JAMMU AND KASHMIR MEDICAL SUPPLIES CORPORATION LTD.
(Public Sector Undertaking of the Government of Jammu and Kashmir)
Corporate Head Office: Plot No. 58, Friends Colony Satyam Road Trikuta Nagar Jammu
Corporate Office: Opposite J&K Motor Garage Deptt near Hajj House Bemina Srinagar
Telephone: 0191-2478842; 191-3510489 (Jammu), 0194-2490662 (Srinagar)
email:mdjkmscl2@gmail.com; ismjkmscl2018@gmail.com**website**: www.jkmsclbusIness.com

E-BID FOR THE PROCUREMENT OF MACHINERY & EQUIPMENTS

(REFERENCE NO: NIT/JKMSCL/M&E/2022/ 525 DATED: 06 /05/2022

LAST DATEOF SUBMISSION OF ONLINE BIDS: 15-06-2022 upto 1600 hrs

Important Note: *Each page of e-Bid should be properly page marked and indexed. Page Number should be reflected at the bottom of each page. All documents requested in "Annexure-II", should be reflected in the column mentioned against each (Page No. ___). Any deviation may result in rejection of the bid and the bidder shall be solely responsible for the same.*

BIDDING DOCUMENT FOR PROCUMENT OFMACHINERY & EQUIPMENTS

Table of Contents

*(**To be submitted on letter head of Firm**)*

Bid Submission Letter
(Declaration Form)

Sub: - Regarding Bid submission for **NIT/JKMSCL/M&E/2022/ 525** **DATED 06 -05-2022**

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

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

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

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

Dated Name and signature of bidder with seal

JAMMU AND KASHMIR MEDICAL SUPPLIES CORPORATION LTD.
(Public Sector Undertaking of the Government of Jammu and Kashmir)
Corporate Head Office: Plot No. 58, Friends Colony Satyam Road Trikuta Nagar Jammu
Corporate Office: Opposite J&K Motor Garage Deptt near Hajj House Bemina Srinagar
Telephone: 0191-2478842; 191-3510489 (Jammu), 0194-2490662 (Srinagar)
email:mdjkmscl2@gmail.com; ismjkmscl2018@gmail.com**website**: www.jkmsclbusIness.com

Tender No. NIT/JKMSCL/M&E/2022/525
Dated: 06/05/2022

NOTICE INVITING TENDER

On Behalf of Jammu & Kashmir Medical Supplies Corporation Limited, e-bid under two cover system (Technical bid in cover 1 and Financial bid in cover-2) is invited for the finalization of Rate Contract for the procurement of "**Machinery & Equipment"** from the Original manufacturers / Direct importers/ Authorized Representatives of the manufacturers/ direct importers. Detailed tender document may be downloaded at J&K Govt. Portal www.jktenders.gov.in, www.jkmsclbusiness.com,.The cost of the tender along with tender processing charges of Rs.10,000/- (Rupees Ten thousand only/-) i.e. Rs.1,000/- (Rupees one thousand only) as cost of tender & Rs.9,000/- (Rupees Nine thousand only) as tender processing charges shall have to be paid either through **NEFT/RTGS only** in the Corporation's Bank Account No.0373040500000032 maintained at J&K Bank Limited, Branch Medical College Jammu, IFSC Code JAKA0MEDJAM **or by depositing the amount directly into the above Account No**.

- **IMPS mode of transfer is not verifiable and hence shall not be entertained as tender fee or tender processing charges. Bidders claiming to submit money through IMPS Mode shall be out-rightly rejected.**
- **Bid Security** Rs. 1,00,000.00 in the form of FDR/CDR/BG/RTGS/NEFT (FDR/CDR from scheduled/Nationalised Bank / BG from Nationalised Bank) with validity of 30 months. Bids submitted without sufficient bid security & validity shall be summarily rejected.
- Physical hard copy of Bid Security in form of FDR/CDR/BG may be submitted to the Corporate Head Office before closing the due date of e-bid. Scanned copy of the same shall be uploaded along with Technical Bid, failing which bid shall be out rightly rejected.
- **Scanned copies of NEFT/RTGS/Bank Transfer/Receipt towards the cost of tender documents and tender processing charges shall have to uploaded along with Technical Bid, failing which bid shall be out rightly rejected.**

Sd/-
Managing Director
Jammu and Kashmir Medical Supplies Corporation Ltd.

Note: ***The bidders who opt to bid for multiple manufacturer shall have to provide complete details of each manufacturers in a systemic way covering all documents asked in Cover-A. Separate sheet shall have to be attached for every individual item.***

JAMMU AND KASHMIR MEDICAL SUPPLIES CORPORATION LTD.
(Public Sector Undertaking of the Government of Jammu and Kashmir)
Corporate Head Office: Plot No. 58, Friends Colony Satyam Road Trikuta Nagar Jammu
Corporate Office: Opposite J&K Motor Garage Deptt near Hajj House Bemina Srinagar
Telephone: 0191-2478842; 191-3510489 (Jammu), 0194-2490662 (Srinagar)
email:mdjkmscl2@gmail.com; ismjkmscl2018@gmail.com**website**: www.jkmsclbusIness.com

BIDDING DOCUMENT FOR
Procurement of Machinery &Equipment

Tender No.NIT/JKMSCL/M&E/2022/525	**: 06-05-2022**
Date of publication of e-bid	: 06-05-2022
Start date and time for download of bid document	: 06-05-2022
Last date and time for download of bid document	: 15-06-2022 at 1600 hrs
Clarification start date	:06-05-2022 at 1100 hrs
Clarification end date	:26-05-2022upto1400 hrs
Pre- bid conference	: **26-05-2022 AT 11.00 A.M (at Corporate Office, Jammu/Srinagar)**
Start date and time for submission of online bids	:06-05-2022 at 1500 hrs
Last date and time for submission of online bids	:15-06-2022 at 1600 hrs
Date and time for online opening of technical bids	:17-06-2022 at 1100 hrs
Cost of tender document	: Rs. 1000/-
Tender Processing charges	: Rs. 9000/-

ADDRESS FOR COMMUNICATION:
Managing Director or General Manager,
J&K Medical Supplies Corporation Ltd,

Address: Plot No. 58, Friends Colony
Satyam Road Trikuta Nagar, Jammu
BeminaNear Haj House- Srinagar
(Kashmir)

Note: -

1. The bidder shall have to get themselves updated with the date & time fixed for Pre-bid as per the item list. After pre-bid meeting necessary changes in bid conditions shall be done with the recommendations of panel of technical experts drawn from the intending department after the approval of the competent authority. Bid should be submitted through e-portal www.jktenders.gov.in after pre-bid meeting including all the clarifications/ modifications/ amendments.
2. Corrigendum/addendum shall be the integral part of terms & conditions of bid which shall be duly signed and attached with the bid document by the bidder.
3. The JKMSCL is not bound to accept the lowest bid and may reject any/part thereof or all bids without assigning any reason thereof.
4. The bidders shall have to submit a **GST No. and valid 'GST'** clearance

certificate/returns submitted from the taxation department and the 'PAN' issued by income tax department.

5. It is clarified that the information required in bidding document should be submitted only in enclosed format bidding forms without any change or modification in its formats. Bids submitted with changed or modified annexure/ formats shall be rejected.
6. Information of award of contract shall be communicated to all participating bidders on the website www.jktenders.gov.in. www.jkmsclbuisness.com

Note: -

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

Important Note:

1. **No representation shall be allowed, accepted and entertained after the Pre-bid meeting (i.e upto 4.00 P.M of Pre-bid date). Bidders are requested to submit their queries/clarifications by or before the date fixed (mentioned above), so that the same can be discussed and clarified during the Pre-bid meeting.**

TABLE-1

S.No.	Item code	Name of the item	Average Annual turnover for last 03 years
1	BN01	ORTHOPAEDIC OPERATING TABLE (GENERAL)	05 crore
2.	BN02	ORTHOPAEDIC OPERATING TABLE WITH ACCESSORIES	05 crore
3.	BN03	OT Table for Spine Surgeries	05 crore
3.	BN04	C-Arm High End	05 crore
4.	BN05	Mobile C-arm Image Intensifier	05 crore
5.	BN11	Plaster Cutting Saw	05 crore
6.	BN13	Operating Microscope for Spine Surgery	05 crore
7.	BN14	Orthopaedic Bed (SS)	05 crore
8.	BN16	DIGITAL FLAT PANEL DUAL DETECTOR 1000 MA X-RAY Unit	05 crore
9.	BN17	CR System	05 crore
10	BN18	Broad based QR for weight bearing MRI with tilting Hydraulic Magnet Mechanism from 0°-90°	20 crore
11	BN19	Multiparameter Monitor with $ETCO_2$, IPM & AGM	05 crore
12	BN23	Video Laryngoscope	05 crore
13	BN24	FIBERSCOPE WITH VIDEO MONITOR & COLD LIGHT SOURCE	05 crore
14	BN25	Automated Blood Culture System	05 crore
15.	BN26	Automated ID and AST System	05 crore
16	BN27	Fully Automated centrifuge with Vortex	05 crore
17	BN29	Nephelometer	05 crore
18	BN30	Laboratory Refrigerators	05 crore
19	BN31	Hot Air Oven 100 ltr	05 crore
20	BN38	Air Petri Sampler	05 crore
21	BN40	Water Purifier	05 crore
22	BN43	BINOCULAR COAXIAL MICROSCOPE	05 crore
23	BN47	High speed Refrigerated Centrifuge	05 crore
24	BN48	Electrophoresis Fully Automatic	05 crore
25	BN49	High Pressure Liquid Chromatography	05 crore
26	BN50	Top Pan balance digital weighing	05 crore
27	BN51	Digital colorimeters	05 crore
28	BN59	Semi Automated Immunohaematology Analyzer based on column agglutination technology	05 crore
29	BN61	Sterile Connecting Device	05 crore
30	BN62	Plasma expresser (manual)	05 crore
31	BN63	Suction Machine (High Vaccum)	05 crore
32	BN64	DVT/VTE Pump (with batter)	05 crore
33	BN65	Navigation System HIP & Knee	05 crore
34	BN65	VAC Dressing	05 crore

35	BN66	Micro Drill with Burr Set	05 crore
36	BN67	Single Use Negative Pressure Wound Therapy	05 crore
37	BN68	Hydro Surgery System – Versajet –II	05 crore
38	BN69	Antimicrobial Silver Dressing	05 crore
39	BN70	Hydro Cellular Foam with ART Principle	05 crore
38	OT01	Modular Operation Theatre	05 crore
39	OT02	Integrated Operation theatre	05 crore
40	BN71	ILLIZAROV/EXTERNAL Fixator for tibia and femur	02 crore
41	BN72	OT Light System	05 crore

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

Note:

1. **The catalogues/brochures of the item shall be submitted along with the EMD in separate envelopes, 01 day prior to submission of online bids. The catalogues/brochures pertaining to the equipment information should be signed by the authorized signatory of the manufacturer.**

2. **No minimum quantity is guaranteed and the bidder shall not claim or compensation from the Jammu & Kashmir Medical Supplies Corporation Ltd.**

3. **In case of foreign manufacturer, the turnover of its Indian Subsidiary or authorised sole importer only shall be considered and not that of foreign manufacturer.**

D I S C L A I M E R

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

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

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

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

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

The procuring entity is, its employees and advisors make no representation or warranty and shall have no liability to any person, including any bidder under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or

otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this bid document or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the bid document and any assessment, assumption, statement or information contained therein or deemed to form part of this bid document or arising in any way for participation in this bidding process.

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

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

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

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

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

Managing Director
Jammu and Kashmir Medical Supplies Corporation Ltd

Section-I Instruction To Bidders (ITB)

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

Clause No.	Description
1.	Go through the terms and conditions, annexure and other forms of the document carefully and meticulously & get your digital signatures available for uploading.
2.	Bid form must conform the terms & conditions of the bid documents and **Technical Bid in Cover-'A' & Financial Bid in Cover-'B' to be uploaded on** www.jktenders.gov.in**. The cost of tender, tender processing fee and catalogues of the quoted items shall be submitted in the office of JKMSCL atleast one day prior to submission of online bids.**
3.	It is expected from all bidders that DD/CDR/FDR/BG in separate envelope shall be deposited with the authorised person of JKMSCL at reception against proper receipt from the concerned.
4.	Correspondences/Complaints lodged to JKMSCL should bear signature, name, I.D proof and mobile number of the complainant. Unauthenticated correspondence/complaints may not be acted upon. If any bidder intends to lodge a complaint or make a suggestion with regards to some bid condition, it shall be done in the Pre-bid conference, in the office of JKMSCL in writing. After the stipulated period as decided by the JKMSCL, no such complaint/ suggestion would normally be considered.
5	Certificates/Licenses/Documents which are required should be complete and updated. The bidder shall submit acceptance of terms and conditions of the tender document.
6	If there is any query in bid document/uploading process, bidder may contact JKMSCL office at Jammu/Srinagar during working hours i.e 1000 hrs to 1600 hrs on ph. 0191-2580842, 0194-2432008 or e-mail on gmkjkmscl1@gmail.com/ jkmsclepm@gmail.com / gmjjkmscl@gmail.com
7.	In case a bidder is given any assurance what so ever of being provided with any advantage in JKMSCL by anybody or if a bidder is directly or indirectly threatened of being put to some deliberate disadvantage in the bidding process & in the bidder's subsequent association/ working with JKMSCL, it is requested that the concerned must immediately inform about the same to the Managing Director, JKMSCL/G.M-J(Adm), JKMSCL in writing or through e-mail on gmjjkmscl@gmail.com. It is advised that evidence of such unfair activity of such person, if available, is produced along with the complaint, so that action can be taken against such a person(s) and that their details can be put on the website so that other bidders can be forewarned in this regard.
8	The Bidders shall have to submit a GST No. & GST clearance certificate/return submitted from the concerned commercial taxes officer and the 'PAN' issued by income tax department.
9	It is clarified that the information required in bidding document should be uploaded as per enclosed bidding form without any change or modification in its formats. Bids submitted with changed or modified annexure/ formats shall out rightly be rejected.

10	The declaration of technical bid in respect of responsive/non responsive bidders shall be uploaded on website www.jktenders.gov.in Similarly, information regarding financial bid (L-1) shall also be provided to bidders on above websites. Individual bidders shall not be informed separately.
11	**No firm/bidder/manufacture/importer shall provide/supply any of the product item at the rate contract /approved by JKMSCL to any of the department/NGO/other procuring institute within or outside the Union Territory of J&K. In case any supply is made in violation to the said condition (or), the supplier/firm shall be liable to be penalised to the tune of 7.5% of order placed/blacklisting for a period not less than five years (or) both as deemed fit, to the competent/Tender Inviting Authority. However, JKMSCL can procure the items for any of the departments within /outside the Union Territory of J&K/after charging the administrative expenses.**
12	**The qualified bidders are required to submit the relevant documents and annexure uploaded with their e.bid in original along with catalogues at the time of issuance of LOI /execution of agreement before issuance of rate contract.**
13	**The bidder shall not under any circumstances quote "Zero" anywhere in the BOQ.**
14	**Important Instructions to bidders** **The bidders shall have to abide the clauses/restrictions interms of Rule 144 (xi) of the General Financial Rules (GFRs) issued by the Ministry of Finance, Department of Expenditure, Public Procurement Division vide No. F.No.6/18/2019-PDD dated 23.07.2020.** **The bidders are required to submit a certificate/ declaration regarding their compliance with this order. If such certificate given by a bidder whose bid is accepted and is found to be false, it will be a ground for immediate termination & further legal action in accordance with law. Bidders are required to go through the said order & Office Memorandum (s) for the necessary compliance** **Model Certificate for tenders** *"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India. I hereby certify that this border is not from such a country and is eligible to be considered."* **Model Certificate for Tenders** *"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fullfills all requirements in this regard and is eligible to be considered (where applicable, evidence of valid registration by the competent Authority shall be attached"*

Section-II: Bid Data Sheet (BDS)
Table of Contents

Section III: Evaluation and Qualification Criteria

2. Qualification Criteria

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

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

1. Evaluation Criteria

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

Section IV: Bidding Forms

Table of Contents

(**Annexure I)**

On Firm's letter head

LIST OF ITEMS QUOTED IN THE BID

S. No.	Tender Sr. No.	Code	Name of Item	Manufactured By	Imported by	Make & Model quoted/ offered	**Quality Certification**				
							BIS License	ISO	CE	USFDA	Any Other

Seal & Signature
(Authorised Signatory)

Annexure II

(To be submitted on Firms' letter head)

Technical Bid Submission Sheet (Cover 'A')

Managing Director

Jammu & Kashmir Medical Supplies Corporation Ltd.
J&K

We, the undersigned, declare that:

