump - 2 nos
✓✓✓	Warranty & Guarantee for 5 years with CMC for 5 years after expiry of warranty
	SITE MODIFICATION
	The Site - Modification Scope of Work Advanced High Energy LINAC
	1. The prospective bidders shall inspect the proposed site for ADVANCED HIGHENERGY LINAC at each Institute before submission of tender.
	2. Tenderers are advised to acquaint themselves with access to site, location of work, local labour problems and any other matter relating to availability and carriage of construction materials. Adopting standard operation/ incorporating IG procedure for GRIHA requirement during construction/ post construction.
	3. The construction of the concrete shell of the Bunker (LINAC ROOM) is in the scope of the respective institute. The Site - Modification work shall include all other site preparation work required the installation and functioning of ADVANCED HIGH ENERGY LINAC at the proposed site.
	4. The bidders are required to submit the plan for the ADVANCED HIGH ENERGY LINAC Centre on a Site - Modification basis. The scope of work includes complete Civilwork, Electrical, Plumbing, Furnishing, Air-conditioning and Fire fighting for the construction of ADVANCED HIGH ENERGY LINAC Centre.
	5. The scope of work as per regulatory guidelines will be provided and finalized by HLL and respective Institute.
	6. The bidder should inspect the site and submit the required structural and architectural drawings along with the bid.
	7. The bidder has to work in conjunction with the consignee institute to facilitate all statutory local and regulatory approvals.
	8. While preparing the plan, the following aspects have to be addressed.
	a) Care should be taken to provide easy negotiation of the patient stretchers / trolleys through corridors and doors.
	b) Adequate Radiation shielding as per AERB norms
	c) Furniture like desk, chairs, shelves etc.
	d) Patient stretcher and other furniture / accessories to make the ADVANCED HIGHENERGY LINAC functional.

	9. The cost of Site - Modification work for the area measuring 220m² and Air-conditioning of 27 TR Capacity will be considered for Ranking / Evaluation purpose.
	10. Bidders have to quote the Unit Rates of the following components of Site - Modification work and detailed BOQ should be mentioned:
	a) Civil works - sq.ft/cubic ft, running metre, Kg etc
	b) Electrical work like per metre price, unit price for panel, isolation, etc
	c) Public health (plumbing and sanitary fittings) like per metre length of pipe, number of points, etc
	d) Air Conditioning (HVAC) rate per tonnage, type of false ceiling and sq.ft rate, etc
	e) Interior Furnishing & Furniture
	f) Miscellaneous
	Scope of work for Site - Modification work:
	The bidder should inspect the proposed site and submit all the detailed structural and architectural drawings and BOQ for the proposed ADVANCED HIGH ENERGY LINAC Centre's along with technical bid of the tender.
	The ADVANCED HIGH ENERGY LINAC CENTRE shall consist of the following rooms:
	a. LINAC Treatment Room
	b. Control room
	c. Equipment room
	d. Change room
	e. Treatment Planning Room
	f. Patient waiting area
	g. Chiller room / enclosure
	h. AHU room
	Construction work to be done as per the final plan / scheme approved by the Consignee.
	The actual area of Site - Modification work done will be considered for payment, based on the site measurements and the unit rate quoted by the bidder.
	CIVIL WORK
	1. Construction / modification work including construction of brick wall if any, plastering, flooring as per the approved plan and equipment layout plan.
	2. Construction renovation/ modification demolition, exaction, filling work including construction of full or half brick wall if required, plastering, flooring as per the approved plan and equipment layout plan. Necessary openings/ niches/ cut-outs, wherever required as per drawings and asked for by the Engineer-In-Charge, shall be provided by the contractor without any extra cost.
	3. Making surface good for floor modification for installing the LINAC.
	4. Platform for unloading and shifting the LINAC; if necessary.
	5. Cable tray, trench & channel_ necessary trenches, cable tray and channels at required locations.
	a) Flooring
	1. 600 x 600 mm vitrified tiles with 100mm tile skirting to match in LINAC room , control room, lobby and patient preparation areas, Consultant's room, TPS room etc.
	2. 50 mm thick cement concrete flooring with Vinyl flooring in LINAC equipment /UPS room.

	<p>Note: Providing and laying approved quality, colour, design and shade fully homogeneous 600 x 600mm (thickness to be specified by the manufacturer) Vitrified tile flooring (Marbonite or Granamite, confirming to IS code 15622 with water absorption less than 0.08%) flooring in pattern as detailed in drawing or as directed by the EIC and grouted with matching colour approved quality readymade grout, curing, cleaning etc to required line level etc. all complete at all leads, lifts and heights to the entire satisfaction of the EIC. Providing and fixing 2-3mm thick POP protection over polythene covering sheet to flooring areas till handed over and cleaning, etc all complete as per drawings & specification and as directed by EIC with 100mm tile skirting to match in LINAC room, control room, lobby and patient preparation areas, consultant's room, TPS room etc.</p>
	<p>Mode of measurement (finished surface area of the tiles shall be measured and paid. Rate shall be inclusive of providing and laying levelling course, PVC spacers, providing and applying epoxy grout and no additional payment shall be made for wastage.</p>
	<p>3. 50 mm thick cement concrete flooring at all heights and locations including scaffolding, preparing the surfaces, neat cement finishing to correct line or as required to receive architectural finish, level and plumb, curing where ever required complete as per specifications and drawings, with Vinyl flooring in LINAC equipment/UPS room.</p>
	<p>4. The entire complex will be made rodent/pest proof.</p>
	<p>b) Painting</p>
	<p>1. Two coats Plastic Emulsion Paint over 2 coats of wall putty including primer in all areas except LINAC ROOM.</p>
	<p>2. LINAC ROOM Walls_High quality High density Vitrified Tiles clad on the sidewalls up to false ceiling.</p>
	<p>Note: Providing all tools, tackles, materials, manpower for applying plastic enamel paint over 2 coats of wall putty including primer in all areas except LINAC ROOM, of approved brand and manufacture and approved shade finished with roller to wall & ceilings surfaces, in 2 coats over a coat of approved quality primer on the plastered/ POP surface, POP board/ gypsum board surfaces including scaffolding, preparation of surface, sanding, light sanding, work platform, painting equipment/ apparatus etc. required to complete interior grade finish etc. at all heights & levels complete as per drawings & specification and as directed by EIC.</p>
	<p>3. LINAC ROOM Walls High quality High density Vitrified Tiles clad on the sidewalls up to false ceiling.</p>
	<p>c) False Ceiling</p>
	<p>Acoustical tile for ceiling with light weight insulating material of high quality supported on grid or finished seamless with support above ceiling. Finished with white paint or powder coated with white paint, if metallic. Ceiling height to suit the equipment mount and clearances.</p>
	<p>PLUMBING WORK —</p>
	<p>1. All water pipes and fittings shall be of high density polythene of approved and standard make. The gratings shall be brass chrome plated. All plumbing accessories should be of standard make.</p>
	<p>2. Chiller Piping and control panel.</p>
	<p>Note:</p>

	1. Tenderers are advised to visit the site of work to acquaint themselves about the levels of sub soil water, drainage facility for dewatering, accessibility to site etc. and quote the rates accordingly.
	2. All sanitary wares & CP brass fitting & fixtures shall be of first quality with ISI mark (unless otherwise specified) and shall be of the make as per the latest approved list of materials as per list of approved make/model, if any. They shall be got approved by the Engineer-in-charge before incorporating in the work.
	3. All the items include testing after completion of the work. Concealed/underground GI pipe line is to be wrapped with hessian cloth and painted with two coats of anticorrosive paint.
	Disposing off: The surplus excavated materials by mechanical transport lead up to 2KM to the nearby dumping pits/dumping areas within Institute campus identified by Engineer-in-charge, including all lifts, loading, unloading, stacking etc. complete as per specifications & as directed by the EIC.
	ELECTRICAL WORK
	1. The supplier shall be required to specify the total load requirements for the LINAC centre including the load of air conditioning, room lighting and for the accessories if any. The supply line will be provided by the Institute up to one point within the LINAC centre. The mains panel & distribution panel should be provided by the supplier. Few lights in each room shall be connected to the UPS to provide emergency lighting.
	2. The electrical work shall include the following:
	a. Wiring_ All interior electrical wiring- with main distribution panel board, necessary MCBs, DB, joint box, switch box etc. the wires shall be of copper of different capacity as per the load and should be renowned make as listed below.
	b. All the internal wiring including that of telephone, LAN, DICOM & PACS etc. will be of concealed variety.
	c. Double earthing with copper plate for the LINAC and all accessories should be as well as the earthing for the AC should be done by the supplier.
	d. Switches light and power points should be of modular type and of standard make as listed below.
	e. General lights_ Mirror optical type LED fittings each minimum 500 lux.
	All wires used must be FRLS (Fire Retardant with low smoke) type only
	f. Networking (HW/SW) with LINAC, CT Simulator, Brachytherapy, TPS and Consultant Rooms should be provided.
	AIR CONDITIONING:
	All rooms mentioned above need to be air-conditioned. Package Air Conditioners and split AC units may be used according to room requirement and suitability. Humidity control should be provided to effectively eliminate moisture condensation on the equipment. The Air conditioning system should be designed with standby provision to function 24 x 7.
	—
	The outdoor units of AC should have grill coverings to prevent theft and damage.
	Ventilation is required in toilet.
	Environment specifications:
	a) Humidity range: Relative humidity 60% and 80% in all areas except equipment room which shall be as per requirement of the equipment.

	b) Temperature ranges: 22 +/- 2° C in all areas throughout the year, except equipment room which shall be as per requirement of the equipment.
	c) Air conditioning load: The heat load calculations and maintaining the desired temperature and humidity shall be the responsibility of the supplier.
	FURNITURE:
	a) Revolving chairs height adjustable, medium-back with hand-rest_6nos.
	b) Chairs for patient waiting area_ Three-seater (chrome plated). - 10 nos.
	c) Cupboard with laminate door shutters for storage of spare parts and accessories and records as per requirement. _4 nos.
	d) Drug trolleys for patient preparation area._1no.
	e) Patient trolley with rubber foam mattress to be kept in the patient preparation room. - 2 nos.
	f) Name boards for all rooms. All the rooms in the complex will be signposted-1 set
	g) Sun film & ventilation blinds will be put up in all windows-1 set
	h) Tables for all Workstations-6 Nos.
	i) Changing rooms should have change lockers and dressing table-1 set
	j) Dustbins (plastic with lid) - 10 nos.
	All furniture items should be of standard make as mentioned in the table below.
	FIRE SAFETY MEASURE:
	1. A fire alarm system of reputed make with smoke/ heat detectors, indicator panels, call boxes, electronic sirens and wiring will be installed. Audio call bell system with intercom & remote locking /unlocking facility to be provided at the main door of the complex.
	2. Supplying, Installing Dry chemical power type fire extinguisher of 5kgs capacity, with initial filling in brand new cylinder with power coated finish, fitted with Gun metal union, high pressure CO2 gas cartridge, discharge hose, wall mounting bracket etc. complete, confirming to IS:2171 of approved make & complete as directed by EIC.
	MISCELLANEOUS:
	1. LED X-ray Film viewer with adjustable brightness; capable of holding 3 films of 14"x17" size._ 4 no's
	2. Cabling of Network (LAN) connectivity and required CISCO switches for networking the LINAC, TPS, CT simulator, Brachytherapy and any other workstation used within the site.
	3. Broadband connection with static IP for REMOTE SERVICE of LINAC system.
	SUGGESTED MANUFACTURERS / BRANDS:
	A . FLOORING : VITRIFIED TILES - Somany, Kajaria , H&R Johnson, Marbonite, Granamite
	B . PAINT : - Dulux, Asian Paints , Nerolac
	C . PLUMBING : - Kohler, Jaguar , Grohe , Roca
	D . SANITARY ITEMS : - CERA, Hindware, Parryware
	E . ELECTRICAL -
	1. CABLES - Finolex, Havells ,V-Guard
	2. SWITCHES - Legrand, L&T, Crabtree , Roma
	3. DISTRIBUTION BOX , MCB - Legrand, L&T, Siemens, Havels
	4. LIGHT FITTINGS - Philips / Crompton / Wipro/Syska
	F . AIR CONDINTIONING: - Daikin, Hitachi, Blue Star, Voltas.

