

TENDER ENQUIRY DOCUMENT

FOR PURCHASE OF
MEDICAL EQUIPMENT
FOR INSTITUTIONS GETTING UPGRADED
UNDER PMSSY PHASE III

On behalf of
GOVT. OF INDIA

MINISTRY OF HEALTH & FAMILY WELFARE
HITES/PCD/PMSSY-III/05/RTP/17-18

Through



HLL INFRA TECH SERVICES LIMITED

(Subsidiary of HLL Lifecare Ltd., a Govt. of India Enterprise)

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SECTION I

NOTICE INVITING TENDER (NIT)

Tender Enquiry No.: HITES/PCD/PMSSY-III/05/RAT/17-18

Dated 01.06.17

(1) Procurement & Consultancy Services Division of **HLL Infra Tech Services Limited (HITES)**, a fully owned subsidiary of **HLL Lifecare Ltd. (HLL)**, for and on behalf of Govt. of India, Ministry of Health & Family Welfare, invites sealed tenders, from eligible and qualified tenderers for supply of Medical Equipment to various Medical Colleges/ Institutes mentioned in this Tender Enquiry Document which are getting upgraded to super-specialities under Pradhan Mantri Swasthya Suraksha Yojna (PMSSY) Phase III:

Sl. No.	Rfx No.	Item Description	Qty.	Tender Processing Fee (Rs.)	EMD (Rs.)
1	3000001995	ADVANCED HIGH ENERGY LINEAR ACCELERATOR	5	5,750	1,85,00,000
2	3000001996	LOW ENERGY LINEAR ACCELERATOR	5	5,750	1,25,00,000
3	3000001997	HIGH DOSE RATE BRACHYTHERAPY SYSTEM	5	5,750	30,00,000
4	3000001998	CT SIMULATOR SYSTEM-16 Slice	5	5,750	55,00,000
5	3000002000	CT SIMULATOR SYSTEM - 64 Slice	5	5,750	75,00,000

(2) Tender No.: HITES/PCD/PMSSY-III/04/RAD/17-18

Sl. No.	Description	Schedule
a.	Last date for receipt of Pre-bid queries	12.06.2017, 1800 hrs IST
b.	Pre-bid meeting date, time	14.06.2017, 1100 hrs IST
d.	Closing date & time for submission of online bids	04.07.2017, 1800 hrs IST
c.	Closing date & time for submission of tender processing fee and EMD in physical form*	05.07.2017, 1400 hrs IST
e.	Time and date of opening of online bids	05.07.2017, 1430 hrs IST
f.	Venue for :- • Submission of tender processing fee, EMD in physical form. • Tender Opening-Tech Bid	HLL Infra Tech Services Limited, Procurement & Consultancy Services Division, B-14 A, Sector-62, Noida-201307

* Bidders have to submit Original Bank Instruments viz. DD/BC/BG of tender processing fee and EMD within the above mentioned date and time

SPECIFIC Instructions for e-Tender Participation:-

- (3) The tenders are invited through the e-tender portal of HLL/HITES (<https://etender.lifecarehll.com/irj/portal>) only.
- (4) The prospective bidders have to register in the e-tender portal for participating in the tender. There is no registration fee. The instruction for registering in the portal along with video tutorial is available in the *Bidder Help Documents* provided in the e-tender portal login screen.

- (5) Bidders should have a valid Class 3 Digital Signature Certificate with signing and encryption keys.
- (6) On completion of the registration process, the bidders will be provided user ID and password within 72 hours (excepting non-working days). In order to submit the bids electronically bidders are required to have a valid Class 3 Digital Signature Certificate (**signing and encryption/ decryption certificates**).
- (7) Bidders can access the portal for viewing/ downloading the tender enquiry document & uploading tender(s) after the receipt of User ID & Password.
- (8) Bidders are requested to go through the *Bidder Help Documents* on e-tender portal before proceeding for bidding.
- (9) **The tenderers shall submit tender processing fee and EMD in physical form at the scheduled time and venue.**
- (10) Tenderer may download the tender enquiry documents from the web site www.hllhites.com or www.lifecarehll.com or www.eprocure.gov.in/cppp or <https://etender.lifecarehll.com/irj/portal>.
- (11) The submission of tender online can only be done thru' <https://etender.lifecarehll.com/irj/portal>.
- (12) All prospective tenderers may attend the Pre Tender meeting. The venue, date and time indicated above.
- (13) Tenderers shall ensure that their tenders, complete in all respects, are submitted online through HLL e-portal (as described above) ONLY. No DEVIATION is acceptable.

Director & CEO
HLL Infra Tech Services Limited

SECTION - II**GENERAL INSTRUCTIONS TO TENDERERS (GIT)
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GENERAL INSTRUCTIONS TO TENDERERS (GIT)**A. PREAMBLE****1. Definitions and Abbreviations**

1.1 The following definitions and abbreviations, which have been used in these documents shall have the meanings as indicated below:

1.2. Definitions:

- (i) **“Purchaser”** means Ministry of Health & Family Welfare Govt. of India.
- (ii) **“e-Tender”** means Bids / Quotation / Tender received from a Firm / Tenderer / Bidder online.
- (iii) **“Tenderer”** means Bidder/the Individual or Firm submitting Bids/Quotation/e-Tenders.
- (iv) **“Supplier”** means the individual or the firm supplying the goods and services as incorporated in the contract.
- (v) **“Goods”** means the articles, material, commodities, livestock, furniture, fixtures, raw material, spares, instruments, machinery, equipment, medical equipment, industrial plant etc. which the supplier is required to supply to the purchaser under the contract.
- (vi) **“Services”** means services allied and incidental to the supply of goods, such as transportation, installation, commissioning, provision of technical assistance, training, after sales service, maintenance service and other such obligations of the supplier covered under the contract.
- (vii) **“Earnest Money Deposit” (EMD)** means Bid Security/ monetary or financial guarantee to be furnished by a tenderer along with its tender.
- (viii) **“Contract”** means the written agreement entered into between the purchaser and/or consignee and the supplier, together with all the documents mentioned therein and including all attachments, annexure etc. therein.
- (ix) **“Performance Security”** means monetary or financial guarantee to be furnished by the successful tenderer for due performance of the contract placed on it. Performance Security is also known as Security Deposit.
- (x) **“Consignee”** means the Hospital/Institute/Medical College/ person to whom the goods are required to be delivered as specified in the Contract. If the goods are required to be delivered to a person as an interim consignee for the purpose of despatch to another person as provided in the Contract then that “another” person is the consignee, also known as ultimate consignee.
- (xi) **“Specification”** means the document/standard that prescribes the requirement with which goods or service has to conform.
- (xii) **“Inspection”** means activities such as measuring, examining, testing, gauging one or more characteristics of the product or service and comparing the same with the specified requirement to determine conformity.
- (xiii) **“Day”** means calendar day.

1.3 Abbreviations:

- (i) **“TE Document”** means Tender Enquiry Document
- (ii) **“NIT”** means Notice Inviting Tenders.
- (iii) **“GIT”** means General Instructions to Tenderers
- (iv) **“SIT”** means Special Instructions to Tenderers
- (v) **“GCC”** means General Conditions of Contract
- (vi) **“SCC”** means Special Conditions of Contract

- (vii) “DGS&D” means Directorate General of Supplies and Disposals
- (viii) “NSIC” means National Small Industries Corporation
- (ix) “PSU” means Public Sector Undertaking
- (x) “CPSU” means Central Public Sector Undertaking
- (xi) “LSI” means Large Scale Industry
- (xii) “SSI” means Small Scale Industry
- (xiii) “LC” means Letter of Credit
- (xiv) “DP” means Delivery Period
- (xv) “BG” means Bank Guarantee
- (xvi) “ED” means Excise Duty
- (xvii) “CD” means Custom Duty
- (xviii) “VAT” means Value Added Tax
- (xix) “CENVAT” means Central Value Added Tax
- (xx) “CST” means Central Sales Tax
- (xxi) “RR” means Railway Receipt
- (xxii) “BL” means Bill of Lading
- (xxiii) “FOB” means Free on Board
- (xxiv) “FCA” means Free Carrier
- (xxv) “FOR” means Free On Rail
- (xxvi) “CIF” means Cost, Insurance and Freight
- (xxvii) “CIP (Destinations)” means Carriage and Insurance Paid up to named port of destination. Additionally the Insurance (local transportation and storage) would be extended and borne by the Supplier from ware house to the consignee site for a period including 3 months beyond date of delivery.
- (xxviii) “DDP” means Delivery Duty Paid named place of destination (consignee site)
- (xxix) “INCOTERMS” means International Commercial Terms as on the date of Tender Opening
- (xxx) ”MOH&FW” means Ministry of Health & Family Welfare, Government of India
- (xxxi) “Dte. GHS” means Directorate General and Health Services, MOH&FW.
- (xxxii) “CMC” means Comprehensive maintenance Contract (labour, spare and preventive maintenance)
- (xxxiii) “RT” means Re-Tender.

2. Introduction

- 2.1 The Purchaser has issued these TE documents for purchase of goods and related services as mentioned in Section – VI – “List of Requirements”, which also indicates, *interalia*, the required delivery schedule, terms and place of delivery.
- 2.2 This section (Section II - “General Instruction Tenderers”) provides the relevant information as well as instructions to assist the prospective tenderers in preparation and submission of tenders. It also includes the mode and procedure to be adopted by the purchaser for receipt and opening as well as scrutiny and evaluation of tenders and subsequent placement of contract.
- 2.3 The tenderers shall also read the Special Instructions to Tenderers (SIT) related to this purchase, as contained in Section III of these documents and follow the same accordingly. Whenever there is a conflict between the GIT and the SIT, the provisions contained in the SIT shall prevail over those in the GIT.
- 2.4 Before formulating the tender and submitting the same to the purchaser, the tenderer should read and examine all the terms, conditions, instructions, etc. contained in the TE documents. Failure to provide and/or comply with the required information, instructions etc. incorporated in these TE documents may result in rejection of its tender.

3. Availability of Funds

- 3.1 Expenditure to be incurred for the proposed purchase will be met from the funds available with the purchaser/consignee.

4. Language of Tender

- 4.1 The tender submitted by the tenderer and all subsequent correspondence and documents relating to the tender exchanged between the tenderer and the purchaser, shall be written in the English language, unless otherwise specified in the Tender Enquiry. However, the language of any printed literature furnished by the tenderer in connection with its tender may be written in any other language provided the same is accompanied by an English translation and, for purposes of interpretation of the tender, the English translation shall prevail.
- 4.2 The tender submitted by the tenderer and all subsequent correspondence and documents relating to the tender exchanged between the tenderer and the purchaser, may also be written in the Hindi language, provided that the same are accompanied by English translation, in which case, for purpose of interpretation of the tender etc., the English translations shall prevail.

5. Eligible Tenderers

- 5.1 This invitation for tenders is open to all suppliers who fulfil the eligibility criteria specified in these documents.

6. Eligible Goods and Services

- 6.1 All goods and related services to be supplied under the contract shall have their origin in India or any other country with which India has not banned trade relations. The term “origin” used in this clause means the place where the goods are mined, grown, produced, or manufactured or from where the related services are arranged and supplied.

7. Tendering Expense

- 7.1 The tenderer shall bear all costs and expenditure incurred and/or to be incurred by it in connection with its tender including preparation, mailing and submission of its tender and for subsequent processing the same. The purchaser will, in no case be responsible or liable for any such cost, expenditure etc. regardless of the conduct or outcome of the tendering process.

B. e-TENDER ENQUIRY DOCUMENTS**8. Content of Tender Enquiry Documents**

- 8.1 In addition to Section I – “Notice inviting e-Tender” (NIT), the TE documents include:

Section II	– General Instructions to Tenderers (GIT)
Section III	– Special Instructions to Tenderers (SIT)
Section IV	– General Conditions of Contract (GCC)
Section V	– Special Conditions of Contract (SCC)
Section VI	– List of Requirements
Section VII	– Technical Specifications
Section VIII	– Quality Control Requirements
Section IX	– Qualification Criteria

Section X	– Tender Form
Section XI	– Price Schedules
Section XII	– Questionnaire
Section XIII	– Bank Guarantee Form for EMD
Section XIV	– Manufacturer’s Authorisation Form
Section XV	– Bank Guarantee Form for Performance Security/CMC Security
Section XVI	– Contract Forms A & B
Section XVII	– Proforma of Consignee Receipt Certificate
Section XVIII	– Proforma of Final Acceptance Certificate by the consignee
Section XIX	– Consignee List

8.2 The relevant details of the required goods and services, the terms, conditions and procedure for tendering, tender evaluation, placement of contract, the applicable contract terms and, also, the standard formats to be used for this purpose are incorporated in the above-mentioned documents. The interested tenderers are expected to examine all such details etc. to proceed further.

9. Amendments to TE documents

- 9.1 At any time prior to the deadline for submission of tenders, the purchaser may, for any reason deemed fit by it, modify the TE documents by issuing suitable amendment(s) to it.
- 9.2 Such an amendment will be notified in writing by registered/speed post or by fax/telex/e-mail, to all prospective tenderers, who have received the TE documents and will be binding on them.
- 9.3 In order to provide reasonable time to the prospective tenderers to take necessary action in preparing their tenders as per the amendment, the purchaser may, at its discretion extend the deadline for the submission of tenders and other allied time frames, which are linked with that deadline.

10. Clarification of TE documents

- 10.1 A tenderer requiring any clarification or elucidation on any issue of the TE documents may take up the same with the purchaser in writing. in their letter head duly signed and scanned through email to pcd@hllhites.com and bmenoida@hllhites.com. The purchaser will respond to such request provided the same is received by the purchaser **within the due date mentioned in the NIT. Any queries/representations received later shall not be taken into cognizance.**

C. PREPARATION OF e-TENDERS

11. Documents comprising the e-Tender

- 11.1 The tender(s) shall only be submitted online as mentioned below:
- (i) Technical Bid (Consisting of Techno-Commercial bids in excel format provided with the tender enquiry along with the supporting documents i.e. scanned copies of Tender Processing Fee, EMD, Eligibility Criteria & Technical Specifications viz. Product Specification Sheets/Brochures, OEM Certificate, etc.) has to be attached in the C-folder of e-tendering module. Bidders have to ensure that the documents uploaded in pdf format are legible.
 - (ii) Price Bid has to be submitted in the prescribed excel format provided with the tender enquiry.

Note:

- (i) The Tender Processing Fee, in favor of HLL Infra Tech Services Ltd. and EMD are to be submitted in physical form as per Section – I, Notice Inviting Tender of this tender enquiry.

- (ii) The bidders have to follow the steps listed in *Bidding Manual – Attachment Mode* available in the *Bidder Help Documents* of e-tender portal login screen for uploading the Techno-Commercial Bid.

A) Details of Technical Tender (Un priced Tender)

Bidders shall furnish the following information along with technical tender:.

- i) Techno-Commercial Bid in excel format provided with the tender enquiry
- ii) Earnest money Deposit (EMD) furnished in accordance with GIT clause 19.1 alternatively, documentary evidence as per GIT clause 19.2 for claiming exemption from payment of earnest money.
- iii) Tender Form as per Section X (without indicating any prices).
- iv) Documentary evidence, as necessary in terms of clauses 5 and 17 establishing that the tenderer is eligible to submit the tender and, also, qualified to perform the contract if its tender is accepted.
- v) Tenderer/Agent who quotes for goods manufactured by other manufacturer shall furnish Manufacturer's Authorization **strictly as per the prescribed format (Section - XIV)**.
- vi) Power of Attorney issued by Competent Authority in favour of the person **who is digitally signing/ uploading the tender(s)**.
- vii) Documents and relevant details to establish in accordance with GIT clause 18 that the goods and the allied services to be supplied by the tenderer conform to the requirement of the TE documents.
- viii) Performance Statement as per section IX along with relevant copies of orders and end users' satisfaction certificate.
- ix) Price Schedule(s) as per Section XI filled up with all the details including Make, Model etc. of the goods offered with prices blank (without indicating any prices).
 - x) Certificate of Incorporation.
 - xi) Self-Attested copies of VAT registration certificate and PAN Card.
 - xii) Non conviction /no pending conviction certification issued by Notary on judicial stamp paper for preceding three years.
 - xiii) Self-Attested copies of quality certificates i.e. US FDA /CE Certificate issued by competent authority, if applicable.
 - xiv) Documentary evidence stating the status of bidder.
 - xv) List of procurement agencies of repute to which the tendered product have been supplied during last 12 months.
 - xvi) Self-attested copies of annual report, audited balance sheet and profit & loss account for preceding three years from the date of tender opening.
 - xvii) Notarized affidavit that tenderer does not have any relation with the person authorized to evaluate technically or involve in finalizing the tender or will decide the use of tendered items.
 - xviii) A self-declaration on Rs. 10/- non-judicial Stamp Paper that the rates quoted in the tender are the lowest and not quoted less than this to any Government Institution (State/Central/ other Institute in India).
 - xix) **Copies of original product catalogues / data sheet must be enclosed of all quoted items.**

B) Price Bid:

Prices are to be quoted in the prescribed Price Bid format in excel provided along with the tender enquiry in the e-tender portal. The price should be quoted for the accounting unit indicated in the e-tender document.