1. I/We ……. ……have examined and have no reservations to the bidding document of NIB No. ..... dated.....including addenda/clarification No.:.....dated ..... We offer to supply in conformity with the bidding document and in accordance with the delivery schedule specified in Section V, schedule of supply, the following goods and related services..... *Name of the item and Guarantee period plus etc.* .....
2. Our bid shall be valid for a period of minimum 120 working days from the date of technical bid opening in accordance with the bidding document, and it shall remain bidding upon us and may be accepted at any time before the expiration of that period. However, validity may also be extended with mutual consent;
3. If our bid is accepted, we commit to submit a performance security in the amount of 3% of the contract price or as specified in bid document for the due performance of the contract;
4. Our firm, including authorised representative for any part of the contract, have nationalities from the eligible countries;
5. I/We are not participating, as bidders, in more than one bid in this bidding process, in the bidding document;
6. Our firm, its affiliates or subsidiaries, including authorised representative has not been debarred by the Union Govt/any State Government or the procuring entity.
7. I/We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed;
8. I/We agree to permit the JKMSCL to ask any relevant documents. I/We shall be bound to provide the said relevant document within the specified period.
9. My/our quoted items..... *(Name of item)*.....fully comply with the technical specifications as per bid document Section V, schedule of supply.
10. **The bidder shall ensure that the bid document sheet shall be properly filled with particulars, page numbering and tender document should be properly numbered.**
11. I/We certify that I/We have annexed the following documents with particulars & page No. mentioned against each column **:**

S. No	Item	Particular	Manufacturer			
			M1	M2	M3	M4
1.	Bid security (as mentioned above)					
2.	Cost of Tender & Tender Processing charges					
3.	List of Items quoted by the Bidder mentioning name of manufacturer/ importer with make & model as per annexure.	**Annexure I**				
4	Copy of Catalogue of the Quoted product (self attested)					
5	Compliance Sheet for each equipment (self					

	attested)					
6	Technical bid submission sheet duly filled	**Annexure II**				
7	Financial bid (To be uploaded in BOQ only)	**Annexure III**				
8	**Declaration for Latest Non Conviction, non blacklisting on non judicial Stamp paper of Rs 100 furnished by the Principal** Manufacturer / Sole Importer/ Indian Subsidiary as per proforma duly notarised.	**Annexure IV A**				
9	**Declaration for Latest Non Conviction, non blacklisting on non judicial Stamp paper of Rs 100 furnished by the Bidder** as per proforma duly notarised.	**Annexure IV B**				
10	Client Base on Letter Head of the Bidder / Manufacture/Indian Subsidiary of Principal Manufacturer with references of the supply orders, for the last three years **(Copies of reference supply orders needs to be attached)**	**Annexure V**				
11	**Authorisation from principal manufacturer / Importer** *(On the letterhead of Principal manufacturer / Sole Importer)* *In case authorization to the bidder is furnished by the Sole Importer/Indian Subsidiary, document confirming authorization from foreign Principal Manufacturer in favour of Indian Subsidiary / Sole Importer is to be submitted* ***(strictly as per annexure VI)***	**Annexure VI**				
12	Average Annual Turnover Statement for Last 3 financial Years of the Original Manufacturer / Indian Subsidiary of Principal Manufacturer/ Sole Importer issued by Chartered Accountant/competent authority with UDIN (2018-19, 2019-20 and 2020-21). ***In case of foreign manufacturer the turnover of Indian Subsidiary/Sole Importer only shall be considered and not of the original manufacturer.***	**Annexure VII**				
13	Copies of Audited Balance sheet & profit loss account for last three financial years certified by Chartered Accountant or Solvency Certificate issued by the Banker of the Manufacturer / Importer/Indian Subsidiary. ***In case of foreign manufacturer the balance sheets of Indian Subsidiary/Sole Importer only shall be considered***					
14	Nature of the Firm/Public Company / Private Company/ Partnership/ Proprietorship/any other with Documentary proof.	**Annexure VIII**				
15	Self attested photocopy of IEC certificate and Permission/ Authorization for sale for sale from the foreign principle	**Annexure A (if applicable)**				

	manufacturer (in case of imported product)					
16	Copy of GST Registration of the Bidder	**Annexure B**				
17	Latest GST Returns of the Bidder	**Annexure C**				
18	Copy of the PAN Card of the Bidder	**Annexure D**				
19	Quality Certifications on the products viz. ISI/CE/USFDA etc. whichever applicable.	**Annexure E**				
20	Name, photograph & specimen signature of the designated officer/ representative of the Bidder who is authorized to make correspondence with the JKMSCL, if any.	**Annexure F**				
21	Specify point of supply with full Address. NB: Specifying of point of supply does not means authorization to raise, invoice and receive payments on behalf of bidder(s)	**Annexure G**				
22	Declaration of bidder regarding acceptance Bid for terms & conditions	**Annexure A1**				

Important Note

1. **The Bidders who opt to bid for multiple manufacturers shall have to provide complete details of each manufacturer in a systemic way, sequentially, covering all documents asked in Annexure "II".**
2. **Please Note the Annexure A II should be properly filled showing the page number when the asked document has been attached. All the documents attached with the technical bid should be properly page numbered.**

I/we understand that our bid shall liable to be declared non responsive in case of any deficiency in fulfilment of above requirements on our part.

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

Name/Address.....
in the capacity of.....*(Designation)*..... Signed.....
duly authorized to sign the bid for and on behalf of..... *of Firm)*.....
Dated..... Tel:.....e-mail:.....

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

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

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

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

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

Annexure III

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

Please read the amended BOQ as follows:

i) The rates shall be quoted in the BOQ as per format mentioned below.

ii) The rates of the accessories, if any, shall be quoted cumulative as per NIT.

iii) The rates of the India items, if any, shall be quoted cumulative as per NIT

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

CMC for Ist Year	CMC for 2nd Year	CMC for 3rd Year	CMC for 4th Year	CMC for 5th Year	CMC for 6th Year	CMC for 7th Year	CMC for 8th Year	Total amount CMC
14	15	16	17	18	19	20	21	

Note: -

1. The rate quote should be as per BOQ.
2. CGST , SGST OR IGST should be separately shown.
3. Rate should be quoted only for packing units as mentioned in the bid
4. No quantity or cash discounts should be offered.
5. Read all the terms & conditions before filling the Annexure III.
6. Please quote rates in absolute amount only.
7. Please quote rates per unit only
8. The bidder shall not under any circumstances quoted "Zero" anywhere in the BOQ.
9. Finalization of the rates shall be made on the basis of price quoted in BOQ
10. Custom duty, if applicable shall be indicated separately.

11. The final rates quoted at Column No. 13 shall be considered as final rates and shall be considered for evaluating financial bid. L1 rate shall be finalised on the basis rate and taxes as applicable at the time of execution.
12. **The price for evaluating L1 (as per BOQs) shall be decided on the basis of cumulative rates of Main item, Accessories (wherever asked) i.e cost of main item + cost of Accessories + Indian items = Total cost of equipment.**

13. **The rates quoted for the CMC (Comprehensive Maintenance Contract) and Optional items shall not be considered for finalizing/deciding L1 rates.**

14. **Warranty of 02 years shall be applicable.**

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

(**For Imported equipment)**

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

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

Delivery Period_shall be 60 days for Indian Items and 90 days for Imported items.

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

Annexure IV A

Declaration and Undertaking by the Bidder

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

1. I/We..... (Name of firm) certify that the quoted model (of quoted item) is of latest technology and is not outdated.
2. I/We certify that the rates (of quoted item) are reasonable and not sold on lower rates to anyone than charged from JKMSCL.
3. I/We do hereby accept condition of guarantee period with spare parts of each quoted equipment as per terms & conditions and/or technical specifications. (From the date of installation/ demonstration).
4. (a) I/We do hereby undertake that our company/firm has not been black listed/banned/debarred/Convicted by Union Govt. or any State Govt. or their subordinate departments from participation in bidding.

   (b) I/We do hereby declare that our company/firm has been black listed/banned/debarred/convicted by..... (Name, Address of Govt./dept./State) and detailed information is as given below:
   - (i) Cause of blacklisting/banning/debarring/conviction.
   - (ii) For which item.....
   - (iii) Period of black listing/banning/debarring/ conviction.
   - (iv) Latest Status of black listing/banning/debarring/ conviction.

4. I/We hereby confirm that we have deposited all the GST/all applicable taxes as on date of submission of tender with the concerned authority/department. No GST/other taxes is due on the firm as on date of submission of tender.
5. I/we do hereby agree to the condition that JKMSCL may, if deemed fit go for the third party maintenance under Comprehensive equipment maintenance programme of Govt. of India.

VERIFICATION & DECLARATION

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

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

Place :-
Dated:-

Signature of the Deponent
Name :
Designation

Annexure IV B

Declaration of Manufacturer/Direct Importer/Indian Subsidiary

To be submitted on non judicial stamp paper of Rs. 100 duly notarised

Date:_____ NIB No.:____

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

I/we further declare that:-

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

VERIFICATION & DECLARATION

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

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

Place :-
Dated:-

Signature of the Deponent
Name :
Designation

Annexure V

Client Base (Item wise)

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

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

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

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

Place:
Date :

Signature of bidder with Seal.

Annexure VI

AUTHORISATION from principal manufacturer/importer/Indian Subsidiary

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

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

Subject: Regarding authorisation for our products.
Ref.: Your NIB no. .....dated.....

Name of items.....

Dear Sirs,

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

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

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

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

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

Yours faithfully,

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

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

Annexure VII

((On letter head of Chartered *Accountant))*

ANNUAL TURN OVER STATEMENT

The average annual turnover of M/S..... *(Name of Firm)*..... and address ..... for the past three years are given below and certified that the statement is true and correct:-

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

Sl. No.	Financial Years	Turnover in Lakhs (Rs.)
1.	1st year (2018-19)	
2.	2nd year (2019-20)	
3.	3rd year (2020-21)	
	Total -	_____Lakhs

Average gross annual turnover _____Lakhs

Note :

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

Date Signature of the bidder Signature of Auditor/Seal
Chartered Accountant
(Name & Address.)
Tel. No.
UDIN NO.

(On Firm's letter head)

Memorandum of Appeal

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

1. Particulars of appellant:
   (i) Name of the appellant:
   (ii) Official address, if any:
   (iii) Residential address:

2. Name and address of the respondent(s):
   (i)
   (ii)
   (iii)

3. Number and date of the order appealed against and name and designation of the officer/ authority that passed the order (enclose copy), or a statement of a decision, action or omission of the procuring entity in contravention to the provisions of the Act by which the appellant is aggrieved:

4. If the appellant proposes to be represented by a representative, the name and postal address of the representative:

5. Number of affidavits and documents enclosed with the appeal:

6. Ground of appeal:
   .....
   .....
   ..... (supported by an affidavit)

7. Prayer:.....
   ....
   .....

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

Place .....
Dated .....

Appellant's signature

Section V: Schedule of Supply

Table of Contents

Section V: Schedule of Supply

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

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

2.5.3	The material received with damaged packing (or) without packing as per terms & conditions of NIT (or) in damaged state, shall be liable to the minimum penalty of 2.5% of the value of the damaged item (or) quantity received with damaged packing. Further packing, cases, containers and other allied material if any shall be supplied free, except where otherwise specified by the firm(s) and agreed by the corporation and the same shall not be returned to him.
2.5.4.	**Packing specifications** Schedule for packing – General specifications **1.** All items should be packed only in first hand boxes only. **2.** Label: Every box should carry a large outer label clearly indicated that the product is for **"JKMSCL Supply" for the year, "Not for Sale "** and it should carry the correct technical name, strength or the product, date of manufacturing, date of expiry, quantity packed and net weight of the box in bold letters. **Note: The weight/size of the box for packing the item may vary for the safe delivery/installation of equipment. Any deviation in the packing, if necessary shall be made after getting permission from JKMSCL.**
2.6	**REJECTION OF GOODS:**
2.6.1	Articles not as per specification/ or not approved shall be rejected by the corporation / consignee and will have to be replaced by the supplier firm at its own cost within 15 days or with time limit fixed by the corporation.
2.6.2	All the stores supplied shall be of the best quality and conforming to the specification, trademark laid down in the schedule attached to agreement and in strict accordance with and equal to the approved, standard/specifications/ samples. In case of any material of which there are no standards or approved samples, the supply shall be of the best quality to be substantiated by documents/specifications. The decision of JKMSCL as to the quality of stores is final and binding upon the bidder. In case any of the articles supplied are not found as per specification or declared sub-standard, that shall be liable to be rejected and any expenses of loss caused to the supplier as a result of rejection of supplies shall be entirely at his account.
2.6.3	The rejected item must be removed by the firm, within 15 days of the date of intimation of rejection. The officials concerned shall take reasonable care of such material upto 15 days from the date of intimation only but in no case shall be responsible for any loss, damage, shortage that may occur while it is in their premises. In case firm fails to remove the items within fifteen days, JKMSCL shall have full right to get the said item(s) removed & destroyed at the cost & risk of supplier/bidder, without any further correspondence. The destroying charges as per the actual plus 1% penalty shall be deducted from any amount payable to the firm.
2.6.4	No payment shall be made for defective/incorrect items.
2.6.5	In case firm wants to take back item to their service station for rectification then firm has to deposit payment received against such defective supplies. In case supplier has not received any payment then material be returned to supplier firm for rectification. In no case the

	defective equipment is allowed to be installed after rectification.
2.6.7	The bidder shall be responsible for the proper packing and delivery of the material to the consignee. In the event of any loss, damage, or breakage, leakage or shortage in transit, the bidder shall be responsible. No extra cost on such account shall be admissible.
2.7	**Payment Terms (For items quoted in foreign currency)**
2.7.1	**For Payment through Letter of Credit (for imported items only)** 90% payment shall be released against presentation of shipping documents and 10% after satisfactory installation certificate issued by the user department. **Letter of credit would be opened subject to following additional conditions**:- 1. At site LC would be opened. 2. In case of supply through sea, LLOYD A level vessel would be used for shipment of supplies which should not be more than 15 years old. 3. Supplies shall be insured by the OEM till the final delivery site shall also include "Force Majeure" 4. Pre-dispatch inspection shall be carried out by OEM by certified inspection agency before shipment of supply. 5. ***The product shall be comprehensively insured upto site of installation for all type of insurance.*** 6. ***The cost of the L.C shall be borne by the firm.*** **For Indian items :** Payment shall be made after successful installation and commissioning of the equipment duly certified by Head of the concerned department.
2.7.2	Payment shall be made by RTGS. Expenses on this account, if any, shall be borne by the firm.
2.7.3	Payment to the authorised representative shall be made as per the tripartite agreement with the Corporation i.e JKMSCL on the basis of Annexure AII to be uploaded along with e.bid.
2.7.4	No advance payments towards cost of items shall be made to the bidder.
2.7.5	If at any time during the period of contract, the price of bid items is reduced or brought down by any law or Act of the Central or State Government or by the bidder himself, the bidder shall be bound to inform Managing Director JKMSCL immediately about it. Purchasing authority shall be empowered to unilaterally effect such reduction as is necessary in rates in case the bidder fails to notify or fails to agree for such reduction of rates. In case this reduction of rates comes to the knowledge of JKMSCL in later stage, additional payment made w.e.f of the details of rates shall be charged from the firm with 1.5% monthly interest from the date/till rates have been reduced besides action as desired fit by JKMSCL which may be debarring/any other penalty as per penalty clause.
2.7.6	In case of any enhancement in taxes/duty due to notification of the Government after the date of submission of bids and during the bid period, the quantum of additional taxes/duty so levied shall be allowed to be charged extra as a separate item without any change in the basic price structure of the items approved under the bid. For claiming the

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

	against default. The recovery of such loss or damage shall be made from any sums accruing to the bidder under this or any other contract with the corporation/government. If recovery is not possible from the bill and the bidder fails to pay the loss or damage within one month of the demand, the recovery of such amount or sum due from the bidder shall be made from the bidder. In case supplier fails to deliver ordered goods, the risk purchases may be made at market rate from any other firm. It is mandatory for the approved supplier to acknowledge receipt of orders within seven days from the date of dispatch of order, failing which the procuring entity will be at liberty to initiate action to purchase the items on risk purchase provision at the expiry of the prescribed supply period.
2.8.6	LD for damaged packing or loose packing equivalent to 2.5% of the value of the products received with damaged packing or in loose packing or with packing not conforming to the terms and conditions, specified in the tender document.
2.9	**RECOVERIES:-**
2.9.1	Recoveries of liquidated damages, short supplies, breakage, rejected articles shall ordinarily be made from bills. Such amount may also be recovered from any other untied dues & security deposits available with the JKMSCL. In case recovery is not possible, action will be taken as per prevailing Acts/rules in J&K State.
2.9.2	Any recovery on account of liquidated damage charges/risk & cost charges in respect of previous rate contracts/supply orders placed on them by the JKMSCL can also be recovered from any sum accrued against this bid after accounting for untied sum or due payment lying with JKMSCL against previous rate contracts/supply orders. Firm shall submit details of pending amount lying with JKMSCL but decision of Managing Director JKMSCL, J&K regarding authenticity of sum payable shall be final.
2.9.3	**Testing & Handling Charges : the testing and handling charges to the tune of 1.5% of total cost shall be deducted from the invoices raised by the approved bidder against the supply orders placed from time to time.**

3. Technical Specifications:

Annexure: A-III (technical specifications attached for Table I)

General features:

i. **Bidders are requested to send printed descriptive literature/catalogue of the quoted items duly sealed by MD/Chairman/authorised signatory of the firm/bidder in the office of Jammu and Kashmir Medical Supplies Corporation Ltd. one day prior to last day of uploading of the bid. The catalogues alongwith compliance sheets should also be uploaded with the technical bid.**

ii. If bidder supplied to or have rate contract of quoted items with any other Govt. institutions within one year, he may be asked to provide copies of purchase orders, invoices and rate contract.