	G . FURNITURE : - Hermen Miller , Godrej , Featherlite, Geeken
	GENERAL POINTS for Site - Modification :
1	All items of work under this contract shall be executed strictly to fulfil the requirements laid down under "Basis of design" in the specifications. Type of equipment, material specification, methods of installation and testing and type of control shall be in accordance with the specifications, approved shop drawings and the relevant Indian Standards, however capacity of each component and their qualities shall be such as to fulfil the above mentioned requirement.
2	The rate for each item of work included in the schedule of quantities shall, unless expressly stated otherwise, include cost of;
3	All materials, fixing materials, accessories, appliances tools plants, equipment, transport, labour and incidents required in preparation for and in the full and entire execution, testing, balancing, commissioning and completion of work called for in the item and as per specifications and drawings.
4	Wastage on materials and labour.
5	Loading, transporting, unloading, handling/double handling, hoisting to all levels, setting, fitting and fixing in position, protecting, disposal of debris and all other labour necessary in and for the full and entire execution and for the job in accordance with the contract documents, good practice and recognize principles.
6	Mode measurement shall be as per specification.
7	In the event of conflict between schedule of quantities and other documents including the specifications, the most stringent shall apply. The interpretation of the Architect/ Engineer shall be final and binding.
	Any requirements for installation of equipments should be mentioned; otherwise handing over fully functional machine will be the responsibility of the vendor.

	Bill of Quantity (BOQ)	
1	ADVANCED HIGH ENERGY LINEAR ACCELERATOR , as specified	1 no.
2	Dose Calculation workstations (Two dose calculation engines with licences)	2 nos
3	Contouring workstations with licences)	3 nos
4	Motorized Wedge	1 set
5	Accessory mount - shadow block tray	1 set
6	Blocks set of divergent / non-divergent	1 set
7	Side Rails on both sides of Couch for Mounting Accessories.	1 set
8	CCTV Camera - wide angle with Monitor	1 no.
9	CCTV Camera with remote control with remote zoom & focus facility and Monitor.	1 no.
10	In-room colour flat monitor LED of size 19" or larger	1 no.
11	Laser Alignment System (3 crossed & 1 line Green laser system)	1 set
12	Single Laser unit(mould room)	1 no.
13	Interface Mount to be provided for Simulator to simulate accessories like ShadowBlock Tray etc. of the quoted Accelerator model.	1 no.

14	Online UPS with batteries	1 no.
15	Dosimetry & QA tools ; as specified	1 set
16	Immobilisation devices; as specified	1 set
17	Site Modification: CIVIL	220m ²
18	Site Modification: PLUMBING	220m ²
19	Site Modification: ELECTRICAL	220m ²
20	Site Modification: AIRCONDITIONING	27 TR
21	Revolving chairs	6nos.
22	Chairs _Three-seater (chrome plated).	10 nos.
23	Cupboards	4 nos.
24	Drug trolleys	1no.
25	Patient trolley with rubber foam mattress.	2 nos.
26	Name boards for all rooms.	1 set
27	Sun film & ventilation blinds	1 set
28	Tables for Workstations.	6nos.
29	Changing rooms with change lockers and dressing table.	1 set
30	Dustbins	10 nos.
31	LED X-ray Film viewer	4 nos.
32	Cabling of Network (LAN) connectivity and required CISCO switches for networking	1set

	LOW ENERGY LINEAR ACCELERATOR
	Please quote latest state-of-the-art machines capable of delivering advanced high precision Radio Therapy.
	Provide compliance to all points listed below
	A.ESSENTIAL PARAMETERS
	<i>Parameters Specifications</i>
1	Photon Energy -6 MV (BJR 11)
2	RF Source -Magnetron / Klystron. Please specify
3	Waveguide Type -Standing / Travelling, Please specify
4	Electron Gun -Sealed / Unsealed
5	Treatment Modes
	Normal - TSD / TAD
	Rotation - CW / CCW
	ARC - CW / CCW
	Dose rate - MU/degree
6	Dose-Rate
	100 - 500 MU/min in steps or higher dose rates. Please specify.
7	Field Size
	Maximum - 40 x 40 cm ² (or more) Please specify
	Minimum - 0.5 x 0.5 cm ² Please specify.
	Penumbra ≤ 10mm for 10x10 cm ² field at 10 cm depth
8	Beam Flatness
	± 3 % as defined in IC 60976 / 60977 for entire range of field sizes.
	Stability of flatness with gantry rotation, please specify
9	Focal Spot size
	≤ 2mm dia. at the x-ray target
10	Beam Symmetry
	± 2 % for 10x10 cm ² and above
11	Gantry
	Rotation ±180° (360° total)
	Read out - Digital and Mechanical
	Accuracy dig-readout 0.5°
	Control - Hand pendent and control-console
	Target - Axis Distance : 100 ±0.2 cm
	ODI Range : 75 cm to 150 cm
	ODI Accuracy ±0.1 cm
	Gantry Rotation Isocentre ≤ 2mm dia. Sphere. Please specify.
12	Collimator
	Rotation: ± 95° about mid position
	Control : Hand pendent and control-console
	Readout accuracy : ± 0.5°
	Collimator Rotation Isocentre ≤ 2 mm dia. Sphere. Please specify
13	Asymmetric Collimators
	X & Y both Asymmetrical

	Travel ranges & over travel range. Please specify
14	Multi-leaf collimator (MLC)
	No. of Leaves (80 leaves and above)
	Independent drives for each leaf
	Please specify MLC motor specifications and endurance test report
	Capable of performing Conformal therapy (IMRT, SRT, SBRT) procedures.
	Interface between MLC & latest R&V System should be provided.
	Maximum field size 40x40 cm ²
	Leaf width at isocentre ≤ 10 mm
	Facility to treat patients conventionally, using blocks without MLC.
	Work Station HW/SW_Specify details
	Integration (full Networking) with Planning System and Simulator / CT Simulator.
	Specify following parameters:
	Max. leaf retracting position
	Over travel (jaws)
	Over center travel of MLC leaves (>10 cm) for IMRT treatments
	Max. Field length.
	Leaf height & material.
	Coincidence of light & X-ray field
	Penumbra
	Transmission
	Interleaf leakage
	Leaf position accuracy
	Max. carriage speed
	Max. leaf speed
	Positional accuracy of the leaves during treatment.
	Inter-digitation of leaves if available
15	Auto Field Sequencing
	AFS should be available
16	Portal Imaging
	Latest software for analysis (MV/KV/DRR)
	Should fully integrate with Accelerator
	Should be able to take images at any Gantry angles with variable X-Y-Z movements, Robotics Arm with remote control.
	Imaging area should be 40 x 30 cm ² with energy range 4 -25 MV
	Should have latest Digital technology with High Resolution Imaging (Amorphous silicon flat panel technology)- please specify
17	Treatment Couch
	Versatile extended range couch with indexed immobilization
	Movements: Longitudinal, Lateral, Vertical and Rotation
	Electrical / Mechanical Control
	Control-Local and/or Remote
	Fully Carbon Fibre table top. Should have option for providing tools for fixing immobilisation devices.
	Minimum height from floor - specify

18	Networking
	Connectivity to Record & Verify System
	Transfer of all parameters from Treatment Planning System for automatic treatment setup & delivery should be provided.
	Transfer of DRR/ Fluoroscopy images through R&V system for comparison with portal imaging
	Transfer & Execution of Conformal & IMRT treatment plans from Treatment Planning System should be provided.
	All required interfaces should be provided.
	Transfer and execution of MLC position parameter for normal and IMRT treatment including step & shoot and/or dynamic and/or rotational IMRT techniques from TPS.
19	Laser System
	Four (4) wall mounted Lasers should be provided for LINAC room. 3 lasers to be cross lasers (two side wall and one roof) and 1 laser to be inclined sagittal laser. In addition to this, one sagittal laser should be provided for mould room.
	Line width should be less than 1 mm
	Straightness deviation of line should be less than 0.05 mm
20	Accessories
	Dynamic / Motorized / Physical Wedges. Please specify.
	Front pointer - mechanical
	Accessory mount - shadow block tray
	Blocks divergent / non-divergent
	Side Rails on both sides of Couch for Mounting Accessories.
	CCTV Camera (Two nos) One wide angle & one remote control with remote zoom & focus facility.
	In-room Colour flat monitor LED 20" or higher.
	Interface Mount to be provided for Simulator to simulate accessories like Shadow Block Tray etc. of the quoted Accelerator model.
	Manual retraction tool (manual crank) for couch in case of power failure
21	Dosimetry System
	Built-in chambers. Two separate chambers
	Precision : $\pm 1\%$ or 1 MU
	Linearity : $\pm 1\%$ or 1 MU
	Reproducibility $\pm 2\%$ or 1 MU
	Dose Rate Dependence :please specify
22	Safety System as per IEC / AERB standards
	Door interlock
	Emergency switches
	Various Beam off interlocks
23	Leakage Radiation as per IEC / AERB standards
	Head leakage. Please specify.
	Collimator transmission. Please specify.
24	Treatment Planning System
	Five workstations (Two Dose calculation engines (licences) and Three floating contouring licences).
	Latest SW updatable for next 10 yrs

	Dicom3 and full DICOM family
	Import/export from all existing CT/MR/PET/PACS/C-ARM etc
	Image registration (rigid / deformable)
	Specify dose calculation algorithm for 3DCRT/ IMRT / VMAT / Electrons / other.
	Import /export- Image/structure set/plan/ dose etc. to all machines and integration with the network. (HW/SW)
	Server (backup/restore)_latest SW and free updation of s/w for next 10 yrs
	Latest colour Network Printer.
25	Manuals / Data book
	Operator, System and Schematic manuals.
26	TRAINING OF STAFF
	2 Radiation Oncologist/ 2 Medical Physicist/ 2 RTT for two weeks in India, depending on the training facility. Additional Onsite training for minimum Two weeks.
27	EQUIPMENT CERTIFICATION
	AERB type approval: enclose certification/ ELORA Registration.
	US FDA / European CE approvals: please enclose certification(s).
28	All consumables required for installation, standardization testing of system should be included in the cost.
29	Software Updations
	Free Software updation for 10 years
	UPS
30	Online UPS to support LINAC system, Workstations, Chiller , for minimum of 30 minutes.
31	Dosimetry and QA TOOLS - (price to be quoted separately)- Specific MAF not required
	RADIATION THERAPY BEAM ANALYZER
	Require a full-fledged three dimensional Water Phantom & Dosimetry System and therapy beam analyser for performing Off-axis profiles, PDD, point dose measurement, beam symmetry tuning, D rate constancy check, vector scan and TG51 lead foil measurement for low and high energy Photon, electrons. All the measurements should be computer controlled and user friendly.
	All components comply with national and international regulations and safety rules. All components of the system; all available options are controlled by the same software that runs under Microsoft Windows of latest version of Windows 2000 and Windows XP. The system should be suitable to measure pulsed radiation with fluctuation dose rate Ion Chamber: flat Monitor LED 20" or higher
	Necessary thimble ionization chamber should be there for measurement of field and reference signal plane parallel chamber should be there for electron measurement. The necessary holding devices extension cables for the above chambers must be included. The chamber specification should be quoted. The position accuracy should be better than $\pm 0.1\text{mm}$. The chambers should be properly calibrated and given necessary calibration certificate.
	The positioning tool should be there to allow easy and exact positioning of the chamber's geometric centre in the central beam and at the water surface. Apart from this the exact position of the chamber the radiation beam should be possible via software.
	The detector unit should be driven by stepper motor and step length should be adjustable in steps of mm. The scanning speed should be adjustable between 5mm/s and 50mm/s in 5mm/s small steps. Further the delay times for each step should also be adjustable by the user. The acceleration of the step movement should also be changed as and when required.
	The system should allow simultaneous movement in available direction for any vector scan

	The zero point, reference point and limit of the different detector units should be stored separately and permanently in the control unit.
	The control pendant should display the actual position of the chamber position at any given measuring time.
	Water Phantom/ Radiation Field Analyzer:
	The scanning volume should be large enough to scan and should not be less than 48x40x48 cm To avoid bending of the tank's walls by water pressure and water absorption of the acrylic material 1 wall thickness should be not less than 2.0 cm
	The motor of the moving mechanism should not touch nor dip to the water to avoid mechanical stress to the acrylic tank.
	The reproducibility of a position should be ± 0.1 mm throughout the whole phantom
	The digitally driven stepper motors should provide hysteresis free movements (stick and slip free).
	The lift table should be electrically as well as manually operable.
	The velocity of the vertical motion should be quoted and preferably should have two vertical velocities. The Water Tank must be rotatable into positions 0 degree, ± 45 degree and ± 90 degree.
	A highly accurate Positioning device directly supplied by the principals must be included.
	Water reservoir
	The water reservoir should be large enough to store the water and can be pump and drain to the water phantom as quick as possible. The water Reservoir must be able to hold the entire weight of the water without any change
	The weight of the whole assembly can be push or pull though the wheel with polyethylene or equivalent. The lifting carriage should be electromechanical/elevating screw mechanism that keeps the height absolutely accurate
	The Lifting carriage and Water Reservoir must be imported and directly from the suppliers and must complete with all facilities including TPR and TMR measurements. Completely Integrated Lifting Carriage and Water Reservoir.
	The Water Reservoir must be compatible for TPR measurements and hence for TPR measurements 1 pump of the reservoir should drive automatically and electromagnetic valves makes sure that no water can flow the phantom tank to the reservoir during automatic TPR measurement.
	The water reservoir should have a safety circuit that avoids the dry pump running Control Unit/Electrometer:
	A separate control unit for controlling the movement of the detector in any three directions should possible.
	A separate electrometer to collect the ions/dose from the chamber/detector should be there the voltage to the chamber should be adjusted in the electrometer in steps of 50 V. The polarity of the chamber should be toggled between +/- . The electrometer should also be able to measure absolute doses for low and high energy photon and electron.
	The gain of the electrometer should be automatic depending upon the signal collected by the field and reference detector. Further the user should also be given an option to change the gain to field an reference separately.
	Necessary software to use the electrometer for absolute measurements should be provided.
	The time constant should allow 10ms measurement times.
	The external dosimeter should also be connecting to the water phantom.
	The control unit should permanently store zero point, reference point and limit points for water phantom, air scanner and mechanical film densitometer separately.