Note:

- (i) **The bidder has to be diligent while filling up the Techno-Commercial Bid and Price Bid provided in excel formats and must not tamper the contents of the sheets.**
- (ii) It is the responsibility of bidder to go through the TE document to ensure furnishing all required documents in addition to above, if any.
- (iii) The bidders have to follow the steps listed in *Bidding Manual – Attachment Mode* available in the *Bidder Help Documents* of e-tender portal login screen for uploading the Price Bid.

- 11.2 A person signing (manually or digitally) the tender form or any documents forming part of the contract on behalf of another shall be deemed to warrant that he has authority to bind such other persons and if, on enquiry, it appears that the persons so signing had no authority to do so, the purchaser may, without prejudice to other civil and criminal remedies, cancel the contract and hold the signatory liable for all cost and damages.
- 11.3 A tender, which does not fulfill any of the above requirements and/or give evasive information/reply against any such requirement, shall be liable to be ignored.
- 11.4 Tender sent by fax/telex/cable shall be ignored.

12. Tender currencies

- 12.1 The tenderer supplying indigenous goods or already imported goods shall quote only in Indian Rupees (INR). A tenderer quoting imported goods located within India shall produce documentary evidence of the goods having been imported and already located within India, in case their bid is found to be the lowest one after opening of price bid.
- 12.2 For imported goods if supplied directly from abroad, prices shall be quoted in any freely convertible currency say US Dollar, Euro, GBP or Japanese Yen. As regards price(s) for allied services, if any required with the goods, the same shall be quoted in Indian Rupees only (INR), if such services are to be performed /undertaken in India. Commission for Indian Agent, if any and if payable shall be indicated in the space provided for in the price schedule and will be payable in Indian Rupees only.
- 12.3 Tenders, where prices are quoted in any other currency may not be accepted and are liable to be ignored.

13 Tender Prices

- 13.1 The Tenderer shall indicate on the Price Schedule provided under Section XI all the specified components of prices shown therein including the unit prices and total tender prices of the goods and services it proposes to supply against the requirement. All the columns shown in the price schedule should be filled up as required.
- 13.2 If there is more than one schedule in the List of Requirements, the tenderer has the option to submit its quotation for any one or more schedules. However, while quoting for a schedule, the tenderer shall quote for the complete requirement of goods and services as specified in that particular schedule.
- 13.3 The quoted prices for goods offered from within India and that for goods offered from abroad are to be indicated separately in the applicable Price Schedules attached under Section XI.
- 13.4 While filling up the columns of the Price Schedule, the following aspects should be noted for compliance:

13.4.1 For domestic goods or goods of foreign origin located within India, the prices in the corresponding price schedule shall be entered separately in the following manner:

- a) The price of the goods, quoted ex-factory/ ex-showroom/ ex-warehouse/ off-the-shelf, as applicable, including all taxes and duties like sales tax, CST, VAT, CENVAT, Custom Duty, Excise Duty etc. already paid or payable on the components and raw material used in the manufacture or assembly of the goods quoted ex-factory etc. or on the previously imported goods of foreign origin quoted ex-showroom etc;
- b) Any sales or other taxes and any duties including excise duty, which will be payable on the goods in India if the contract is awarded;
- c) Charges towards Packing & Forwarding, Inland Transportation, Insurance (local transportation and storage), Loading & Unloading etc. would be borne by the Supplier from ware house to the consignee site for a period including 3 months beyond date of delivery, Loading/Unloading and other local costs incidental to delivery of the goods to their final destination as specified in the List of Requirements and Price Schedule;
- d) The price of Incidental Services, as mentioned in List of Requirements and Price Schedule;
- e) The prices of Site Modification Work (if any), as mentioned in List of Requirements, Technical Specification and Price Schedule.
- f) The price of annual CMC, as mentioned in List of Requirements, Technical Specification and Price Schedule.

13.4.2 For goods offered from abroad, the prices in the corresponding price schedule shall be entered separately in the following manner:

- a) The price of goods quoted FOB/FCA port of shipment, as indicated in the List of Requirements and Price Schedule;
- b) Price of goods quoted CIP (name port of destination) in India as indicated in the List of Requirements, Price Schedule and Consignee List
- c) The charges for Insurance (local transportation and storage) would be extended and borne by the Supplier from ware house to the consignee site for a period including 3 months beyond date of delivery. Other local costs and Incidental costs, as specified in the List of Requirements and Price Schedule;
- d) The charges for Incidental Services, as in the List of Requirements and Price Schedule;
- e) The prices of Site Modification Work (if any), as mentioned in List of Requirements, Technical Specification and Price Schedule; and
- f) The price of annual CMC, as mentioned in List of Requirements, Technical Specification and Price Schedule.

13.5 **Additional information and instruction on Duties and Taxes:**

13.5.1 If the Tenderer desires to ask for excise duty, sales tax/VAT, Service Tax, Works Contract Tax etc. to be paid extra, the same must be specifically stated. In the absence of any such stipulation the price will be taken inclusive of such duties and taxes and no claim for the same will be entertained later.

13.5.2 **Excise Duty:**

- a) If reimbursement of excise duty is intended as extra over the quoted prices, the supplier must specifically say so also indicating the rate, quantum and nature of the duty applicable. In the absence of any such stipulation it will be presumed that the prices quoted are firm and final and no claim on account of excise duty will be entertained after the opening of tenders.
- b) If a Tenderer chooses to quote a price inclusive of excise duty and also desires to be reimbursed for variation, if any, in the excise duty during the time of supply, the tenderer must clearly mention the same and also indicate the rate and quantum of excise duty included in its price. Failure to indicate all such details in clear terms may result in rejection of that tender.

- c) Subject to sub clauses 13.5.2 (a) & (b) above, any change in excise duty upward/downward as a result of any statutory variation in excise duty taking place within contract terms shall be allowed to the extent of actual quantum of excise duty paid by the supplier. In case of downward revision in excise duty, the actual quantum of reduction of excise duty shall be reimbursed to the purchaser by the supplier. All such adjustments shall include all reliefs, exemptions, rebates, concession etc. if any obtained by the supplier.

13.5.3 **Sales Tax:**

If a tenderer asks for sales tax/ VAT, Service Tax and Works Contract Tax to be paid extra, the rate and nature of sales tax applicable should be shown separately. The sales tax / VAT, Service Tax and Works Contract Tax will be paid as per the rate at which it is liable to be assessed or has actually been assessed provided the transaction of sale is legally liable to sales tax / VAT, Service Tax and Works Contract Tax and is payable as per the terms of the contract. If any refund of Tax is received at a later date, the Supplier must return the amount forth-with to the purchaser.

13.5.4 **Octroi Duty and Local Duties & Taxes:**

Normally, goods to be supplied to government departments against government contracts are exempted from levy of town duty, Octroi duty, terminal tax and other levies of local bodies. However, on some occasions, the local bodies (like town body, municipal body etc.) as per their regulations allow such exemptions only on production of certificate to this effect from the concerned government department. Keeping this in view, the supplier shall ensure that the stores to be supplied by the supplier against the contract placed by the purchaser are exempted from levy of any such duty or tax and, wherever necessary, obtain the exemption certificate from the purchaser. The purchaser should issue the certificate to the supplier within 21 days from the date of receipt of request from the supplier.

However, if a local body still insists upon payment of such local duties and taxes, the same should be paid by the supplier to the local body to avoid delay in supplies and possible demurrage charges and obtain a receipt for the same. The supplier should forward the receipt obtained for such payment to the purchaser to enable the purchaser reimburse the supplier and take other necessary action in the matter.

13.5.5 **Customs Duty:**

The Purchaser will pay the Customs duty wherever applicable.

- 13.6 For transportation of imported goods offered from abroad, relevant instructions as incorporated under GCC Clause 10 shall be followed.
- 13.7 For insurance of goods to be supplied, relevant instructions as provided under GCC Clause 11 shall be followed.
- 13.8 Unless otherwise specifically indicated in this TE document, the terms FCA, FOB, FAS, CIF, CIP, DDP etc. for imported goods offered from abroad, shall be governed by the rules & regulations prescribed in the current edition of INCOTERMS, published by the International Chamber of Commerce, Paris
- 13.9 The need for indication of all such price components by the tenderers, as required in this clause (viz., GIT clause 13) is for the purpose of comparison of the tenders by the purchaser and will not way restrict the purchaser's right to award the contract on the selected tenderer on any of the terms offered.

14. **Indian Agent**

- 14.1 If a foreign tenderer has engaged an agent in India in connection with its tender, the foreign tenderer, in addition to indicating Indian agent's commission, if any, in a manner described under GIT sub clause 12.2 above, shall also furnish the following information:

- a) As per the Compulsory Enlistment Scheme of the Department of Expenditure, Ministry of Finance, it is compulsory for Indian agents, who desire to quote directly on behalf of their foreign principals, to get themselves enlisted with the Central Purchase Organization (eg. DGS&D).
- a) The complete name and address of the Indian Agent and its permanent income tax account number as allotted by the Indian Income Tax authority.
 - b) The details of the services to be rendered by the agent for the subject requirement.
 - c) Details of Service outlets in India, nearest to the consignee(s), to render services during Warranty and CMC period.
 - d) A copy of agreement between the Agent & their principal detailing the terms & conditions as well as services and after sales services as above to be rendered by the agent and the precise relationship between them and their mutual interest in the business as laid out in section VII (Technical specifications).
 - e) Principal's/Manufacturer's original Proforma Invoice with the price bid

15. Firm Price

- 15.1 Unless otherwise specified in the SIT, prices quoted by the tenderer shall remain firm and fixed during the currency of the contract and not subject to variation on any account. Bidders are requested to quote BOQ wise unit price (**uniform unit prices must be quoted for same BOQ items across India**) and total price.

16. Alternative Tenders

- 16.1 Alternative Tenders are not permitted.
- 16.2 However the Tenderers can quote alternate models meeting the tender specifications of same manufacturer with single EMD.
- 16.3 If an agent submits bid on behalf of the Principal/OEM, the same agent shall not submit a bid on behalf of another Principal/OEM in the same tender for the same item/product. In a tender, either the Indian Agent on behalf of the Principal/OEM or Principal/OEM itself can bid but both cannot bid simultaneously for the same item/product in the same tender.

17 Documents Establishing Tenderer's Eligibility and Qualifications

- 17.1 Pursuant to GIT clause 11, the tenderer shall furnish, as part of its tender, relevant details and documents establishing its eligibility to quote and its qualifications to perform the contract if its tender is accepted.
- 17.2 The documentary evidence needed to establish the tenderer's qualifications shall fulfil the following requirements:
- a) in case the tenderer offers to supply goods, which are manufactured by some other firm, the tenderer has been duly authorised by the goods manufacturer to quote for and supply the goods to the purchaser. The tenderer shall submit the manufacturer's authorization letter to this effect as per the standard form provided under Section XIV in this document.
 - b) the tenderer has the required financial, technical and production capability necessary to perform the contract and, further, it meets the qualification criteria incorporated in the Section IX in these documents.
 - c) in case the tenderer is not doing business in India, it is duly represented by an agent stationed in India fully equipped and able to carry out the required contractual functions and duties of the supplier including after sale service, maintenance & repair etc. of the goods in question, stocking of spare parts and fast moving components and other obligations, if any, specified in the conditions of contract and/or technical specifications.

- d) in case the tenderer is an Indian agent/authorized representative quoting on behalf of a foreign manufacturer for the **restricted item**, the Indian agent/authorized representative is already enlisted under the Compulsory Enlistment Scheme of Ministry of Finance, Govt. of India, operated through Directorate General of Supplies & Disposals (DGS&D), New Delhi.

18. Documents establishing good's Conformity to TE document.

- 18.1 The tenderer shall provide in its tender the required as well as the relevant documents like technical data, literature, drawings etc. to establish that the goods and services offered in the tender fully conform to the goods and services specified by the purchaser in the TE documents. For this purpose the tenderer shall also provide a clause-by-clause commentary on the technical specifications and other technical details incorporated by the purchaser in the TE documents to establish technical responsiveness of the goods and services offered in its tender.
- 18.2 In case there is any variation and/or deviation between the goods & services prescribed by the purchaser and that offered by the tenderer, the tenderer shall list out the same in a chart form without ambiguity and provide the same along with its tender.
- 18.3 If a tenderer furnishes wrong and/or misleading data, statement(s) etc. about technical acceptability of the goods and services offered by it, its tender will be liable to be ignored and rejected in addition to other remedies available to the purchaser in this regard.

19. Earnest Money Deposit (EMD)

- 19.1 Pursuant to GIT clauses 8.1 and 11.1 A (i) the tenderer shall furnish along with its tender, earnest money for amount as shown in the List of Requirements. The earnest money is required to protect the purchaser against the risk of the tenderer's unwarranted conduct as amplified under sub-clause 19.7 below.
- 19.2 The tenderers who are currently registered and, also, will continue to remain registered during the tender validity period with Directorate General of Supplies & Disposals or with National Small Industries Corporation, New Delhi for the specific goods as per tender enquiry specification shall be eligible for exemption from EMD. Vague stipulations in the Registration Certificate such as "to customers' specification", etc. will not be acceptable for exemption from furnishing of earnest money. In case the tenderer falls in these categories, it should furnish copy of its valid registration details (with DGS&D or NSIC, as the case may be).
- 19.3 The earnest money shall be denominated in Indian Rupees or equivalent currencies as per GIT clause 12.2. The earnest money shall be furnished in one of the following forms:
- i) Account Payee Demand Draft
 - ii) Banker's cheque and
 - iii) Bank Guarantee
- 19.4 The demand draft or banker's cheque shall be drawn on any commercial bank in India or country of the tenderer, in favour of the "**HLL Infra Tech Services Limited**" payable at New Delhi. In case of bank guarantee, the same is to be provided from any commercial bank in India or country of the tenderer as per the format specified under Section XIII in these documents.
- 19.5 The earnest money shall be valid for a period of forty-five (45) days beyond the validity period of the tender. As validity period of Tender as per Clause 20 of GIT is 120 days, the EMD shall be valid for 165 days from Techno – Commercial Tender opening date.
- 19.6 Unsuccessful tenderers' earnest money will be returned to them without any interest, after expiry of the tender validity period, but not later than thirty days after conclusion of the resultant contract. Successful tenderer's earnest money will be returned without any interest, after receipt of performance security from that tenderer.

- 19.7 Earnest Money is required to protect the purchaser against the risk of the Tenderer's conduct, which would warrant the forfeiture of the EMD. Earnest money of a tenderer will be forfeited, if the tenderer withdraws or amends its tender or impairs or derogates from the tender in any respect within the period of validity of its tender or if it comes to notice that the information/documents furnished in its tender is incorrect, false, misleading or forged without prejudice to other rights of the purchaser. The successful tenderer's earnest money will be forfeited without prejudice to other rights of Purchaser if it fails to furnish the required performance security within the specified period.
- 19.8 In the case of Bank Guarantee furnished from banks outside India (i.e. foreign Banks), it should be authenticated and countersigned by any nationalised bank in India by way of back-to-back counter guarantee and the same should be submitted along with the bid.

20. Tender Validity

- 20.1 If not mentioned otherwise in the SIT, the tenders shall remain valid for acceptance for a period of 120 days (One hundred and twenty days) after the date of tender opening prescribed in the TE document. Any tender valid for a shorter period shall be treated as unresponsive and rejected.
- 20.2 In exceptional cases, the tenderers may be requested by the purchaser to extend the validity of their tenders up to a specified period. Such request(s) and responses thereto shall be conveyed by surface mail or by fax/ telex/cable followed by surface mail. The tenderers, who agree to extend the tender validity, are to extend the same without any change or modification of their original tender and they are also to extend the validity period of the EMD accordingly. A tenderer, who may not agree to extend its tender validity after the expiry of the original validity period the EMD furnished by them shall not be forfeited.
- 20.3 In case the day up to which the tenders are to remain valid falls on/ subsequently declared a holiday or closed day for the purchaser, the tender validity shall automatically be extended up to the next working day.

21. Digital Signing of Tender

- 21.1 The tenderers shall submit their tenders as per the instructions contained in GIT Clause 11. Tenders shall be uploaded with all relevant tender documents in the prescribed format. The relevant tender documents should be uploaded by an authorised person having Class 3 digital signature certificate.