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

5. Inspection and Tests

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

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

Table of Contents

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

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

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

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

2.6	The bidder shall also submit the following documents and certificates along with the bid as per technical bid submission letter :- **(i)** A combined undertaking/declaration regarding that the quoted item : a. Model is of latest technology, the item has not become outdated, that the rate quoted is not more than the rate charged from anyone else, b. That the bidder is not black listed or banned or debarred by central or any state government or its append gages, c. Availability of spare parts and consumables for the quoted equipment for at least 10 years/life of the item, from the date of installation. Note : Bid should not be submitted for the quoted item(s) for which the bidder has been blacklisted/banned/debarred either by bid inviting authority or Govt. of J&K or by any other State/Central Govt. and its agencies. This also applies to the bidder for its sister/ allied firm(s)/ unit(s). **(ii) The bidder, in case of representative of the manufacturer/direct importer shall submit fresh authorization of the manufacturer/direct importer duly authenticated and notarized.** **PLEASE ALSO NOTE THAT: -** (A) All attested documents must be submitted in English language. If the documents are not in English, translated version of the same, in English, duly signed and attested by authorized translator must be submitted along with copy of original document. (B) All the above mentioned documents should be under the name and address of the premises where the quoted items are actually manufactured/ stored for supply.
2.7	Financial Bid duly filled in (Annexure III/BOQ) giving the rates for quoted items should be uploaded through e portal www.jktenders.gov.in. The rate should not be disclosed/uploaded in the technical bid. **Rates uploaded along with technical bid shall means out rightly rejection of bid of the concerned person.**
2.8	The required amounts towards cost of bid document and tender processing charges shall be deposited as mentioned at page 5, 01 day before the last date and time of bid submission. All bids received will be opened in the presence of bidders, who choose to be present. Financial bid will be opened only for those bidders, who satisfy the criteria laid down by the JKMSCL on the details furnished by the bidder in technical bid in compliance of terms & conditions of the bid.
2.9	(i) In case of the bid being submitted by a proprietary firm, the bid must be signed by the sole proprietor. In case of a partnership firm, bid must be signed on behalf of the firm by a person authorized, holding a

	power of attorney in his favour to do so; and in the case of a company, the bid must be signed by an authorized signatory, in the manner laid down in the articles of association of the bidder company. (ii) Any change in the constitution of the firm/ company shall be notified forthwith by the bidder/contractor in writing to the Jammu and Kashmir Medical Supplies Corporation, J&K and such change shall not relieve any former member of the firm/ company from the liability under the conditions of the bid/contract. No new partner / partners shall be accepted in the firm by the bidder/contractor in respect of the bid/contract unless he/ they agree to abide by all its terms and conditions and submit a written agreement to this effect. The bidder's/contractor's receipt for acknowledgement or date of any new partner subsequently inducted, as above, shall bind all of them and will be a sufficient discharge for any of the purposes of the contract.
3	**BID SECURITY:**
	(i) Bid shall have to be accompanied with a scanned copy of FDR/CDR/BG/NEFT/RTGS as bid security. The bid security shall have to be submitted before the opening of technical bid with a validity of 30 months. Bids submitted without sufficient bid security & validity shall be summarily rejected. (ii) The bid security of bidder shall be refunded after the earliest of the following events, namely:- (a) the expiry of validity of bid security; (b) the cancellation of the procurement process; or (c) the withdrawal of bid prior to the deadline for presenting bids, unless the bidding documents stipulate that no such withdrawal is permitted. (iii) The bid security lying with the JKMSCL in respect of other bids awaiting approval or rejection or on account of contracts being completed, shall not be adjusted towards bid security for the fresh bids. The bid security may, however, be taken into consideration in case bids are re-invited for the same item. (vi) In case any document submitted by the bidder or by his authorized representative is found to be forged, false or fabricated, the bid shall be rejected and bid security may be forfeited. Bidder/his representative may also be banned / debarred. Report with police station may also be filed against such bidder/his representative.
4	**FORFEITURE OF BID SECURITY: -**
	The bid security shall be forfeited if: (i) The bidder withdraws or modifies the offer after opening of financial bid, but before acceptance of bid, (ii) The bidder does not execute the agreement, if any, prescribed within the specified time or extended time by competent authority (on the request of the bidder), (iii) The bidder does not deposit the 'performance security' after the supply order is placed/requested for signing the agreement, (iv) The bidder fails to commence the supply of the items as per supply

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

	1.5% per month from the date of release of payment. The supplier will not have any rightful claim to the payment of cost for substandard supplies, which may have been consumed, either in part or whole, pending receipt of laboratory test / inspection report, wherever required. Supply of goods less in weight and volume than those mentioned on the label of the container, the same will be dealt with in the manner prescribed under rules.
6	**MARKING**
	All items and accessories supplied should bear marking "JKMSCL SUPPLY _____(engraved or non removable material) "NOT FOR SALE" or as mentioned in supply order in English, without which the supply will not be entertained. JKMSCL may ask change in art work to be printed on the item at any stage of the contract. JKMSCL SUPPLY (_____) NOT FOR SALE
7	**COMPARISON OF RATES:**
	(i) Only net rates should be quoted. No separate free goods or cash discounts should be offered. Rates must be valid for the entire period of contract. (ii) Consignee may be located at a district headquarter (except equipment/ machinery requiring installation and commissioning, the place may be any other station) or as directed by Jammu and Kashmir Medical Supplies Corporation Limited, J&K and the rates must be quoted accordingly. No cartage or transportation charges shall be payable. (iv) The net rate must be inclusive of all charges by way of packing, forwarding, incidental or transit charges, including transit insurance, and any other levies or duties etc. on the subject matter of procurement. (v) In the event of any subsequent variation (increase or decrease) in the rate of GST or any other taxes by the government (state /UT or central), the same will be admissible accordingly. (vi) If the rates of item quoted are found same from two for more bidders, then the bidders shall be asked to submit revised financial bid, containing reduced rates within given time by Managing Director, Jammu and Kashmir Medical Supplies Corporation Limited, J&K. (vii) The bidder will exercise all due diligence at their own level regarding applicability of other taxes, duties and fees etc. for the unit of supplies as specified in the bid document and accordingly include the same in their quotes. Any additional/extra

	claims over and above the rates agreed pertaining to taxes, duties and fees etc. will not be entertained later on any account. (viii) No part of the bid document should be detached / deleted. (ix) **For comparison of rates, the average comprehensive annual maintenance charges shall be added to the rate quoted for the equipments, if comprehensive annual maintenance is applicable.**
8	**SUBMISSION OF SAMPLES/CATALOGUES AND DEMONSTRATION**
	(i) Catalogues/samples of the quoted item(s) must be sent free of cost to JKMSCL even though the specifications or description etc. are mentioned in the bid form are complied. (ii) Samples of items(s) should be collected back from the JKMSCL, J&K within 15 days from the date of finalization of list of successful bidder/demonstration of product before the expert panel. The corporation shall not be responsible for any damage, wear and tear or loss during the course of testing / examination, etc. The corporation may retain the sample of approved item for one month beyond expiry of contract. The corporation shall not be responsible for any damage, wear and tear or loss in this period. The corporation shall not make any arrangement for return of samples even if the bidder agrees to pay the cost of transportation. (iii) The bidder may be asked to demonstrate the technique, procedure and utility of item as per specifications given in the bid document before the technical committee constituted by the Corporation for the purpose. In case of heavy equipment, the demonstration may be carried out at the nearby place where the equipment has been installed by the bidder. In that case, the decision of the technical committee shall be final. The firm shall keep ready the quoted item and arrange all logistics within the time frame as and when asked by the JKMSCL. After the due date, no request of the bidder/firm shall be entertained for demonstration. (iv) Sample should be strictly according to the item quoted in the bid form failing which the bid will not be considered. Sample must be submitted duly sealed and marked suitably either by writing on the sample or on a slip or durable paper securely fastened to the sample with the particulars as mentioned below: a. Name and full address of the firm b. Catalogue no. and name of the item c. Name of section d. Name of manufacturer e. Brand (v) No change in marking on sample will be allowed after the submission of the sample.
10	**PERFORMANCE SECURITY (P.S.) AND AGREEMENT:**
	(i) The successful bidder shall submit the original copy of Bid document signed on each page **at the time of agreement**. However, while

	uploading the technical bid, only the declaration regarding acceptance of terms & conditions shall be uploaded. (ii) The period of rate contract shall be 24 months from the date of issuance of rate contract. The Managing Director, JKMSCL can extend the original rate contract subject to original terms and conditions for a period deemed fit by them, but not exceeding three months, for which the bidder shall abide. (iii) Successful bidders, whose offers are accepted, shall have to deposit performance security @ 3% of the value of the supply order in favour of Chief Accounts Officer, JKMSCL within 15 days from the date of issuance of letter of intent. The performance security shall be deposited in the form of FDR/CDR/B.G (Bank Guarantee)/NEFT/RTGS. However, the bank guarantee shall be for a validity period of six months, beyond the guarantee period sought for the item. (iv) In case of successful bidder(s), the amount of bid security shall be adjusted for performance security for the supply order placed to the firms/bidders. The amount of performance security, if exceeds the bid security, it shall be deposited by the firm against the supply orders issued from time to time. (v) The firm may submit bank guarantee issued by any scheduled/nationalised bank. The minimum validity of bank guarantee should be six months after completion of guarantee period for the item. (vi) The Performance Security: The Performance Security (P.S.) shall be 3% of the total value of stores ordered for supply. The payment shall not be released against supplies untill the additional Performance Security due is deposited by the supplier or additional. (vii) The performance security shall be refunded after six months after satisfactory completion of contract and after satisfying that there are no dues outstanding against the bidder subject to guarantee provisions. (viii) It is to be noted that earlier year's bid security and performance security, even if lying in the JKMSCL shall not be considered towards this contract and therefore fresh bid security/performance security shall be deposited. The JKMSCL shall pay no interest on bid security or performance security amount. (ix) Successful bidders shall have to execute an agreement on a Non-Judicial stamp paper of an amount mentioned in the offer letter, in the prescribed form with the JKMSCL and deposit performance security within 15 days from the date of acceptance of the bid is communicated to him. However, Managing Director JKMSCL, J&K may condone the delay in execution of contract by the bidder. The expenses in this regard shall be borne by the successful bidder. The validity of contract under this agreement shall be for a period as mentioned.

	(x) The bidder shall furnish the following documents at the time of execution of agreement:- (i) Attested copy of partnership deed in case of partnership firms. (ii) Registration number and year of registration, in case partnership firm is registered with registrar of firms; (xi) Address of residence and office, telephone numbers, in case of sole proprietorship with : (i) Registration issued by registrar of companies under Registrar of companies Act 1956, in case of company. (ii) Comprehensive maintenance agreement, if applicable. (xiv) In case of breach of any terms and conditions of the contract or on unsatisfactory performance, the amount of performance security shall be liable to forfeiture by JKMSCL, J&K and decision of Managing Director JKMSCL J&K shall be final. (xv) The rate contract can be repudiate/rejected at any time by the Managing Director JKMSCL, J&K if the supplies are not made to his satisfaction after giving an opportunity to the bidder of being heard and after reasons for repudiation being recorded by him in writing. However, Managing Director JKMSCL, J&K may terminate the agreement of contract at any time without notice/intimation to the successful bidder.
11	**SUPPLY ORDERS:**
	(i) Supply order shall be placed through registered post/e-mail/any communication medium by the JKMSCL. The date of receipt of letter of communication date will be treated as the date of order for calculating the period of execution of order. The successful bidder will execute the orders within a period of 60 days or as specified in the supply order. (ii) The successful bidder acknowledge receipt of orders within 7 days from the date of dispatch of order, failing which the procuring entity may be at liberty to initiate action to purchase the items on risk & cost purchase provision. (iii) In case of imported items, 30 days shall be given in addition to above mentioned period, (iv) Except, for equipments / machinery, which requires installation / commissioning, all other supplies shall have to be to FOR district drug warehouse only. In case of non-viable size of order for supplies, the corporation shall take appropriate decision on representation from the supplier on case to case basis. The consignee for supplies shall be JKMSCL. (v) To ensure sustained supply without any interruption, the Managing Director, JKMSCL reserves the right to have more than one approved supplier from amongst the qualified bidders as matched L1 supplied at matched L1 rates. In such a case, the requirement may be met by dividing be quantity among the rate contract holders considering the quantity required and dedicated capacity of the successful bidders.

	(vi) The ready stock position of the item, if provided by the firm, may be considered by the corporation for the placement of supply orders. (vi) It may be noted that the JKMSCL does not undertake to assist in the procurement of raw material, whether imported or controlled or restricted, and as such the bidders must offer their rates to supply the specific items from own quota of raw material stock by visualizing the prospect of availability and requirement. Any of the above points if taken, as argument for non-supply/delayed supply will not be entertained.
12	**SUBMISSION OF CONTRACT COMPLETION REPORT**
12.1	A consolidated statement shall be submitted to General Manager, EPM by the 10th of each month. Every time the statement should contain details of all orders placed under the contract.
12.2	Firms shall have to submit consolidated statement in duplicate at the end of rate contract well as after expiry of equipment / instrument guarantee period (as provided in guarantee clause of the contract) to enable JKMSCL to examine the case for refund of performance security.
12.3	The end user shall intimate the complaint/defect arise immediately to the manufacturer/importer/representative with copy to JKMSCL for further follow up..
13	**LIQUIDATED DAMAGES:**
	I. The time specified for delivery in the tender form shall be deemed to be the essence of the contract and the successful Bidder shall arrange supplies within the period on receipt of order from the Purchasing Officers. II. In case of extension in the delivery period with liquidated damages, recovery of liquidated damages shall be made at the rate of 0.25% per day for every day of delay subject to maximum of 10%. Delay beyond 120 (for Indian products) and 150 days (for imported products) shall be treated as unexecuted and attract penalty @20%. III. Penalty shall not be imposed if claim with regard to any supply i.e. Drugs/Equipment is complete in all respects i.e. QC verification/Board verified etc. is not cleared by the JKMSCL within a period of 60 days. IV. Fraction of a day in reckoning the period of delay in supplies shall be eliminated if it is less than half a day. V. The maximum amount of agreed liquidated damage shall be 20%. VI. If the supplier requires an extension of time in completion of contractual supply on account of occurrence of any hindrance, he shall apply in writing to M.D, JKMSCL, Jammu / Srinagar (J&K), which has placed the supply order, for the same immediately on occurrence of the hindrance but not after the stipulated date of completion of supply. The firms shall ensure extension of delivery period for delayed supplies. The payment shall only released by purchase officer after sanction of extension in delivery period by M.D., JKMSCL.

VII. Delivery period may be extended with or without liquidated damages. If the delay in the supply of goods is on account of hindrances beyond the control of the Bidder, the extension in delivery period may be granted without Liquidated Damage.

VIII. If the Bidder is unable to complete the supply within the specified or extended period, the purchasing officer (JKMSCL) shall be entitled to purchase the goods or any part thereof from elsewhere without notice to the Bidder on his (i.e. Bidders) account and risk only with the prior approval from M.D., JKMSCL, Jammu / Srinagar (J&K). The Bidder shall be liable to pay any loss or damage which the purchasing officer may sustain by reasons of such failure on the part of the Bidder. The Bidder shall not be entitled to any gain on such purchases made against default. The recovery of such loss or damage shall be made from any sums accruing to the Bidder under this or any other contract with the government. If recovery is not possible from the bill and the Bidder fails to pay the loss or damage, within one month of the demand, the recovery of such amount or sum due from the Bidder shall be made under the law for the time being in force. In case more than one supplier has been approved for any item under the approved list circulated to the purchasing officers, the risk purchases may be made at a higher rate from any other firm whose rate is duly approved. It is mandatory for the approved supplier to acknowledge receipt of orders with in fifteen days from the date of dispatch of order, failing which the purchasing officer will be at liberty to initiate action to purchase the items on risk purchase system at the expiry of the prescribed supply period, after taking required approval from M.D., JKMSCL (J&K).

IX. If the bidder is unable to complete the supply within the specified or extended period, the purchasing officer shall be entitled to purchase the goods or any part thereof from elsewhere without notice to the bidder on his (i.e., bidders) account at his cost and risk, with the prior approval from JKMSCL. The bidder shall be liable to pay any loss or damage which the purchasing officer may sustain by reasons of such failure on the part of the bidder. The bidder shall not be entitled to any gain on such purchases made against default. The recovery of such loss or damage shall be made from any sums accruing to the bidder under this or any other contract with the corporation/government. If recovery is not possible from the bill and the bidder fails to pay the loss or damage within one month of the demand, the recovery of such amount or sum due from the bidder shall be made or any other law for the time being in force. In case supplier fails to deliver ordered goods, the risk purchases may be made at market rate from any other firm. It is mandatory for the approved supplier to acknowledge receipt of orders within seven days from the date of dispatch of order, failing which the procuring entity will be at liberty to initiate action to purchase the items on risk purchase provision at the expiry of the prescribed supply period.