	These different sets of limits , zero and reference points can be retrieved independently.
	The co-ordinates of the probe should display for all directions, simultaneously on a control pendant.
	The control pendant can be attached either to the water tank or to the control unit.
	The communication between the control unit and the computer should performed by a standard RS23; interface.
	The high voltage for the probe should be switchable independently for each decreased in different voltage and sign of the measuring signal can be reversed.
	A solid, water equivalent phantom made up of slabs of different thicknesses shall be provided by the vendor for external beam teletherapy dosimetry. It shall be possible to use this phantom for both photon and electron beam dosimetry. The phantom shall be free of contaminants and air bubbles. The slab shall be of 30x30 cm or more size totalling a thickness of 30 cm.
	QA tools: Additional One Pressurised ION Chamber to be supplied.
	Control Computer:
	The latest version of windows computer should have all the latest features with colour monitor and with printer/plotter (colour) and branded UPS (45 min. back-up).
	The software:
	Measurements can be done against time, against a monitor signal or against reference chamber
	Within the moving range arbitrary points can be measured.
	An arbitrary vector scan measurement should be possible.
	Point dose measurement, Beam symmetry tuning and TG5I foil measurement should also be possible
	2D planes can be measured at any solid angle
	Isodose can be displayed and plotted that can constructed out of profiles and depth dose curves or measured matrices. The Isodose level should be freely closable Warning before unsaved date in the RAM should be overwritten.
	The Isodose levels can be chosen after the measurement and without the necessity to have the water phantom connected.
	Multiple closed Isodose lines and hot spots should be detected automatically.
	Single measuring points, complete curves and parts of curves should be re-measured from a user definable point.
	During the measurement the measuring curve should be display graphically and online on the screen.
	A special measuring program allows a dose rate constancy check including a statistical evaluation.
	Any kind of open, regular shaped, blocked or wedged field can be measured.
	Fields from asymmetric collimators can easily be measured.
	A special measuring routine for service purposes allows to easily checking the beam with respect to symmetry, flatness, homogeneity and energy.
	Implemented routines allow the measurement, formatting and transferring of basic date to all-important therapy planning systems.
	ION chamber based Survey meters to be provided.
	Secondary standard Dosimeter with appropriate thimble chamber and parallel plate chambers with latest calibrations to be provided. Including pin point chamber for small field dosimetry with phantoms, barometer and thermometer.
	Solid equivalent slab water phantom with adapters for the above mentioned chambers

	should be provided.
	Film Dosimetric software should be provided for treatment verification Administrative Data:
	Comprehensive documentation of the measured data by automatic saving of the used measuring environment should simplify the interpretation of data even a long time.
	The used measuring routine data can be reused either unchanged or with some of the parameter changed Data can be printed and plotted in numerical and graphical form on all printers and plotters that art supported by windows.
	The administrative data can be changed after saving the measuring data. All measuring data should furnished automatically with their administrative information and comprehensive filter function allows the easily selection of specific data.
	The necessary software to network the 3D TBA system with the 3D TPS in the department of Radiotherapy must be offered.
	Data analysis:
	Various normalization should possible viz. normalization to maximum for depth dose curves normalization to maximum or centre for profiles and normalization to maximum, enter, position and value for isodose lines.
	Homogeneity and symmetry should be calculated automatically and various national and international protocols can be selected.
	Depth dose curves can be analyses according to the protocols DIN 6800/2 IAEA TR277, ICRU 35 CRMRI no.2, AAPM TH21/TG 25 and NACP.
	Data transfer and data presentation
	Modules should allow automatic formatting and transferring of measured data to treatment planning system available in the department.
	The measured data can be stored in two different ASCII formats (with selectable separation characters).
	ASCII -data can be sent from external computers and be imported in to the water phantom software Image date for film dosimetry can be imported in to water phantom software. Data can be display graphically on the screen.
	Crosshairs should allow the easy manual evaluation of a curve.
	Plotting / printing of the measured data and correction functions can be printed (alphanumerically) and plotted (graphically).
	ARRAY DETECTOR:
	One Array device must be based on ion chamber array resulting in an effective measuring field of 27 cm x 27 cm and giving the facility to use with slab phantom for measurements. The chamber must be vented plane-parallel square shaped ion chambers with 5mmx5mmx5mm size and centre to centre spacing must be 10mm.
	It should be able to use for the dose verification of IMRT beams and routine quality control of high energy photon and electron beams by using the software and also it should be able to check the MLC leaf positioning. It should be able to measure the dose from dynamic and static fields in one run and display the readings in both dose rate and absorbed dose mode.
	It should be able to perform the QA for high energy beams and dose verification for IMRT, IMAT, ARC beam techniques. It should be capable of doing complete pre- treatment patient plan verification with on measurement.
	Cylindrical & Rotational Phantom with inclinometer, lifting trolley & complete drive assembly with related software module for VMAT dynamic IMRT techniques. There should be a slot & provision to insert the 2D Ion Detector Array System into the Rotational Phantom for taking synchronous measurements with the Linac Gantry Rotation. The detector should always be perpendicular to the beam & thus removing the angular dependence.
	The software should have the functionality like 3D volume analysis and CT overlay.

	One additional Array Device with 900 or above liquid filled ionisation chamber for patient plane verification & quality control of small fields. Detector spacing should be 2.5mm & the maximum fit size should be above 10x10 cm & below 12 x 12cm essentially for use with Small field dosimetry. The Array device should also be usable for Stereotaxy work This Array device should be usable with the Cylindrical & Rotational Phantom
	One parallel plate chamber for electron dosimetry, one number of pin point chamber for small fit dosimetry along with the calibration certificate for all these chambers.
	Calibrated Barometer and thermometer to be included.
32	Immobilization devices
	4 set Universal treatment base plate Made of Carbon Fibre Immobilization devices having a total solution to treat Paediatric to Adult, Head and Head & Neck Breast, Thorax, Abdomen, Pelvic with facility to make custom made Supine and prone head rest for Individual Patients to maintain an accuracy of less than 2mm. along with appropriate thermo Sheets 200 nos: 40 for head, 40 H&N, 40 for breast, 40 for thorax, 40 for abdomen and pelvic.
	The same base plate shall be upgraded by adding localizer box, thorax abdomen bridges, wedges, Upper Arm support, lower arm support, Indexed Couch stoppers, knee rest, feet fix to adopt for SBRT and SRS/SRT frameless and there shall be 4 set of each to be provided.
	The vendor shall provide 4 set of carbon fibre based Head rest, prone Head rest universal, Paediatric Supine, Cushion for shoulder. Breast board Carbon fibre with all required Accessories.
	The vendor shall also provide the following :
	1. Water bath with digital Temperature control - 1 no
	2. Bolus : 0.5cm - 3 nos & 1.0cm - 3 nos
	3. Body calliper - 2 nos
	4. Heat Gun - 1 no
	5. Essential tools set - 1 no
	6. Electron Foam cutter - 1 no
	7. CT markers - 300 nos
	8. Alloy dispenser - 1 no
	9. Melting Alloy - 20 Kg
	10. Styrofoam foam 30 x 30 x 1.5 cm - 100 nos.
	11. Vacuum cushions
	12. For Head and Neck - 6 nos
	13. For Thorax - 10 nos
	14. For Abdomen - 10 nos
	15. And for whole body - 10 nos.
	16. Suitable Vacuum pump - 1 no
???	Warranty & Guarantee for 5 years . CMC for 5 years after expiry of warranty.
33	THE SITE - MODIFICATION
	The Site - Modification Scope of Work Low Energy LINAC
	1. 1. The prospective bidders is advised to inspect the proposed site for LOW ENERGY LINAC at each Institute before submission of tender.
	2. Tenderers are advised to acquaint themselves with access to site, location of work, local labour problems and any other matter relating to availability and carriage of construction materials. Adopting standard operation/ incorporating IG procedure for GRIHA requirement during construction/ post construction.
	3. The construction of the concrete shell of the Bunker (LINAC ROOM) is in the scope of

	the respective institute. The Site - Modification work shall include all other site preparation work required the installation and functioning of LOW ENERGY LINAC at the proposed site.
	4. The bidders are required to submit the plan for the LOW ENERGY LINAC Centre on a Site - Modification basis. The scope of work includes complete Civil work, Electrical, Plumbing, Furnishing, Air-conditioning and Fire fighting for the construction of LOW ENERGY LINAC Centre.
	5. The scope of work as per regulatory guidelines will be provided and finalised by HLL and respective the Institute .
	6. The bidder should inspect the site and submit the required structural and architectural drawings along with the bid.
	7. The bidder has to work in conjunction with the consignee institute to facilitate all statutory local and regulatory approvals.
	8. While preparing the plan, the following aspects have to be addressed.
	a) Care should be taken to provide easy negotiation of the patient stretchers / trolleys through corridors and doors.
	b) Adequate Radiation shielding as per AERB norms
	c) Furniture like desk, chairs, shelves etc.
	d) Patient stretcher and other furniture / accessories to make the functional.
	9. The cost of Site - Modification work for the area measuring 200m2 and Air-conditioning of 24 TR capacity will be considered for Ranking / Evaluation purpose.
	10. Bidders have to quote the Unit Rates of the following components of Site - Modification work and detailed BOQ should be mentioned:
	a) Civil works like sq.ft/cubic ft, running metre, Kg etc
	b) Electrical work like per metre price, unit price for panel, isolation, etc
	c) Public health (plumbing and sanitary fittings) like per metre length of pipe, number of points, etc
	d) Air Conditioning (HVAC) rate per tonnage, type of false ceiling and sq.ft rate, etc
	e) Interior Furnishing & Furniture
	f) Miscellaneous works
	Scope of work for Site - Modification work :
	The bidder should inspect the proposed site and submit all the detailed structural and architectural drawings and BOQ for the proposed LOW ENERGY LINAC Centre along with technical bid of the tender.
	The scope of work as per regulatory guidelines will be provided and finalised by HLL and respective Institute. The bidder should inspect the site and submit the required structural and architectural drawings along with the bid.
	The LOW ENERGY LINAC CENTRE shall consist of the following rooms:
	a) LINAC Treatment Room
	b) Control room
	c) Equipment room
	d) Change room
	e) Treatment Planning Room
	f) Patient waiting area
	g) Chiller room / enclosure
	h) AHU room
	Construction work to be done as per the final plan / scheme approved by the Consignee.
	The actual area of Site - Modification works done will be considered for payment, based on