D. SUBMISSION OF TENDERS

22. Submission of Tenders

- 22.1 The tender shall be submitted online only.
- (i) Pre-qualification and Technical compliance along with the Techno-Commercial Bid in excel format:
- Scanned copies of tender processing fee and EMD
 - Manufacturer's authorization in case bid is submitted by an Indian agent (A declaration must be attached here in case directly quoted by a manufacturer or a document establishing the relation of the Indian office with the manufacturer in case quoted by Indian office of the manufacturer).
 - Tender Form as per Section X.
 - Compliance of all terms and conditions of TED like- warranty, CMC, delivery period, delivery terms, payment terms, Liquidated Damages Clause, Arbitration clause, etc

- e) Declaration regarding Fall Clause and Deregistration, debarment from any Govt Dept/ Agencies
- f) Copy of PAN.
- g) Certificate of Incorporation/ or a Declaration in case the firm is being a proprietary firm.
- h) Abridged Annual report of last 03 years (Balance sheet and Profit & Loss Account) completed till December 2016, in pdf format.
- i) Name, address and details of account with respect to bidder and/or beneficiary of L/C.
- j) Quality Control Requirements as per Section VIII
- k) Performance statement along with required PO copies and its corresponding end user's satisfactory performance certificate as per section IX.
- l) Technical Bid along with clause-by-clause technical compliance statement for the quoted goods vis-à-vis the Technical specifications along with product catalogue and data sheet in the tender enquiry.
- m) The bidder should submit blank proforma invoice from the foreign manufacturer along with his technical bid, duly mentioning the specifications and code number of the parts quoted.
- n) The original proforma invoices from the foreign principal will be applicable in case of 100% subsidiary companies incorporated in India also.
- o) In case the bidder quotes an equipment of a foreign manufacturer and submits the documents as per Clause 22.1 (i) 1 & m from the subsidiary company of the foreign Original Equipment Manufacturer in India, the bidder must submit the Power of Attorney given to the subsidiary company by the foreign Original Equipment Manufacturer, authorizing it to do business and perform all obligations for and on behalf of the foreign manufacturer company, in India.

(ii) PRICE BID (ONLY ONLINE):

- a) The tenderers must ensure that they submit the Price Bid in prescribed format uploaded along with the tender enquiry. It is the responsibility of the bidder to ensure that the contents of the format are not tampered.
- b) The tenderers must ensure that they submit the on-line tenders not later than the closing time and date specified for submission of tenders.
- c) Along with price bid recent purchase order copies for the same model and technical configuration issued by institute of National importance and/or reputed central/state government hospitals should be uploaded in pdf form for reasonability of the offered price.
- d) The bidder should submit the copy of original proforma invoice from the foreign manufacturer along with the price bid.
- e) The supplier shall justify the present quotes based on previous purchase orders for similar project executed either in India or Globally. If they quote any new model or upgraded version of earlier model, they may mention the same in their tender.

22.2 The tenderers must ensure that they submit the on-line tenders within the scheduled closing date & time. They shall also ensure to submit the original Tender Processing Fee and EMD within its scheduled date & time.

23. Late Tender:

23.1 There is NO PROVISION of uploading late tender beyond stipulated date & time in the e-tendering system. However, if the necessary Tender Processing Fee and EMD in original are not submitted within the scheduled time, the tender shall be declared as late tender and online tender shall not be opened and shall be ignored.

24. Alteration and Withdrawal of Tender

24.1 The tenderer, is permitted to change, edit or withdraw its bid on or before the end date & time.

E. TENDER OPENING

25. Opening of Tenders

- 25.1 The purchaser will open the e-tenders at the specified date and time and at the specified place as indicated in the NIT.

In case the specified date of tender opening falls on / is subsequently declared a holiday or closed day for the purchaser, the tenders will be opened at the appointed time and place on the next working day.

- 25.2 Authorized representatives of the tenderers, who have submitted tenders on time may attend the tender opening provided they bring with them letters of authority from the corresponding tenderers.

The tender opening official(s) will prepare a list of the representatives attending the tender opening. The list will contain the representatives' names & signatures and corresponding tenderers' names and addresses.

- 25.3 This being a Two - Tender system, the **Techno - Commercial Tenders** are to be opened in the first instance, at the prescribed time and date as indicated in NIT. These Tenders shall be scrutinized and evaluated by the competent committee/ authority with reference to parameters prescribed in the TE document. During the Techno - Commercial Tender opening, the tender opening official(s) will read the salient features of the tenders like brief description of the goods offered, delivery period, Earnest Money Deposit and any other special features of the tenders, as deemed fit by the tender opening official(s). Thereafter, in the second stage, the Price Tenders of only the Techno - Commercially acceptable offers (as decided in the first stage) shall be opened for further scrutiny and evaluation on a date notified after the evaluation of the Techno-Commercial tender.

F. SCRUTINY AND EVALUATION OF TENDERS

26. Basic Principle

- 26.1 Tenders will be evaluated on the basis of the terms & conditions already incorporated in the TE document, based on which tenders have been received and the terms, conditions etc. mentioned by the tenderers in their tenders. No new condition will be brought in while scrutinizing and evaluating the tenders.

27. Scrutiny of Tenders

- 27.1 The Purchaser will examine the Tenders to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished and, whether the documents uploaded are in legible form.
- 27.2 The Purchaser's determination of a Tender's responsiveness is to be based on the contents of the tender itself without recourse to extrinsic evidence
- 27.3 Deleted
- 27.4 The tenders will be scrutinized to determine whether they are complete and meet the essential and important requirements, conditions etc. as prescribed in the TE document. The tenders, which do not meet the basic requirements, are liable to be treated as non-responsive and will be summarily ignored.
- 27.5 The following are some of the important aspects, for which a tender shall be declared non-responsive during the evaluation and will be ignored;
- (i) Tender validity is shorter than the required period.

- (ii) Required EMD or its exemption documents have not been provided.
- (iii) Tenderer has not agreed to give the required performance security of required amount in an acceptable form in terms of GCC clause 5, read with modification, if any, in Section - V – “Special Conditions of Contract”, for due performance of the contract.
- (iv) Poor/ unsatisfactory past performance.
- (v) Tenderers who stand deregistered/banned/blacklisted by any Govt. Authorities.
- (vi) Tenderer is not eligible as per GIT Clauses 5.1 & 17.1.
- (vii) Tenderer has not quoted for the entire quantity as specified in the List of Requirements/ BOQ for the quoted schedule.
- (viii) Tenderer has not agreed to other essential condition(s) specially incorporated in the tender enquiry, like delivery terms, delivery schedule, terms of payment, liquidated damages clause, warranty clause, dispute resolution mechanism applicable law.

28. Minor Informality/Irregularity/Non-Conformity

If during the preliminary examination, the purchaser find any minor informality and/or irregularity and/or non-conformity in a tender, the purchaser may waive the same provided it does not constitute any material deviation and financial impact and, also, does not prejudice or affect the ranking order of the tenders. Wherever necessary, the purchaser will convey its observation on such ‘minor’ issues to the tenderer by registered/speed post etc. asking the tenderer to respond by a specified date. If the tenderer does not reply by the specified date or gives evasive reply without clarifying the point at issue in clear terms, that tender will be liable to be ignored.

29 Discrepancies in Prices

- 29.1 If, in the price structure quoted by a tenderer, there is discrepancy between the unit price and the total price (which is obtained by multiplying the unit price by the quantity), the unit price shall prevail and the total price corrected accordingly, unless the purchaser feels that the tenderer has made a mistake in placing the decimal point in the unit price, in which case the total price as quoted shall prevail over the unit price and the unit price corrected accordingly.
- 29.2 If there is an error in a total price, which has been worked out through addition and/or subtraction of subtotals, the subtotals shall prevail and the total corrected; and
- 29.3 If there is a discrepancy between the amount expressed in words and figures, the amount in words shall prevail, subject to sub clause 29.1 and 29.2 above.
- 29.4 If, as per the judgement of the purchaser, there is any such arithmetical discrepancy in a tender, the same will be suitably conveyed to the tenderer by registered / speed post. If the tenderer does not agree to the observation of the purchaser, the tender is liable to be ignored.

30. Discrepancy between original and copies of Tender

Not applicable being e-Tender.

31. Qualification Criteria

- 31.1 Tenders of the tenderers, which do not meet the required Qualification Criteria prescribed in Section IX, will be treated as non - responsive and will not be considered further.
- 31.2 The Purchaser reserves the right to relax the Norms on Prior Experience for Start-ups and Micro & Small Enterprises in Public Procurement.

The Start-ups are defined in Annexure-A of the “Action Plan for Start-ups in India”. The same is available on the website of Department of Industrial policy and Promotion (DIPP), Ministry of Commerce & Industry.

The Notification is available in the below link:

http://www.finmin.nic.in/the_ministry/dept_expenditure/ppcell/RelaxNorms_StarupMedEnterpris_e25072016.pdf

The FAQs are available in the below link:

http://dipp.nic.in/English/Investor/startupindia/FAQs_StartupIndia_30March2016.pdf

Note:- Definition of Startup (only for the purpose of Government schemes)

(Ref: Ministry of Finance Office Memorandum No. F.20/2/2014-PPD(Pt.) dated 25th July 2016.)

Start-up means an entity, incorporated or registered in India not prior to five years, with annual turnover not exceeding INR 25 crore in any preceding financial year, working towards innovation, development, deployment or commercialization of new products, processes or services driven by technology or intellectual property.

Provided that such entity is not formed by splitting up, or reconstruction, of a business already in existence.

Provided also that an entity shall cease to be a Start-up if its turnover for the previous financial years has exceeded INR 25 crore or it has completed 5 years from the date of incorporation/ registration.

Provided further that a Start-up shall be eligible for tax benefits only after it has obtained certification from the Inter-Ministerial Board, setup for such purpose.

32. Conversion of tender currencies to Indian Rupees

- 32.1 In case the TE document permits the tenderers to quote their prices in different currencies, all such quoted prices of the responsive tenderers will be converted to a single currency viz., Indian Rupees for the purpose of equitable comparison and evaluation, as per the exchange rates established by the Reserve Bank of India for similar transactions, as on the date of 'Price Tender' opening.

33. Schedule-wise Evaluation

- 33.1 In case the List of Requirements contains more than one schedule, the responsive tenders will be evaluated and compared separately for each schedule. The tender for a schedule will not be considered if the complete requirements prescribed in that schedule are not included in the tender.

34. Comparison of Tenders

- 34.1** Unless mentioned otherwise in Section – III – Special Instructions to Tenderers and Section – VI –at List of Requirements, the comparison of the responsive tenders shall be carried out on Delivery Duty Paid (DDP) consignee site basis. The quoted Site Modification Work prices and Comprehensive Annual Maintenance charges (CMC) prices will also be added for comparison/ranking purpose for evaluation. **“Net Present value (NPV) of the actual CMC price quoted for the required CMC period after the warranty period shall be considered for bid comparison and the NPV will be calculated after discounting the quoted CMC price by a discounting factor of 10% per annum.”**

35. Additional Factors and Parameters for Evaluation and Ranking of Responsive Tenders

- 35.1 Further to GIT Clause 34 above, the purchaser's evaluation of a tender will include and take into account the following:

- i) In the case of goods manufactured in India or goods of foreign origin already located in India, sales tax & other similar taxes and excise duty & other similar duties, Service Tax, Works Contract Tax etc which will be contractually payable (to the tenderer), on the goods if a contract is awarded on the tenderer; and
- ii) in the case of goods of foreign origin offered from abroad, customs duty and other similar import duties/taxes, which will be contractually payable (to the tenderer) on the goods if the contract is awarded on the tenderer.
- 35.2 The purchaser's evaluation of tender will also take into account the additional factors, if any, incorporated in SIT in the manner and to the extent indicated therein.
- 35.3 The Purchaser reserves the right to give the price preference to small-scale sectors etc. and purchase preference to central public sector undertakings as per the instruction in vogue while evaluating, comparing and ranking the responsive tenders.
- i. In exercise of powers conferred in Section 11 of the Micro, Small and Medium Enterprises Development (MSMED) Act 2006, the Government has notified a new Public Procurement Policy for Micro & Small Enterprises effective from 1st April 2012. The policy mandates that 20% of procurement of annual requirement of goods and services by all Central Ministries / Public Sector Undertakings will be from the micro and small enterprises. The Government has also earmarked a sub-target of 4% procurement of goods & services from MSEs owned by SC/ST entrepreneurs out of above said 20% quantity.
- ii. In accordance with the above said notification, the participating Micro and Small Enterprises (MSEs) in a tender, quoting price within the band of L 1+15% would also be allowed to supply a portion of the requirement by bringing down their price to the L 1 price, in a situation where L 1 price is from someone other than an MSE. Such MSEs would be allowed to supply up to 20% of the total tendered value. In case there are more than one such eligible MSE, the 20% supply will be shared equally. Out of 20% of the quantity earmarked for supply from MSEs, 4% quantity is earmarked for procurement from MSEs owned by SC/ST entrepreneurs. However, in the event of failure of such MSEs to participate in the tender process or meet the tender requirements and the L 1 price, the 4% quantity earmarked for MSEs owned by SC/ST entrepreneurs will be met from other participating MSEs.
- iii. The MSEs fulfilling the prescribed eligibility criteria and participating in the tender shall enclose with their tender a copy of their valid registration certificate with District Industries Centres or Khadi and Village Industries Commission or Khadi and Village Industries Board or Coir Board or National Small Industries Corporation or any other body specified by Ministry of Micro and Small enterprises in support of their being an MSE, failing which their tender will be liable to be ignored.
- iv. The Purchaser reserves the right to relax the Norms on Prior Experience for Start-ups and Micro & Small Enterprises in Public Procurement.

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Provided that such entity is not formed by splitting up, or reconstruction, of a business already in existence.

Provided also that an entity shall cease to be a Startup if its turnover for the previous financial years has exceeded INR 25 crore or it has completed 5 years from the date of incorporation/ registration.

Provided further that a Startup shall be eligible for tax benefits only after it has obtained certification from the Inter-Ministerial Board, setup for such purpose.

36. Tenderer's capability to perform the contract

- 36.1 The purchaser, through the above process of tender scrutiny and tender evaluation will determine to its satisfaction whether the tenderer, whose tender has been determined as the lowest evaluated responsive tender is eligible, qualified and capable in all respects to perform the contract satisfactorily. If, there is more than one schedule in the List of Requirements, then, such determination will be made separately for each schedule.
- 36.2 The above-mentioned determination will, interalia, take into account the tenderer's financial, technical and production capabilities for satisfying all the requirements of the purchaser as incorporated in the TE document. Such determination will be based upon scrutiny and examination of all relevant data and details submitted by the tenderer in its tender as well as such other allied information as deemed appropriate by the purchaser.

37. Contacting the Purchaser

- 37.1 From the time of submission of tender to the time of awarding the contract, if a tenderer needs to contact the purchaser for any reason relating to this tender enquiry and / or its tender, it should do so only in writing.
- 37.2 In case a tenderer attempts to influence the purchaser in the purchaser's decision on scrutiny, comparison & evaluation of tenders and awarding the contract, the tender of the tenderer shall be liable for rejection in addition to appropriate administrative actions being taken against that tenderer, as deemed fit by the purchaser.

G. AWARD OF CONTRACT

38. Purchaser's Right to accept any tender and to reject any or all tenders

- 38.1 The purchaser reserves the right to accept in part or in full any tender or reject any or more tender(s) without assigning any reason or to cancel the tendering process and reject all tenders at any time prior to award of contract, without incurring any liability, whatsoever to the affected tenderer or tenderers.

39. Award Criteria

- 39.1 Subject to GIT clause 38 above, the contract will be awarded to the lowest evaluated responsive tenderer decided by the purchaser in terms of GIT Clause 36.

40. Variation of Quantities at the Time of Award/ Currency of Contract

- 40.1 At the time of awarding the contract, the purchaser reserves the right to increase or decrease by up to twenty five (25) per cent, the quantity of goods and services mentioned in the schedule (s) in the "List of Requirements" (rounded off to next whole number) without any change in the unit price and other terms & conditions quoted by the tenderer.
- 40.2 If the quantity has not been increased to the maximum of 25% of the tendered quantity at the time of awarding the contract, the purchaser reserves the right to increase the quantity further by up to the balance available twenty five (25) per cent of the tendered quantity of goods and services (rounded off to next whole number) without any change in the unit price and other terms & conditions mentioned in the contract during the currency of the contract.

41. Notification of Award

- 41.1 Before expiry of the tender validity period, the purchaser will notify the successful tenderer(s) in writing, by registered / speed post or by email (to be confirmed by registered / speed post) that its tender for goods & services, which have been selected by the purchaser, has been accepted, also briefly indicating therein the essential details like description, specification and quantity of the goods & services and corresponding prices accepted. The successful tenderer must furnish to the purchaser the required performance security within thirty days from the date of dispatch of this notification, failing which the EMD will be forfeited and the award will be cancelled. Relevant details about the performance security have been provided under GCC Clause 5 under Section IV.
- 41.2 The Notification of Award shall constitute the conclusion of the Contract.

42. Issue of Contract

- 42.1 Promptly after notification of award, the Purchaser/Consignee will mail the contract form (as per Section XVI) duly completed and signed, in duplicate, to the successful tenderer by registered / speed post.
- 42.2 Within twenty one days from the date of the contract, the successful tenderer shall return the original copy of the contract, duly signed and dated, to the Purchaser/Consignee by registered / speed post. The successful tenderer should also submit Proforma Invoice from the foreign principal (if applicable as per contractual price) within 21 days from the date of NOA.
- 42.3 The Purchaser/Consignee reserve the right to issue the Notifications of Award consignee wise.

43. Non-receipt of Performance Security, Proforma Invoice and Contract by the Purchaser/Consignee

- 43.1 Failure of the successful tenderer in providing performance security, Proforma Invoice and / or returning contract copy duly signed in terms of GIT clauses 41 and 42 above shall make the tenderer liable for forfeiture of its EMD and, also, for further actions by the Purchaser/Consignee against it as per the clause 24 of GCC – Termination of default.