X. In case of wrong quoting, (or) if successful bidder refuses (or) fails to execute the supplies on the basis of wrong quoting of rates, the bidder shall be penalized with forfeiting of amount equivalent to the Performance security for the said product (or) debarring/ blacklisting of firm for that particular product(s) for a period not less than 02 years (or) both as

	deemed fit by TIA i.e. MD, JKMSCL.
14	(i) JKMSCL shall procure the machinery & equipment for the Health & Medical Education Institutes of UT of J&K inter-alia. (ii) The funds shall be transferred to JKMSCL with indent form and supply orders shall be placed by JKMSCL to suppliers.
15	**RECOVERIES**
	(i) Recoveries of liquidated damages, short supplies, breakage, rejected articles shall ordinary be made from bills. Such amount may also be recovered from any other untied dues & security deposits available with Corporation. In case recovery is not possible, recourse will be taken under law in force. (ii) **Any recovery on account of L.D. charges/risk & cost charges in respect of previous rate contracts/ supply orders placed on them by the corporation can also be recovered from any sum accrued against this tender after accounting for untied sum or due payment sum lying with corporation against previous rate contracts/supply orders. Firm shall submit details of pending amount lying with corporation but decision of M.D., JKMSCL, J&K regarding authenticity of sum payable shall be final.**
16	**INSPECTION:-**
	(i) The equipments supplied shall be according to specifications provided at Section IV (3) schedule of supply and may be inspected by the technical panel/team constituted for the purpose by JKMSCL deemed fit on the site of manufacturer (in case of Indian manufacturer)/ importer (importer site). The manufacturer/importer shall facilitate the demonstration of the said machine/equipment/on the site only. After the receipt of "Certificate of satisfaction" from the technical panel, the supply order shall placed. In case of BIS Items, inspection shall be strictly as per relevant BIS specifications with latest amendments and have been made applicable by B.I.S. at the time of inspection. The machine/equipment shall be further inspected at the time of installation/commissioning at site i.e the end user site. The supplier shall provide all facilities for inspection/testing free of cost. (ii) Notwithstanding the fact that the authorized inspecting agency had inspected and/or has approved the stores/articles, the procurement officer or his representative may inspect the item/material as soon as it is received in the stores to ensure that the supply is in accordance with the specifications laid down in rate contract. (iii) In case of doubts in inspection/ test, same may be got inspected or tested in any laboratory. If the material is not found as per specifications or defective, consignee will not accept the material and shall inform the JKMSCL, J&K within 3 days. Consignee may also simultaneously ask the firm for removal of defect/replacement. The firm shall be bound to remove the defect or replace the defective equipment/item within 15 days of receipt of intimation from the consignee. However, the date of delivery, in case of defective item

	shall be taken as the date on which the JKMSCL accepts the item after replacement of defective material/removal of defects as the case may be. Wherever defective item is replaced, the inspection / testing charges, if any, shall be borne by the supplier. (iv) If required, the consignee may refer inspection committee to match the specification with available reserved sample with the corporation which is submitted by the firm/supplier at the time of technical approval. (v) In case of imported item, the supplier shall ensure that the item shall be inspected by the third party inspection agency before dispatched to the consignee. In case any un-inspected item has been found in the item received by consignee, the firm shall be solely responsible for it and the JKMSCL shall be free to take suitable necessary action as per terms and conditions of bid documents/agreement against the firm.
17	**PACKING AND INSURANCE**
	(i) The goods will be delivered at the destination in perfect condition. The firm if so desires may insure valuable goods against loss by theft, destruction or damages by fire, flood, under exposure to weather of otherwise in any situation. The insurance charges will have to be borne by the supplier and the corporation shall not be required to pay any such charges, if incurred. (ii) The firm shall be responsible for the proper packing so as to avoid damages under normal conditions of transport by sea, rail, road or air and delivery of material in good condition to the procurement officer's store. In the event of any loss, damage, breakage or leakage or any shortage the firm shall be liable to make good such loss and shortage found at destination after the checking/inspection of material by the consignee. No extra cost on such account shall be admissible. The firm may keep its representative to verify any damage or loss discovered at the consignee's store, if it so likes. (iii) Packing, cases, containers and other allied material if any shall be supplied free, except where otherwise specified by the firm(s) and agreed by the JKMSCL and the same shall not be returned to him.
18	**REJECTION**
	(i) Articles not as per specifications/or not approved shall be rejected by the JKMSCL and will have to be replaced by the supplier firm at his own cost within 15 days or as time limit fixed by the JKMSCL. (ii) All the stores supplied shall be of the best quality and conforming to the specification, trademark laid down in the schedule attached to agreement and in strict accordance with and equal to the approved, standard, samples. In case of any material of which there are no standards or approved samples, the supply shall be of the best quality to be substantiated by documents. The decision of Managing Director JKMSCL as to the quality of stores be final and binding upon the bidder. In case any of the articles supplied are not found as per specification or declared sub-standard/spurious, that shall be liable to be rejected and any expenses of loss caused to the supplier as a result of rejection of supplies shall be entirely at his account.

	(iii) The rejected item must be removed by the firm, within 15 days of the date of intimation of rejection. The officials concerned will take reasonable care of such material but in no case shall be responsible for any loss, damage, shortage that may occur while it is in their premises. (iv) No payment shall be made for defective/incorrect items. However, if payment has been made, then defective items shall be allowed to be removed only after the firm replaces material as per specifications, duly inspected. If the payment has not been made, the firm may be allowed to remove the material without prior replacement (provided firm has performance security as per condition No. 18). Joint inspection of defective material may be carried out as required by the JKMSCL. However sample of ISI marked material found defective shall be kept by consignee for reference to BIS. (v) In case firm wants to take back item to their works for rectification then firm has to deposit payment received against such defective supplies. In case supplier has not received any payment then material be returned to supplier firm for rectification. The Bidder shall be responsible for the proper packing and delivery of the material to the consignee. In the event of any loss, damage, or breakage, leakage or shortage in transit, the Bidder shall be responsible. No extra cost on such account shall be admissible.
19.	**CORRECTION OF ARITHMETIC ERRORS**
	Provided that a financial bid is substantially responsive, the procuring entity will correct arithmetical errors during evaluation of financial bids on the following basis: (i) If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the procuring entity there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected; (ii) If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected. (iii) If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to clause (a) and (b) above. If the bidder that submitted the lowest evaluated bid does not accept the correction of errors, its bid shall be disqualified and its bid security shall be forfeited or its bid securing declaration shall be executed.
20	**PROCURING ENTITY'S RIGHT TO VARY QUANTITY:**
	(i) The quantity of equipments and instruments originally indicated in the bidding document may vary without any change in the unit prices and other terms and conditions of the bid and the conditions of

	contract. (ii) If the Managing Director JKMSCL J&K procures less than the quantity indicated in the bidding documents the bidder shall not be entitled for any claim or compensation except otherwise provided in the conditions of contract. (i) If the Bidder fails to supply the Managing Director JKMSCL J&K shall be free to arrange/procure the items and the extra cost incurred shall be recovered from the Supplier.
21.	**PARALLEL RATE CONTRACT**
	The JKMSCL may also execute parallel rate contract to with more than one firm for each item on the lowest approved rates on the same terms and conditions, if the original lowest one each not in a position to supply material as per JKMSCL requirement. (i) To ensure sustained supply without any interruption, the bid inviting authority reserves the right to approve more than one supplier to supply the requirement among the qualified bidders. (ii) Orders will be placed with Lowest I (L-1) firm. However in case of any exigency at the discretion of the bid inviting authority, the orders may also be placed with the other firms, in the ascending order, L-2, L-3 and so on who have matched with the L-1 rates and executed agreement with corporation on same rates (L1), terms and conditions. (iii) After the conclusion of financial bid opening (Cover B) the lowest offer of the bidder is considered for negotiation and rate arrived after negotiations is declared as L-1 rate and L-1 supplier for an item for which the bid has been invited. (iv) The bid who has been declared as L-1 supplier for certain item shall execute necessary agreement for the supply of the required quantity of such item on depositing the required amount performance security and on execution of the agreement such bidder is eligible for the placement of supply orders. (v) JKMSCL will inform the L-1 rate to the bidders who had qualified for financial bid (Cover B) opening, inviting their consent to match with the L-1 rates for the item/items quoted by them and the bidders who agree to match L-1 rate, will be considered as matched L-1 (vi) The bidder who agrees to match L-1 rate shall furnish the breakup detail (Rate, GST, CUSTOM DUTY etc.) of rates (L-1 rates). (vii) The supplier, on receipt of the supply orders deems that the purchase orders exceeds the production capacity declared in the bid documents and the delay would occur in executing the order, shall inform the JKMSCL immediately without loss of time and in executing the order, shall be returned within 7 days from the date of issuing order, failing which the supplier would be deprived from disputing the imposition of liquidated damages, and penalty for the delayed supplies.

	(viii) If the L-1 supplier has failed to supply / intimated JKMSCL about his inability / delay in supply as per the supply order, the required items within the stipulated time or as the case may be, JKMSCL may also place purchase orders with the matched L-1 Bidders for purchase of the items provided such matched L-1. Bidders shall execute necessary agreement indicating the production capacity as specified in the bid document on depositing the required amount. Such bidder is eligible for the placement of purchase orders for the item quoted by them. (ix) Subject to para (vii) above, while JKMSCL has chosen to place purchase orders with matched L-1 supplier and there are more than one such matched L-1 supplier, then the purchase orders for the requirement of items will be place with L-2 first on matched rates of L-1 and in case L-2 does not have the required capacity than L-3 would be considered on matched L-1 rates and the same order would be flowed in case of L-3, L-4, etc. (x) The matched L-1 supplier, on placement of purchase orders, will be deemed as L-1 rate supplier for the purpose of the bid and all provisions of the bid document applicable to L-1 rate bidder will apply to the matched L-1 supplier. (xi) If the supplier fails to supply the item for the purchase orders, at any point of time, either fully or partly, within the stipulated time, JKMSCL is at liberty to place purchase orders with other bidders (in ascending order, viz, L-2, L-3 and so on) at the price offered by then and in such cases the supplier is liable to indemnify JKMSCL, without any protest or demur, for the difference in cost incurred by JKMSCL and the JKMSCL is entitled to recover the difference in cost from the amount due / payable to the supplier. (xii) Parallel rate contract may be concluded as described above during any time / currency of rate contract subject to matching of L-1 rates, price fall clause and on same terms and conditions.
22	**VALIDITY OF BID:**
	Bids shall be valid for a minimum period of 120 days from the date of opening of technical bid. Prior to the expiry of the period of validity of bid, the procuring entity, may request the bidders to extend the bill validity period for an additional specified period of time. A bidder may refuse the request and such refusal shall be treated as withdrawal of the bid but in such circumstances bid security shall not be forfeited.
23	**PRICE ESCALATION:**
	Price escalation or price variation shall not be applicable or considered under any circumstances for the purchases made under this bid or agreement. However, the provisions provided for tax variations are exclusive to this clause.
24	**SUBLETTING OF CONTRACT:**

	Subletting or assigning contract to third party is prohibited. In the event of bidder violating this condition, the Jammu and Kashmir Medical Supplies Corporation Limited shall be at liberty to place the contract elsewhere on the Bidder's account and at his risk. The bidder shall be liable for any loss or damage, which the Government may sustain in consequence or arising out of such replacement of the contract.
25	**FALL CLAUSE:-**
	(i) The prices under contract shall be subject to price fall clause. The prices charged for the store supplies under the contract by successful bidder shall in no event exceed the lowest price at which the successful bidder sells the stores of identical description to any other persons during the period of the contract anywhere in India. If any time, during the period of the contract, the bidder reduces the sales price chargeable under the contract, he shall forth with notify such reduction to the JKMSCL, J&K and the price payable under the contract for the stores supplied after the date of coming into force of such reduction or sale shall stand reduced correspondingly. It imply that if the contract holder quotes/ reduces its price to render similar goods at a price lower than the contract price to anyone in the State /UT of India at any time during the currency of contract including extension period, the contract price shall be automatically reduced with effect from the date of reducing or quoting lower price for all delivery of subject matter of procurement under contract and the contract shall be amended accordingly. (ii) The firms holding parallel rate contract shall also reduce their price. Firms shall notify their reduced price and intimate their acceptance to the revised price within 15 days to JKMSCL. Similarly, if parallel rate contract holding firm reduced its price during currency of the rate contract, its reduced price shall be conveyed to other parallel rate contract holding firms and the original rate contract holding firms for corresponding reduction in their prices. If any rate contract holding firm does not agree to reduce price, further transaction with it, shall not be conducted.
26	**COMPLIANCE WITH THE CODE OF INTEGRITY AND NO CONFLICT OF INTEREST:**
	Any person participating in a procurement process shall- a) Not offer any bribe, reward or gift or any material benefit either directly or indirectly in exchange for an unfair advantage in procurement process or to otherwise influence the procurement process; b) Not misrepresent or omit misleads or attempts to mislead so as to obtain a financial or other benefit or avoid an obligation; c) Not indulge in any collusion, bid rigging or any-competitive behaviour to impair the transparency, fairness and progress of the procurement process; d) Not misuse any information shared between the procuring entity and the bidders with an intent to gain unfair advantage in the procurement process;

	e) Not indulge in any coercion including impairing or harming or threatening to do the same, directly or indirectly, to any part or to its property to influence the procurement process; f) Not obstruct any investigation or audit of a procurement process; g) Disclose conflict of interest, if any; and h) Disclose any previous transgressions with any entity in India or any other country during the last three years or any debarment by any other procuring entity. **Conflict of Interest :** The bidder participating in a bidding process must not have a conflict of interest. A conflict of interest is considered to be a situation in which a party has interests that could improperly influence that party's performance of official duties or responsibilities, contractual obligations, or compliance with applicable laws and regulations. A bidder may be considered to be in conflict of interest with one or more parties in bidding process if, including but not limited to : a. Have controlling partners/shareholders in common; or b. Receive or have received any direct or indirect subsidy from any of them; or c. Have the same legal representative for purposes of the bid; or d. Have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another bidder, or influence the decisions of the procuring entity regarding the bidding process; or e. The bidder participates in more than one bid in a bidding process. Participation by a bidder in more than one bid will result in the disqualification of all bids in which the bidder is involved. However, this does not limit the inclusion of the same subcontractor, not otherwise participating as a bidder, in more than one bid; or f. The bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specification of the goods, works or services that are the subject of the bid; or bidder or any of its affiliates has been hired (or is proposed to be hired) by the procuring entity as engineer-in charge/consultant for the contract. Bidder or any of its affiliates has been hired (or is proposed to be hired) by the Procuring Entity as engineer-in-charge / consultant for the contract.
27	All correspondence in this connection should be addressed to the Managing Director JKMSCL, J&K. Technical questions should be referred to the Managing Director JKMSCL, J&K direct by correspondence or by personal contact.
28	(i) Direct or indirect canvassing on the part of bidders or their representative shall disqualify their bids. (ii) Supplier may be disqualified, banned or suspended from business during the rate contract if :

	(a) fails to execute a contract or fails to execute it satisfactorily ; (b) no longer has the technical staff or equipment considered necessary ; (c) is declared bankrupt or insolvent or its financial position has become unsound, and in the case of a limited company, it is wound-up or taken into liquidation ; (d) The firm is suspected to be doubtful loyalty to state. (e) The State Bureau of Investigation (SBI) or any other Investigating agency recommends such a course in respect of a case under investigation. (f) Managing Director JKMSCL, J&K is prima- facie of the view that the firm is guilty of an offence involving moral turpitude in relation to business dealings, which if established would result in business dealing with it banned.
29	No action on the letter head of the bidder /firm regarding any complaints against the JKMSCL will be considered unless the letter head bears the signature of the bidder or the authority higher than the bid signatory of the firm.
30	(i) If any certificate/documents/information submitted by the bidder found to be false/ forged/ fabricated/vexatious or frivolous or malicious appeals or complaints etc. than bidder shall be liable for the appropriate legal action along with disqualification, banning, suspension etc. for limited or unlimited period. (ii) Bidders are required to submit wanted information (if any) based on the facts. If the furnished information by the firm found to misleading or not based on facts disciplinary action against the firm may be taken as to banning concerned item/items for certain or uncertain period.
31	The JKMSCL reserves the right to accept any bid not necessarily the lowest. The JKMSCL may reject any bid without assigning any reasons and accept bid for all or anyone or more of the articles for which bidder has been given or distribute items of stores to more than one firm/supplier.
32	**GRIEVANCE**
	Grievance regarding interpretation of any clause of the contract/agreement executed between the parties shall be referred to Managing Director, JKMSCL for its clarification**.**
33	**ARBITRATION**
	33.1 Governing Law: This NIT shall be governed by and construed in accordance with the laws of the Union Territory of Jammu and Kashmir and the laws of India as applicable to the Union Territory of Jammu and Kashmir. 33.1.1 Amicable Settlement: Either party is entitled to raise any claim, dispute or difference of whatever nature arising under out of or in connection with the NIT including its existence or validity or termination (collectively "dispute") by giving a written notice to the other party, which shall contain i. a description of the dispute

	ii. the ground for such dispute iii. all written material in support of its claim 33.1.2 The other party shall, within thirty days of issuance of dispute notice issued, furnish: I. Counter claim and defences, if any, regarding the dispute; and II. All written material in support of its defences and counter claim 34.1.3 Within thirty days of issuance of notice by any party pursuant to para 29.1.2 both the parties to the dispute shall meet to settle such dispute amicably. If the parties fail to resolve the dispute amicably within thirty days of the receipt of the notice referred to in the above para the dispute shall be referred to Managing Director, JKMSCL, J&K for its reference to arbitration. **Dispute Resolution: Besides, as referred above may also include any dispute arising out of contract with regard to the interpretation, meaning and breach of the terms of the contract, the matter shall be referred to the Administrative Department H&ME, who will, through Law Department, appoint a senior most officer as sole Arbitrator, of the dispute, who will not be related to this contract and whose decision shall be final and binding on both the parties. The Arbitrator proceedings shall be governed by the J&K Arbitration and Conciliation Act, 1997. The venue of the Arbitration shall be in the UT of Jammu and Kashmir.** **Note**: - Small grievances regarding interpretation of any clause of the Contract / Agreement executed between the parties shall be referred to Managing Director, JKMSCL for its clarification and such interpretation(s) given shall not become subject matter for reference to Arbitration
34	The JKMSCL will have the right of rejection of all or any of the bids without assigning any reason for the same. The right to conclude parallel rate contracts with another firm for the stores detailed in Table I is also reserved by the Managing Director JKMSCL, J&K
35	Extra stipulation or any other condition contrary to the above bid conditions are not acceptable and may render the bid liable to rejection.
36	The bidder must sign all the pages of bid document at the below of terms & conditions agreeing to abide by all conditions of the bid and accept them in toto. The Signing of Annexure A1 shall be treated as acceptance of all the terms and conditions of the bid document.
37	The Managing Director JKMSCL, J&K may relax or change/ modification in terms and conditions in the exigency excluding fundamental changes. In case of such urgency the terms & conditions shall be got approved from Purchase committee of Managing Director JKMSCL, J&K as the case may be.
38	**JURISDICTION:-** All actions, legal proceedings and suits arising from or connected to this bid shall be subject to the exclusive jurisdiction of courts in J&K only.