	the site measurements and the unit rate quoted by the supplier.
	CIVIL WORK
	1. Construction / modification work including construction of brick wall if any, plastering, flooring as per the approved plan and equipment layout plan.
	Construction renovation/ modification demolition, exaction, filling work including construction of full or half brick wall if required, plastering, flooring as per the approved plan and equipment layout plan. Necessary openings/ niches/ cut-outs, wherever required as per drawings and asked for by the Engineer-In-Charge, shall be provided by the contractor without any extra cost.
	2. Making surface good for floor modification for installing the LINAC.
	3. Platform for unloading and shifting the LINAC; if necessary.
	4. Cable tray, trench & channel necessary trenches, cable tray and channels at required locations.
	a) Flooring
	1. 600 x 600 mm vitrified tiles with 100mm tile skirting to match in LINAC room , control room, lobby and patient preparation areas, Consultant's room, TPS room etc.
	2. 50 mm thick cement concrete flooring with Vinyl flooring in LINAC equipment / UPS room.
	Note: Providing and laying approved quality, colour, design and shade fully homogeneous 600 x 600mm (thickness to be specified by the manufacturer) Vitrified tile flooring (Marbonite or Granamite, confirming to IS code 15622 with water absorption less than 0.08%) flooring in pattern as detailed in drawing or as directed by the EIC and grouted with matching colour approved quality readymade grout, curing, cleaning etc to required line level etc. all complete at all leads, lifts and heights to the entire satisfaction of the EIC. Providing and fixing 2-3mm thick POP protection over polythene covering sheet to flooring areas till handed over and cleaning, etc all complete as per drawings & specification and as directed by EIC with 100mm tile skirting to match in LINAC room, control room, lobby and patient preparation areas, consultant's room, TPS room etc
	Mode of measurement (finished surface area of the tiles shall be measured and paid. Rate shall be inclusive of providing and laying levelling course, PVC spacers, providing and applying epoxy grout and no additional payment shall be made for wastage.
	3. 50 mm thick cement concrete flooring at all heights and locations including scaffolding, preparing the surfaces, neat cement finishing to correct line or as required to receive architectural finish, level and plumb, curing where ever required complete as per specifications and drawings, with Vinyl flooring in LINAC equipment/UPS room.
	4. The entire complex will be made rodent/pest proof.
	b) Painting
	1. Two coats Plastic Emulsion Paint over 2 coats of wall putty including primer in all areas except LINAC ROOM.
	2. LINAC ROOM Walls High quality High density Vitrified Tiles clad on the side walls up to false ceiling.
	Note: Providing all tools, tackles, materials, manpower for applying plastic enamel paint over 2 coats of wall putty including primer in all areas except LINAC ROOM, of approved brand and manufacture and approved shade finished with roller to wall & ceilings surfaces, in 2 coats over a coat of approved quality primer on the plastered/ POP surface, POP board/ gypsum board surfaces including scaffolding, preparation of surface, sanding, light sanding, work platform, painting equipment/ apparatus etc. required to complete interior grade finish etc. at all heights & levels complete as per drawings & specification and as directed by EIC.

	3. LINAC ROOM Walls High quality High density Vitrified Tiles clad on the side walls up to false ceiling.
	c) False Ceiling
	1. Acoustical tile for ceiling with light weight insulating material of high quality supported on grid or finished seamless with support above ceiling. Finished with white paint or powder coated with white paint, if metallic. Ceiling height to suit the equipment mount and clearances.
	PLUMBING WORK
	1. All water pipes and fittings shall be of high density polythene of approved and standard make. The gratings shall be brass chrome plated. All plumbing accessories should be of standard make.
	2. Chiller Piping and control panel.
	Note:
	1. Tenderers are advised to visit the site of work to acquaint themselves about the levels of sub soil water, drainage facility for dewatering, accessibility to site etc. and quote the rates accordingly.
	2. All sanitary wares & CP brass fitting & fixtures shall be of first quality with ISI mark (unless otherwise specified) and shall be of the make as per the latest approved list of materials as per list of approved make/model, if any. They shall be got approved by the Engineer-in-charge before incorporating in the work.
	3. All the items include testing after completion of the work. Concealed/underground GI pipe line is to be wrapped with hessian cloth and painted with two coats of anticorrosive paint.
	Disposing off: The surplus excavated materials by mechanical transport lead up to 2KM to the nearby dumping pits/dumping areas within the Institute campus identified by Engineer in charge, including all lifts, loading, unloading, stacking etc. complete as per specifications & as directed by the EIC.
	ELECTRICAL WORK
	1. The supplier shall be required to specify the total load requirements for the LINAC centre including the load of air conditioning , room lighting and for the accessories if any. The supply line will be provided by the Institute up to one point within the LINAC centre. The mains panel & distribution panel should be provided by the supplier. Few lights in each room shall be connected to the UPS to provide emergency lighting.
	2. The electrical work shall include the following:
	a. Wiring All interior electrical wiring- with main distribution panel board, necessary MCBs, DB, joint box, switch box etc. the wires shall be of copper of different capacity as per the load and should be renowned make as listed below.
	b. All the internal wiring including that of telephone, LAN, DICOM & PACS etc. will be of concealed variety.
	c. Double earthing with copper plate for the LINAC and all accessories should be as well as the earthing for the AC should be done by the supplier.
	d. Switches light and power points should be of modular type and of standard make as listed below.
	e. General lights Mirror optical type LED fittings each minimum 500 lux.
	AIR CONDITIONING:
	All rooms mentioned above need to be air-conditioned. Package Air Conditioners and split AC units may be used according to room requirement and suitability. Humidity control should be provided to effectively eliminate moisture condensation on the equipment. The Air conditioning system should be designed with standby provision to function 24 x 7.

	The outdoor units of AC should have grill coverings to prevent theft and damage.
	Ventilation is required in toilet.
	Environment specifications:
	a) Humidity range: Relative humidity 60% and 80% in all areas except equipment room which shall be as per requirement of the equipment.
	b) Temperature ranges: 22 +/- 2° C in all areas throughout the year, except equipment room which shall be as per requirement of the equipment.
	c) Air conditioning load: The heat load calculations and maintaining the desired temperature and humidity shall be the responsibility of the supplier.
	FIRE SAFETY MEASURE:
	1. A fire alarm system of reputed make with smoke/ heat detectors, indicator panels, call boxes, electronic sirens and wiring will be installed. Audio call bell system with intercom & remote locking /unlocking facility to be provided at the main door of the complex.
	2. Supplying, Installing Dry chemical power type fire extinguisher of 5kgs capacity, with initial filling in brand new cylinder with power coated finish, fitted with Gun metal union, high pressure CO2 gas cartridge, discharge hose, wall mounting bracket etc. complete, confirming to IS:2171 of approved make & complete as directed by EIC.
	FURNITURE:
	a) Revolving chairs height adjustable, medium-back with hand-rest 6 nos.
	b) Chairs for patient waiting area Three-seater (chrome plated). - 10 nos.
	c) Cupboard with laminate door shutters for storage of spare parts and accessories and records as per requirement. 4 nos.
	d) Drug trolleys for patient preparation area. 1no.
	e) Patient trolley with rubber foam mattress to be kept in the patient preparation room. - 2 nos.
	f) Name boards for all rooms. All the rooms in the complex will be signposted-1 set
	g) Sun film & ventilation blinds will be put up in all windows-1 set
	h) Tables for all Workstations-6 nos
	i) Changing rooms should have change lockers and dressing table-1 set
	j) Dustbins - 10 nos.
	All furniture items should be of standard make as mentioned in the table below.
	MISCELLANEOUS:
	1. LED X-ray Film viewer with adjustable brightness; capable of holding 3 films of 14"x17" size _ 4 NOS
	2. Cabling of Network (LAN) connectivity and required CISCO switches for networking the LINAC, TPS, CT simulator, Brachytherapy and any other workstation used within the site.
	3. Broadband connection with static IP for REMOTE SERVICE of LINAC system.
	SUGGESTED MANUFACTURERS/BRANDS:
	A . FLOORING : VITRIFIED TILES - Somany, Kajaria , H&R Johnson, Marbonite, Granamite
	B . PAINT : - Dulux, Asian Paints , Nerolac
	C . PLUMBING : - Kohler, Jaguar , Grohe , Roca
	D . SANITARY ITEMS : - CERA, Hindware, Parryware
	E . ELECTRICAL - —
	1. CABLES - Finolex, Havells ,V-Guard
	2. SWITCHES - Legrand, L&T, Crabtree , Roma
	3. DISTRIBUTION BOX , MCB - Legrand, L&T, Siemens, Havels

	4. LIGHT FITTINGS - Philips / Crompton / Wipro/Syska	
	F . AIR CONDINTIONING : - Daikin, Hitachi, Blue Star, Voltas.	
	G . FURNITURE : - Hermen Miller , Godrej , Featherlite,Geeken	
	GENERAL POINTS:	
	1. All items of work under this contract shall be executed strictly to fulfil the requirements laid down under “Basis of design” in the specifications Type of equipment, material specification, methods of installation and testing and type of control shall be in accordance with the specifications, approved shop drawings and the relevant Indian Standards, however capacity of each component and their qualities shall be such as to fulfil the above mentioned requirement.	
	2. The rate for each item of work included in the schedule of quantities shall, unless expressly stated otherwise, include cost of;	
	3. All materials, fixing materials, accessories, appliances tools plants, equipment, transport, labour and incidents required in preparation for and in the full and entire execution, testing, balancing, commissioning and completion of work called for in the item and as per specifications and drawings.	
	4. Wastage on materials and labour.	
	5. Loading, transporting, unloading, handling/double handling, hoisting to all levels, setting, fitting and fixing in position, protecting, disposal of debris and all other labour necessary in and for the full and entire execution and for the job in accordance with the contract documents, good practice and recognize principles.	
	6. Mode measurement shall be as per specification.	
	7. In the event of conflict between schedule of quantities and other documents including the specifications, the most stringent shall apply. The interpretation of the Architect/ Engineer shall be final and binding.	
J	TRAINING OF STAFF	
	Radiation Oncologist :	
	Medical Physicist :	
	Radiotherapy technologist :	
K	EQUIPMENT CERTIFICATION	
	AERB type approval : : please enclose certification	
	US FDA /CE approvals : : please enclose certification(s).	
	BOQ	
1	LOW LINEAR ACCELERATOR , as specified	1 set
2	Dose Calculation workstations with licences	2 nos
3	Contouring workstations with licences	3 nos
4	Motorized Wedge	1 no.
5	Accessory mount - shadow block tray	1 no.
6	Blocks—set of divergent / non-divergent	1 no.
7	Side Rails on both sides of Couch for Mounting Accessories.	1 set
8	CCTV Camera - wide angle with Monitor	1 no.
9	CCTV Camera with remote control with remote zoom & focus facility and Monitor.	1 no.
10	In-room colour flat monitor LED of size 19” or larger.	1 set
11	Laser Alignment System (3 crossed & 1 line Green laser system)	1 set
12	Single Laser unit(mould room)	1 no.

13	Interface Mount to be provided for Simulator to simulate accessories like ShadowBlock Tray etc. of the quoted Accelerator model.	1 no.
14	Online UPS with batteries	1 no.
15	Dosimetry & QA tools ; as specified	1 no.
16	Immobilisation devices; as specified	1 no.
17	Site modification: CIVIL	200m ²
18	Site modification: PLUMBING	200m ²
19	Site modification: ELECTRICAL	200m ²
20	Site modification: AIRCONDITIONING	24 TR
21	Revolving chairs	6nos.
22	Chairs <u>Three</u> -seater (chrome plated)	10 nos.
23	Cupboards	4 nos.
24	Drug trolleys	1no.
25	Patient trolley with rubber foam mattress	2 nos.
26	Name boards for all rooms.	1 set
27	Sun film & ventilation blinds	1 set
28	Tables for Workstations.	6nos.
20	Changing rooms with change lockers and dressing table.	1 set
30	Dustbins	10 nos.
31	LED X-ray Film viewer	4 nos.
32	Cabling of Network (LAN) connectivity and required CISCO switches for networking	1 set