44. Return of E M D

44.1 The earnest money of the successful tenderer and the unsuccessful tenderers will be returned to them without any interest, whatsoever, in terms of GIT Clause 19.6.

45. Publication of Tender Result

45.1 The name and address of the successful tenderer(s) receiving the contract(s) will be mentioned in the notice board/bulletin/web site of the purchaser.

46. Corrupt or Fraudulent Practices

46.1 It is required by all concerned namely the Consignee/Tenderers/Suppliers etc to observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, the Purchaser: -

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

(i) “corrupt practice” means the offering, giving, receiving or soliciting of any thing of value to influence the action of a public official in the procurement process or in contract execution; and

(ii) “fraudulent practice” means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Purchaser, and includes collusive practice among Tenderers (prior to or after Tender submission) designed to establish Tender prices at artificial non-competitive levels and to deprive the Purchaser of the benefits of free and open competition;

(b) will reject a proposal for award if it determines that the Tenderer recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question;

(c) will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a contract by the purchaser if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing the contract.

SECTION - III
SPECIAL INSTRUCTIONS TO TENDERERS
(SIT)

Sl. No.	GIT Clause No.	Topic	SIT Provision	Page No.
A	1 to 7	Preamble	No Change	
B	8 to 10	TE documents	No Change	
C	11 to 21	Preparation of Tenders	Change	
D	22 to 24	Submission of Tenders	Change	
E	25	Tender Opening	No Change	
F	26 to 37	Scrutiny and Evaluation of Tenders	No Change	
G	38 to 45	Award of Contract	No Change	

The following Special Instructions to Tenderers will apply for this purchase. These special instructions will modify/substitute/supplement the corresponding General Instructions to Tenderers (GIT) incorporated in Section II. The corresponding GIT clause numbers have also been indicated in the text below:

In case of any conflict between the provision in the GIT and that in the SIT, the provision contained in the SIT shall prevail.

SUBMISSION OF e-TENDERS

- (i) All the necessary documents as prescribed in the NIT shall be prepared and scanned in different files (in PDF format as prescribed) and uploaded for on-line submission of Proposal.
- (ii) Except Tender Processing Fee and EMD, all document(s)/ information(s) including the Financial Proposal (i.e. FORMAT FOR SUBMISSION OF FINANCIAL PROPOSAL) should be uploaded **online only** in the prescribed format given in the website. No other mode of submission shall be acceptable.
 - i) The prospective bidders may **scan the documents in low resolution (75 to 100 DPI)** instead of 200 DPI. The documents may be scanned for further lower resolution (if possible). This would reduce the size of the Cover and would be uploaded faster.
 - ii) The Individual file size of uploading is restricted up to 5 MB. Bidders may upload multiple files (Not exceeding 5 MB individually) & give relevant file name indicating the contents.
 - iii) The file name of price bid should match the file of the price bid format uploaded by the purchaser in the portal. This can be downloaded from the **Notes & Attachment** under **Details** of item when the event is in **Display Mode**.

SECTION - IV
GENERAL CONDITIONS OF CONTRACT (GCC)
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GENERAL CONDITIONS OF CONTRACT (GCC)

1. Application

1.1 The General Conditions of Contract incorporated in this section shall be applicable for this purchase to the extent the same are not superseded by the Special Conditions of Contract prescribed under Section V, List of requirements under Section VI and Technical Specification under Section VII of this document.

2. Use of contract documents and information

2.1 The supplier shall not, without the purchaser's prior written consent, disclose the contract or any provision thereof including any specification, drawing, sample or any information furnished by or on behalf of the purchaser in connection therewith, to any person other than the person(s) employed by the supplier in the performance of the contract emanating from this TE document. Further, any such disclosure to any such employed person shall be made in confidence and only so far as necessary for the purposes of such performance for this contract.

2.2 Further, the supplier shall not, without the purchaser's prior written consent, make use of any document or information mentioned in GCC sub-clause 2.1 above except for the sole purpose of performing this contract.

2.3 Except the contract issued to the supplier, each and every other document mentioned in GCC sub-clause 2.1 above shall remain the property of the purchaser and, if advised by the purchaser, all copies of all such documents shall be returned to the purchaser on completion of the supplier's performance and obligations under this contract.

3. Patent Rights

3.1 The supplier shall, at all times, indemnify and keep indemnified the purchaser, free of cost, against all claims which may arise in respect of goods & services to be provided by the supplier under the contract for infringement of any intellectual property rights or any other right protected by patent, registration of designs or trademarks. In the event of any such claim in respect of alleged breach of patent, registered designs, trademarks etc. being made against the purchaser, the purchaser shall notify the supplier of the same and the supplier shall, at his own expenses take care of the same for settlement without any liability to the purchaser.

4. Country of Origin

4.1 All goods and services to be supplied and provided for the contract shall have the origin in India or in the countries with which the Government of India has trade relations.

4.2 The word "origin" incorporated in this clause means the place from where the goods are mined, cultivated, grown, manufactured, produced or processed or from where the services are arranged.

4.3 The country of origin may be specified in the Price Schedule

5. Performance Security

5.1 Within twenty one (21) days from date of the issue of notification of award by the Purchaser/Consignee, the supplier, shall furnish performance security to the Purchaser/Consignee for an amount equal to ten percent (10%) of the total value of the contract, valid up to sixty (60) days after the date of completion of all contractual obligations by the supplier, including the warranty obligations, initially valid for a period of minimum six months plus number of months under warranty from the date of Notification of Award

5.2 The Performance security shall be denominated in Indian Rupees or in the currency of the contract as detailed below:

It shall be in any one of the forms namely Account Payee Demand Draft or Fixed Deposit Receipt drawn from any Scheduled bank in India or Bank Guarantee issued by a Scheduled bank in India, in the prescribed form as provided in section XV of this document in favour of the Purchaser/Consignee. The validity of the Fixed Deposit receipt or Bank Guarantee will be for a period up to sixty (60) days beyond Warranty Period.

- 5.3 In the event of any failure /default of the supplier with or without any quantifiable loss to the government including furnishing of consignee wise Bank Guarantee for CMC security as per Proforma in Section XV, the amount of the performance security is liable to be forfeited. The Administration Department may do the needful to cover any failure/default of the supplier with or without any quantifiable loss to the Government.
- 5.4 In the event of any amendment issued to the contract, the supplier shall, within fifteen (15) days of issue of the amendment, furnish the corresponding amendment to the Performance Security (as necessary), rendering the same valid in all respects in terms of the contract, as amended.
- 5.5 The supplier shall enter into Annual Comprehensive Maintenance Contract as per the 'Contract Form – B' in Section XVI with respective consignees, 3 (three) months prior to the completion of Warranty Period. The CMC will commence from the date of expiry of the Warranty Period.
- 5.6 Subject to GCC sub – clause 5.3 above, the Purchaser/Consignee will release the Performance Security without any interest to the supplier on completion of the supplier's all contractual obligations including the warranty obligations & after receipt of Consignee wise bank guarantee for CMC security in favour of Head of the Hospital/ Institute/ Medical College of the consignee as per the format in Section XV.

6. Technical Specifications and Standards

- 6.1 The Goods & Services to be provided by the supplier under this contract shall conform to the technical specifications and quality control parameters mentioned in 'Technical Specification' and 'Quality Control Requirements' under Sections VII and VIII of this document.

7. Packing and Marking

- 7.1 The packing for the goods to be provided by the supplier should be strong and durable enough to withstand, without limitation, the entire journey during transit including transshipment (if any), rough handling, open storage etc. without any damage, deterioration etc. As and if necessary, the size, weights and volumes of the packing cases shall also take into consideration, the remoteness of the final destination of the goods and availability or otherwise of transport and handling facilities at all points during transit up to final destination as per the contract.
- 7.2 The quality of packing, the manner of marking within & outside the packages and provision of accompanying documentation shall strictly comply with the requirements as provided in Technical Specifications and Quality Control Requirements under Sections VII and VIII and in SCC under Section V. In case the packing requirements are amended due to issue of any amendment to the contract, the same shall also be taken care of by the supplier accordingly.
- 7.3 Packing instructions:

Unless otherwise mentioned in the Technical Specification and Quality Control Requirements under Sections VII and VIII and in SCC under Section V, the supplier shall make separate packages for each consignee (in case there is more than one consignee mentioned in the contract) and mark each package on three sides with the following with indelible paint of proper quality:

- a. contract number and date
- b. brief description of goods including quantity
- c. packing list reference number
- d. country of origin of goods
- e. consignee's name and full address and
- f. supplier's name and address

8. Inspection, Testing and Quality Control

- 8.1 The purchaser and/or its nominated representative(s) will, without any extra cost to the purchaser, inspect and/or test the ordered goods and the related services to confirm their conformity to the contract specifications and other quality control details incorporated in the contract. The purchaser shall inform the supplier in advance, in writing, the purchaser's programme for such inspection and, also the identity of the officials to be deputed for this purpose. "The cost towards the transportation, boarding and lodging will be borne by the purchaser and/or its nominated representative(s) for the first visit. In case the goods are rejected in the first instance and the supplier requests for re-inspection, and if same is accepted by purchaser/consignee/PSA/PA, all subsequent inspections shall be at the cost of the supplier. The expense will be to and fro Economy Airfare, Local Conveyance, Boarding and Lodging of the inspection team for the inspection period."
- 8.2 The Technical Specification and Quality Control Requirements incorporated in the contract shall specify what inspections and tests are to be carried out and, also, where and how they are to be conducted. If such inspections and tests are conducted in the premises of the supplier or its subcontractor(s), all reasonable facilities and assistance, including access to relevant drawings, design details and production data, shall be furnished by the supplier to the purchaser's inspector at no charge to the purchaser.
- 8.3 If during such inspections and tests the contracted goods fail to conform to the required specifications and standards, the purchaser's inspector may reject them and the supplier shall either replace the rejected goods or make all alterations necessary to meet the specifications and standards, as required, free of cost to the purchaser and resubmit the same to the purchaser's inspector for conducting the inspections and tests again.
- 8.4 In case the contract stipulates pre-despatch inspection of the ordered goods at supplier's premises, the supplier shall put up the goods for such inspection to the purchaser's inspector well ahead of the contractual delivery period, so that the purchaser's inspector is able to complete the inspection within the contractual delivery period.
- 8.5 If the supplier tenders the goods to the purchaser's inspector for inspection at the last moment without providing reasonable time to the inspector for completing the inspection within the contractual delivery period, the inspector may carry out the inspection and complete the formality beyond the contractual delivery period at the risk and expense of the supplier. The fact that the goods have been inspected after the contractual delivery period will not have the effect of keeping the contract alive and this will be without any prejudice to the legal rights and remedies available to the purchaser under the terms & conditions of the contract.
- 8.6 The purchaser's/consignee's contractual right to inspect, test and, if necessary, reject the goods after the goods' arrival at the final destination shall have no bearing of the fact that the goods have previously been inspected and cleared by purchaser's inspector during pre-despatch inspection mentioned above.

"On rejection, the supplier shall remove such stores within 14 days of the date of intimation of such rejection from the consignee's premises. If such goods are not removed by the supplier within the period mentioned above, the purchaser/consignee may remove the rejected stores and either return the same to the supplier at his risk and cost by such mode of transport as purchaser/consignee may decide or dispose of such goods at the suppliers risk to recover any expense incurred in connection with such disposals and also the cost of the rejected stores if already paid for."

- 8.7 Goods accepted by the purchaser/consignee and/or its inspector at initial inspection and in final inspection in terms of the contract shall in no way dilute purchaser's/consignee's right to reject the same later, if found deficient in terms of the warranty clause of the contract, as incorporated under GCC Clause 15.

8.8 Principal/ Foreign supplier shall also have the equipment inspected by recognised/ reputed agency like SGS, Lloyd, Bureau Veritas, TUV prior to despatch at the supplier's cost and furnish necessary certificate from the said agency in support of their claim.

9. Terms of Delivery

9.1 Goods shall be delivered by the supplier in accordance with the terms of delivery and as per the delivery period specified in the schedule of requirement. Please note that the time shall be the essence of the contract.

10. Transportation of Goods

10.1 Instructions for transportation of imported goods offered from abroad:

The supplier shall not arrange part-shipments and/or transshipment without the express/prior written consent of the purchaser. The supplier is required under the contract to deliver the goods under CIP (Named port of destination) terms; the shipment shall be made by Indian flag vessel or by vessels belonging to the conference lines in which India is a member country through India's forwarding agents/coordinators. In case the forwarding agent/coordinators are unable to provide timely adequate space in Indian flag vessel or by vessels belonging to the conference lines, the supplier shall arrange shipment through any available vessel to adhere to the delivery schedule given in the contract.

In case of airlifting of imported goods offered from abroad, the same will be done only through the National Carrier i.e. Air India wherever applicable. In case the National Carrier is not available, any other airlines available for early delivery may be arranged.

10.2 Instructions for transportation of domestic goods including goods already imported by the supplier under its own arrangement:

In case no instruction is provided in this regard in the SCC, the supplier will arrange transportation of the ordered goods as per its own procedure.

11. Insurance:

11.1 Unless otherwise instructed in the SCC, the supplier shall make arrangements for insuring the goods against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the following manner:

- i) in case of supply of domestic goods on Consignee site basis, the supplier shall be responsible till the entire stores contracted for arrival in good condition at destination. The transit risk in this respect shall be covered by the Supplier by getting the stores duly insured for an amount equal to 110% of the value of the goods from ware house to ware house (consignee site) on all risk basis . The insurance cover shall be obtained by the Supplier and should be valid till 3 months after the receipt of goods by the Consignee.
- ii) in case of supply of the imported goods on CIP Named port of Destination Basis, the additional extended Insurance (local transportation and storage) would be borne by the Supplier or its Indian Subsidiary/Indian agent from the port of entry to the consignee site for a period including 3 months beyond date of delivery for an amount equal to 110% of the overall expenditure to be incurred by the purchaser from ware house to ware house (consignee site) on all risk basis.

If the equipment is not commissioned and handed over to the consignee within 3 months, the insurance will have to be extended by the supplier at their cost till the successful installation,

testing, commissioning and handing over of the goods to the consignee. In case the delay in the installation and commissioning is due to handing over of the site to the supplier by the consignee, such extensions of the insurance will still be done by the supplier, but the insurance extension charges at actuals will be reimbursed.

12. Spare parts

12.1 If specified in the List of Requirements and in the resultant contract, the supplier shall supply/provide any or all of the following materials, information etc. pertaining to spare parts manufactured and/or supplied by the supplier:

- a) The spare parts as selected by the Purchaser/Consignee to be purchased from the supplier, subject to the condition that such purchase of the spare parts shall not relieve the supplier of any contractual obligation including warranty obligations; and
- b) In case the production of the spare parts is discontinued:
 - i) Sufficient advance notice to the Purchaser/Consignee before such discontinuation to provide adequate time to the purchaser to purchase the required spare parts etc., and
 - ii) The supplier shall be responsible for undertaking the supply of any such spare part for the proper up keeping of equipment for a period of 10 years including the warranty and CMC periods.

12.2 Supplier shall carry sufficient inventories to assure ex-stock supply of consumables and spares for the goods so that the same are used during warranty and CMC period.

13. Incidental services

13.1 Subject to the stipulation, if any, in the SCC (Section – V), List of Requirements (Section – VI) and the Technical Specification (Section – VII), the supplier shall be required to perform the following services.

- a. Installation & commissioning, Supervision and Demonstration of the goods
- b. Providing required jigs and tools for assembly, minor civil works required for the completion of the installation.
- c. Training of Consignee's Doctors, Staff, operators etc. for operating and maintaining the goods
- d. Supplying required number of operation & maintenance manual for the goods

14. DISTRIBUTION OF DISPATCH DOCUMENTS FOR CLEARANCE/RECEIPT OF GOODS

The supplier shall send all the relevant despatch documents well in time to the Purchaser/Consignee to enable the Purchaser/Consignee clear or receive (as the case may be) the goods in terms of the contract.

Unless otherwise specified in the SCC, the usual documents involved and the drill to be followed in general for this purpose are as follows.

- A) For Domestic Goods, including goods already imported by the supplier under its own arrangement

Within 24 hours of despatch, the supplier shall notify the purchaser, consignee, and others concerned if mentioned in the contract, the complete details of despatch and also supply the following documents to them by registered post / speed post / courier (or as instructed in the contract):

- (i) Four copies of supplier's invoice showing contract number, goods description, quantity, unit price and total amount;
- (ii) Two copies of packing list identifying contents of each package;
- (iii) Certificate of origin;
- (iv) Insurance Certificate as per GCC Clause 11.
- (v) Manufacturers/Supplier's warranty certificate & In-house inspection certificate.