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

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

Clause No.	Particulars
1.	Technical details, bid security, tender cost, tender processing fee and all other required documents should be uploaded under **Cover "A" Technical Bid** and financial details (BOQ) should be uploaded under **Cover "B".** No document except financial instrument (DD/FDR) & catalogues of the bid items shall be entertained physically by the Corporation.
2.	Pre-requisite, if any, for installation, including UPS, computer, printer, and other items should be provided by the firm in technical bid and financial bid respectively.
3.	Firm shall provide comprehensive maintenance with spare parts for item(s), as mentioned in Technical specification (from the date of installation / demonstration).
4.	Conditional bids shall not be considered.
5.	Normally, payment shall be released after installation, demonstration and successful commissioning of equipment/ITEM and satisfactory operational training.
6.	All certificates should be valid on the date of submission of bids and issue of supply order.
7.	The bidder should have well equipped local service centre in India preferably in J&K.
8.	i. The bidder shall be a manufacturer/direct importer/authorised representative of the original manufacturer/importer who must have manufactured/ imported and supplied and installed this equipment(s) in India satisfactorily. ii. The merger / amalgamation / transfer of business / transfer of assets etc. of a firm affects the bid condition relating to 'past performance' in preceding years. In cases where bidder acquired an ongoing business or assets of another entity, eligibility in respect of the past performance and condition relating to minimum turn over in preceding years shall be decided based on specific mention in purchase and transfer of ownership agreement / agreement of sale of business and / or its assets / board of directors (B.O.D) resolution chartered accountant certification or any other document (s) in this regard, which the bidder shall have to submit preferably with the bid. The eligibility of a bidder in this regard shall be ascertained by the purchase committee on the basis of the above stated agreement or any other document(s) and the decision of purchase committee shall be final.

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

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

Managing Director
Jammu and Kashmir Medical Supplies Corporation Limited

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

Signature of bid with seal

Section VI C: Contract Forms (CF)

Table of contents

Annexure AI

(On Letter Head of the Bidder)

DECLARATION

I/We M/s. ..... represented by its Proprietor/managing Partner/Managing Director having its Registered Office at ..... and its Factory Premises at ..... do declare that I/we have carefully read all the conditions of bid no. ..... Dated.....including all the amendments in ..... Ref. .....for supply cum rate contract of ..... **Item name .....** for Jammu and Kashmir Medical Supplies Corporation Ltd. for the year 2022-23 and accepts all conditions of bid including amendments, if any.

I/We agree that the M.D. JKMSCL, Jammu / Srinagar (J&K) may forfeit bid security and or performance security and debar me/us for a period specifying in orders, if any information/document furnished by us is proved to be false/fabricated at the time of inspection and not complying with the terms and conditions of the bid document as presented in bid, Annexure-B and other relevant documents.

Signature & Seal of bidder
Name & Address:

Annexure All

Format-Authorized Representative of Original Manufacturer/Direct Importer

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

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

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

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

No company or firm or individual other that M/S _____ are authorized to bid, negotiate and conclude the contract in regard to this business against this specific tender.

I / we, further agree to comply with the conditions specified under Clause 2(a) –Eligibility Conditions, of the tender document. We hereby extend our full guarantee as per the tender conditions for the goods offered for supply against this invitation for bid by the above Firm.

Yours faithfully
Name
For and on behalf of M/S
(Name of the manufacturer/Direct Importer)

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

Tender Specifications

S.No.	OT table (Orthopaedic)
1	a) USFDA + ECE+ 1SO approved. b) 5 year warranty followed by 5 year CMC including remote control. c) Suitable customized storage/sterilization cases for accessories/attachments, wherever applicable, should be supplied in adequate numbers, even when not separately asked for. These should be from manufacturer of accessory only- non-customized cases from other manufacturers will not be accepted. d) Tabulated Compliance statement should include your product's specific values/details for each point and not merely 'yes' or 'no'. e) Institute reserves the right to have a live demo if required. f) Safety class I1, Type B; the enclosure leakage current meets the requirements of the patient leakage current for CF conditions as per EN 60601-1 **A) SPECIFICATIONS** 1. The table should be made of carbon fibre along with carbon fibre accessories. 2. Each orthopaedic table must be equipped to perform the following procedures: Direct anterior approach to total hip Arthoplasty, IM nailing Femur, IM nailing Tibia, IM mailing humerus, Hip Pinning, Hip Arthoplasty, Hip arthroscopy, Total knee Arthoplasty, Hip resurfacing. Supine and Lateral Positioning, Hand surgery, Spine surgery, Knee arthroscopy, shoulder surgery. 3. Table should include suitable accessories to permit paediatric orthopaedic interventions. 4. Should have asystematically placed column and should not have any metal cross beams for unhindered C- Arm use during surgery without need of applying longitudinal shift on moving patient. 5. All tables top section should be quickly detachable and inter chargeable as per need of surgery. 6. Should have facility to invest corselte tray through tunnel under table. 7. Moulded seamless mattress attached to top with pins (not Velcro) preferably. 8. Should have facility to change orientation of table (Normal and Reverse mode). 9. Should have single switch operated flex, reflex and "O" position. 10. Should have independent foot pedal operated manual hydraulic control system located in table base to perform all table functions that are electrically adjusted in case of power/battery/remote/electro hydraulic operating system failure. **B) Table must have the following standard features:** 1. Radiolucent Carbon fibre table top to enable multiplaner imaging. 2. Radiolucent top for orthopaedic use: 3. Three or more radiolucent sectional back plate with two or more: detachable shoulder segment. 4. Radiolucent Seat plate with detachable buttock support. 5. Radiolucent Perineal Post. 6. Radiolucent, Carbon fibe, Detachable divided leg plates. 7. The table should have rolls on heavy duty castors as T base/ U base/ Rectangular base or should be supplied with trolley.

	8. Two foldable and detachable carbon fibre traction bars fixed beneath the seat plate with two adjustable pivot joints. 9. Interfaces left/right to attach Carbon Fibre bars. Interface to CF extension plate. Entire table top without crossbars, allowing intraoperative fluoroscopy. 10. Flex/Reflex/Beach Chair. 11. Accessory side rails. 12. Table top interfaces on normal and on reverse side. 13. The table should have chrome nickel steel base or stainless steel base. 14. Cover tor the Override panel made of glass fiber reinforced composite plastic, resistant to impact, breakage and disinfectants. 15. Column casing made of stainless steel. 16. Table top interfaces on normal and on reverse side. 17. Interfaces left/right to attach CF bars (click system). 18. Table should be flexible enough to be used as a universal table. 19. With increasing prevalence of minimally invasive techniques in orthopaedics requires a Strong versatile table that effectively accommodates complex positioning and supports intraoperative imaging. 20. The table should enable surgical teams and their patients to benefit from MIS by supporting a variety of positions for patients of various sizes. 21. Table should offer the correct positioning angles for a wide variety of procedures, from hip arthroscopy to tibia nailing. Some MIS procedures require complex intraoperative patient movement, such as the direct anterior approach to hip replacements. The minimally invasive direct anterior approach (DAA) to total hip replacement. 22. Radiolucent carbon fiber accessories improve intraoperative diagnostics that are critical to verifying the correct repositioning of the skeletal structure, and reviewing the result of the procedure to keep the patient safe. 23. The Table should have screw tension device with slider and hand gear makes it easy to safely adjust traction levels. Larger adjustments can be made by sliding the device to the end of the bar, while the handle allows fine tuning for precise and secure patient positioning, handle should be color coded. 24. The traction bar should have ball joint, on similar joint to mimic the smooth multidirectional movement of the hip itself, to operate and flexible to position by releasing the handles at the end of the bar. As the control units are to be located at the end of the traction bars, full control to be allowed even after the table is fully draped. 25. The traction bars handle to allow the leg to be easily rotated into the correct position at any time during the procedure. A degree indicator identifies the exact position of the limb to ensure accuracy is desirable. 26. Table should be designed to enable a strong traction of up to 80 kg in a most comfortable way for the surgical team. 27. Better image quality improves safety: With a carbon fiber sacral rest, a fully radiolucent pelvic area, and carbon fiber traction bars, there is nothing to interfere with the quality of intraoperative imaging. 28. The table should have a stable three-point stand on similar stand. 29. The cast iron stand should provide excellent stability, preventing all movement if the table is bumped.

30. Secure lock functions: Lock functions eliminate accidental table movements, even when pushing the hand control buttons.
31. Table should be supported by a sensor drive with speed regulation of the OR table by the degree of rotation, Leaving one hand free to help patients in critical situations.
32. Can be used for attaching and detaching the bars from the table.
33. Sliding function through whole bar makes it easy to establish traction.
34. Automatic lock functions to improve patient safety.
35. Colored markings to facilitate communication between surgeon and staff.
36. Slider glides through whole bar for simple traction setup, saving time and minimizing physical strain.
37. Star shaped or similar ergo metric handle, with degree indicator and fine tractions of 12 mm per turn of the handle to optimize precision for maximum traction of up to 80 kg.
38. Rotations function with several locking positions.
39. Free floating rotations increases positioning flexibility and ease-of-use.
40. Attachable to existing steel extension and traction devices.
41. The Sliding clamp can be easily moved along the carbon fiber bars for precise positioning of accessories where they're most needed. It attaches to both bars, al1owing you to deploy additional accessories during surgery.
42. The support plate supports the non-operative leg during surgery, improving patient comfort and preventing overstretching of the knee. It can be attached to the sliding clamp for flexible positioning anywhere along the bar.
43. Additional attachment made up of carbon fibre to allow intraoperative fluoroscopy examination in paediatric patients.
44. Detachable pads made of foam core, approximately 60mm thick or more, should be moulded and radiolucent.
45. The table should have communication port for diagnostics and servicing or should be self diagnostic. All supports for different positions should be included for children separately.
46. The fracture attachments should be adjustable for paediatrics hip surgery. Collide of the fraction bar and pelic plate must be suitable for paediatric lip. Footplate of paediatrics size should be provided separately.
47. Must be able to support heavy weighted parts (upto 150 Kgs).

Table measurements and control panel:

1. The table should provide minimum height excursion in the range of minimum 50cm or more with maximum height of the table not less than 110cm.
2. Trendelenburg/ Reverse Trendelenburg: 40-45 degree.
3. Standard head plate +45°/-45° up/down.
4. Width of seat plate without side rails- 500 mm.
5. Width of seat plate incl. side rails- 550 mm.
6. Lateral Tilt- 21-25 degree.
7. Motorised back plate up and down-90 degree.
8. Hand control and Battery control for various table functions.
9. Battery capacity for approximately 01 week with average use or 50 operations approx.
10. Can be operated directly from the mains for all powered/ electro hydraulic movements.
11. Patient weight capacity under full traction of 250 Kgs.
12. Handset can be connected on either side of the table (head or foot end).

	13. Extra remote control with each table. 14. Zero positioner on remote. 15. USB drive for repair of software. **C) Accessories** 1. Accessories for Hand Surgery. 2. Two sides support (Anterior and Posterior) for lateral position for the hip replacement. 3. Traction aggregate (full system) up/down, inwards/outwards, rotation of the foot by 180°. 4. Traction bars with ball joint or similar joint up/down, inwards/outwards. 5. Traction bars inwards/outwards. 6. Accessory for bilateral hip surgery. 7. The table must allow hyperextension, abduction, adduction and external rotation of the hip tor femoral component placement. 8. Separate attachments made of carbon fibre for direct anterior approach for MIS Hip replacement should be possible to do 360 positioning of the lower limb through the assembly. (Normal fracture table attachments of the traction will not be considered for this purpose as it involves more than two joints & the handling is cumbersome with increased risk of loss of sterility of the surgical site). 9. Fraction table attachment should be adjustable for paediatric hip procedure. 10. Size of pelive ploh attachment foot boot should allow in paediatric procedure. 11. Carbon fibre traction bars-02. 12. Total Knee Flexion and Support System for knee arthroscopy. 13. Leg Support system to support contra lateral leg. 14. Traction boot small pair. 15. Traction boot large pair. 16. Arm Boards with Pad (2). 17. Beach chair position system with helmet type head rest for position of the patient along with shoulder plates made of carbon fibre. 18. Skull traction and head rest for cervical spine surgery. 19. Accessories for knee elbow position. 20. Accessories for knee chest position. 21. Attachment for various types of surgery on cervical spine. 22. Accessories for interlocking nailing of humerus and tibia. 23. Accessories for interlocking nailing for femur in supine position. 24. Accessories for Hip arthroscopy including large perineal post and traction system. 25. Anaesthesia screen with clamp. 26. Trolley to store various accessories along complete set of gel positioners for adult and paediatric patients, including bolsters and rings for prone positioning

ORTHOPAEDIC OPERATING TABLE WITH ACCESSORIES	
S.No	**SPECIFICATIONS**
1.	Each orthopaedic table along with its accessories must be able to perform orthopaedic trauma surgeries, arthroscopy, paediatric orthopaedics, spine and standard replacement surgeries
Table must have the following standard features:	

1.	Radiolucent table top made up of Carbon Fiber or equivalent for orthopaedic use
2.	Radiolucent top for orthopaedic use:
a.	Three or more sectional back plate
b.	Seat plate with detachable buttock support
c.	Radiolucent Perineal Post- child and adult size
d.	Detachable divided leg plates
e.	Should be able to slide longitudinally more than 250mm both side
3.	Should have provision for Eccentric Position
4.	Two foldable and detachable radiolucent traction bars fixed beneath the seat plate with two adjustable pivot joints.
5.	Accessory side rails for attaching accessories entire length of the table top. Rail should accept standard accessories
6.	Hygienic steel base
7.	Additional radiolucent attachment/ plate for orthopaedic intervention in paediatric patients
8.	Detachable pads made of foam core, approximately 50mm thick, should be molded and radiolucent
9.	Table measurements and control panel:
a.	Table Top height range- 70cm 120cm
b.	Trendelenburg/ Reverse Trendelenburg-upto 30 degree
c.	Lateral Tilt- 15-30 degree
d.	Motorised back plate up 80-90 degree and down upto -40 degree
e.	Hand control and Battery control for various table functions
f.	Battery capacity for approximately 2 weeks with average use
g.	Can be operated directly from the mains for all electro hydraulic and Manual override movements
h.	Patient weight capacity >180 Kg for all positions
i.	Handset can be connected on either side of the table (head or foot end)
j.	Length: 210-220cm
k.	Width: more than or equal to 50 cm without side rails
l.	Table should be able to bring to zero position with single button
Each table must be provided with the following accessories	
1.	Hand operating table
2.	Lateral brace kit for total hip replacement
3.	Accessory for bilateral hip surgery
4.	Body strap

5.	Traction bars radiolucent-02
6.	Total Knee Flexion and Support System for knee arthroscopy
7.	Well Leg Support system
8.	Traction boot small pair with multiplanner rotation
9.	Traction boot large pair with multiplanner rotation
10.	Radiolucent Arm Boards with Pad (2)
11.	Beach chair position system with helmet type head rest for position of the patient alongwith radiolucent shoulder plates
12.	Skull traction and head rest for cervical spine surgery
13.	Accessories for genucubital position
14.	Accessories for genupectoral position
15.	Mayfield attachment for cervical spine
16.	Accessories for interlocking nailing of humerus and tibia
17.	Accessories for interlocking nailing for femur in supine position
18.	Anaesthesia screen with clamp
19.	Silicone Gel pads (One set each) for various patient
a.	Gel pads as Head ring: open and closed type for both adult and paediatric use separately
b.	Gel pads for head rest in supine, prone and lateral positions separately for adults and children
c.	Gel pads as operating table pad, perineal table pad, sacral protector, arm protectors
d.	Gel pads for flexed knee in positions for spine surgery
e.	Gel pads thigh, leg, heel
f.	Gel pads for different positions
20.	Cushions (One set each): as foam pads for different positions: Head ring, lateral positioning, leg rest cushion, cushions especially for spine surgery
21.	Should include below Paediatric accessories- a) Paediatric traction boot b) Side post c) Perineal post
22.	Two or more detachable shoulder segment
23.	RS 232 port/USB should be available for diagnostic and servicing purposes
24.	It should be USFDA and European CE approved and all accessories from the same manufacturer

Specifications for OT table for Spine Surgeries

A. USFDA + ECE+ ISO approved
B. 5 year warranty followed by 5 year CMC
C. Suitable customized storage/sterilization cases for accessories/attachments, wherever applicable, should be supplied in adequate numbers, even when not separately asked for. These should be from manufacturer of accessory only- non-customized cases from other manufacturers will not be accepted.
D. Tabulated Compliance statement should include your product's specific values/details for each point and not merely 'yes' or 'no'.
E. Institute reserves the right to have a live demo if required.