	HIGH DOSE RATE BRACHYTHERAPY SYSTEM
	A high dose rate Remote After loading Brachytherapy system capable of Intracavitary, Intraluminal, Interstitial, Intra operative, surface mould radiation therapy.
	The HDR system should be microprocessor based with PC control.
	The HDR system must be from a well established company with a documented history of reliability. The HDR system must have a symmetrical source & check cable drive.
	The HDR system manufacturer should have an ISO 9001 and US FDA OR European CEcertification.
	The HDR system must have a "check" cable that automatically checks the operation of the complete system prior to treatment. The check cable must also be possible to use as a "Dummy" source to allow simulation of particular source locations.
	The system must be able to use standard needles and the source must be certified to 100,000 or more transfers.
	Detailed Specification:
	Treatment Unit - HDR
	(1) Treatment unit should be on wheels for easy mobility within the room.
	(2) Treatment unit should have a telescopic head to adjust for various heights.
	(3) Separate stepper motors to control the dummy check cable and Iridium / Cobalt Source cable.
	(4) A safe to contain the Cobalt Source which complies with International safety regulations.
	(5) Treatment unit should have a (built-in) integrated radiation detector (GM Tube type)
	(6) Multichannel indexer with a minimum of 20 channels or more having an automatic /optical verification of channel number and applicator connection.
	(7) The source must be retractable in the event of an emergency / power failure by following methods
	By an independent DC motor.
	Manual source retraction through hand crank
	(8) Battery back up and a detailed circuit for checking the battery condition
	Control Unit:
	(1) Stand alone and independent PC based control unit with colour monitor, keyboard, mouse, printer (for hardcopy) Built in audio card, network card and a backup media
	(2) Control unit should be of user friendly console and a graphical user interface and should contain an extensive reporting facility.
	(3) Control Unit software should run on Windows application.
	(4) Control Unit should have a self-testing feature including battery, indexer/RAM.
	Control unit must allow storage of multiple standards and keep track of patients fractionated treatment.
	Access must be limited to authorised users with Password protection.
	The treatment times must be automatically corrected for the decay of the Iridium source
	The treatment length must cover 12/24/48cm with a corresponding 2.5/5/10 mm step source size
	There should at least be 48 dwell position for the source in each channel

	Dwell times for each source steps to be from 0.1 to 999.9 secs
	Display Window should show step position and corresponding dwell time to 0.1sec
	Display of Total reference air Kerma and dose.
	The control unit should contain:
	An inbuilt protection circuit to prevent treatment without proper applicator connection and proper indexer locking.
	Online extensive display of status codes with an indication of the action required.
	Large patient database should be provided with a backup option to an external storage device
	Control unit should contain an built-in log book and all events should be recorded
	Brachytherapy software along with independent hardware must be provided and should support all of the Brachytherapy treatment modalities including intracavitary, interstitial, intraluminal and surface mould techniques.
	All the reconstruction technique like:
	Orthogonal
	Semiorthogonal with reconstruction box
	Variable angle
	Isocentric must be available.
	Dose Calculation based on TG43
	Automatic placement of Basal Dose Points for Paris Technique
	Different Optimization techniques like Dose point Optimization on distance and volume, Geometrical
	Optimization on distance and volume, Graphical Optimization with local and global control should be available
	Fast and accurate dose calculation considering radial dose function, anisotropy function and geometric function should be there.
	Rapid reconstruction of catheter using tracking algorithm and indication of corresponding lines on the images should be present.
	For outpatient treatments, extremely accurate and dwell time optimization and dose calculation must be available.
	Wide range of dose volume histogram methods, Point dose option, Different planes view must be available.
	Inverse brachytherapy planning using simulated annealing should be offered.
	Contouring tools should have complete image fusion tools inclusive of PET CT based image fusion
	Radiation Source and Transfer Mechanism:
	The source transfer guarantee must be high to ensure optimal usage of each individual source , capable of minimum 100,000 transfers.
	The source cable must be able to negotiate treatment curvature of 1.3cm or less radius
	The source cable must be a multi strand of at least 49 strands and a dia of <0.9mm
	The source cable should move forward or backward with an accuracy of ± 1 mm and must be controlled by stepper motors.
	The source drive out length from indexer should at least be 1300 mm to reach farther sites of treatment.

	The source transfer guarantee and uninterrupted functioning of each source should be ensured for minimum 6 years.
	Insurance and Freight cost of the Sources for both onward and return of used source must be included in the offer. The Clearance and transport of the offered sources and the Re-export / disposal of the decayed sources must also be included in the offer.
	Only necessary paper work only will be provided by the hospital
	Applicators:
	(1) Applicators to be provided for :
	Cervix 10(Ten)
	Vaginal 5(Five)
	Esophagus 3(Three)
	Breast: Flexible Implants complete set with at least 1000 Numbers of Flexible tubes. Rigid Needle Implants complete set with at least 30 Numbers of needles.
	Head & Neck
	Bronchus
	Nasopharynx
	Prostrate
	Treatment tubes to connect all Applicators should be of constant length to prevent stretching and slippage and also should be quick fit safety connections.
	Quality Assurance Tools: Source position check device. Gamma Zone monitor and CCTV Well type chamber for source calibration
24	Treatment Planning System
	Two workstations (One Dose calculation engines (licences) and One Floating contouring licences).
	Latest updatable S/W for next 10 yrs
	Dicom3 and full DICOM family
	Import/export from all existing CT/MR/PET/PACS/C-ARM etc
	Image registration (rigid / deformable)
	Import /export- Image/structure set/plan/ dose etc. to all machines and integration with the network. (HW/SW)
	Server (backup/restore) latest SW and free updation of s/w for next 10 yrs
	Latest colour Network Printer.
✓✓✓	Warranty & Guarantee for 5 years . CMC for 5 years after expiry of warranty.
FDA	State of the art latest HDR Brachytherapy System with dedicated Brachytherapy planning system should have USFDA approval OR European CE certificate.
	Site modification- Scope of Work HDR BRACHYTHERAPY
	1. The prospective bidders shall inspect the proposed site for HDR BRACHYTHERAPY at each of the before submission of tender.
	Tenderer's are advised to acquaint themselves with access to site, location of work, local labour problems and any other matter relating to availability and carriage of construction materials. Adopting standard operation/ incorporating IG procedure for GRIHA requirement during construction/ post construction.

	The construction of the concrete shell of the BRACHYTHERAPY ROOM is in the scope of the respective institute. Site modification work shall include all other site preparation work required the installation and functioning of HDR BRACHYTHERAPY at the proposed site.
	The bidders are required to submit the plan for the HDR BRACHYTHERAPY Centre. The scope of work includes complete Civil work, Electrical, Plumbing, Furnishing, Air-conditioning and Fire fighting for the construction of HDR BRACHYTHERAPY Centre.
	2. While preparing the plan, the following aspects have to be addressed.
	a) Care should be taken to provide easy negotiation of the patient stretchers / trolleys through corridors and doors.
	b) Adequate Radiation shielding as per AERB norms
	c) Furniture like desk, chairs, shelves etc.
	d) Patient stretcher and other furniture / accessories to make the functional.
	3. The cost of site modification for the area measuring 120m² and Air-conditioning of 15 TR capacity will be considered for Ranking / Evaluation purpose.
	4. Bidders have to quote the Unit Rates of the following components of site modification work and detailed BOQ should be mentioned:
	a) Civil works like sq.ft/cubic ft, running metre, Kg. etc
	b) Electrical work like per metre price, unit price for panel, isolation, etc
	c) Public health (plumbing and sanitary fittings) like per metre length of pipe, number of points, etc
	d) Air Conditioning (HVAC) rate per tonnage, type of false ceiling and sq.ft rate, etc
	e) Interior Furnishing & Furniture
	f) Miscellaneous works.
	Scope of work for site modification:
	The bidders should inspect the proposed site and submit all the detailed structural and architectural drawings and BOQ for the proposed HDR BRACHYTHERAPY Centre along with technical bid of the tender.
	The HDR BRACHYTHERAPY CENTRE shall consist of the following rooms:
	a) BRACHYTHERAPY Treatment Room
	b) Control room
	c) Equipment room
	d) Change room
	e) Patient waiting area
	g) AHU room
	Construction work to be done as per the final plan / scheme approved by the Consignee.
	The actual area of site modification works done will be considered for payment, based on the site measurements and the unit rate quoted by the supplier.
	CIVIL WORK
	1. Construction / modification work including construction of brick wall if any, plastering, flooring as per the approved plan and equipment layout plan.
	Construction renovation/ modification demolition, exaction, filling work including construction of full or half brick wall if required, plastering, flooring as per the approved plan and equipment layout plan. Necessary openings/ niches/ cutouts, wherever required as per drawings and asked for by the Engineer-In-Charge, shall be provided by the contractor without any extra cost.

	2. Making surface good for floor modification for installing the BRACHYTHERAPY SYSTEM.
	3. Platform for unloading and shifting the BRACHYTHERAPY SYSTEM; if necessary.
	4. Cable tray, trench & channel necessary trenches, cable tray and channels at required locations.
	a) Flooring
	1. 600 x 600 mm vitrified tiles with 100mm tile skirting to match in BRACHYTHERAPY room, control room, lobby and patient preparation areas, Consultant's room, TPS room etc.
	2. 50 mm thick cement concrete flooring with Vinyl flooring in BRACHYTHERAPY equipment / UPS room.
	Note: Providing and laying approved quality, colour, design and shade fully homogeneous 600x 600mm (thickness to be specified by the manufacturer) Vitrified tile flooring (Marbonite or Granamite, confirming to IS code 15622 with water absorption less than 0.08%) flooring in pattern as detailed in drawing or as directed by the EIC and grouted with matching colour approved quality readymade grout, curing, cleaning etc to required line level etc. all complete at all leads, lifts and heights to the entire satisfaction of the EIC. Providing and fixing 2-3mm thick POP protection over polythene covering sheet to flooring areas till handed over and cleaning, etc all complete as per drawings & specification and as directed by EIC with 100mm tile skirting to match in LINAC room, control room, lobby and patient preparation areas, consultant's room, TPS room etc
	Mode of measurement (finished surface area of the tiles shall be measured and paid. Rate shall be inclusive of providing and laying levelling course, PVC spacers, providing and applying epoxy grout and no additional payment shall be made for wastage.
	3. 50 mm thick cement concrete flooring at all heights and locations including scaffolding, preparing the surfaces, neat cement finishing to correct line or as required to receive
	architectural finish, level and plumb, curing where ever required complete as per specifications and drawings, with Vinyl flooring in LINAC equipment/UPS room.
	4. The entire complex will be made rodent/pest proof.
	b) Painting
	1. Two coats Plastic Emulsion Paint over 2 coats of wall putty including primer in all areas except BRACHYTHERAPY ROOM. —
	2. BRACHYTHERAPY ROOM Walls High quality High density Vitrified Tiles clad on the side walls up to false ceiling.
	3. Providing all tools, tackles, materials, manpower for applying plastic enamel paint over 2 coats of wall putty including primer in all areas except LINAC ROOM, of approved brand and manufacture and approved shade finished with roller to wall & ceilings surfaces, in 2 coats over a coat of approved quality primer on the plastered/ POP surface, POP board/ gypsum board surfaces including scaffolding, preparation of surface, sanding, light sanding, work platform, painting equipment/ apparatus etc. required to complete interior grade finish etc. at all heights & levels complete as per drawings & specification and as directed by EIC.
	4. Brachytherapy Room High quality High density Vitrified Tiles clad on the side walls up to false ceiling.
	c) False Ceiling
	1. Acoustical tile for ceiling with light weight insulating material of high quality supported on grid or finished seamless with support above ceiling. Finished with white paint or powder coated with white paint, if metallic. Ceiling height to suit the equipment mount and clearances.