B) For goods imported from abroad

Within 24 hours of despatch, the supplier shall notify the purchaser, consignee, and others concerned if mentioned in the contract, the complete details of despatch and also supply the following documents to them by registered post / speed post (or as instructed in the contract). Any delay or demurrage occurred during the customs clearance on account of the non-availability of technical support/ clarifications /documents from the supplier shall be borne by the supplier:

- (i) Four copies of supplier's invoice showing contract number, goods description, quantity, unit price and total amount;
- (ii) Original and four copies of the negotiable clean, on-board Bill of Lading/Airway bill, marked freight pre paid and four copies of non-negotiable Bill of Lading/Airway bill;
- (iii) Four Copies of packing list identifying contents of each package;
- (iv) Manufacturer's/Supplier's warranty certificate;
- (vi) Inspection Certificate for the despatched equipments issued by recognized/ reputed agency like SGS, Lloyd, BUREAU VERITAS, TUV prior to despatch
- (vii) Manufacturer's own factory inspection report;
- (viii) Certificate of origin
- (ix) Port of Loading;
- (x) Port of Discharge and
- (xi) Expected date of arrival.

15. Warranty:

- The supplier warrants comprehensively that the goods supplied under the contract is new, unused and incorporate all recent improvements in design and materials unless prescribed otherwise by the purchaser in the contract. The supplier further warrants that the goods supplied under the contract shall have no defect arising from design, materials (except when the design adopted and/or the material used are as per the Purchaser's/Consignee's specifications) or workmanship or from any act or omission of the supplier, that may develop under normal use of the supplied goods under the conditions prevailing in India.
- The warranty shall remain valid for 60 months from the date of installation & commissioning with a regular updates of newer technology as and when evolved followed by a CMC for a period of 5 (Five) Years for all the equipments after the goods or any portion thereof as the case may be, have been delivered to the final destination and installed and commissioned at the final destination and accepted by the purchaser/ consignee in terms of the contract, unless specified otherwise in the SCC.
- No conditional warranty will be acceptable.
- Warranty as well as Comprehensive Maintenance contract will be inclusive of all accessories and Site Modification work and it will also cover the following wherever applicable:-
 - Any kind of motor.
 - Plastic & Glass Parts against any manufacturing defects.

- All kind of sensors.
 - All kind of coils, probes and transducers.
 - Printers and imagers including laser and thermal printers with all parts.
 - UPS including the replacement of batteries.
 - Air-conditioners
- a. Replacement and repair will be under taken for the defective goods.
- All kinds of painting, civil, HVAC and electrical work
- b. Proper marking has to be made for all spares for identification like printing of installation and repair dates.
- 15.3 In case of any claim arising out of this warranty, the Purchaser/Consignee shall promptly notify the same in writing to the supplier. The period of the warranty will be as per G.C.C clause number 15.2 above irrespective of any other period mentioned elsewhere in the bidding documents.
- 15.4 Upon receipt of such notice, the supplier shall, within 8 hours on a 24(hrs) X 7 (days) X 365 (days) basis respond to take action to repair or replace the defective goods or parts thereof, free of cost, at the ultimate destination. The supplier shall take over the replaced parts/goods after providing their replacements and no claim, whatsoever shall lie on the purchaser for such replaced parts/goods thereafter. The penalty clause for non-rectification will be applicable as per tender conditions
- 15.5 In the event of any rectification of a defect or replacement of any defective goods during the warranty period, the warranty for the rectified/replaced goods shall be extended till the completion of the original warranty period of the main equipment.
- 15.6 If the supplier, having been notified, fails to respond to take action to repair or replace the defect(s) within 8 hours on a 24(hrs) X 7 (days) X 365 (days) basis, the purchaser may proceed to take such remedial action(s) as deemed fit by the purchaser, at the risk and expense of the supplier and without prejudice to other contractual rights and remedies, which the purchaser may have against the supplier.
- 15.7 During Warranty period, the supplier is required to visit at each consignee's site at least once in 6 months commencing from the date of the installation for preventive maintenance of the goods
- 15.8 The Purchaser/Consignee reserve the rights to enter into Annual Comprehensive Maintenance Contract between Consignee and the Supplier for the period as mentioned in Section VII, Technical Specifications after the completion of warranty period.
- 15.9 The supplier along with its Indian Agent and the CMC provider shall ensure continued supply of the spare parts for the machines and equipments supplied by them to the purchaser for 10 years from the date of installation and handing over.
- 15.10 The Supplier along with its Indian Agent and the CMC Provider shall always accord most favoured client status to the Purchaser vis-à-vis its other Clients/Purchasers of its equipments/machines/goods etc. and shall always give the most competitive price for its machines/equipments supplied to the Purchaser/Consignee.

16. ASSIGNMENT

- 16.1 The Supplier shall not assign, either in whole or in part, its contractual duties, responsibilities and obligations to perform the contract, except with the Purchaser's prior written permission.

17. SUB CONTRACTS

- 17.1 The Supplier shall notify the Purchaser in writing of all sub contracts awarded under the contract if not already specified in its tender. Such notification, in its original tender or later, shall not relieve the Supplier from any of its liability or obligation under the terms and conditions of the contract.
- 17.2 Sub contract shall be only for bought out items and sub-assemblies.
- 17.3 Sub contracts shall also comply with the provisions of GCC Clause 4 ("Country of Origin").

18. MODIFICATION OF CONTRACT

- 18.1 If necessary, the purchaser may, by a written order given to the supplier at any time during the currency of the contract, amend the contract by making alterations and modifications within the general scope of contract in any one or more of the following:
- a) Specifications, drawings, designs etc. where goods to be supplied under the contract are to be specially manufactured for the purchaser,
 - b) Mode of packing,
 - c) Incidental services to be provided by the supplier
 - d) Mode of despatch,
 - e) Place of delivery, and
 - f) Any other area(s) of the contract, as felt necessary by the purchaser depending on the merits of the case.
- 18.2 In the event of any such modification/alteration causing increase or decrease in the cost of goods and services to be supplied and provided, or in the time required by the supplier to perform any obligation under the contract, an equitable adjustment shall be made in the contract price and/or contract delivery schedule, as the case may be, and the contract amended accordingly. If the supplier doesn't agree to the adjustment made by the Purchaser/Consignee, the supplier shall convey its views to the Purchaser/Consignee within twenty-one days from the date of the supplier's receipt of the Purchaser's/Consignee's amendment / modification of the contract.

19. Prices

- 19.1 Prices to be charged by the supplier for supply of goods and provision of services in terms of the contract shall not vary from the corresponding prices quoted by the supplier in its tender and incorporated in the contract except for any price adjustment authorised in the SCC.

20. Taxes and Duties

- 20.1 Supplier shall be entirely responsible for all taxes, duties, fees, levies etc. incurred until delivery of the contracted goods to the purchaser.
- 20.2 Further instruction, if any, shall be as provided in the SCC.

21. Terms and mode of payment

21.1 Payment Terms

Payment shall be made subject to recoveries, if any, by way of liquidated damages or any other charges as per terms & conditions of contract in the following manner.

TERMS AND MODE OF PAYMENT

A) Payment for Domestic Goods Or Foreign Origin Located Within India.

Payment shall be made in Indian Rupees as specified in the contract in the following manner:

a) On delivery:

Seventy Five percent (75%) payment of the contract price shall be paid on receipt of goods in good condition and upon the submission of the following documents subject to recovery of LD, if any:

- (i) Four copies of supplier's invoice showing contract number, goods description, quantity, unit price and total amount

- (ii) Two copies of packing list identifying contents of each package
- (iii) Inspection certificate issued by the nominated Inspection agency, if any
- (iv) Insurance Certificate as per GCC Clause 11
- (v) Certificate of origin in case of imported goods
- (vi) Consignee Receipt Certificate as per Section XVII in original issued by the authorized representative of the consignee

b) On Acceptance:

Balance Twenty Five percent (25%) payment would be made against 'Final Acceptance Certificate' as per Section XVIII of goods to be issued by the consignees subject to recoveries, if any, either on account of non-rectification of defects/deficiencies not attended by the Supplier or otherwise. FAC needs to be issued by the designated consignee after installation, commissioning, testing and one to two weeks of successful trail run of the equipment.

B) PAYMENT FOR IMPORTED GOODS:

Payment for foreign currency portion shall be made in the currency as specified in the contract in the following manner:

a) On Shipment:

Seventy Five percent (75%) of the net CIP price (CIP price less Indian Agency commission) of the goods shipped shall be paid through irrevocable, non-transferable Letter of Credit (LC) opened in favour of the supplier in a bank in his country and upon submission of documents specified hereunder:

- (i) Four copies of supplier's invoice showing contract number, goods description, quantity, unit price and total amount;
- (ii) Original and four copies of the negotiable clean, on-board Bill of Lading/ Airway bill, marked freight pre paid and four copies of non-negotiable Bill of Lading/Airway bill;
- (iii) Four Copies of packing list identifying contents of each package;
- (iv) Insurance Certificate as per GCC Clause 11 and documents also to be submitted for payment of LC confirming that dispatch documents has already been sent to all concerned as per the contract within 24 hours;
- (v) Manufacturer's/Supplier's warranty certificate;
- (vi) Manufacturer's own factory inspection report and
- (vii) Certificate of origin by the chamber of commerce of the concerned country;
- (viii) Inspection Certificate for the despatched equipment issued by recognized/ reputed agency like SGS, Lloyd, BEAURU VARITUS and TUV prior to despatch.

b) On Acceptance:

Balance payment of Twenty Five percent (25%) of net CIP price of goods would be made against 'Final Acceptance Certificate' as per Section XVIII to be issued by the consignees through irrevocable, non-transferable Letter of Credit (LC) opened in favour of the Foreign Principal in a bank in his country, subject to recoveries, if any. FAC need to be issued by the designated consignee after installation, commissioning, testing and one to two weeks of successful trail run of the equipment.

- c) Payment of Incidental Costs till consignee site & Incidental Services** (including Installation & Commissioning, Supervision, Demonstration and Training) will be paid in Indian Rupees to the Indian Agent on proof of final installation, commission and acceptance of equipment by the consignee.

d) Payment of Indian Agency Commission:

Indian Agency commission will be paid to the manufacturer's agent in the local currency for an amount in Indian rupees indicated in the relevant Price Schedule (as per prevailing rate of exchange ruling on the date of Contract) and shall not be subject to further escalation / exchange variation. This is payable against submission of a certificate from the principal supplier that they have realised full and final settlement against their supply.

C) Payment of Site Modification Work, if any:

Site Modification Work payment will be made to the bidder/ manufacturer's agent or its Indian Office in Indian rupees as indicated in the relevant Price Schedule (as per prevailing rate of exchange ruling on the date of Contract) and shall not be subject to further escalation / exchange variation. This will be paid on proof of final installation, commission and acceptance of equipment by the consignee

D) Payment for Annual Comprehensive Maintenance Contract Charges:

The consignee will enter into CMC with the supplier at the rates as stipulated in the contract. The payment of CMC will be made on six monthly basis after satisfactory completion of said period, duly certified by the consignee on receipt of bank guarantee for an amount equivalent to 2.5 % of the cost of the equipment as per contract in the prescribed format given in Section XV valid till 2 months after expiry of entire CMC period.

- 21.2 The supplier shall not claim any interest on payments under the contract.
- 21.3 Where there is a statutory requirement for tax deduction at source, such deduction towards income tax and other tax as applicable will be made from the bills payable to the Supplier at rates as notified from time to time.
- 21.4 Irrevocable & non – transferable LC shall be opened by the Purchaser. However, if the supplier requests specifically to open confirmed LC, the extra charges would be borne by the supplier. If LC is required to be extended and/or amended for reasons not attributable to the purchaser/consignee, the charges thereof shall be borne by the supplier.
- 21.5 The payment shall be made in the currency / currencies authorised in the contract.
- 21.6 The supplier shall send its claim for payment in writing, when contractually due, along with relevant documents etc., duly signed with date, to respective consignees.
- 21.7 While claiming payment, the supplier is also to certify in the bill that the payment being claimed is strictly in terms of the contract and all the obligations on the part of the supplier for claiming that payment has been fulfilled as required under the contract.
- 21.8 While claiming reimbursement of duties, taxes etc. (like sales tax, excise duty, custom duty) from the Purchaser/Consignee, as and if permitted under the contract, the supplier shall also certify that, in case it gets any refund out of such taxes and duties from the concerned authorities at a later date, it (the supplier) shall refund to the Purchaser/Consignee forthwith.
- 21.9 In case where the supplier is not in a position to submit its bill for the balance payment for want of receipted copies of Inspection Note from the consignee and the consignee has not complained about the non-receipt, shortage, or defects in the supplies made, balance amount will be paid by the paying authority without consignee's receipt certificate after three months from the date of the preceding part payment for the goods in question, subject to the following conditions:
- (a) The supplier will make good any defect or deficiency that the consignee (s) may report within six months from the date of despatch of goods.
 - (b) Delay in supplies, if any, has been regularized.
 - (c) The contract price where it is subject to variation has been finalized.
 - (d) The supplier furnishes the following undertakings:

“I/We, _____ certify that I/We have not received back the Inspection Note duly received by the consignee or any communication from the purchaser or the consignee about non-receipt, shortage or

defects in the goods supplied. I/We _____ agree to make good any defect or deficiency that the consignee may report within three months from the date of receipt of this balance payment.

22. Delivery

22.1 The supplier shall deliver the goods and perform the services under the contract within the time schedule specified by the Purchaser/Consignee in the List of Requirements and as incorporated in the contract. The time for and the date of delivery of the goods stipulated in the schedule shall be deemed to be of the essence of the contract and the delivery must be completed not later than the date (s) as specified in the contract.

22.2 Subject to the provision under GCC clause 26, any unexcused delay by the supplier in maintaining its contractual obligations towards delivery of goods and performance of services shall render the supplier liable to any or all of the following sanctions:

- (i) imposition of liquidated damages,
- (ii) forfeiture of its performance security and
- (iii) termination of the contract for default.

22.3 If at any time during the currency of the contract, the supplier encounters conditions hindering timely delivery of the goods and performance of services, the supplier shall promptly inform the Purchaser/Consignee in writing about the same and its likely duration and make a request to the Purchaser/Consignee for extension of the delivery schedule accordingly. On receiving the supplier's communication, the Purchaser/Consignee shall examine the situation as soon as possible and, at its discretion, may agree to extend the delivery schedule, with or without liquidated damages for completion of supplier's contractual obligations by issuing an amendment to the contract.

22.4 When the period of delivery is extended due to unexcused delay by the supplier, the amendment letter extending the delivery period shall, inter alia contain the following conditions:

- (a) The Purchaser/Consignee shall recover from the supplier, under the provisions of the clause 23 of the General Conditions of Contract, liquidated damages on the goods and services, which the Supplier has failed to deliver within the delivery period stipulated in the contract.
- (b) That no increase in price on account of any ground, whatsoever, including any stipulation in the contract for increase in price on any other ground and, also including statutory increase in or fresh imposition of customs duty, excise duty, sales tax/ VAT, Service Tax and Works Contract Tax or on account of any other tax or duty which may be levied in respect of the goods and services specified in the contract, which takes place after the date of delivery stipulated in the contract shall be admissible on such of the said goods and services as are delivered and performed after the date of the delivery stipulated in the contract.
- (c) But nevertheless, the Purchaser/Consignee shall be entitled to the benefit of any decrease in price on account of reduction in or remission of customs duty, excise duty, sales tax/ VAT, Service Tax and Works Contract Tax or any other duty or tax or levy or on account of any other grounds, which takes place after the expiry of the date of delivery stipulated in the contract.

22.5 The supplier shall not dispatch the goods after expiry of the delivery period. The supplier is required to apply to the Purchaser/Consignee for extension of delivery period and obtain the same before despatch. In case the supplier dispatches the goods without obtaining an extension, it would be doing so at its own risk and no claim for payment for such supply and / or any other expense related to such supply shall lie against the purchaser.

22.6.1 Passing of Property:

- 22.6.2 The property in the goods shall not pass to the purchaser unless and until the goods have been delivered to the consignee in accordance with the conditions of the contract.
- 22.6.3 Where there is a contract for sale of specific goods and the supplier is bound to do something to the goods for the purpose of putting them into a deliverable state the property does not pass until such thing is done.
- 22.6.4 Unless otherwise agreed, the goods remain at the supplier's risk until the property therein is transferred to the purchaser.

23. Liquidated damages

- 23.1 Subject to GCC clause 26, if the supplier fails to deliver or install /commission any or all of the goods or fails to perform the services within the time frame(s) incorporated in the contract including opening of office in India as per the undertaking given in the qualification criteria, the Purchaser/Consignee shall, without prejudice to other rights and remedies available to the Purchaser/Consignee under the contract, deduct from the contract price, as liquidated damages, a sum equivalent to 0.5% per week of delay or part thereof on delayed supply of goods, installation, commissioning and/or services until actual delivery or performance subject to a maximum of 10% of the contract price. Once the maximum is reached Purchaser/Consignee may consider termination of the contract as per GCC 24. *Since the Liquidated damages are in virtue of non-performance of services, it will attract Service Tax also which in turn shall be deducted from the bidder.*

During the above-mentioned delayed period of supply and / or performance, the conditions incorporated under GCC sub-clause 22.4 above shall also apply.