1) The quoted system should be based on fully electro mechanical technology.
2) The table should be sturdy, easily mobile with padded divided (split leg) foot section.
3) The table should have flat base with exchangeable table top. The table top and the base can be moved to wherever in the Operating Room area with the help of Shuttle facility. Shuttle has been provided along with unit.
4) All tables sections except the section attached to the pillar should be quickly detachable using easy latch mechanism to suit all surgical needs.
5) Head plates and leg plates should be interchangeable.
6) Built in kidney bridge
7) Table should have minimum footprint to give surgeon and image intensifiers maximum liberty of movements.
8) Should be suitable for patient positioning in supine, lateral, sitting, and concord, park bench prone and minimally invasive surgeries of spine.
9) It should provide for attachments of skull traction, limb traction, 3 pin or 4 Pin head frames, horseshoe attachments in supine, lateral, prone positions as well as of connection brackets for beach chair /sitting positions.
10) Tabletop should be completely without x ray interfering cross bars and should be radiolucent and scratch proof. The Supplier shall provide full carbon components for 360 degree radiolucency for the above mentioned surgeries.
11) It should be compatible with C arm, O arm and mobile CT.
12) The side rails should be metal free to be compatible with 3D C-arm capturing.
13) Mattress should be moulded, seamless, anti-static, anti-decubitus, latex free & durable. It should be attached to top with pins and not Velcro and should be easy to clean.
14) **Weight capacity**- At least 225 Kg in all positions, static capacity 350 kg or more.
15) **Length**- 1890 mm or more.
16) **Width**- 500 mm or more.
17) **Minimum height**- 620 mm or lower (with table top)
18) **Maximum height**- 1000 mm or higher (without table top)
19) **Lateral tilt** 18 degrees or higher
20) **Trendelenburg /reverse Trendelenburg** 25 degrees or better
21) **Back up** +80" or higher, back down-60"or lower
22) **Leg section** up /down +90/-90°
23) The table should be equipped with a completely independent electronic back up drive unit operated through the override panel.
24) Fully charged battery/ies should be sufficient for weekly operative schedule i.e. approximately for 50-80 operations. The central column /base and handheld controller should indicate the charging status and table battery status.
25) Latest type of ERGONOMIC back & leg screen 22 hand held controlled displaying each selected l position of the table, memory features and similar features should be available on override control panel.

3	**C-Arm High End**

System must be USFDA & European CE approved.
Having ISO certification.
The C arm should have rotational movements and all the movements should be counter balanced.
The continuous fluoroscopy, digital pulsed fluoroscopy and digital radiography operating modes are to be supported.
Should have technology to produce optimal high quality image even if the region of interest is not in the centre of image intensifier i.e. multiple matrixes.
It should be possible to Display dose reporting also.
The camera system should be based on maintenance free CCD technology with a digital imaging system for fluoroscopy and radiography, with TV matrix at least 1K2 & digital image rotation of 360 Degrees.
Image archiving on USB & DVD (DVD read/write) with it is genuine viewer software and Image storage of at least 10000 or more images is mandatory- give details of storage of 2D images.
It must be equipped with latest DICOM interface. (View, store, print, worklist).
. System should be ready to connect with HIS/PACS.
. Noise filter with on screen indicator.
. Entire system should be computer controlled and software upgradable.
. There should be programs to reduce dose during fluoroscopy. Patient dose should be displayed on the monitor.
. It should be possible to carry out continuous fluoroscopy for prolonged procedures.
. Cassette exposures should also be possible.
. **The C arm should have the following movements:**

a) Motorized Vertical Movement: 40 cm or more
b) Horizontal travel: 20 cm or more
c) Angulation: +90°, -25° degrees or more
d) Orbital movement: 135 degrees or more movement
e) Source- I.I distance 95 cm or more
f) Vertical free space- 75 cm or more
g) Beside above give details of depth and swivel angles.

. **X-ray generator:**

The X-ray generator should use high frequency technology, should be controlled by microprocessor and the output 4 should be 15 kW or more.

Pulse fluoroscopy should be offered as a standard. The output should be as follows:

a) Pulsed Fluoroscopy: 110 kV or more and 40 mA or more
b) Digital Radiography: 110 kV and greater than 75 mA
c) Organ specific user programs should be present
d) Possibility to have various dose options during fluoroscopy
e) Automatic Dose Rate controlling should be done to prevent over exposure. Laser based targeting devices should be present to reduce radiation during centring.

. **X-ray tube:**

Rotatory anode X-ray tube with dual focal spots. The focal spot size should be 0.3mm or less for small focal spot and 0.6 mm or less for large focal spot. Inherent filtration 3.0 mm AI or better. The tube should have over load protection.

9. **Collimation:**

Iris collimation should be present and it should be possible to operate the collimator without radiation, 180 degree rotation should be possible; Indication for LIH

0. **Image Intensifier system:**

12 inch image high resolution intensifier with triple field zoom. Image rotation should be possible without giving radiation to the patient. Input screen should be cesium iodide for excellent resolution and minimum noise. Electron optics should allow consistent high resolution across the entire Image field -Give details.

Give details about the grid.

1. **Patient data Management:**
   It should be possible to maintain a complete data base of the patient with easy retrieval. It should be possible to make additions or make changes to the patient data at a later stage

2. **Monitors**
   2 no. medical grade TFT monitors with diagonal size of 19 inch or more. The display should be of 1K matrix with 256 gray shades. Resolution min 1024 × 1024 or better, wide viewing angle

3. **Image display:**
   It should be possible for having 2 nos. screen displays (give details). Last Image Hold should be standard. Simultaneous display of old and new reference images.

4. **Image Processing:**
   a) Manual contrast and brightness adjustment, Edge enhancement, zooming, digital Image rotation, horizontal and vertical flip.
   b) Alphanumeric keyboard for entering patient data and for image annotation etc.
   c) Digital Shutters.
   d) Digital measurement functions for distances & angle measurement (post processing)
   e) Annotation should be possible.
   f) Save and auto-save feature.

5. **The machine should be capable of real time Digital Subtraction Angiography (DSA) with the following features:**
   a) Acquisition frame rate: 25 frames/sec or more
   b) Storage rate: 10 fps or more
   c) Auto request for contrast injection
   d) Roadmap technique for dilatation
   e) Pixel shift, variable landmark and remasking should be possible
   f) Peak opacification
   g) Movie function with START/STOP function

6. **Accessories to be supplied**:
   a) Lead-free light-weighted aprons for radiation protection (all round protection) with 0.5 mm lead equivalence certified by BARC/ AERB & ISO-08.
   b) Lead-free light-weighted aprons for radiation protection (front protection) with 0.5mm lead equivalence certified by BARC/ AERB & ISO- 08.
   c) Thyroid shields -08
   d) Lead-aprons hanger -01.
   e) Any other required accessory for DSA imaging
   f) UPS for full equipment with a minimum 15 minute backup and a voltage stabilizer should be provided.

7. **Warranty**
   a) 5 year comprehensive onsite warranty of entire system (Spares and labour) including X-ray tube and all accessories and civil, electrical and air conditioning works followed by 5 year CMC.
   b) Company should confirm the availability of spare parts for 10 years from the date of supply of the equipment.
   c) Company should have 24 x 7 call support facility.
   d) List of spare parts with cost must be provided.

	8. **Power Supply** a) Power input to be 200-240 VAC, 50 Hz, Fitted with Indian type plug. b) Resettable over current breaker/ANY other protection device shall be fitted for protection. 9. A high end MACINTOSH BASED COMPUTER with at least 8 GB RAM, GRAPHICS, with installed GENIUNE VIDEO EDITING SOFTWARE to run and edit DSA images and videos should be supplied, plus 2 TB of external hard drive (not requiring external power) should be supplied. 0. Compliance statement should be presented in a tabulated manner- mentioning the page/para number of original catalogue/data sheet. Any point not substantiated with authenticated catalogue/manual will not be considered. 1. Please make sure to submit copies of all certifications- USFDA/ECE/AERB & ISO + LIST OF INSTALLATIONS in India with performance and after sale service records at time of submission of bids only to save tender processing time.

Mobile C-arm Image Intensifier

S.No	
	C-Arm Specifications
A.	X-RAY GENERATOR
	Frequency 30 KH or better
	Power output: 2 KW or more
	KV range: 40-110 KV or better
	mA In radiography: 20mA or more
	mA in fluoroscopy: 0.2 or less to 3 mA or more in normal fluoroscopy and 8 mA or more
	Should have facility for continuous fluoroscopy and Pulse fluoroscopy (Pulse rate upto 8
	Should have Digital Spot for high quality single image, 10 mA or more
	Housing heat capacity of minimum 400 KHU or fluoroscopy time 30 min minimum
B.	**X-Ray tube Head**
	Must have anode heat capacity of min 40,000 HU & cooling rate of min 25,000 HU/Min
	Should have dual/Single focal spots
	Collimation: motorized iris and motorized rotating blades
	Tube assembly filtration of 3.0 mm Al or higher
C.	**C-Arm mechanism and control panel**
	Locks for stabilization at desired position
	It should have the following range of movements
	Motorized vertical movements more than 400mm
	Horizontal travel: 200mm or more
	Orbital movement: (-) 30 deg. To (+) 90 Deg. (120 Deg. Or more)
	Swing/ panning movement: +/-10 degrees or more
	Source image distance: 950 mm or more
	Depth of c-arm: 650 mm or more
D.	**Control panel (Digital work station)**

	It should have the following facilities:		
	System should have capability of Pulse Fluoroscopy option to reduce to radiation exposure per second, which should be easily user selectable		
	Fluoroscopy and Radiography exposure on switching image		
	Image rotation from control panel		
	Image intensification, mode selection (normal and zoom)		
	Automatic brightness stabilizer		
	Auto dose rate control		
	Collimation for radiograph		
E.	**Integrated image processing, recording and memory system:**		
a)	**Image intensifier tube**		
	Input diameter 9" with dual field (9/6)		
b)	**CCD camera**		
	CCD camera with 1k × 1k resolution for high resolution image acquisition		
c)	**Integrated image processing, memory and recording system should have**		
	Medical Grade Monitors (Two Nos)		
	Min 18 inch or more, black and white, flicker free, high resolution (1280x1024 pixels or more)		
d)	Digital image processor		
	Provision to record multiple images on CD, DVD& USB with embedded DICOM viewer		
	Image processing at 1k × 1k Matrix		
	Contrast enhancement, edge enhancement, zoom facility		
	Recursive filter		
	Last image hold		
	Image rotation, vertical and horizontal reversal		
	Medical imaging software's with ability to store 5000 DICOM Compatible images in		
e)	**Additional features**		
	The equipment should work on a Power supply of 220-240 Volts, 50-60 Hz, 15 amp JE10		
	Built in/Compatible/External UPS to protect & save patient data and run the machine for		
	Lead Aprons with all round protection (0.5mm lead equivalent approved by BARC)- 04		
	Lead Aprons with front protection (0.5mm lead equivalent approved by BARC)- 10		
	Thyroid shield (0.5mm lead equivalent approved by BARC)- 10		
f)	**Regulatory/Safety Requirement:**		
	Equipment should have AERB Type Approval Certificate for radiation safety		
	The offered model should be USFDA and European CE with 4 digit notified body number		
S.No	**BOQ**	**Quantity**	**UOM**
1.	C-Arm arm as specified	1	Nos
2.	Lead Aprons with all round protection	8	Nos
3.	Lead Aprons with front protection	10	Nos

4.	Thyroid shield	10	Nos
5.	Lead eye glasses	8	Nos
6.	UPS	1	Nos
7.	Hangers and stands for LEAD apron made of SS	1	Nos
8.	Lead Lined Gloves(Disposable 25 No each size)	100	Nos
9.	Lead Eye glass	8	Nos

Plaster Cutting Saw

S.No	Specifications
1.	Heavy duty, Light weight(0.5kg to 1.5kg) with aspirator, with speed 10000 to 15000 CPM
2.	Ball Bearing mounted, well ventilated motor for use on A.C. or D.C. supplies, with Switch housed in a shockproof, insulated casing, Having input wattage of 90W
3.	Saw Hand-piece should be of light weight, with Gears Permanently Lubricated insulated from motor.
4.	With Blades to Cut normal and Synthetic Plasters.
5.	Spare Blades- SS, Titanium & Nitrate- 5 Nos. each
6.	Vacuum capacity more than 7kg
7.	System should be European CE / US FDA approved

Operating Microscope for Spine Surgery

S.No	Item	Technical Specifications
1.	**Operating Microscope for Spine Surgery**	1. Company should be at least in its 5 years of operations at the date of submission of tender. 2. Bidder must enclose original literatures & technical data sheet in the support of the technical bid. 3. Physical demo may preferably be arranged at the time of requirement. 4. Instruments quality should meet the international standards. 5. Company should have European CE certificates or USFDA certificates of International standard and should have an annual turnover in the execution of similar work, equal to or in excess of 50 crores per annum for the past 3-5 years. 6. Company should provide material certificates. 7. Material Stainless Steel (Instruments). 8. Grade- ISO 5832-1. 9. Principle Company may preferably have certificate for passivation process of instruments. **MICROSCOPE BODY:** 1. Motorized zoom magnification system with apochromatic optics, zoom magnification factors 0.4x to2.4x, activation by hand-grip and foot

		control panel, with manual override. Total magnification range 2X-18X or higher. 2. Should have Internal motorized fine focusing system, activation by handgrip/ foot control panel, continuously adjustable working distance from 200 mm to 500 mm without exchange of objective lens, integrated continuously variable illumination field from 60mm 15mm or less. **BINOCULAR TUBE:** 180-degree tilt able binocular tube with focal length = 170 mm or higher. There should be Graduated knob for continuous adjustment of interpupillary distance from 55 mm to 75 mm. **AUTODRAPE:** System should be capable of using an auto drape system by push of a button. **AUTOBALANCE:** System should be capable of balancing the microscope by push of a button. **RECORDING:** System should have digital integrated recording through USB within the stand. **VARIOSCOPE:** Should have working distance through continuous varioscope from 200- 500 without any external attachment. **EYEPIECES:** Pair of high eye point wide field push-in eyepieces 12.5x magnification with magnetic locks, diopter setting from -8D to +5D, also suitable for spectacles wearers. **ILLUMINATION SYSTEM:** Coaxial xenon illumination 300W with back up 300w xenon with quick-action lamp changer in case of failure of main lamp. **HANDGRIPS:** Microscopes should have easily maneuverable handgrips with adjustable keys for zoom and focus, illumination& Magnetic brakes. Should have programming for magnetite brake for control of stand & Microscope body brakes. **FLOOR STAND:** 1. Roll able floor stand on base with lockable castors, carrier and swivel arms with large reach of 1.60 m or higher. 2. Should have free float magnetic system with Six magnetic brakes, Three brakes for Microscope body& three for Microscope Stand with release of magnetic brakes by handgrips. 3. Liquid crystal display (LCD) with user prompts, quick set up or different parameters and their activation at press of a button such as automatic speed adjustment or automatic brightness setting depending on

		magnification. 4. System should have facility for Auto Air evacuation system for drapes (Auto drapes). System should have overhead display for showing important parameters. **INTEGRATED DIGITAL VIDEO CAMERA SYSTEM:** Advanced digital Completely Integrated 3CCD HD video camera system suitable for connection to PC, color monitor. Video speed focus. **USER PROGRAMMING:** Programming for starting illumination, Magnification, working distance, Zoom speed & Focus speed for at least 8 - 9 different users. **FACE TO ATTACHMENT 0-180 DEG FOR SPINE SURGERIES AND STEREO CO-OBSERVATION TUBE FOR THE ASSISTANT FOR NEURO** • It should have USFDA or EUROPEAN CE standards. • Demonstration is must for the finalisation. • Warranty three years and CAMC for next 3 years to be quoted

Orthopaedic Bed (SS)

S.No	Specifications
1.	**Description of Function**
a)	Orthopaedic Bed (SS) with Balkan frame with traction attachment and weights upto 30 lb and should incorporate ideal blend of the patient's individual requirements on comfort and the professional needs.
2.	**Operational Requirements**
a)	Orthopaedic Bed should be supplied with all accessories as mentioned in the technical specifications
3.	**Technical Specifications**
a)	Orthopaedic Bed should have following essential specifications: • It should have control devise for making height (44cm to 90cm) and back adjustments. [Manual as well as remote control] • It should have collapsible side rails • It should have three sectional mattresses and seat section should have large perineal cut. The mattress thickness should be 50mm or more. • Head board and food section can be detached or slides and stores under the bed. • Should have wheels (Diameter- 6" or 8") provided with locking system. • Should have retractable foot section with indication for locking, so as to convert bed into table. • Should have infusion rods which have adjustable heights, quick |release and attaches to all corners of bed. • Should have adjustable leg rests available as an accessory. • Should have push grip handles. • It should have catheter bag holder which can be attached on either side of bed.