	PLUMBING WORK
	1. All water pipes and fittings shall be of high density polythene of approved and standard make. The gratings shall be brass chrome plated. All plumbing accessories should be of standard make.
	2. Chiller Piping and control panel.
	Note:
	1. Tenderer's are advised to visit the site of work to acquaint themselves about the sub soil water, drainage facility for dewatering, accessibility to site etc. and quote the rates accordingly.
	2. All sanitary wares & CP brass fitting & fixtures shall be of first quality with ISI mark
	(unless otherwise specified) and shall be of the make as per the latest approved list of materials as per list of approved make/model, if any. They shall be got approved by the Engineer-in-charge before incorporating in the work.
	3. All the items include testing after completion of the work. Concealed/underground GI pipe line is to be wrapped with hessian cloth and painted with two coats of anticorrosive paint.
	Disposing off: The surplus excavated materials by mechanical transport lead up to 2KM to the nearby dumping pits/dumping areas within Institute campus identified by Engineer in charge, including all lifts, loading, unloading, stacking etc. complete as per specifications & as directed by the EIC.
	ELECTRICAL WORK
	1. The supplier shall be required to specify the total load requirements for the BRACHYTHERAPY centre including the load of air conditioning, room lighting and for the accessories if any. The supply line will be provided by the Institute up to one point within the BRACHYTHERAPY centre. The mains panel & distribution panel should be provided by the supplier. Few lights in each room shall be connected to the UPS to provide emergency lighting.
	2. The electrical work shall include the following:
	a. Wiring All interior electrical wiring- with main distribution panel board, necessary MCBs, DB, joint box, switch box etc. the wires shall be of copper of different capacity as per the load and should be renowned make as listed below.
	b. All the internal wiring including that of telephone, LAN, DICOM & PACS etc. will be of concealed variety.
	c. Double earthing with copper plate for the BRACHYTHERAPY and all accessories should be as well as the earthing for the AC should be done by the supplier.
	d. Switches light and power points should be of modular type and of standard make as listed below.
	e. General lights Mirror optical type LED fittings each minimum 500 lux.
	AIR CONDITIONING:
	All rooms mentioned above need to be air-conditioned. Package Air Conditioners and split AC units may be used according to room requirement and suitability. Humidity control should be provided to effectively eliminate moisture condensation on the equipment. The Air conditioning system should be designed with standby provision to function 24 x 7.
	The outdoor units of AC should have grill coverings to prevent theft and damage.
	Ventilation is required in toilet.
	2. Environment specifications:

	a) Humidity range: Relative humidity 60% and 80% in all areas except equipment room which shall be as per requirement of the equipment.
	b) Temperature ranges: 22 +/- 2° C in all areas throughout the year, except equipment room which shall be as per requirement of the equipment.
	c) Air conditioning load: The heat load calculations and maintaining the desired temperature and humidity shall be the responsibility of the supplier.
	FIRE SAFETY MEASURE:
	1. A fire alarm system of reputed make with smoke/ heat detectors, indicator panels, callboxes, electronic sirens and wiring will be installed. Audio call bell system with intercom & remote locking /unlocking facility to be provided at the main door of the complex.
	2. Supplying, Installing Dry chemical power type fire extinguisher of 5kgs capacity, with initial filling in brand new cylinder with power coated finish, fitted with Gun metal union, high pressure CO2 gas cartridge, discharge hose, wall mounting bracket etc. complete, confirming to IS:2171 of approved make & complete as directed by EIC.
	FURNITURE:
	a) Revolving chairs height adjustable, medium-back with hand-rest 6 NOS
	b) Chairs for patient waiting area Three-seater (chrome plated). -4 NOS
	c) Cupboard with laminate door shutters for storage of spare parts and accessories and records as per requirement. 4 Nos
	d) Drug trolleys for patient preparation area.-1 Nos
	e) Patient trolley with rubber foam mattress to be kept in the patient preparation room- 2nos
	f) Name boards for all rooms -1 set
	g) Tables for all Workstations-6 Nos
	h) Changing rooms should have change lockers and dressing table- 1 set
	i) Dustbins (plastic with lid) to be provided as required-10 Nos
	j) Any other furniture item as per requirement.
	All furniture items should be of standard make as mentioned in the table below.
	MISCELLANEOUS:
	1. LED X-rays film viewer with adjustable brightness; capable of holding 3 films of 14"x17" size-4 NOS.
	2. Cabling of Network (LAN) connectivity and required CISCO switches for networking the BRACHYTHERAPY, CT Simulator, LINAC , TPS, and any other workstation used within the site.
	LIST OF ITEMS AND SUGGESTED MANUFACTURERS/BRANDS.
	ITEMS & PREFERRED MAKES
	A . FLOORING VITRIFIED TILES - Somany, Kajaria , H&R Johnson, Marbonite, Granamite
	B . PAINT - Dulux, Asian Paints , Nerolac
	C . PLUMBING - Kohler, Jaguar , Grohe , Roca
	D . SANITARY ITEMS - CERA, Hindware, Parryware
	E . ELECTRICAL -
	1. CABLES - Finolex, Havells ,V-Guard
	2. SWITCHES - Roma - Legrand, L&T, Crabtree ,

	3. DISTRIBUTION BOX , MCB	- Legrand, L&T, Siemens, Havels
	4. LIGHT FITTINGS Wipro/Syska	- Philips / Crompton /
	F . AIR CONDINTIONING	- Daikin, Hitachi, Blue Star, Voltas.
	G . FURNITURE Featherlite,Geeken.	- Hermen Miller , Godrej ,
	GENERAL POINTS:	
	All items of work under this contract shall be executed strictly to fulfill the requirements laid down under "Basis of design" in the specifications. Type of equipment, material specification, methods of installation and testing and type of control shall be in accordance with the specifications, approved shop drawings and the relevant Indian Standards, however capacity of each component and their qualities shall be such as to fulfill the above mentioned requirement.	
	The rate for each item of work included in the schedule of quantities shall, unless expressly stated otherwise, include cost of;	
	All materials, fixing materials, accessories, appliances tools plants, equipment, transport, labour and incidents required in preparation for and in the full and entire execution, testing, balancing, commissioning and completion of work called for in the item and as per specifications and drawings.	
	Wastage on materials and labour.	
	Loading, transporting, unloading, handling/double handling, hoisting to all levels, setting, fitting and fixing in position, protecting, disposal of debris and all other labour necessary in and for the full and entire execution and for the job in accordance with the contract documents, good practice and recognize principles.	
	Mode measurement shall be as per specification.	
	In the event of conflict between schedule of quantities and other documents including the specifications, the most stringent shall apply. The interpretation of the Institute Engineer shall be final and binding.	
	BOQ	
1	HDR BRACHYTHERAPY SYSTEM , as specified	1 no.
2	Dose Calculation workstations with licences (price to be quoted separately)	1 no.
3	Contouring workstations with licences(price to be quoted separately)	1 no.
4	Site modification : CIVIL	120m ²
5	Site modification: PLUMBING	120m ²
6	Site modification: ELECTRICAL	120m ²
7	Site modification: AIRCONDITIONING	15 TR
8	Site modification: MISCELLANEOUS	1 set
9	Revolving chairs	6nos.
10	Chairs Three-seater (chrome plated).	4 nos.
11	Cupboards	4 nos.
12	Drug trolleys	1no.
13	Patient trolley with rubber foam mattress.	2 nos.
14	Name boards for all rooms.	1 set
15	Sun film & ventilation blinds	1 set
16	Tables for Workstations.	6nos.

17	Changing rooms with change lockers and dressing table.	1 set
18	Dustbins	10 nos.
19	LED X-ray Film viewer	4 nos.
20	Cabling of Network (LAN) connectivity and required CISCO switches for networking	1set
21	Applicators:	
22	Cervix	10set
23	Vaginal	5set
24	Esophagus	3set
25	Flexible implants	1 set
26	Flexible tubes (for Flexible Implants)	1000 Nos.
27	Rigid Needle implants complete set Breast	1 set
28	Needles (for Rigid Needle Implants. Breast)	30 Nos.
29	Head & Neck	1set
30	Bronchus	1set
31	Nasopharynx	1set
32	Prostrate	1set
33	Treatment tubes to connect all Applicators	1set
34	Quality Assurance Tools: Source position check device. Gamma Zone monitor and CCTV Well type chamber for source calibration	1set

	CT SIMULATOR SYSTEM 16 Slice
	<p>A dedicated state of the an CT Simulator is required for Radiotherapy Department for conventional RT, 3-D CRT, IMRT and 4-D planning (gating) and imaging .</p> <p>The CT simulator shall support accurate simulation, placement of treatment fields and marking of radiation field portals on patient's skin for radiation therapy of cancer pat It shall consist of mainly two components namely the CT machine (hardware) and the virtualsimulation software. The CT machine needed for the Simulator is similar to a conventionaldiagnostic CT except that the gantry' of the CT machine in this case should have a wider bore diameter (80 cm or more).</p> <p>The following are the technical specifications and other details for a CT machine and thevirtual simulation system:</p>
	1.2 CT Scanner
	The CT scan machine should be a helical scanner with the following details:
	1.2.1 The bore diameter of the CT gantry should be at least 80 cm and a display field of view (DFOV) of 65 cm or more . Accordingly, suitable high rating X-ray tube with doublefocus should form the part of the machine
	1.2.2 It should have high precision positioning lasers in sagittal, coronal and axial planes.
	1.2.3 It should be a minimum 16 slice helical/spiral machine with < 0.5 second rotation timeand a minimum of 0.75 mm slice thickness
	1.2.4 The maximum table sag/deflection should be ≤ 4 mm with 135 Kg patient weight
	1.2.5 The raw data memory of the computer for storage of images should be at least 1 TB or more
	1.2.6 Immediate image reconstruction and display without time-delay simultaneous to data acquisition in 512X512 matrix size.
	1.2.7 It should have advanced 3D image viewing functions including volume rendering technique and advanced editing functions.
	1.2.8 Network module should be provided for connectivity with HIS or any other LAN DICOM standards comprising functions such as Query/Retrieve, Send/Receive should be providedfor image transfer
	1.2.9 QA phantoms for image contrast, resolution and dose evaluation
	1.2.10 Suitable UPS for power back- up for the CT machine and CT Simulator system should be provided
	1.2.11 The X-ray generator should be high frequency generator with at least 50 kW power
	1.2.12 X-ray tube should have high heat storage capacity of 5 MHU or more and anode heat dissipation of 700 KHU/min. It should be a dual focal spot tube. Vendor to mention the sizeof the focal spots.
	1.2.13 The detector system should be free from repeated calibrations. The vendor to specifythe number of detectors, their type.
	1.2.14 The operator console of the CT scanner protocol selection, volume rendering, volume measurements, multiplanar reconstruction and standard evaluation applications and all available post processing functions without the help of satellite workstation.
	1.2.15 Post processing software: perfusion CT, VRT, MIP, MiniP, SSD, Image fusion, vessel segmentation, and virtual endoscopy software to be provided.
	1.2.16 Cine display should be available , both interactive and automatic , and should have a minimum image refresh rate of 8-10/sec

	1.2.17 Patient registration facility including on-line registration, pre-registration , transfer of information from HIS/RIS via DICOM should be possible.
	1.2.18 Should supply dual-head type of pressure injector, along with 50 disposable syringes and 100 tubing.
	Simulation Software
	1.3.1 The CT Simulation workstation should be fully integrated and networked with the treatment planning system for 3D CRT, fMRT/IGRT and with portal imaging workstation at the linac console.
	1.3.2 It should have capabilities for 3D viewing of images along with tools for constructing and display of high resolution ($\geq 512 \times 512$ pixels) DRRs and MPRs
	1.3.3 Tools for auto-contouring of normal structures along with manual contouring of normal structures and target volumes should be included. Editing, copy and paste of structures, 3D margin tools from GTV to CTV to PTV should be available. (Gross Tumour Volume, Clinical Target Volume , Planned Target Volume)
	1.3.4 Should have capability to do online CT simulation (while patient remains on CT couch) and also offline CT simulation at physician's workstation
	1.3.5 Tools for beam placement including MLC of any make and isocentre determination should be included. The tracking laser system should be linked to the virtual simulation software
	1.3.6 The supplier will be responsible for complete networking and integration between the CT Simulation Workstation, Treatment Planning System and portal imaging Workstation for import and export of image and data.
	1.3.7 CT/MRI/PET images, RT structures and data.
	1.4 Computer workstation
	1.4 : An additional workstation capable of handling all the post processing features of the main system should be provided in the Treatment Planning System room. Colour printer should be added with each workstation. The computer hardware and software system should be latest configuration available at the time of shipping with 19" high resolution flat screen monitor, high resolution graphic card and user friendly operating system.
	1.5 Laser system for CT simulation
	International class 3 moving green/red laser system of either Gammex or LAP or equivalent make for isocentre positioning with accuracy better than 1 mm shall be provided
	Computer System for Moving Laser System
	The laser system provided must be for moving external radiotherapy lasers used for marking the isocentre without moving the table top. Following the isocentre localization in any CT simulator workstation, the isocentre coordinate will be sent directly to the computer system that controls the movements of the lasers. This computer in turn should drive all the lasers, so that without moving the table top, the lasers point to the isocentre. Complete quality assurance tools (as stated above) should be provided.
	1.6 CT Simulation Table Top :
	1.6 It should be a carbon fibre , flat table-top with indexed patient positioning system compatible to those used in linac.
	1.7. A dry chemistry laser camera 500 dpi or more with digital interface and control and it should be DICOM compatible.
	Training:
	Training to be imparted on the equipments as follows : Two Medical Physicist and Two oncologists for one week each on applications in a facility within the country where the unit is being extensively used. Two Department technicians to be trained on operating procedures on the system for one week in reputed Institution in the country. Additional Two weeks training on-site .