24. Termination for default

- 24.1 The Purchaser/Consignee, without prejudice to any other contractual rights and remedies available to it (the Purchaser/Consignee), may, by written notice of default sent to the supplier, terminate the contract in whole or in part, if the supplier fails to deliver any or all of the goods or fails to perform any other contractual obligation(s) within the time period specified in the contract, or within any extension thereof granted by the Purchaser/Consignee pursuant to GCC sub-clauses 22.3 and 22.4.
- 24.2 In the event of the Purchaser/Consignee terminates the contract in whole or in part, pursuant to GCC sub-clause 24.1 above, the Purchaser/Consignee may procure goods and/or services similar to those cancelled, with such terms and conditions and in such manner as it deems fit and the supplier shall be liable to the Purchaser/Consignee for the extra expenditure, if any, incurred by the Purchaser/Consignee for arranging such procurement.
- 24.3 Unless otherwise instructed by the Purchaser/Consignee, the supplier shall continue to perform the contract to the extent not terminated.

25. Termination for insolvency

- 25.1 If the supplier becomes bankrupt or otherwise insolvent, the purchaser reserves the right to terminate the contract at any time, by serving written notice to the supplier without any compensation, whatsoever, to the supplier, subject to further condition that such termination will not prejudice or affect the rights and remedies which have accrued and / or will accrue thereafter to the Purchaser/Consignee.

26. Force Majeure

- 26.1 Notwithstanding the provisions contained in GCC clauses 22, 23 and 24, the supplier shall not be liable for imposition of any such sanction so long the delay and/or failure of the supplier in fulfilling its obligations under the contract is the result of an event of Force Majeure.

- 26.2 For purposes of this clause, Force Majeure means an event beyond the control of the supplier and not involving the supplier's fault or negligence and which is not foreseeable and not brought about at the instance of , the party claiming to be affected by such event and which has caused the non – performance or delay in performance. Such events may include, but are not restricted to, wars or revolutions, hostility, acts of public enemy, civil commotion, sabotage, fires, floods, explosions, epidemics, quarantine restrictions, strikes excluding by its employees , lockouts excluding by its management, and freight embargoes.
- 26.3 If a Force Majeure situation arises, the supplier shall promptly notify the Purchaser/Consignee in writing of such conditions and the cause thereof within twenty one days of occurrence of such event. Unless otherwise directed by the Purchaser/Consignee in writing, the supplier shall continue to perform its obligations under the contract as far as reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
- 26.4 If the performance in whole or in part or any obligation under this contract is prevented or delayed by any reason of Force Majeure for a period exceeding sixty days, either party may at its option terminate the contract without any financial repercussion on either side.
- 26.5 In case due to a Force Majeure event the Purchaser/Consignee is unable to fulfil its contractual commitment and responsibility, the Purchaser/Consignee will notify the supplier accordingly and subsequent actions taken on similar lines described in above sub-paragraphs.

27. Termination for convenience

- 27.1 The Purchaser/Consignee reserves the right to terminate the contract, in whole or in part for its (Purchaser's/Consignee 's) convenience, by serving written notice on the supplier at any time during the currency of the contract. The notice shall specify that the termination is for the convenience of the Purchaser/Consignee. The notice shall also indicate interalia, the extent to which the supplier's performance under the contract is terminated, and the date with effect from which such termination will become effective.
- 27.2 The goods and services which are complete and ready in terms of the contract for delivery and performance within thirty days after the supplier's receipt of the notice of termination shall be accepted by the Purchaser/Consignee following the contract terms, conditions and prices. For the remaining goods and services, the Purchaser/Consignee may decide:
- a) To get any portion of the balance completed and delivered at the contract terms, conditions and prices; and / or
 - b) To cancel the remaining portion of the goods and services and compensate the supplier by paying an agreed amount for the cost incurred by the supplier towards the remaining portion of the goods and services.

28. Governing language

- 28.1 The contract shall be written in English language following the provision as contained in GIT clause 4. All correspondence and other documents pertaining to the contract, which the parties exchange, shall also be written accordingly in that language.

29. Notices

- 29.1 Notice, if any, relating to the contract given by one party to the other, shall be sent in writing or by cable or telex or facsimile and confirmed in writing. The procedure will also provide the sender of the notice, the proof of receipt of the notice by the receiver. The addresses of the parties for exchanging such notices will be the addresses as incorporated in the contract.
- 29.2 The effective date of a notice shall be either the date when delivered to the recipient or the effective date specifically mentioned in the notice, whichever is later.

30. Resolution of disputes

- 30.1 If dispute or difference of any kind shall arise between the Purchaser/Consignee and the supplier in connection with or relating to the contract, the parties shall make every effort to resolve the same amicably by mutual consultations.
- 30.2 If the parties fail to resolve their dispute or difference by such mutual consultation within twenty-one days of its occurrence, then, unless otherwise provided in the SCC, either the Purchaser/Consignee or the supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided the applicable arbitration procedure will be as per the Arbitration and Conciliation Act, 1996 of India or amendments thereof. In the case of a dispute or difference arising between the Purchaser/Consignee and a domestic Supplier relating to any matter arising out of or connected with the contract, such dispute or difference shall be referred to the sole arbitration of an officer in the Ministry of Law and Justice, appointed to be the arbitrator by the Director General (Health Services). The award of the arbitrator shall be final and binding on the parties to the contract subject to the provision that the Arbitrator shall give reasoned award in case the value of claim in reference exceeds Rupees One lakhs (Rs. 1,00,000/-)
- 30.3 Venue of Arbitration: The venue of arbitration shall be the place from where the contract has been issued, i.e., New Delhi, India.
- 30.4 Jurisdiction of the court will be from the place where the tender enquiry document has been issued, i.e., New Delhi, India

31. Applicable Law

The contract shall be governed by and interpreted in accordance with the laws of India for the time being in force.

32. Withholding and Lien in respect of sums claimed

Whenever any claim for payment arises under the contract against the supplier the purchaser shall be entitled to withhold and also have a lien to retain such sum from the security deposit or sum of money arising out of under any other contract made by the supplier with the purchaser, pending finalization or adjudication of any such claim. It is an agreed term of the contract that the sum of money so withheld or retained under the lien referred to above, by the purchaser, will be kept withheld or retained till the claim arising about of or under the contract is determined by the Arbitrator or by the competent court as the case may be, and the supplier will have no claim for interest or damages whatsoever on any account in respect of such withholding or retention.

33. General/ Miscellaneous Clauses

- 33.1 Nothing contained in this Contract shall be constructed as establishing or creating between the parties, i.e. the Supplier/its Indian Agent/CMC Provider on the one side and the Purchaser on the other side, a relationship of master and servant or principal and agent.
- 33.2 Any failure on the part of any Party to exercise right or power under this Contract shall not operate as waiver thereof.
- 33.3 The Supplier shall notify the Purchaser/Consignee /the Government of India of any material change would impact on performance of its obligations under this Contract.
- 33.4 Each member/constituent of the Supplier/its Indian Agent/CMC Provider, in case of consortium shall be **jointly and severally liable** to and responsible for all obligations towards the Purchaser/Consignee/Government for performance of contract/services including that of its Associates/Sub Contractors under the Contract.
- 33.5 The Supplier/its Indian Agent/CMC Provider shall at all times, indemnify and keep indemnified the Purchaser/Government of India against all claims/damages etc. for any infringement of any Intellectual Property Rights (IPR) while providing its services under CMC or the Contract.

- 33.6 The Supplier/its Agent/CMC Provider shall, at all times, indemnify and keep indemnified the Purchaser/Consignee/Government of India against any claims in respect of any damages or compensation payable in consequences of any accident or injury sustained or suffered by its employees or agents or by any other third party resulting from or by any action, omission or operation conducted by or on behalf of the supplier/its associate/affiliate etc.
- 33.7 All claims regarding indemnity shall survive the termination or expiry of the contract.
- 33.8 If any provisions of this tender enquiry or a contract formed on the basis of this tender enquiry are invalid or void under any of the existing provisions of Indian law, then such provisions will not affect other provisions of this tender enquiry/ contract.

SECTION – V

SPECIAL CONDITIONS OF CONTRACT (SCC)

The following Special Conditions of Contract (SCC) will apply for this purchase. The corresponding clauses of General Conditions of Contract (GCC) relating to the SCC stipulations have also been incorporated below.

These Special Conditions will modify/substitute/supplement the corresponding (GCC) clauses. Whenever there is any conflict between the provision in the GCC and that in the SCC, the provision contained in the SCC shall prevail.

The warranty and CMC period will be as mentioned in the list of requirement as per section VI of the tender enquiry.

SECTION - VI
LIST OF REQUIREMENTS

Part I

Sl. No.	Rfx No.	Item Description	Qty.	Warranty in years	CMC in years
1	3000001995	ADVANCED HIGH ENERGY LINEAR ACCELERATOR	5	5	5
2	3000001996	LOW ENERGY LINEAR ACCELERATOR	5	5	5
3	3000001997	HIGH DOSE RATE BRACHYTHERAPY SYSTEM	5	5	5
4	3000001998	CT SIMULATOR SYSTEM-16 Slice	5	5	5
5	3000002000	CT SIMULATOR SYSTEM - 64 slice	5	5	5

Part II: Required Delivery Schedule:**a) For Indigenous goods or for imported goods if supplied from India:**

150 days from date of Notification of Award to delivery at consignee site. The date of delivery will be the date of delivery at consignee site. Tenderers may quote earliest delivery period.

Installation and commissioning shall be done within 45 days of receipt of the stores/ goods at site or within 45 days of handing over the site for installation, whichever is later.

b) For Imported goods directly from foreign:

150 days from the date of opening of L/C. The date of delivery will be the date when the consignment reaches the port of destination. (Tenderers may quote the earliest delivery period). Delivery of indigenous goods contracted along with the direct imported items shall be within the scheduled delivery period for imported goods.

Installation and commissioning shall be done within 45 days of receipt of the stores/ goods at site or within 45 days of handing over the site for installation, whichever is later.

For delayed delivery and/ or installation and commissioning liquidated damages will get applied as per GCC clause 23.

Note:

- i) The delivery schedule for different sites may be staggered based on the site readiness.
- ii) Supplier has to submit clear documents for opening of LC to HITES within 21 days of placement of order. Any delay will be treated as non-performance and Liquidated Damages shall be levied.
- iii) In case of multiple LC are opened in favour of multiple manufacturers, the delivery period for all the items under the contract shall be counted from the date of opening of the first LC only.
- iv) Indigenous goods or imported goods if supplied from India (offered in INR) which are linked with supply of directly imported goods, are to be supplied within the contractual delivery period as stated in para b) above.

Part III: Scope of Incidental Services:

Installation & Commissioning, Supervision, Demonstration, Trial run and Training etc. as specified in GCC Clause 13

Part IV:

Site Modification Work (if any) as per details in Technical Specification.

Part V:

Warranty period as per details in general technical specification and as specified in Part I above. Warranty period will be 60 months from the date of installation, commissioning and acceptance or 66 months from the date of delivery, whichever is earlier.

Comprehensive Maintenance Contract (CMC) as per details in Technical Specification as specified in part I above

Part VI:

Required Terms of Delivery and Destination.

a) For Indigenous goods or for imported goods if supplied from India:

At Consignee Site(s)

b) For Imported goods directly from abroad:

The foreign tenderers are required to quote their rates on CIP Named Port of Destination Basis giving breakup of the price as per the Proforma prescribed in the Price Schedule. Purchaser will place the order on CIP Named Port of Destination basis.

Insurance (local transportation and storage) would be extended and borne by the Supplier or its Indian Subsidiary/Agent from ware house to the consignee site for a period including 3 months beyond date of delivery.

Destination/Consignee details:

A list of Consignee is given in Section XXI. The goods mentioned at Part-I in this section are intended to be supplied to the following hospitals/medical institutes. However, order may be placed for any hospital/institute across India.

1	The Director, Vijayanagar Institute of Medical Sciences, Contonment, Bellary – 583104, Karnataka
2	The Principal, R. N. T. Medical College, Udaipur, Near Collectorate, Hospital Rd, Court Chouraha, Udaipur, Rajasthan 313001
3	The Principal, M. L. N. Medical College, Allahabad George Town, Allahabad, Uttar Pradesh 211002
4	The Principal, L. L. R. Medical College, Meerut Garh Road, Jai Bhim Nagar, Meerut, Uttar Pradesh 250004
5	The Principal, Govt. Medical College, Malda Englishbazar, Malda, West Bengal 73210

Section – VII**Technical Specifications****Item Sl. No. 01****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-Rate Photons: 100 to ≥ 600 MU/min in 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
	$\pm 3\%$ 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
	$\pm 2\%$ 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 \pm 0.2 cm
	ODI Range: 75 cm to 150 cm
	ODI Accuracy \pm 0.1 cm
	Gantry Rotation Isocentre \leq 2 mm dia. Sphere. .
	Collimator Rotation: +/- 95 Degree or higher
12	Control: Hand pendant and control- console
	Readout accuracy: \pm 0.5°
	Collimator Rotation Isocentre \leq 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 leave
	Maximum field size 40x40 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 nos). : 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 Shadow Block 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 useful beams (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 10 yrs
	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
32	Software Updates
	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 be 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 suitable to measure pulsed radiation with fluctuation dose rate Ion 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 ± 0.1 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 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 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 displayed 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 check 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 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.
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 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 - 2 nos
	SITE – MODIFICATION
	The Site - Modification Scope of Work – Advanced High Energy LINAC
	1. The prospective bidders shall inspect the proposed site for ADVANCED HIGH 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 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 Civil work, 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 finalised 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 HIGH ENERGY 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 Centres 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.
	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
	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 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 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 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 Shadow Block 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

Item Sl. No. 02

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 10 x 10 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
	≤ 2 mm 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 ≤ 2 mm 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 leave
	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 Updatons
	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 be 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 suitable to measure pulsed radiation with fluctuation dose rate Ion 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 ± 0.1 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
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 absorbtion 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 Shadow Block 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 – 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.
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

Item Sl. No. 03

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 CE certification.
	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 atleast 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
	Vaginal
	Esophagus

	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.
	FDA Approvals
	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 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 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 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 with in 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, 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). -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- 2 nos
	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-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 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	- 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 Geeken.	- Hermen Miller , Godrej , Featherlite,
	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	1set
23	Vaginal	1set
24	Esophagus	1set
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

Item Sl. No. 04

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 patients. It 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 and 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 a minimum 16 slice helical/spiral machine with < 0.5 second rotation time and 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 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 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 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 Should be a fully DICOM RT "plug and play" system for import and export of 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 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 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 integrated with main console. The camera should print a 14" x 17" film size 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.
3	Certifications:
a	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, Havels
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

Item Sl. No. 05

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 radiation field portals on patient's skin for radiation therapy of cancer patients. It 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 a minimum 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 should be 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 Should be a fully DICOM RT "plug and play" system for import and export of 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 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 with main console. The camera should print a 14" x 17" film size 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	Training for a period of Two Weeks.
14	Certifications:
1	Offered model should be European CE or US FDA approved. Copy of certifications 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 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 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± 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 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"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, Havels
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 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

GENERAL TECHNICAL SPECIFICATIONS

GENERAL POINTS:

1. Warranty:

- a) Five years Comprehensive Warranty as per Conditions of Contract of the TE document for complete equipment (including Batteries for UPS, other vacuumatic parts wherever applicable) Warranty period will be 5 years from the date of installation, commissioning and Site Modification Work from the date of satisfactory installation, commissioning, trial run & handing over of equipment to Hospital/Institution/Medical College.
- b) 95% up time Warranty of complete equipment with extension of Warranty period by double the downtime period on 24 (hrs) X 7 (days) X 365 (days) basis.
- c) **All software updates should be provided free of cost during Warranty period.**

2. After Sales Service:

After sales service centre should be available at the city of Hospital/Institution/Medical College on 24 (hrs) X 7 (days) X 365 (days) basis. Complaints should be attended properly, maximum within 8 hrs. The service should be provided directly by Tenderer/Indian Agent. Undertaking by the Principals that the spares for the equipment shall be available for at least 10 years from the date of supply.

3. Training:

On Site training to Doctors/ Technicians/ staff is to be provided by Principal/ Indian Agents (if they have the requisite know-how) for operation and maintenance of the equipment to the satisfaction of the consignee. The same will be in line with the training modalities as specified in general technical specification.

4. Annual Comprehensive Maintenance Contract (CMC) of subject equipment with Site Modification Work:

- a) The cost of Comprehensive Maintenance Contract (CMC) which includes preventive maintenance including testing & calibration as per technical/ service /operational manual of the manufacturer, labour and spares, after satisfactory completion of Warranty period may be quoted for next 5 years on yearly basis for complete equipment (including Batteries for UPS, other vacuumatic parts wherever applicable) and Site Modification Work (if any). The supplier shall visit each consignee site as recommended in the manufacturer's technical/ service /operational manual, but at least once in six months during the CMC period
- b) The cost of CMC may be quoted along with taxes applicable on the date of Tender Opening. The taxes to be paid extra, to be specifically stated. In the absence of any such stipulation the price will be taken inclusive of such taxes and no claim for the same will be entertained later.
- c) Cost of CMC will be added for Ranking/Evaluation purpose. The same will be taken at Net Present Value with a 10% discounting factor each year.
- d) The payment of CMC will be made on six monthly basis after satisfactory completion of said period, duly certified by end user on receipt of bank guarantee for 2.5 % of the cost of the equipment as per Section XV valid till 2 months after expiry of entire CMC period.
- e) There will be 95% uptime warranty during CMC period on 24 (hrs) X 7 (days) X 365 (days) basis, with penalty, to extend CMC period by double the downtime period.
- f) During CMC period, the supplier is required to visit at each consignee's site at least once in 6 months commencing from the date of the successful completion of warranty period for preventive maintenance of the goods.
- g) All software updates should be provided free of cost during CMC.
- h) Failure of the above [4. e) to 4. g)] by the supplier, may lead to the forfeiture of the Bank Guarantee for Annual CMC.
- i) The payment of CMC will be made as stipulated in GCC Clause 21.