	• It should be able to give trendelenburg, reverse trendelburg and 60 degree sitting position both mechanically and electronically. • It should have adjustable foot supports for nursing staff. • It should be easy to clean, sterilize (especially blood stains) and maintain. • Frame should be made of SS. • Dimensions - Length: Minimum 180 cm and width: Minimum 75 cm.
4.	**System Configuration Accessories, spares and consumables**
a)	All consumables required for installation and standardization of system to be given free of cost.
5.	**Environmental factors**
a)	The unit shall be capable of operating continuously in ambient temperature of 10-40 deg C and relative humidity of 30-90%
b)	The unit shall be capable of being stored continuously in ambient temperature of 0-50deg C and relative humidity of 15-90%
6.	**Power Supply**
a)	Power input to be 220-240VAC, 50Hz fitted with Indian plug.
b)	UPS of suitable rating with voltage regulation and spike protection for 60 minutes back up.
7.	**Standards, Safety and Training**
a)	Should be European CE or US FDA
b)	Manufacturer should have ISO certification for quality standards
c)	Comprehensive training for lab staff and support services till familiarity with the system
8.	**Documentation**
a)	User/Technical/Maintenance manuals to be supplied in English
b)	List of Equipments available for providing calibration and routine preventive Maintenance support as per manufacturer documentation in service/technical manual.
c)	Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number of original catalogue/data sheet. Any point, if not substantiated with authenticated catalogue/manual, will not be considered
d)	List of important spare parts and accessories with their part number and costing.
e)	Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.
f)	Should have easy slide calf supports swing into correct positional lock with single lever.
g)	Should have CPR release
h)	Weight capacity: 200 (Approx)

<u>Specifications for DIGITAL FLAT PANEL DUAL DETECTOR 1000 MA X-RAY Unit</u>

A high powered X-ray unit for general radiography with digital flat panel technology with fully motorized

auto-positioning capability to perform whole body radiography. The system should be capable of both erect and supine radiological examinations. The unit should have the following minimum specifications.
The unit should comprise of the following:

a) Dual Flat Panel Detectors for vertical and table exposures
b) Generator
c) X-Ray Tube and Collimator
d) Ceiling suspended 3D Column Stand
e) X-Ray table
f) Vertical Bucky stand
g) Operation Station
h) Accessories

1. <u>Fixed Flat Panel Detector fully integrated (one on wall stand and the other on the table)</u>

The detectors should be able to do all routine radiography examinations. It should have the following features. The flat panel detector should be of proven technology with amorphous silicon photodiode and Csl scintillator on top of it to receive the X-Ray beam and convert it to Photons.

a) Flat Panel Detector size of least 43 x 43 cm.
b) The detector should have non tiled Csl scintillator on the tube side and amorphous silicon photo diode array behind it.
c) Image matrix size at least 2.8 K×2.8 K. or more.
d) Minimum pixel size should be 150 micron or less
e) The resolution should be minimum of 3.35 lines pair/mm.
f) A/D converter of 16 bit.
g) Preview time after exposure 3 sec or less
h) DOE 65% or more at 0. 051p per mm at RAQ5 beam quality.
i) Modality workstation software with direct registration facility for the CPU to be attached to main console for availability of multiple patient entries.
j) Fixed integrated (non removable) flat panel detector should be provided (without any batteries)

2. <u>Generator</u>

a) Microprocessor controlled high frequency 200 KHz or more. X-Ray Generator should be of latest technology with constant output with low ripple frequency.
b) Output- minimum 80 KW
c) KVP 1ange 40 KV.150 K.V
d) Output 2 100KV should be 800mA, and at 80KV should be 1000mA
e) Minimum exposure time should be l ms or less.
f) mAs Range: 500 mAs or more.
g) Automatic exposure control should be available with 3 AEC field sensors on table and wall stand each.
h) Anatomical programming radiography should be possible.
i) The generator must be completely integrated with console work station.

3. <u>X-Ray Tube</u>

a) The X-Ray Tube should be rotating mode high speed compatible with the generator and must have a dual focus.
b) The focal spots should be of the following sizes:
    - Large focus:1.2 mm (minimum)
    - Small focus:0.6 mm(minimum)

c) A high speed rotor accelerator(starter)-minimum 8000 rpm
d) Mention tube loading for small focus and large focus, should be at least 36KW for small focus aid at least 96K W for large focus.
e) Tube with anode heat storage capacity of 600 KH or more.
f) Tube protection against overload should be available.
g) Indicate an anode heat unit with digital readout of tube load.

4. Ceiling Suspended 3D column stand

a) Ceiling suspended tube with fully motorized adjustment should be provided.
b) Horizontal and vertical auto tracking of tube and detector should be available with the vertical Bucky and the table including all software and hardware options.
c) System should have fully auto positioning capability including all software and hardware options in both horizontal (Table) and vertical planes (Wall stand Bucky)
d) Movement in all direction should be easily possible.
e) Vertical telescopic movement should be at least 1500 mm.
f) The tube rotation at vertical should be ±180° and horizontal axis should be ±135° at least.
g) The X-ray tube collimator assembly should have touch screen panel to display patient demographics, exam details, positioned details and exposure parameters and change the tube & detector position, distance and angulations between them.
h) It should be possible to change system positioning end exposure parameters from the touch screen panel on the collimator.
i) One hand operation of the tube system should be possible.
j) It should have electromagnetic brakes with fully counter balanced mechanism.
k) It should have facility to display FFD, SD, selection of KV and mA on a 10" touch screen.

5. Filter & Automatic Collimator

The collimator should have the following specifications;

a) Inherent filtration of at least 1.00 mm Al, also auto filtration with organ programming.
b) Square collimation: Motorized with manual over ride. Should be programmable for different anatomical regions.
c) Full Field LED light localizer with high illumination.
d) Rotation of +/- 45 deg or more.
e) Display of collimation field size, filter & SID.
f) It should have an inbuilt DAP meter. The DAP meter reading should be part of the DICOM headers of the image.

6. X-Ray Table

a) Height adjustable fixed table with four way floating table top; with 43 × 43 cm or more sized FPD. Foot switch for controlling the table height and floating movements.
b) It should have a carbon filter table top.
c) Table should support patient weight of at least 300 Kg.
d) It should be possible to synchronize detector movement with movement of X-Ray tube (Auto tracking).
e) The table top dimensions should be as mentioned (Minor deviations without compromising the functionality will be accepted)

Width of the patient table	Minimum 80cm
Length of the patient table	Minimum 220cm
Table Height	55 cm upto 90 cm (adjustable by motor)

f) The table top movement should be (minimum) Longitudinal Movement: 109cm, Cross Movement: ±12cm.
g) The table should have an anti-scatter carbon fibre interleaved grid of 8:1 ratio with focus distance of 100 cm or more. The grid should be carbon fibre interleaved.
h) It should have automatic grid sensing capability to avoid improper exposure to the patient.

7. Vertical Bucky stand (Wall Stand)

a) Motorized, counter balanced, height adjustable vertical Bucky with a digital flat pane detector: minimum 43 x 43 cms.
b) It should be possible to synchronize detector movement with movement of X-Ray tube (Auto tracking & Auto positioning both).
c) Bucky should have a removable grid with grid ratio 8:1 or more and focus distance of 180 cm.
d) It should be possible to angulate/ tilt the detector on the wall stand within a range of -20 to +90 degrees.
e) The vertical travel range of the detector should be 1500 mm, minimum 400 mm and maximum 1900 mm above floor (measured center to center).
f) It should have automatic grid sensing capability to select appropriate grid for each anatomical region.

8. <u>A. Operation (Acquisition) Station (Main Console):</u>

a) PC tube severs/workstations must be an OEM for management of images/studies.
b) The processing server / Console PC should have controls for exposure parameter as well as movement of system both independently for the tube, detector and table and jointly as a unit.
c) This Sever must provide display of acquired images with greater details of demographics, like patient/ study listing etc. for easy access.
d) This server must be provided with a High Quality touch screen (minimum 21 inches) monitor of minimum 2 MP resolutions.
e) The main Console PC must be of reputed brands like HP/ Dell and must have RAID 1 Configuration to protect data. It should have minimum 2 × 1TB HDD and minimum 4 GB RAM.
f) The console workstation/acquisition station must provide full amount of post processing features like:
    - Flipping and rotation of images
    - Free rotation of image at any angle
    - Window / Level adjustment
    - Algorithm Annotations such as markers
    - Predefined texts
    - Drawing lines and geometrical shapes
    - Measuring distances and angles and determining Leg Length Differences, scoliosis angle measurement.
    - Shuttering
    - Histograms
    - Zoom
    - Grey Scale Reversal

- Indicate (Grey Scale Saturation Level
- Electronic collimation in rectangle and circular shape
- Automatic removal of unexposed pixels in the collimated area.
- Blackening of collimated area

g) The console should also have the functionality/ tool to correct radiographic magnification on the image

h) The console should have automatic program to indicate over /under exposure visually in the preview screen based on ICE standard (1EC 62494-1). It should be able to indicate the exposure on the flat panel comparing the Target Exposure Index (TEI) so that the radiographer can clearly understand if the image is over exposed or underexposed.

i) This terminal must provide a full-fledged WYSIWYG DICOM printing. Should be able to print multiple formats (minimum 4) of a patient study on a film. It must be able to print a True Size image.

j) It must be possible to change the image to true size image in print composer in one click.

k) It should be possible to customize the demographics printed on a film with DICOM information of the images.

l) The demographics information should be printed on a separate text box and not inside the image area.

m) Should be able to send DICOM images to a DICOM viewing station /PACS and should be able to connect to HIS / RIS for DMWL. It should comply the following IHE profiles:

- CPI
- REM
- PDI
- PIR
- SWT
- CT
- ATNA

n) Should be equipped with DICOM CD writer for allowing examination of a patient to be written onto a CD in DICOM format for referral purposes with inbuilt DICOM viewer to allow viewing on any PC.

o) Special attention should be given to Paediatric and neonatal imaging. It should have possibility of reducing radiation dose to Paediatric and neonatal exams.

p) Dose monitoring and reporting based on DRL (Dose reference level) using DAP meter readings and El should be possible. It should be possible to generate structured reports on dose performance which can be shared with PACS and other DICOM systems. The dose monitoring tools should provide Statistical Analysis of Exposure and Dose performance on following parameters:

- Exposure Index and Deviation Index
- Outlets
- Dose Area Product (DAP) values
- Complete Exposure List
- Results can be Exported
- Dose Trend

It should be possible to record reasons for over/under exposure per exposure if the Dose reference level indicates deviation from recommended dose level. It should be also possible to generate a report based on the reasons for over/under shoot.

q) The system should have self-adapting image processing capabilities that eliminate the configuring of processing parameters and provides image consistency. Provide details on how this is achieved.

r) Mention number of clicks for completing one examination with 2 exposures.

s) The processing software should be capable of emergency workflow.
t) It should be possible to change system positioning parameters from the software soft console.
u) Should have Grid based Automatic image stitching capability: For spine and long bone imaging on both vertical i.e. Wall stand and Horizontal i.e. Table (should be provided with necessary hardware and Software)
v) The post processing/image processing should be from the original DR manufacturer.

B. An Image Viewing Post-Processing and reporting Station and Documentation with the following features should be provided

a) An Independent workstation with all post processing and printing facility should be quoted with storage capability of 5000 or more images with ability to review and report X-Rays independent of main consoles.
b) Should have a 2MP medical grade monitor of 19" or more, have its independent memory and hard disk of at least 1TB.
c) Post-Acquisition image processing, viewing, reprocessing, hard copy documentation and onward transmission should be possible. Multi format printing should be possible with user selectable options.
d) Should have DICOM ready interface and networking capability with RIS/HIS/PACS.
e) The reporting workstation should have the capability to be connected to 5 concurrent web clients. (Preview display time <15 sec). The configuration of the main and additional work stations should be specified in the bid.
f) All the software (Licensed) used in the machine should be supplied in original CD's. All data backups, ghost image of OS, the necessary device drivers should be supplied in USB or DVD. A CD, DVD, R/W drive should be supplied. Power input 240VAC, 50Hz.
g) Advanced orthopaedic measurement templates that guides the user through complex measurements automatically, compares it with normative values for the following measurements, should be provided with relevant datasheet and hardcopy proof of each study with images of each examination.
    - Acetabular coverage of the femoral head/age
    - Interpediculate distance/age
    - Carpal Angle/age
    - Eliac index Normal Down
    - Dimensions of distal femoral epiphysis
    - Talo calcaneal &1ibis calcaneal Angle
    - Metacarpal Index
    - Full Leg Measurements
    - CCD Angie
    - Boehler Angle (Adults) (For calcaneus)
    - Tibia Vara (Metaphyseal Angle)
    - Thoracic Kyposis
    - Cobb Angle
    - Ferguson Angle
    - Tarsal Angles AP
    - Pelvis Schmid

9. Accessories

a) Dry Printer
    - The system must be a Dry imager, without need of any wet chemistry.

- The system must be DICOM 3.0 Print service class provider, allowing minimum of l0 associations at a time.
- The system must be able to process upto 70 films/ hour (minimum) of 14" x 17" size .
- Deliver its first film within 90 seconds from print request.
- The system must have a spatial resolution of 500 PPI / DPI (Minimum) or more for all sizes printed.
- The system must have contrast resolution of 14 bits / pixel or more.
- The system must have at least three online film sizes and should be capable to print on any of the 3"x10", 10"x12", 11"x14", 14"x14", 14"x17" sizes. All two film input trays should be freely configurable at user level for all the mentioned film sizes.

b) Chest stand
c) Compression Band
d) Patient hand grips for vertical Bucky and additional chest stand
e) Superlight Lead Aprons (8), lead goggles (4), thyroid shields (4) and genital shields (4 each) for male and female.
f) UPS: Suitable online UPS for the software console with 30 minutes backup and voltage stabilizer must be quoted for the entire system.

10. Regulatory Approval

The digital radiography system offered should have the following:

- AERB type approval
- European CE and US FDA approval for the quoted model
- CE test report should be provided

Technical Specifications of CR System

1. USE

a) Clinical purpose Used for Digitization of the already existing Analog X-ray Systems giving advantage image processing and increased speed ideal for Medium workload facilities and Secondary care facilities.
b) Used by clinical department/ward: Radiology Department

2. TECHNICAL CHARACTERISTICS

1. Technical characteristics (specific to this type of device)

- Digitizer (CR) system should have capacity to process minimum **70 ± 2%** cassette/films per hour of 14X I7" Size.
- 2 Standard work station (Console) coupled with CR image storage capacity - at least 2000 images specify the numbers. It should have a resolution of 5 pixels/mm (Minimum) for standard resolution cassette & **up to 20 pixels/mm or more**.
- Separate DICOM workstation in ultra modality with all processing facilities in a centralized reporting.
- Other feature of CR system.

- Image post processing
- Window leveling
- Annotation
- Area of interest Zoom

- Magnification
- Flipping & panning
- Automatic exposure correction
- Pre view software
- Edge enhancement stepwise
- Contrast/Brightness adjustment
- Shuttering/ ROI Finder
    - **Application related software like Pediatric should be available - The system should have software to perform full leg/Full spine/Long Body imaging/imaging stitching**.

- DICOM Print
- DICOM image output to network workstation.
- Grid Pattern removal software & noise compression processing.
- Gray Scale reversal
- Rotation
- Image preview time 25 to 60 Sec. (For large image)

2. Technical characteristics (specific to this type of device)

- System should be fully compliant with DICOM 3.
- Automatic cassette identification.
- **Laser with at-least three film size on line 14"× 17", 11" × 14"/ 10" × 14"/14 × 14, 10" ×12", & 8" × 10"**.
- Contrast spatial/Reading resolution 10 pixel/ mm or more constant high resolution in all sizes. True Size printing should be possible from reader console.