2	Accessories: (Make and Model of all the quoted accessories should be specified)
a)	Dry chemistry camera of DPI 500 or more of any reputed make; with 200 films.
b)	Lead Glass as per AERB norms of size : 150 x 90 cm or more
c)	UPS with Maintenance free batteries capable of 30 minutes back up to run the entire CT, Computers, Dry chemistry camera, Work Stations etc.
d)	Dual Head Pressure Injector of reputed make with 50 sets of Syringes & 200 sets of tubings. Specify the make of Injector.
e)	Multi Para monitor 10 inch monitor , ECG , SPO2 , NIBP module of a reputed make for monitoring vitals.
g)	LIGHT WEIGHT lead aprons(0.25 Lead equivalent) with hangers - 4 Nos.
h)	Lead apron stand 1 No.
j)	Thyroid Shields 2 nos.
k)	Gonadal Shields 2 nos.
12	Training for a period of Two Weeks.
13	Warranty & Guarantee for 5 years . CMC for 5 years after expiry of warranty.
14a	Offered model should be European CE or US FDA approved. Copy of certifications should be submitted with bid
b	The system should be AERB type approved and the copy of E-LORA Listing should be submitted along with bid.
c	Regular QA according to AERB norms will be responsibility of bidder during warranty and CMC period.
4	The Site modification Scope of Work - CT SIMULATOR
1	The Supplier should inspect the proposed site offered by the Consignee Institute in which the CT SIMULATOR system has to be installed and they are required to submit the plan for the complete CT Scan Centre. The scope of work includes complete Civil work, Electrical, Plumbing, Furnishing, Air-conditioning and Fire fighting for the construction of CT SIMULATOR Centre.
2	While preparing the plan, the following aspects have to be addressed.
a)	Care should be taken to provide easy negotiation of the patient stretchers/ trolleys through corridors and doors.
b)	Radiation shielding for doors, walls, windows etc.
c)	Furniture like desk, chairs, shelves etc.
d)	Patient stretcher and other furniture/ accessory to make the scan centre functional.
3	The cost of site modification for the area of 1200 sq.ft and Air-conditioning of Tonnage 15 TR will be considered for Ranking / Evaluation purpose.
4	Moreover Bidders will have to quote the Unit Rates of the following components of site modification work.
a)	Civil works
b)	Electrical work
c)	Public health (plumbing and sanitary fittings).
d)	Air Conditioning (HVAC)
e)	Interior Furnishing & Furniture
f)	Miscellaneous
	Scope of work for site modification CT unit works:-
	The supplier should inspect the proposed site and submit all the detailed structural and architectural drawings and BOQ for the proposed CT SIMULATOR Centres along with technical bid of the tender.
	The CT SIMULATOR CENTRE shall consist of the following rooms:
a.	CT SIMULATOR Gantry Room
b.	Console room
c.	Equipment room
d.	Patient preparation room.
f.	Patient waiting area
g.	Radiotherapist room
	The actual area of site modification works done will be considered for payment, based

	on the unit rates and site measurements
	Civil work
a)	Civil construction work including construction of brick wall if any, plastering, flooring as per the approved plan and equipment layout plan.
b)	Concrete bed at CT equipment area.
c)	Platform for unloading and shifting the CT should be provided if necessary.
d)	Cable tray, trench & channel necessary trenches, cable tray and channels at required location would be provided.
e)	All the construction work to be done as per the final plan approved by the Consignee.
f)	Active and passive room shielding for magnetic, fringe field should be provided as per the requirement of the equipment.
a)	Flooring
1	600 x 600 mm vitrified tiles with 100mm tile skirting to match in console room, lobby and patient preparation areas, Radiologist room etc.
2	50 mm thick cement concrete flooring with Vinyl flooring in CT equipment / UPS room.
b)	Painting
1	Two coats Plastic Emulsion Paint over 2 coats of wall putty including primer in patient preparation area, Lobby area, console room, CT Gantry & Equipment room etc.
c)	False Ceiling
1	Acoustical tile for ceiling with light weight insulating material of high quality supported on grid or finished seamless with support above ceiling. Finished with white paint or powder coated with white paint, if metallic. Ceiling height to suit the equipment mount and clearances.
	Plumbing work
1	All water pipes and fittings shall be of high density polythene of approved and standard make. The gratings shall be brass chrome plated. All plumbing accessories should be of standard make.
2	Hot water service to be provided if required.
	Electrical work
1	The supplier shall be required to specify the total load requirements for the CT scan centre including the load of air conditioning , room lighting and for the accessories if any. The supply line will be provided by the Institute up to one point within the CT Scan centre area. The distribution panel shall be provided by the vendor. Few lights in each room shall be connected to the UPS to provide emergency lighting.
2	The electrical work shall include the following:
a.	Wiring All interior electrical wiring- with main distribution panel board, necessary MCBs, DB, joint box, switch box etc. the wires shall be of copper of different capacity as per the load and should be renowned make as listed below.
b.	Switches light and power points should be of modular type and of standard make as listed below.
c.	General lights LED light fitting with 500 Lux Illumination
3	AIR CONDITIONING:
	Ductable package air conditioners and split AC units may be used according to room requirement and suitability. Humidity control should be effective to eliminate moisture condensation on equipment surface. The Air conditioning should be designed with standby provision to function 24 hours a day.
	The outdoor units of AC should have grill coverings to prevent theft and damage.
	Ventilation is required in toilet.
2	Environment specifications:
a)	Relative Humidity range: To be maintained between 60% and 80% in all areas except equipment room which shall be as per requirement of the equipment.
b)	Temperature ranges: 22± 2° C in all areas except equipment room which shall be as per requirement of the equipment.
c)	Air conditioning load: The heat load calculations and maintaining the desired temperature and humidity shall be the responsibility of the bidder.
	Furniture:

a)	Revolving chairs height adjustable, medium-back with hand-rest in the Control room, Radiologist room and viewing area. 4 NOS
b)	Chairs for patient waiting area Three seater (chrome plated). - 10 NOS
c)	Cupboard with laminate door shutters for storage of spare parts and accessories and records as per requirement. 3 NOS
d)	Drug trolleys for patient preparation area- 1 Nos
e)	Patient trolley with rubber foam mattress to be kept in the patient preparation room- 2 Nos
f)	Name boards for all rooms-1 nos
g)	Tables for Workstation and Radiologist - 2 NOS
h)	Changing rooms should have change lockers and dressing table-1 set
i)	Dustbins: 10 nos
j)	Any other furniture item as per requirement.
	All furniture items should be of standard make as mentioned in the table below.
	Miscellaneous:
1	LED X-ray Film viewer with adjustable brightness ; capable of holding 3 films of 14"x17" size- 2 nos
2	Cabling of Network (LAN) connectivity for camera system, console system, workstation and computers etc.
3	Broadband connection: for REMOTE SERVICE of CT system.
4	Fire extinguisher Dry CO2 type as required for the building safety.
	LIST OF ITEMS AND SUGGESTED MANUFACTURERS.
SL NO	ITEMS PREFERRED MAKES
A	FLOORING VITRIFIED TILES - Somany, Kajaria , H&R Johnson, RAK india
B	PAINT - Dulux, Asian Paints , Nerolac
C	PLUMBING - Kohler, Jaguar , Grohe , Roca
D	SANITARY ITEMS - CERA, Hindware, Parryware
E	ELECTRICAL
1	CABLES - Finolex, Havells ,V-Guard
2	SWITCHES - Legrand, L&T, Crabtree , Roma
3	DISTRIBUTION BOX , MCB - Legrand, L&T, Siemens, Havells
4	LIGHT FITTINGS - Philips / Crompton / Wipro/Syska
F	AIR CONDINTIONING - Daikin, Hitachi, Blue Star, Voltas,
G	FURNITURE - Hermen Miller , Godrej, Featherlite, Geeken

Sl.No	BILL OF — QUANTITY	Qty
1	CT SIMULATOR 16 SLICE CT ,as specified	1 no.
2	Computer Workstation Nodes: as specified	1 No.
3	Laser system with Computer , as specified	1 set
4	Dry Chemistry camera with 200 films of 14" x 17".	1 no.
5	Lead Glass of 150 x 90 cm.	1 no.
6	UPS with Maintenance free batteries	1 set
7	Dual Head Pressure Injector	1 no.
8	Pressure Injector Syringes	50 nos
9	Tubings for Pressure Injector	100 sets
10	Multi Para monitor: as specified	1 no.
11	LIGHT WEIGHT lead aprons	4 Nos.
12	Lead Apron Hanger	4 Nos.

13	Lead apron stand	1 no.
14	Thyroid Shields	2 Nos.
15	Gonadal Shields	2 Nos.
	Components of site modification Work:	
1	Civil works	1200 ft ²
2	Electrical work	1200 ft ²
3	Public health (plumbing and sanitary fittings).	1200 ft ²
4	Air Conditioning	15 TR
	Furniture:	
1	Revolving chairs height adjustable, medium-back with hand-rest in the Control room, Radiologist room and viewing area	4 NOS
2	Chairs for patient waiting area Three seater (chrome plated). -	10 NOS
3	Cupboard with laminate door shutters for storage of spare parts and accessories and records as per requirement.	3 NOS
4	Drug trolleys for patient preparation area.	1 NO
5	Patient trolley with rubber foam mattress to be kept in the patient preparation room.	2 Nos
6	Tables for Workstation and Radiologist .	2 NOS
7	Changing rooms (with change lockers and dressing table).	1 set
8	Dustbins	10 NOS
9	Room Signage as required	LS
10	Venetian Blinds as required	LS
	Miscellaneous:	
1	LED X-ray Film viewer	2 Nos
2	Cabling of Network (LAN) connectivity for camera system, console system, workstation and computers etc.	LS
3	Dry chemical power type fire extinguisher of 5kgs capacity	3 Nos

	CT SIMULATOR SYSTEM - 64 slices
	<p>A dedicated state of the an CT Simulator is required for Radiotherapy Department for conventional RT, 3-D CRT, IMRT and 4-D planning (gating) and imaging .</p> <p>The CT simulator shall support accurate simulation, placement of treatment fields and marking of ra</p> <p>diation field portals on patient's skin for radiation therapy of cancer patients shall consist of mainly two components namely the CT machine (hardware) and the virtual simulation software. The CT machine needed for the Simulator is similar to a conventional diagnostic CT except that the gantry' of the CT machine in this case should have a wider bore diameter (80 cm or more).</p> <p>The following are the technical specifications and other details for a CT machine and the virtual simulation system:</p>
	1.2 CT Scanner
	The CT scan machine should be a helical scanner with the following details:
	1.2.1 The bore diameter of the CT gantry should be at least 80 cm with a display field of view (DFOV) of 65 cm or more . Accordingly, suitable high rating X-ray tube with double focus should form the part of the machine
	1.2.2 It should have high precision positioning lasers in sagittal, coronal and axial planes.
	1.2.3 It should be able to generate minimum 64 slices with <0.5 second rotation time and aminimum of 1 mm slice thickness.
	1.2.4 The maximum table sag/deflection should be ≤ 4 mm with 135 Kg patient weight
	1.2.5 The raw data memory of the computer for storage of images should be at least 1 TB or more
	1.2.6 Immediate image reconstruction and display without time-delay simultaneous to data acquisition in 512X512 matrix size.
	1.2.7 It should have advanced 3D image viewing functions including volume rendering technique and advanced editing functions.
	1.2.8 Network module should be provided for connectivity with HIS or any other LAN DICOM standards comprising functions such as Query/Retrieve, Send/Receive should be provided for image transfer
	1.2.9 QA phantoms for image contrast, resolution and dose evaluation
	1.2.10 Suitable UPS for power back- up for the CT machine and CT Simulator system shouldbe provided
	1.2.11 The X-ray generator should be high frequency generator with at least 70kW power
	1.2.12 X-ray tube should have high heat storage capacity of 7 MHU or more and anode heat dissipation of 700 KHU/min. It should be a dual focal spot tube. Vendor to mention the size of the focal spots.
	1.2.13 The detector system should be free from repeated calibrations. The vendor to specify the number of detectors, their type.
	1.2.14 The operator console of the CT scanner protocol selection, volume rendering, volume measurements, multiplanar reconstruction and standard evaluation applications and all available post processing functions without the help of satellite workstation.
	1.2.15 Post processing software: perfusion CT, VRT, MIP, MinIP, SSD, Image fusion, vessel segmentation, and virtual endoscopy software to be provided.
	1.2.16 Cine display should be available , both interactive and automatic , and should have a minimum image refresh rate of 8-10/sec
	1.2.17 Patient registration facility including on-line registration, pre-registration , transfer of information from HIS/RIS via DICOM should be possible.
	1.2.18 Should supply dual-head type of pressure injector, along with 50 disposable syringes and 100 tubing.