5. Site Modification Work:

Site Modification Work is indicated in the technical specification of the respective items, wherever required. The Tenderer shall examine the existing site where the equipment is to be installed, in consultation with HOD of Hospital/Institution/Medical College concerned. Site Modification Work details of each Hospital/Institution/Medical College are given at the end of Technical Specification. The Tenderer to quote prices indicating break-up of prices of the Machine and Site Modification Work of each Hospital/Institution/Medical College. The Site Modification Work costs to be quoted in Indian Rupee will be added for Ranking Purpose.

The taxes to be paid extra, to be specifically stated. In the absence of any such stipulation the price will be taken inclusive of such duties and taxes and no claim for the same will be entertained later.

The Site Modification Work should completely comply with AERB requirement, if any.

Note 1: Tenderer's attention is drawn to GIT clause 18 and GIT sub-clause 11.1 A (iii). The tenderer is to provide the required details, information, confirmations, etc. accordingly failing which it's tender is liable to be ignored.

Note 2: General: Bidders are requested to make sure that they should attach the list of equipments for carrying out routine and preventive maintenance wherever asked for and should make sure that Electrical Safety Analyzer / Tester for Medical equipments to periodically check the electrical safety aspects as per BIS Safety Standards IS-13540 which is also equivalent to IEC electrical safety standard IEC-60601 is a part of the equipments. If the Electrical Safety Analyzer/Tester is not available they should provide a commitment to get the equipments checked for electrical safety compliance with Electronic Regional Test Labs / Electronics Test and Development Centres across the country on every preventive maintenance call.

Note 3: Adequate training of personnel and non-locked open software and standard interface interoperability conditions for networked equipment in hospital management information system (HMIS)

The successful tenderer will be required to undertake to provide at his cost technical training for personnel involved in the use and handling of the equipment on site at the institute immediately after its installation. The company shall be required to train the institute personnel onsite for a minimum period of 1 month

All software updates should be provided free of cost during warranty period and CMC period

Section – VIII

Quality Control Requirements

(Proforma for equipment and quality control employed by the manufacturer(s))

Tender Reference No.

Date of opening

Time

Name and address of the Tenderer:

Note: All the following details shall relate to the manufacturer(s) for the goods quoted for.

- 01 Name of the manufacturer
 - a. full postal address
 - b. full address of the premises
 - c. telegraphic address
 - d. telex number
 - e. telephone number
 - f. fax number

- 02 Plant and machinery details
- 03 Manufacturing process details
- 04 Monthly (single shift) production capacity of goods quoted for
 - a. normal
 - b. maximum

- 05 Total annual turn-over (value in Rupees)
- 06 Quality control arrangement details
 - a. for incoming materials and bought-out components
 - b. for process control
 - c. for final product evaluation
- 07 Test certificate held
 - a. . type test
 - b. . BIS/ISO certification
 - c. . any other
- 08 Details of staff
 - a. technical
 - b. skilled
 - c. unskilled

Signature and seal of the Tenderer

Section – IX

Qualification Criteria

1. The tenderer must be a manufacturer. In case the manufacturer does not quote directly, they may authorize an agent as per proforma of Manufacturer authorization form as given in the tender enquiry document to quote and enter into a contractual obligation.
- 2(a) The Manufacturer should have supplied and installed in last **Five** years from the date of Tender Opening, at least 25% of the quoted quantity of the similar equipment meeting major parameters of technical specification which is functioning satisfactorily.
- 2(b) The Tenderers quoting as authorized representative of the manufacturer meeting the above criteria should have executed at least one contract in the last five years from the date of tender opening of medical equipment anywhere in India of the same manufacturer.
3. The start-ups claiming exemption on the required prior experience, and complying the condition of GIT Clause 35.3 (iv), should furnish along with the bid
 - (i) All necessary documents in support of the claim regarding exemption on prior experience as mandated by concerned Ministry/ Board of Govt. of India.

Notwithstanding anything stated above, the Purchaser reserves the right to verify/ consider, whether the firm/ entity is eligible for exemption regarding prior experience requirement.

NOTE:

1. The tenderer shall give an affidavit as under:

“We hereby certify that if at any time, information furnished by us is proved to be false or incorrect, we are liable for any action as deemed fit by the purchaser in addition to forfeiture of the earnest money.”

2. In support of 2 (a) & 2 (b), the Tenderer shall furnish Performance statement in the enclosed Proforma ‘A’.

The manufacturer (Tenderer) / Indian Agent shall furnish Satisfactory Performance Certificate in respect of above, duly translated in English and duly notarized in the country of origin, alongwith the tender.

3. The Tenderer shall furnish a brief write-up, packed with adequate data explaining and establishing his available capacity/capability (both technical and financial) to perform the Contract (if awarded) within the stipulated time period, after meeting all its current/present commitments. The Tenderer shall also furnish details of Equipment and Quality Control in the enclosed Section VIII.
4. Notwithstanding anything stated above, the Purchaser reserves the right to assess the Tenderer’s capability and capacity to perform the contract satisfactorily before deciding on award of Contract, should circumstances warrant such an assessment in the overall interest of the Purchaser.
5. The Purchaser reserves the right to ask for a free demonstration of the quoted equipment at a pre determined place acceptable to the purchaser for technical acceptability as per the tender specifications, before the opening of the Price Tender.

**PROFORMA ‘A’
PROFORMA FOR PERFORMANCE STATEMENT**

(For the period of last five years)

Tender Reference No. : _____

Date of opening : _____

Time : _____

Name and address of the Tenderer : _____

Name and address of the manufacturer : _____

Order placed by (full address of Purchaser/ Consignee)	Order number and date	Description and quantity of ordered goods and services	Value of order (Rs.)	Date of completion of Contract		Remarks indicating reasons for delay if any	Have the goods been functioning Satisfactorily (attach documentary proof)**
				As per contract	Actual		
1	2	3	4	5	6	7	8

We hereby certify that if at any time, information furnished by us is proved to be false or incorrect, we are liable for any action as deemed fit by the purchaser in addition to forfeiture of the earnest money.

Signature and seal of the Tenderer

**** The documentary proof will be a certificate from the consignee/ end user with cross-reference of order no. and date in the certificate along with a notarized certification authenticating the correctness of the information furnished.**

**** The bidders are requested to submit the latest purchase order copies supplied to AIIMS, PGIMER, JIPMER, Institute of National importance for the specific model quoted along with the price bid.**

Section – X
TENDER FORM

Date_____

To
Director & CEO
HLL Infra Tech Services Limited
Procurement and Consultancy Division
B-14 A, Sector -62, Noida -201307, Uttar Pradesh.

Ref. Your TE document No. _____ dated _____

We, the undersigned have examined the above mentioned TE document, including amendment/corrigendum No. _____, dated _____ (if any), the receipt of which is hereby confirmed. We now offer to supply and deliver_____ (Description of goods and services) in conformity with your above referred document **for the sum as shown in the price schedules attached herewith and made part of this tender.** If our tender is accepted, we undertake to supply the goods and perform the services as mentioned above, in accordance with the delivery schedule specified in the List of Requirements.

We further confirm that, if our tender is accepted, we shall provide you with a performance security of required amount in an acceptable form in terms of GCC clause 5, read with modification, if any, in Section - V – “Special Conditions of Contract”, for due performance of the contract.

We agree to keep our tender valid for acceptance as required in the GIT clause 20, read with modification, if any in Section - III – “Special Instructions to Tenderers” or for subsequently extended period, if any, agreed to by us. We also accordingly confirm to abide by this tender up to the aforesaid period and this tender may be accepted any time before the expiry of the aforesaid period. We further confirm that, until a formal contract is executed, this tender read with your written acceptance thereof within the aforesaid period shall constitute a binding contract between us.

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

We confirm that we do not stand deregistered/banned/blacklisted by any Govt. Authorities.

We confirm that we fully agree to the terms and conditions specified in above mentioned TE document, including amendment/ corrigendum if any

(Signature with date)
(Name and designation)
Duly authorised to sign tender for and on behalf of

SECTION – XI
PRICE SCHEDULE

Price to be filled in the relevant field of Price Format in Excel provided in the e-tendering portal.

SECTION – XII
QUESTIONNAIRE

Fill up the Techno-Commercial Compliance Sheet Bid provided in spreadsheet (Excel file) and upload in the C-Folder

1. The tenderer should furnish specific answers to all the questions/issues mentioned in the Techno-Commercial Compliance Sheet. In case a question/issue does not apply to a tenderer, the same should be answered with the remark “not applicable”.
2. Wherever necessary and applicable, the tenderer shall enclose certified scanned copy as documentary proof/ evidence to substantiate the corresponding statement.
3. In case a tenderer furnishes a wrong or evasive answer against any of the question/issues, their tender is liable to be ignored.

Note: *The documents like Priced Proforma Invoice (Single Proforma Invoice from Manufacturer’s indicating uniform unit rates) and List of Consumables with prices can be uploaded in the Notes & Attachment under Rfx information (Please note, in the separate Notes & Attachment provided under Rfx information and not in the C-Folder Notes & Attachments).*

SECTION – XIII

BANK GUARANTEE FORM FOR EMD

Whereas _____ (hereinafter called the “Tenderer”) has submitted its quotation dated _____ for the supply of _____ (hereinafter called the “tender”) against the purchaser’s tender enquiry No. _____ Know all persons by these presents that we _____ of _____ (Hereinafter called the “Bank”) having our registered office at _____ are bound unto _____ (hereinafter called the “Purchaser) in the sum of _____ for which payment will and truly to be made to the said Purchaser, the Bank binds itself, its successors and assigns by these presents. Sealed with the Common Seal of the said Bank this _____ day of _____ 20____. The conditions of this obligation are:

- 1) If the Tenderer withdraws or amends, impairs or derogates from the tender in any respect within the period of validity of this tender.
- 2) If the Tenderer having been notified of the acceptance of his tender by the Purchaser during the period of its validity:-

fails or refuses to furnish the performance security for the due performance of the contract
or
fails or refuses to accept/execute the contract or
if it comes to notice that the information/documents furnished in its tender is incorrect,
false, misleading or forged

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

This guarantee will remain in force for a period of forty-five days after the period of tender validity and any demand in respect thereof should reach the Bank not later than the above date.

.....
(Signature with date of the authorised officer of the Bank)

.....
Name and designation of the officer

.....
Seal, name & address of the Bank and address of the Branch

SECTION – XIV

MANUFACTURER’S AUTHORISATION FORM

Director & CEO
HLL Infra Tech Services Limited
Procurement and Consultancy Division
B-14 A, Sector -62, Noida -201307, Uttar Pradesh.

Dear Sir,

Ref: Your TE document No _____ dated _____

We, _____ who are proven and reputable manufacturers of _____ (*name and description of the goods offered in the tender*) having factories at _____, hereby authorise Messrs _____ (*name and address of the agent*) to submit a tender, process the same further and enter into a contract with you against your requirement as contained in the above referred TE documents for the above goods manufactured by us.

We also state that we are not participating directly in this tender for the following reason(s):

(*please provide reason here*).

We further confirm that no supplier or firm or individual other than Messrs. _____ (*name and address of the above agent*) is authorised to submit a tender, process the same further and enter into a contract with you against your requirement as contained in the above referred TE documents for the above goods manufactured by us.

We also hereby extend our full warranty, CMC as applicable as per clause 15 of the General Conditions of Contract, read with modification, if any, in the Special Conditions of Contract for the goods and services offered for supply by the above firm against this TE document.

We also hereby confirm that we would be responsible for the satisfactory execution of contract placed on the authorised agent

We also confirm that the price quoted by our agent shall not exceed the price which we would have quoted directly”

Yours faithfully,

[*Signature with date, name, designation and Email*]
for and on behalf of Messrs _____
[*Name & address of the manufacturers*]

Note:

- (2) This letter of authorisation should be on the letter head of the manufacturing firm and should be signed by a person competent and having the power of attorney to legally bind the manufacturer.
- (3) Original letter may be sent.
- (4) The purchaser reserves the right to verify this document with its signatory.

SECTION – XV

BANK GUARANTEE FORM FOR PERFORMANCE SECURITY/ CMC SECURITY

Director & CEO
HLL Infra Tech Services Limited
Procurement and Consultancy Division
B-14 A, Sector -62, Noida -201307, Uttar Pradesh.

WHEREAS _____ (Name and address of the supplier) (Hereinafter called “the supplier”) has undertaken, in pursuance of contract no _____ dated _____ to supply (description of goods and services) (herein after called “the contract”).

AND WHEREAS it has been stipulated by you in the said contract that the supplier shall furnish you with a bank guarantee by a scheduled commercial bank recognised by you for the sum specified therein as security for compliance with its obligations in accordance with the contract;

AND WHEREAS we have agreed to give the supplier such a bank guarantee;

NOW THEREFORE we hereby affirm that we are guarantors and responsible to you, on behalf of the supplier, up to a total of. _____ (Amount of the guarantee in words and figures), and we undertake to pay you, upon your first written demand declaring the supplier to be in default under the contract and without cavil or argument, any sum or sums within the limits of (amount of guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the supplier before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the contract to be performed there under or of any of the contract documents which may be made between you and the supplier shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid up to 66 (Sixty Six) months from the date of Notification of Award i.e. up to ----- (indicate date)

.....
(Signature with date of the authorised officer of the Bank)

.....
Name and designation of the officer

.....
Seal, name & address of the Bank and address of the Branch

SECTION – XVI**CONTRACT FORM - A****CONTRACT FORM FOR SUPPLY, INSTALLATION, COMMISSIONING, HANDING OVER, TRIAL RUN, TRAINING OF OPERATORS & WARRANTY OF GOODS**

(Address of the Purchaser/Consignee
Office issuing the contract)

Contract No _____ dated _____

This is in continuation to this office's Notification of Award No _____ dated _____

1. Name & address of the Supplier: _____
2. Purchaser's TE document No _____ dated _____ and subsequent Amendment No _____, dated _____ (if any), issued by the purchaser
3. Supplier's Tender No _____ dated _____ and subsequent communication(s) No _____ dated _____ (if any), exchanged between the supplier and the purchaser in connection with this tender.
4. In addition to this Contract Form, the following documents etc, which are included in the documents mentioned under paragraphs 2 and 3 above, shall also be deemed to form and be read and construed as integral part of this contract:
 - (i) General Conditions of Contract;
 - (ii) Special Conditions of Contract;
 - (iii) List of Requirements;
 - (iv) Technical Specifications;
 - (v) Quality Control Requirements;
 - (vi) Tender Form furnished by the supplier;
 - (vii) Price Schedule(s) furnished by the supplier in its tender;
 - (viii) Manufacturers' Authorisation Form (if applicable for this tender);
 - (ix) Purchaser's Notification of Award

Note: The words and expressions used in this contract shall have the same meanings as are respectively assigned to them in the conditions of contract referred to above. Further, the definitions and abbreviations incorporated under clause 1 of Section II – 'General Instructions to Tenderers' of the Purchaser's TE document shall also apply to this contract.