	Simulation Software
	1.3.1 The CT Simulation workstation should be fully integrated and networked with the treatment planning system for 3D CRT, fMRT/IGRT and with portal imaging workstation at the linac console.
	1.3.2 It should have capabilities for 3D viewing of images along with tools for constructing and display of high resolution ($\geq 512 \times 512$ pixels) DRRs and MPRs
	1.3.3 Tools for auto-contouring of normal structures along with manual contouring of normal structures and target volumes should be included. Editing, copy and paste of structures, 3D margin tools from GTV to CTV to PTV should be available. (Gross Tumour Volume, Clinical Target Volume, Planned Target Volume)
	1.3.4 Should have capability to do online CT simulation (while patient remains on CT couch) and also offline CT simulation at physician's workstation
	1.3.5 Tools for beam placement including MLC of any make and isocentre determination should be included. The tracking laser system should be linked to the virtual simulation software
	1.3.6 The supplier will be responsible for complete networking and integration between the CT Simulation Workstation, Treatment Planning System and portal imaging Workstation for import and export of image and data.
	1.3.7 A dry chemistry laser camera 500 dpi or more with digital interface and control integrated with main console. The camera should print a 14"x17" film size and It should be DICOM compatible.
	1.4 Computer workstation
	1.4 : An additional workstation capable of handling all the post processing features of the main system should be provided in the Treatment Planning System room. Colour printer should be added with each workstation. The computer hardware and software system should have the latest configuration available at the time of shipping with 19" high resolution flat screen monitor, high resolution graphic card and user friendly operating system.
	1.5 Laser system for CT simulation
	International class 3 moving green/red laser system of either Gammex or LAP or equivalent make for isocentre positioning with accuracy better than 1mm.
	1.6 CT Simulation Table Top :
	1.6 It should be a carbon fibre, flat table-top with indexed patient positioning system compatible to those used in linac.
	1.7. A dry chemistry laser camera 500 dpi or more with digital interface and control integrated and it should be DICOM compatible.
	Other General Requirements
	3.5 Training to be imparted on the equipments as follows : Two Medical Physicist and two oncologists for one week each on applications in a facility within the country where the unit is being extensively used. Two Department technicians to be trained on operating procedures on the system for one week in a facility within the country where the unit is being extensively used. Additional Onsite training for two weeks
11	Accessories: (Make and Model of all the quoted accessories should be specified)
a)	Dry chemistry camera of DPI 500 or more of any reputed make.
b)	Lead Glass as per AERB norms of size : 150 x 90 cm or more
c)	UPS with Maintenance free batteries capable of 30 minutes back up to run the entire CT, Computers, Dry chemistry camera, Work Stations etc.

d)	Dual Head Pressure Injector of reputed make with 50 sets of Syringes & 200 sets of tubings. Specify the make of Injector.
e)	Multi Para monitor 10 inch monitor , ECG , SPO2 , NIBP module of a reputed make for monitoring vitals.
g)	LIGHT WEIGHT lead aprons(0.25 Lead equivalent) with hangers - 4 Nos.
h)	Lead apron stand 1 No.
j)	Thyroid Shields 2 nos.
k)	Gonadal Shields 2 nos.
12	Warranty & Guarantee for 5years. CMC for 5 years after expiry of warranty.
14	Certifications:
l	Offered model should be European CE or US FDA approved. Copy of certification should be submitted with bid
	The system should be AERB type approved and the copy of E-LORA Listing should be submitted along with bid.
	Regular QA according to AERB norms will be responsibility of bidder during warranty and CMC period.
	The Site modification Scope of Work - CT SIMULATOR
1	The Supplier should inspect the proposed site offered by the Consignee Institute in which the CT SIMULATOR system has to be installed and they are required to submit the plan for the complete CT Scan Centre . The scope of work includes complete Civilwork, Electrical, Plumbing, Furnishing, Air-conditioning and Fire fighting for the construction of CT SIMULATOR Centre.
2	While preparing the plan, the following aspects have to be addressed.
a)	Care should be taken to provide easy negotiation of the patient stretchers/ trolleys through corridors and doors.
b)	Radiation shielding for doors, walls, windows etc.
c)	Furniture like desk, chairs, shelves etc.
d)	Patient stretcher and other furniture/ accessory to make the scan centre functional.
3	The cost of site modification for the area of 1200 sq.ft and Air-conditioning of Tonnage 15 TR will be considered for Ranking / Evaluation purpose.
4	Moreover Bidders will have to quote the Unit Rates of the following components of site modification work.
a)	Civil works
b)	Electrical work
c)	Public health (plumbing and sanitary fittings).
d)	Air Conditioning (HVAC)
e)	Interior Furnishing & Furniture
f)	Miscellaneous
	Scope of work for site modification of CT unit works:-
	The supplier should inspect the proposed site and submit all the detailed structural and architectural drawings and BOQ for the proposed CT SIMULATOR Centres along with technical bid of the tender.
	The CT SIMULATOR CENTRE shall consist of the following rooms:
a.	CT SIMULATOR Gantry Room

b.	Console room
c.	Equipment room
d.	Patient preparation room
f.	Patient waiting area
g.	Radiotherapist room
	The actual area of site modification works done will be considered for payment, based on the unit rates and site measurements
	Civil work
a)	Civil construction work including construction of brick wall if any, plastering, flooring as per the approved plan and equipment layout plan.
b)	Concrete bed at CT equipment area.
c)	Platform for unloading and shifting the CT should be provided if necessary.
d)	Cable tray, trench & channel necessary trenches, cable tray and channels at required location would be provided.
e)	All the construction work to be done as per the final plan approved by the Consignee.
f)	Active and passive room shielding for magnetic, fringe field should be provided as per the requirement of the equipment.
a)	Flooring
1	600 x 600 mm vitrified tiles with 100mm tile skirting to match in console room, lobby and patient preparation areas, Radiologist room etc.
2	50 mm thick cement concrete flooring with Vinyl flooring in CT equipment / UPS room.
b)	Painting
1	Two coats Plastic Emulsion Paint over 2 coats of wall putty including primer in patient preparation area, Lobby area, console room, CT Gantry & Equipment room etc.
c)	False Ceiling
1	Acoustical tile for ceiling with light weight insulating material of high quality supported on grid or finished seamless with support above ceiling. Finished with white paint or powder coated with white paint, if metallic. Ceiling height to suit the equipment mount and clearances.
	Plumbing work
1	All water pipes and fittings shall be of high density polythene of approved and standard make. The gratings shall be brass chrome plated. All plumbing accessories should be of standard make.
2	Hot water service to be provided if required.
	Electrical work
1	The supplier shall be required to specify the total load requirements for the CT scan centre including the load of air conditioning, room lighting and for the accessories if any. The supply line will be provided by the Institute up to one point within the CT Scan centre area. The distribution panel shall be provided by the vendor. Few lights in each room shall be connected to the UPS to provide emergency lighting.
2	The electrical work shall include the following:
a.	Wiring All interior electrical wiring- with main distribution panel board, necessary MCBs, DB, joint box, switch box etc. the wires shall be of copper of different capacity as per the load and should be renowned make as listed below.

b.	Switches light and power points should be of modular type and of standard make as listed below.
c.	General lights_LED light fitting with 500 Lux Illumination
3	AIR CONDITIONING:
a	Ductable package air conditioners and split AC units may be used according to room requirement and suitability. Humidity control should be effective to eliminate moisture condensation on equipment surface. The Air conditioning should be designed with standby provision to function 24 hours a day.
b	The outdoor units of AC should have grill coverings to prevent theft and damage.
c	Ventilation is required in toilet.
2	Environment specifications:
a)	Relative Humidity range: To be maintained between 60% and 80% in all areas except equipment room which shall be as per requirement of the equipment.
b)	Temperature ranges: $22 \pm 2^{\circ}$ C in all areas except equipment room which shall be as per requirement of the equipment.
c)	Air conditioning load: The heat load calculations and maintaining the desired temperature and humidity shall be the responsibility of the bidder.
	Furniture:
a)	Revolving chairs height adjustable, medium-back with hand-rest in the Control room, Radiologist room and viewing area. 4 NOS
b)	Chairs for patient waiting area Three seater (chrome plated). - 10 NOS
c)	Cupboard with laminate door shutters for storage of spare parts and accessories and records as per requirement. 3 NOS
d)	Drug trolleys for patient preparation area-1 Nos
e)	Patient trolley with rubber foam mattress to be kept in the patient preparation room-2Nos
f)	Name boards for all rooms-1 Set
g)	Tables for Workstation and Radiologist - 2 NOS
h)	Changing rooms should have change lockers and dressing table-1 set
c)	Air conditioning load: The heat load calculations and maintaining the desired temperature and humidity shall be the responsibility of the bidder.
	Furniture:
a)	Revolving chairs height adjustable, medium-back with hand-rest in the Control room, Radiologist room and viewing area.-4 NOS
b)	Chairs for patient waiting area_Three seater (chrome plated). - 10 NOS
c)	Cupboard with laminate door shutters for storage of spare parts and accessories and records as per requirement.-3 NOS
d)	Drug trolleys for patient preparation area-1 Nos
e)	Patient trolley with rubber foam mattress to be kept in the patient preparation room-2Nos
f)	Name boards for all rooms-1 Set
g)	Tables for Workstation and Radiologist - 2 NOS
h)	Changing rooms should have change lockers and dressing table-1 set
i)	Dustbins: 10 nos

j)	Any other furniture item as per requirement.
	All furniture items should be of standard make as mentioned in the table below.
	Miscellaneous:
1	LED X-ray Film viewer with adjustable brightness ; capable of holding 3 films of 14” x 17” size - 2 nos
2	Cabling of Network (LAN) connectivity for camera system, console system, workstation and computers etc.
3	Broadband connection: for REMOTE SERVICE of CT system.
4	Fire extinguisher Dry CO2 type as required for the building safety.
	LIST OF ITEMS AND SUGGESTED MANUFACTURERS.
SL NO	ITEMS PREFERRED MAKES
A	FLOORING VITRIFIED TILES - Somany, Kajaria , H&R Johnson, RAK india
B	PAINT - Dulux, Asian Paints , Nerolac
C	PLUMBING - Kohler, Jaguar , Grohe , Roca
D	SANITARY ITEMS - CERA, Hindware, Parryware
E	ELECTRICAL
1	CABLES - Finolex, Havells ,V-Guard
2	SWITCHES - Legrand, L&T, Crabtree , Roma
3	DISTRIBUTION BOX , MCB - Legrand, L&T, Siemens, Havels
4	LIGHT FITTINGS - Philips / Crompton / Wipro/Syska
F	AIR CONDINTIONING - Daikin, Hitachi, Blue Star, Voltas,
G	FURNITURE - Hermen Miller , Godrej , Featherlite,Geeken

SI.No	BILL OF QUANTITY	Qty
1	CT SIMULATOR 64 SLICE CT ,as specified	1 no.
2	Computer Workstation Nodes: as specified	1 No.
3	Laser system , as specified	1 set
4	Dry Chemistry camera with 200 films.	1 no.
5	Lead Glass of 150 x 90 cm.	1 no.
6	UPS with Maintenance free batteries	1 set
7	Dual Head Pressure Injector	1 no.
8	Pressure Injector Syringes	50 nos
9	Tubings for Pressure Injector	100 sets
10	Multi Para monitor: as specified	1 no.
11	LIGHT WEIGHT lead aprons	4 Nos.
12	Lead Apron Hanger	4 Nos.
13	Lead apron stand	1 no.
14	Thyroid Shields	2 Nos.
15	Gonadal Shields	2 Nos.
	Components of site modification Work:	

1	Civil works	1200 ft ²
2	Electrical work	1200 ft ²
3	Public health (plumbing and sanitary fittings).	1200 ft ²
4	Air Conditioning	15 TR
	Furniture:	
1	Revolving chairs height adjustable, medium-back with hand-rest in the Control room, Radiologist room and viewing area	4 NOS
2	Chairs for patient waiting area Three seater (chrome plated). -	10 NOS
3	Cupboard with laminate door shutters for storage of spare parts and accessories and records as per requirement.	3 NOS
4	Drug trolleys for patient preparation area.	1 NO
5	Patient trolley with rubber foam mattress to be kept in the patient preparation room.	2 Nos
6	Tables for Workstation and Radiologist .	2 NOS
7	Changing rooms (with change lockers and dressing table).	1 set
8	Dustbins	10 NOS
9	Room Signage as required	LS
10	Venetian Blinds as required	LS
	Miscellaneous:	
1	LED X-ray Film viewer	2 Nos
2	Cabling of Network (LAN) connectivity for camera system, console system, workstation and computers etc	LS
3	Dry chemical power type fire extinguisher of 5 kgs capacity	3 Nos