5. Some terms, conditions, stipulations etc. out of the above-referred documents are reproduced below for ready reference:
 - (i) Brief particulars of the goods and services which shall be supplied/ provided by the supplier are as under:

Schedule No.	Brief description of goods/services	Accounting unit	Quantity to be supplied	Unit Price	Total price	Terms of delivery

Any other additional services (if applicable) and cost thereof: _____

Total value (in figure) _____ (In words) _____

- (ii) Delivery schedule
- (iii) Details of Performance Security
- (iv) Quality Control
 - (a) Mode(s), stage(s) and place(s) of conducting inspections and tests.
 - (b) Designation and address of purchaser's inspecting officer
- (v) Destination and despatch instructions
- (vi) Consignee, including port consignee, if any

6. Warranty clause

7. Payment terms

8. Paying authority

(Signature, name and address
of the Purchaser's/Consignee's authorised official)
For and on behalf of _____

Received and accepted this contract
(Signature, name and address of the supplier's executive
duly authorised to sign on behalf of the supplier)
For and on behalf of _____
(Name and address of the supplier)
(Seal of the supplier)

Date: _____

Place: _____

CONTRACT FORM – B**CONTRACT FORM FOR ANNUAL COMPREHENSIVE MAINTENANCE CONTRACT**

Annual CM Contract No. _____ dated _____

Between
(Address of Head of Hospital)And
(Name & Address of the Supplier)**Ref: Contract No. _____ dated _____ (Contract No. & date of Contract for supply, installation, commissioning, handing over, Trial run, Training of operators & warranty of goods)**

In continuation to the above referred contract

1. The Contract of Annual Comprehensive Maintenance is hereby concluded as under: -

1	2	3	4					5
Schedule No.	Brief description of goods	Quantity. (Nos.)	Annual Comprehensive Maintenance Contract Cost for Each Unit year wise*.					Total Annual Comprehensive Maintenance Contract Cost for 5 Years [3 x (4a+4b+4c+4d+4e)]
			1 st	2 nd	3 rd	4 th	5 th	
			a	b	c	d	e	

Total value (in figure) _____ (In words) _____

- The CMC commence from the date of expiry of all obligations under Warranty i.e. from _____ (date of expiry of Warranty) and will expire on _____ (date of expiry of CMC)
- The cost of Annual Comprehensive Maintenance Contract (CMC) which includes preventive maintenance, labour and spares, after satisfactory completion of Warranty period may be quoted for next 5 years as contained in the above referred contract on yearly basis for complete equipment (including X ray tubes, Helium for MRI, Batteries for UPS, other vacuumatic parts, _____ & _____) and Site Modification Work (if any).
- There will be 95% uptime warranty during CMC period on 24 (hrs) X 7 (days) X 365 (days) basis, with penalty, to extend CMC period by double the downtime period.
- During CMC period, the supplier shall visit at each consignee's site for preventive maintenance including testing and calibration as per the manufacturer's service/ technical/ operational manual. The supplier shall visit each consignee site as recommended in the manufacturer's manual, but at least once in 6 months commencing from the date of the successful completion of warranty period for preventive maintenance of the goods.
- All software updates should be provided free of cost during CMC.
- The bank guarantee valid till _____ [(fill the date) 2 months after expiry of entire CMC period] for an amount of Rs. _____ [(fill amount) equivalent to 2.5 % of the cost of the

equipment as per contract] shall be furnished in the prescribed format given in Section XV of the TE document, along with the signed copy of Annual CMC within a period of 21 (twenty one) days of issue of Annual CMC failing which the proceeds of Performance Security shall be payable to the Purchaser/Consignee.

8. If there is any lapse in the performance of the CMC as per contract, the proceeds Annual CMC bank guarantee for an amount of Rs. _____ (equivalent to 2.5 % of the cost of the equipment as per contract) shall be payable to the Consignee.
9. **Payment terms:** The payment of Annual CMC will be made against the bills raised to the consignee by the supplier on six monthly basis after satisfactory completion of said period, duly certified by the HOD concerned. The payment will be made in Indian Rupees.
10. **Paying authority:** _____ (name of the consignee i.e. Hospitalauthorised official)

(Signature, name and address
of Hospital authorised official)
For and on behalf of _____

Received and accepted this contract.
(Signature, name and address of the supplier's executive
duly authorised to sign on behalf of the supplier)
For and on behalf of _____
(Name and address of the supplier)
(Seal of the supplier)

Date: _____

Place: _____

SECTION – XVII

CONSIGNEE RECEIPT CERTIFICATE

(To be given by consignee's authorized representative)

The following store (s) has/have been received in good condition:

- 1) Contract No. & date : _____
- 2) Supplier's Name : _____
- 3) Consignee's Name & Address with
telephone No. & Fax No. : _____
- 4) Name of the item supplied : _____
- 5) Quantity Supplied : _____
- 6) Date of Receipt by the Consignee : _____
- 7) Name and designation of Authorized
Representative of Consignee : _____
- 8) Signature of Authorized Representative of
Consignee with date : _____
- 9) Seal of the Consignee : _____

SECTION – XVIII
Proforma of Final Acceptance Certificate by the Consignee

No _____

Date _____

To

M/s _____

Subject: Certificate of commissioning of equipment/plant.

This is to certify that the equipment(s)/plant(s) as detailed below has/have been received in good conditions along with all the standard and special accessories and a set of spares (subject to remarks in Para no.02) in accordance with the contract/technical specifications. The same has been installed and commissioned.

- (a) Contract No _____ dated _____
- (b) Description of the equipment(s)/plants: _____
- (c) Equipment(s)/ plant(s) nos.: _____
- (d) Quantity: _____
- (e) Bill of Loading/Air Way Bill/Railway Receipt/ Goods Consignment Note no _____ dated _____
- (f) Name of the vessel/Transporters: _____
- (g) Name of the Consignee: _____
- (h) Date of site hand-over to the supplier by consignee: : _____
- (i) Date of commissioning and proving test: _____

Details of accessories/spares not yet supplied and recoveries to be made on that account.

Sl. No.	Description of Item	Quantity	Amount to be recovered

The proving test has been done to our entire satisfaction and operators have been trained to operate the equipment(s)/plant(s).

The supplier has fulfilled its contractual obligations satisfactorily ## or

The supplier has failed to fulfil its contractual obligations with regard to the following:

- a) He has not adhered to the time schedule specified in the contract in dispatching the documents/ drawings pursuant to ‘Technical Specifications’.
- b) He has not supervised the commissioning of the equipment(s)/plant(s) in time, i.e. within the period specified in the contract from date of intimation by the Purchaser/Consignee in respect of the installation of the equipment(s)/plant(s).
- c) The supplier as specified in the contract has not done training of personnel.

The extent of delay for each of the activities to be performed by the supplier in terms of the contract is

The amount of recovery on account of non-supply of accessories and spares is given under Para no.02.

The amount of recovery on account of failure of the supplier to meet his contractual obligations is _____ (here indicate the amount).

(Signature)

(Name)

(Designation with stamp)

Explanatory notes for filling up the certificate:

- i) He has adhered to the time schedule specified in the contract in dispatching the documents/drawings pursuant to 'Technical Specification'.
- ii) He has supervised the commissioning of the equipment(s)/plant(s) in time, i.e. within the time specified in the contract from date of intimation by the Purchaser/Consignee in respect of the installation of the equipment(s)/plant(s).
- iii) Training of personnel has been done by the supplier as specified in the contract.
- iv) In the event of documents/drawings having not been supplied or installation and commissioning of the equipment(s)/plant(s) having been delayed on account of the supplier, the extent of delay should always be mentioned in clear terms.

Section – XIX**Consignee List**

Sl. No.	Name of Hopsital and Address	Consignee Code	State	Airport	Dry Port/ Seaport
1	The Principal Siddartha Medical College NH 16 Service Road, Opp. Varun Maruthi Showroom Near Health University, Gunadala, Vijayawada Andhra Pradesh 520008 Phone: 09849903130 Email: principalsmcvja@yahoo.com	SMC- Vijayawada	Andhra Pradesh	HYDERABAD	VIZAG
2	Dr. M. Neeraja The Dean/ The Principal Govt. Medical College Opp. EE Roads & Buildings, Sai Nagar, Anantapur Andhra Pradesh - 515001 Phone : 08554-249115, 274568 EMail : gmc_atp@ap.nic.in; principal.gmcatp@yahoo.in	GMC- Anantapur	Andhra Pradesh	HYDERABAD	VIZAG
3	Dr. K. Ashok The Director Director's Quarters RIMS Campus Rajiv Gandhi Institute of Medical Sciences, Adilabad Vidya Nagar, Adilabad, Telangana 504001 Office: 08732-220521 Email: rimsadilabad@yahoo.com; directorrimsadilabad@yahoo.com	RGIMS- Adilabad	Telangana	HYDERABAD	VIZAG
4	Dr. Abbagani Vidyasagar The Principal Kakatiya Medical College, Waranagl Rangampet Street, Warangal, Telangana 506007 Phone: 0870-2446355, 2446888 Email: pwarangal@gmail.com; kmc_wgl@ap.nic.in	GMC- Warrangal	Telangana	HYDERABAD	VIZAG
5	Prof. A.K. Adhikari The Principal-cum-Chief Superintendent Gauhati Medical College Guwahati-781032 Tel: +91-2134538 / 2132751 Email: gmch-asm@nic.in	GMC- Guwahati	Assam	KOLKATA	KOLKATA
6	The Principal Assam Medical College, Dibrugarh Barbari, Dibrugarh, Assam - 786 002 Phone No. : (0373) 2300080, 2300352 Email: principalamch@rediffmail.com	AMC- Diburgarh	Assam	KOLKATA	KOLKATA
7	The Principal Srikrishna Medical College, Muzaffarpur NH 77, Uma Nagar, Rasulpur Saidpur Bazid Bihar - 842001 Phone No. : 0621-2260177 Email: info@skmedicalcollege.in	SKMC- Muzaffarpur	Bihar	KOLKATA	KOLKATA

8	The Principal Govt. Medical College, Darbhanga DMCH Road, Laheriasaria Darbhanga Bihar - 846001 Phone No. : 06272 233 092 Email: principaldmc202@gmail.com	GMC- Dharbhanga	Bihar	KOLKATA	KOLKATA
9	Dr. H. M. Mangal The Dean Govt. Medical College Civil Hospital Campus, Rajkot - 360001 Ph. No. : +91 281 2458337,2458338, 2458339 Email Address : deanrajkot@yahoo.co.in	PDUMC- Rajkot	Gujarat	AHMEDABAD	MUNDRA / PIPAVAV / KANDLA
10	The Principal Patliputra Medical College, Dhanbad B.C.C.L. Township, Koyla Nagar Dhanbad - 826005, Jharkhand Phone : +91-326-2230465 Email: enquiry@pmchdhanbad.com	PMCH- Dhanbad	Jharkhand	KOLKATA	KOLKATA
11	The Director Vijayanagar Institute of Medical Sciences Contonment, Bellary - 583104 Karnataka Phone: 08392-235201, 08392-242387 Email: directorvimsbellary@gmail.com	VIMS- Bellary	Karnataka	BANGALORE	BANGALORE
12	The Director Karnataka Institute of Medical Sciences P. B Road, Vidyanagar Hubballi - 580 022, Karnataka, India Phone: +91- 836- 2370057, +91- 836 - 2373447, +91 - 836 - 2373641 Email: directorkimshubli@gmail.com	KIMC- Hubballi	Karnataka	BANGALORE	BANGALORE
13	The Principal Government Medical College Medical College Rd, Kozhikode Kerala - 673008 Phone: 0495 235 0202 Email: principalmcc@gmail.com	GMC- Kozhikode	Kerala	KOCHI	KOCHI
14	Dr. N. Sridevi The Principal T. D. Medical College, Alappuzha Vandanam, Alappuzha, Kerala 688001 Phone: 0477 228 2611 Email: tdmcalappuzha@gmail.com	GTDMC- Alappuzha	Kerala	KOCHI	KOCHI
15	The Dean Govt. Medical College Jail Road, Near Sanjay Gandhi Hospital, Rewa Madhya Pradesh 486001 Phone: 07662-241655 Email: deanmcrewa@rediffmail.com	GMC-Rewa	Madhya Pradesh	MUMBAI	MUMBAI
16	The Director Netaji Subhash Ch. Bose Medical College, Jabalpur Nagpur Road, Jabalpur, Madhya Pradesh 482003 Phone: 076123 70951 Email: nsbmcjb@gmail.com	NSBMC- Jabalpur	Madhya Pradesh	MUMBAI	MUMBAI

17	Dr. S. N. Iyengar The Dean Gajra Raja Medical College, Gwalior Veer Savarkar Marg, Gwalior - 474009 Madhya Pradesh Phone: +91 (0751) 2403400 Email: grmc1946@yahoo.co.in	GRMC- Gwalior	Madhya Pradesh	MUMBAI	MUMBAI
18	The Dean Govt. Medical College, Aurangabad Panchakki Road, Aurangabad - 431001 Maharashtra Ph No. : 0240-2402028 Email: deangmca@gmail.com	GMC- Aurangabad	Maharashtra	MUMBAI	MUMBAI
19	The Dean Govt. Medical College, Latur Near Old Railway Station Latur (M.S.) 413512 Call us: 02382 247676 E-mail: info@gmclatur.org	GMC-Latur	Maharashtra	MUMBAI	MUMBAI
20	The Dean Govt. Medical College, Akola Akola - 444 001 Maharashtra Phone +91- 0724-2431960 Email : acadgmca@hotmail.com	GMC-Akola	Maharashtra	MUMBAI	MUMBAI
21	The Dean Shri Vasantnao Naik Govt. Medical College, Yavatmal Maharashtra - 445001 Phone: (07232) 242456,240843 Email: deanvngmc@sancharnet.in	SVNGMC- Yavatmala	Maharashtra	MUMBAI	MUMBAI
22	The Dean and Principal M. K. C. G. Medical College, Berhampur Berhampur, District - Ganjam Odisha. Pin: 760 004 Tel. No. (0680) 2292746 Fax: (0680) 2292809 E-mail : mkcgmcbam@gmail.com	MKCGMC- Berhampur	Orissa	KOLKATA	KOLKATA
23	The Dean and Principal V. S. S. Medical College, Burla Burla, Sambalpur, Odisha - 768017 Phone: +91-6632430768 Email: vssmcburlaorissa@gmail.com	VSSMC- Burla	Orissa	KOLKATA	KOLKATA
24	The Principal Government Medical College Sangrur Road, New Lal Bagh, Patiala, Punjab 147001 Ph: 0175 221 2018 Email: gomcoitcell@yahoo.com	GMC- Patiala	Punjab	NEW DELHI	NEW DELHI
25	The Principal S. P. Medical College, Bikaner PBM Hospital, Bikaner, Rajasthan 334001 Phone: 0151 222 6300 Email: principal_spmc@live.com	SPMC- Bikaner	Rajasthan	JAIPUR	MUNDRA / PIPAVAV / KANDLA

26	The Principal R. N. T. Medical College, Udaipur Near Collectorate, Hospital Rd, Court Chouraha, Udaipur, Rajasthan 313001 Phone: 0294 241 8258 Email: rnt_mcudr62@rediffmail.com; rntmedicaleducationdept@gmail.com	RNTMC- Udaipur	Rajasthan	JAIPUR	MUNDRA / PIPAVAV / KANDLA
27	The Principal Govt. Medical College, Kota Near building, LIC Office, Rangbari Rd, Sector - A, Rangbari, Kota, Rajasthan 324010 Phone: 0141 222 7406 Email: principalmck@gmail.com	GMC-Kota	Rajasthan	DELHI AIR CARGO	ICD, TUGHLAKABAD
28	The Dean Thanjavur Medical College, Thanjavur Tamil Nadu - 613 004 Phone: 04362-240851, 04362-240951 Email: thjmc_tn@yahoo.com	GMC- Thanjavur	Tamil Nadu	CENNAI	CENNAI
29	The Dean Tirunelveli Medical College, Tirunelveli Address: Palayamkottai Tamil Nadu 627011 Phone: 0462 257 2733 Email: dean@tvmc.ac.in	GMC- Tirunelveli	Tamil Nadu	CENNAI	CENNAI
30	The Principal Agartala Govt. Medical College Agartala - 799 006 Phone: 03812357130/ 2356701 Email: agmc-tr@nic.in, agmc@rediffmail.com	AMC- Tripura	Tripura	KOLKATA	KOLKATA
31	The Dean Govt. Medical College, Jhansi Public Relation Officer Maharani Laxmi Bai Medical College, Hospital Jhansi Phone:- 0510-2321446 Email: principalmcjhs@gmail.com,clmlmcj@gmail.com	GMC-Jhansi	Uttar Pradesh	DELHI AIR CARGO	ICD, TUGHLAKABAD
32	The Principal B.R.D.Medical college Gorakhpur Uttar Pradesh 273013 Phone: 0551 250 1736 Email Id :brdmcgkp1969@gmail.com, info@brdmc.org	GMC- Gorakhpur	Uttar Pradesh	DELHI AIR CARGO	ICD, TUGHLAKABAD
33	The Principal M. L. N. Medical College, Allahabad George Town, Allahabad, Uttar Pradesh 211002 Phone: 2147483647 Email: ansari@gmail.com	MLNMC- Allahabad	Uttar Pradesh	DELHI AIR CARGO	ICD, TUGHLAKABAD
34	The Principal L. L. R. Medical College, Meerut Garh Road, Jai Bhim Nagar, Meerut Uttar Pradesh 250004 Phone: 0121-2760888 Email: medllrm@yahoo.com	LLRMMC- Meerut	Uttar Pradesh	DELHI AIR CARGO	ICD, TUGHLAKABAD

35	The Principal B. S. Medical College, Bankura Kenduadihi, Bankura West Bengal 722101 Phone: 03242 244 700 Email: bsmc_xsa@yahoo.com, prin_bsmc@wbhealth.gov.in	BSMC- Bankura	West Bengal	KOLKATA	KOLKATA
36	The Principal Govt. Medical College, Malda Englishbazar, Malda, West Bengal 732101 Phone: 03512 221 087 Email: prin_mldmch@wbhealth.gov.in	GMC-Malda	West Bengal	KOLKATA	KOLKATA
37	The Principal Prof. Samir Chandra Ghosh Roy North Bengal Medical College, Darjeeling Thiknikata, India, Siliguri, Darjeeling West Bengal 734012 Phone: 098320 17967 Email: sgroy53@gmail.com	NBMC- Darjeeling	West Bengal	KOLKATA	KOLKATA

NB: The consignee will ensure timely issue of NMIC, CDEC, Octroi Exemption Certificates, Road Permits & Entry Tax Exemption Certificates, wherever applicable, to the suppliers.