Automatic exposure correction & facility for manoeuvring reading sensitivity manually.
Gamma curves for multiple object intensity processing.
Registration & cassette identification should be possible to be done before & after the exposure (Pre/Post registration).
Specification for Laser Camera

- Mention Spatial resolution higher level preferable minimum 500 DPI/PPI.
- Mention Gray Scale resolution: more than 12 bits preferable.
- Mention Processing capacity/hour for (14" × 17") films, It should be more than 70 films /Hour.
- Acceptable film size: 14" × 17", 11" × 14"/10" × 14", 10" × 12", & 8" × 10"
- Online film size : **at least three film size**
- DICOM compatible
- CR workstation should have following feature.
- Multiple image printing with multiple format.
- Measurement of image, insert scale.
- Preloaded annotation.
- DICOM CD writing & reading.
- Image inverse, image flipping, image magnification, zooming.
- Reporting format
- Image preview
- Image cropping
- Printing multiple patients on one film.

- CD writing for multiple patients on one CD.
- Should have a hard disk of 80 GB or more for storing image.

3. User's interface manual

4. Software and/or standard of communication(where ever required) In built

3. PHYSICAL CHARACTERISTICS

a) Dimensions (metric): NAA
b) Weight (lbs, kg): NA
c) Configuration: NA
d) Noise (in dBA) Noise-less than 50 db
e) Heat dissipation: Should maintain nominal Temp and the heat should be disbursed through a cooling mechanism.
f) Mobility, portability Stationary installation.

4. ENERGY SOURCE (Electricity, UPS, Solar, Gas, Water, CO2...)

a) Power Requirements Power supply: 230V, AC, 5OHz.
b) Battery operated no
c) Tolerance (to variations, shutdowns): NA
d) Protection NA.

5. ACCESSORIES, SPARE PARTS, CON SUMABLES

a) Accessories (mandatory, standard); Spare parts (main ones); Consumables (open, closed system).
Machine should be supplied with following transducers:

- 2 No. BARC Approved whole body lead aprons with all attachments.
- Please provide cassette for CR
  14 × 17"- 02 Nos.
  11" × 14" /10"×14"/14"×14"- 02 Nos.
  10"×12"- 02 Nos.
  08"×10"- 02 Nos
- Suitable online pure sine wave UPs for 30 minute backup.
- **Compatible computer System with 2 medical grade monitors minimum resolution of 1.3 m pixel/m, and two CPU**

IDDING/PROCUREMENT TERMS /DONATION REQUIREMENTS

6. ENVIRONMENTAL AND DEPARTMENTAL, CONSIDERATIONS

a) Atmosphere/ Ambiance (air conditioning, humidity, dust.)

- **Operating condition: Capable of operating continuously in ambient temperature of 15 to 30 deg C and relative humidity of 15 to 80% in ideal circumstances.**
- **Storage condition: Capable of being stored continuously in ambient temperature of 0 to 45 deg C and relative humidity of 15 to 90%.**

b) User's care, Cleaning, Disinfection & Sterility issues

- Disinfection: Parts of the Device that are designed to come into contact with the patient or the operator should either be capable of easy disinfection or be protected by a single use/disposable cover.
- Sterilization not required.

7. STANDARDS AND SAFETY

a) Certificates (pre-market, sanitary,.); Performance and safety standards (specific to the device type);Local and/or international
- Should be US FDA/ European CE/BIS approved product.
- Manufacturer and Supplier should have ISO 13485 certification for quality standards.
- Electrical safety conforms to the standards for electrical safety IEC 60601-1-General requirements(or equivalent BIS Standard)

b) Local and/or international Manufacturer/ supplier should have ISO 13485 certificate for quality standard.

8. TRAINING AND INSTALLATION

a) Pre-installation requirements: nature, values, quality, tolerance.
Three phase stable power supply.

b) Requirements for sign-off Certificate of calibration and inspection of parts from the manufacturer.

c) Training of staff (medical, paramedical, technicians)
- Training of users on operation and basic maintenance.
- Advanced maintenance tasks required shall be documented.

Broad based QR for weight bearing MRI with tilting Hydraulic Magnet Mechanism from 0°-90°

These specs are for dedicated musculoskeletal MRI system. The MRI should cover all applications: foot/ankle, knee, hip, Lumber and Cervical, spine, head screening, shoulder, elbow, and hand/wrist. The magnet can be tilted from the horizontal to vertical position which enables the imaging of the patient in the weight bearing position, which allows visualizing the actual condition of the pathologies.

The system should meet the below mention specification

1. MRI system
- MRI system should have Tilting, Weight-Bearing MRI functionality for C spine, L spine, shoulder, and lower extremities and routine MRI examinations for all extremities.
- MRI system should have complete system, magnet, electronics and console can be installed in a single room of 28 m².
- Total system weight not exceeding 9000 Kg (19841 lbs).
- The system must be capable of performing supine, sitting (C spine) and standing MRI and should be based on magnet tilting mechanism.
- System operation should be free of consumable gas.
- The open permanent magnet should not consume than 5KVA of power in normal 220/110V power outlet.

2. Magnet systems
- MRI system should have Open design C type permanent magnet system enabling MRI examinations also of claustrophobic patients.
- Tilting/rotating Magnet design for the study of the joints and of the most important spine segments.
- The strength of the open permanent magnet should be at least 0.25 Tesla field or more.
- MRI system should have real time positioning display on the magnet.

3. Gradient system

- System should offer Gradient Strength of at least 15mT/m, Gradient Rise Time from- 20mT to 20mT of the magnet should be less than 1 m/sec and Gradient Slow Rate of at least 40 mT/m/ms.

4. Radiofrequency system: Coils

- The MRI system should be offered with the complete set of dedicated optimized coils.
- The MRI system should have receiving coils with automatic recognition.
- Coils should have the ability for the true anatomical position and multi angle position.
- Dedicated coils for every anatomical MSK district as mentioned below:
  - C spine routine & with flexion/extension
  - Lumbar spine multichannel
  - Shoulder, Elbow, Wrist & hand, knee, Ankle, Foot, Hip joint.
  - Head screening if possible

5. Computer system

- The console computer should have 12 GB RAM or higher and with, at least, a 512GB hard or higher disk drive.
- CD/DVD R/W archiving system.

6. Operating console

- The MRI system should have Monitor specifications: color LCD panel, TFT 24" or more with high resolution.
- User access: Ergonomic and Windows-like operator interface

7. Image acquisition

The system should have as mentioned below:

- Oversampling technique for increasing the quality of the image.
- Offered with Full set of sports medicine MSK pre-defined sequences and protocols.
- User defined sequences and with customized examination protocols.
- Required Sequences
  - Spin-Echo,
  - Spin-Echo Half Echo,
  - Spin-Echo Half Scan,
  - Half Fourier,
  - Turbo Spin-Echo,
  - Multi-Echo,
  - Turbo Multi-Echo;
  - Inversion Recovery
  - Short Time Inversion Recovery;
  - Short Time Inversion Recovery Gradient Echo;
  - Gradient Echo;
  - Turbo Spin-Echo;
  - Fast Spin-Echo;
  - 3D sequences Hybrid Contrast Enhanced;
  - Fast STIR;
  - Sequences with Dixon reconstruction (water and fat suppression) X bone T1/T2;
  - Turbo 3D T1;

- Steady state sequences: HYCE, SHARC, SST1, SST2
- Real Time;

- Should have Software for cinematic acquisition
- Should have MAR technology (Metal Artifacts Reduction)
- Should have TR reduction, Speedup technology, Geometric distortion correction method
- Should have Minimum Slice thickness:
  - From 2mm in 2D;
  - From 0.6mm in 3D
- Should have Acquisition matrix: from 128×128 to 512×512.

8. Processing system and operator interface

- Should have Control panel located on the magnet with real time management of acquisitions and facilitating patient positioning easier.
- Image processing:
  - Reconstruction time: within 2 seconds;
  - Registration, transparency and difference functions.

9. Patient table

- Should have Large Ergonomic patient table for maximum comfort.
- Should have Patient positioning and fixation suitable for Weight-Bearing MRI

10. Image hardcopy

- Should have connectivity to the DICOM printer

11. Image transfer & networking

- Should have connectivity to the DICOM/ Networked storage servers/PACS.

12. Image storage and archiving

- Should have Possibility to create patient CD/DVD including viewer.
- Should have internal at least 256 GB hard disc.
- Local archiving system: hardware and software functionality for management of a local independent archive & retrieve, independently from PACS (local PACS function).

14. Post installation technical support and service

- MRI should be quoted with CMC for 5 years.
- Facility for software up gradations free of cost during CMC period technical support within 48 hrs.

13. Company should provide CE/USFDA certificate.

14. The MRI Project should be offered with following turnkey arrangements to be done locally and price to be quoted in INR for turnkey project

Complete installation support, site preparation, and commissioning of the project with below mentioned requisites

a) 1 MRI room with console/reporting, with furniture like 3 chairs and table and Film viewer
b) 2 Numbers of non magnetic patient shifting trolley
c) Dual pressure injector with100 syringes
d) 10 KVA UPS of reputed company with 1 year warranty
e) Compatible multifunction printer with camera should also be supplied with MRI machine

f) Training for 2 Technicians or Doctors for 1 week at site or any centre in India

g) All electricity work inside the MRI RF room should also be done by the company; hospital will only provide 3 phase and single phase power supply.

Technical Specifications for Multiparameter Monitor with $ETCO_2$, IPM & AGM

S.No	Specifications
1.	Should have TFT/LCD display with at least 15 inches with atleast 8 wave forms and numeric display simultaneously
2.	The waveforms should be user selectable.
3.	Monitor should have in built Lithium-ion type battery for 1 Hour continuous operation or supplied with a pure sine wave UPS for 1 Hour backup in case of mains failure.
4.	Should have keys for quick access to main functions.
5.	Should be able to monitor ECG, SPO2. NBP, 2 1BP, Respiration Rate, 2 temp. ETCOZ, for adult, paediatric and neonatal patients as standard and Anaesthesia gas monitoring.
6.	Monitor must have facility for at least 2 1BP/IPM/IPM measurements simultaneously.
7.	3 or 5 Lead ECG monitoring with lethal arrhythmia recognition capability and ST analysis.
8.	Respiration & Apnea alarm.
9.	Manual, Auto and STAT mode for NIBP monitoring and ranges should be 20 to 230 mmHg.
10.	Pulse Oximeter (SP02) with Plethysmogragh & Pulse strength indicator With Variable pitch with change in SpO2.
11.	Side-stream/Capnography with display of CO_2 wave form & digital values ($ETCO_2$, $FICO_2$, RR)
12.	Monitor should have Advanced Airway modules for complete respiratory monitoring use in OT, ICU, and PACU etc.
13.	Monitor should have provisions for automatic identification and measurement of anaesthesia agents, CO_2, 0_2, N_20 and facility to measure MAC.
14.	Should have separate volume control for beep sound for QRS and alarm sound.
15.	Should have provision for automatic identification and measurement and anaesthetic agents. Co_2, 0_2, N_20 and facility to measure MAC
16.	The display setting should have at least 10 user defined setups variable as per applications fort flexible use of the monitor in various clinical environments as in OT, PACU, ICU, ER, and NICU.
17.	Monitor should have networking options.
18.	Should provide following accessories: • Side stream/ Micro stream ETCO2 disposable kit for adult, paediatric/Neonatal-25 Nos. • 20 Nos of Disposable IBP transducers with all standard accessories & 6 Nos of reusable adapter cables. • Accessories for Anaesthesia Gas monitoring-25 No (disposable) • Reusable adult 3 or 5 lead ECG cable set- 2 Nos • Reusable adult and paediatric SPO2 finger probes- 1 each • Disposable SPO2 probes for neonatal use- 2 Nos • NIBP cuffs for standard Adult, Obese Adult, Child and infant all1 each. • Temperature Probe- 2Nos
19.	Equipment performance should not be affected by electromagnetic radiated or conducted through power lines from another device.
20.	Should work on 200-240V ACI50Hz with inbuilt rechargeable battery.

21.	Should have safety certificate from a competent authority CE/ FDA (US) STQC CBB certificate/STQC S certificate or valid detailed electrical and functional safety test report from ERTL. Copy of the certificate/ test report shall be produced along with the technical bid.

	Video Laryngoscope
	➢ Required is a Macintosh blade with closed European Metal finish size 3 with integrated camera chip and LED light illumination for obtaining more than 50000 Lux of brightness. ➢ Macintosh blades of size 1,2,3,4 should be compatible with the scope. ➢ One special adult blade for difficult intubation with device for introduction of suction cather for size 16-18 FR, angle of view should be approx 80 degree. ➢ It should get connected with above mention screen 7 inch or more in size for display with feature control buttons on the screen with HDMI output for connecting to a big screen. ➢ Blades and connection cable should be fully immersible in disinfecting solution. **The Unit should be supplied with following accessories:** ➢ Soft bag should be supplied to place the monitor and system can also be operated without taking monitor out from the bag. ➢ All necessary accessories to make the system complete. ➢ Airway Guide (cum Bite block) for Oral intubation should be provided with the set (at least 10 airways). ➢ **TUBE HOLDER** should be a part of standard accessory. ➢ Magill forceps for foreign body removal and for assisting nasal intubation. ➢ IV Stand for positioning the monitor, with tray for laryngoscopes should be provided. ➢ Accessories like protection cap tray for cleaning and sterilization of blades (at least two blades at a time) should be provided. ➢ One improved Trolley to hang Scope as well monitor manufactured by same company should be provided. **Quality Standard** ➢ The Unit should fulfill the following international quality standards like CE, ISO, and FDA. ➢ The Unit should also fulfil the required electrical standards.
	FIBERSCOPE WITH VIDEO MONITOR & COLD LIGHT SOURCE
	Flexible fiber optic Tracheal intubation laryngoscope ideal for use in Emergency Application as well as at the bed site or in the operation theatre **Technical Specifications:** 1. Suction channel for excellent aspiration performance. 2. 90° field of view. 3. 3.5 mm Diameter of insertion tube. 4. 180°/90 up/down angulations. 5. Fully immersible for assured reprocessing.

6. Length 90-120 cm

1. BISPECTRAL INDEX MONITOR

a) Equipment should be based on processed EEG.
b) For ease, monitor should provide digital interpretation of patient level of consciousness and separation from cardiovascular reactivity.
c) Equipment should have Resistant to artifact from electrocautery.
d) Backup of atleast 20 minutes and memory for minimum 15 patients' record for review.
e) Besides EEG and digital level, monitor should also show online:
   - EMG bar graph to remove artifact
   - BIS trend graph
   - Signal quality index
   - Raw EEG

MONITOR:

a) Should be small, light weight, wall mountable & clam should also be provided.
b) Should have alarm facility.
c) Have automatic impedance check.
d) Should be programmable for ICU and separately

SENSORS:

a) Patient cable - 1 No
b) Sensors (Adults) - 40 Nos
c) Sensors (Pediatric) -10 Nos

2. NERVE MAPPER-LOCATER

Features

a) Constant current
b) Bright large LED display
c) Wide range of freq, time interval and energy settings
d) Audiovisual indication for pulse delivery
e) Modes (continuous & demand) as per requirement
f) Compact light weight

Technical Specification

a)	Mono-phasic pulse with	40 µsec to 990 µsec
b)	Frequency	0.1 to 70
c)	Current range	01. To 20 Ma
d)	Impedance	0 to 5 kOhm
e)	Weight without battery	<250 gms
f)	Battery	9V
g)	Size	Small & Compact

ACCESSORIES

a) Different length, autoclavable short bevel insulated needless
b) Transcutaneous mapping probe with cable

	3. NERVE STIMULATOR Features a) Constant current microprocessor based nerve stimulator b) Bright large LED Display

	Name of Equipment	Specifications
	Automated Blood Culture System	1. Automated Continuous Monitoring Blood Culture System with 40 sample vial capacity which can be expanded later on after adding additional units. 2. System should be based on more sensitive fluorescence technology for interpretation of results. 3. System should be true walk away with a simple user interface and touch screen operations. 4. System should have continuous agitation for optimized recovery of both anaerobic organisms. 5. The culture media must have strong resin based Antibiotic Removal devices to minimize chances of false negatives due to high antibiotics in specimens and have minimal time detection of organisms. 6. Instrument should have the facility for entering the patient name and sample ace number using bar code reader from a bar coded format. 7. System should provide the option of loading of any culture bottle anywhere without a software intervention in order to get the bottles loaded in the instrument round the clock. 8. System should have Auto Quality Control and Calibration facility to avoid any manual daily maintenance. User intervention for routine QC/calibration should not be required. 9. Should have special media for Pediatric samples and low volume sterile body fluid samples. 10. System should be supplied along with on line UPS with 30 minutes back-up. 11. Training of laboratory staff for the purchased equipment. 12. Three years warranty, 5 yrs comprehensive CAMCIAMC quote after standard warranty. 13. AMC should be available with service centers in close proximity. 14. Availability of spares/disposables for at least 5 years. 15. All consumables required for installation and standardization of system to be given free of cost. 16. List of users and satisfactory report of quoted model from reputed institute preferably Government institute/ hospital. 17. Should have all the accessories required for the functioning of the equipment. 18. There should be provision for demonstration before final approval of equipment. 19. Kindly provide original literature to support the technical details of the said instrument.

	Automated ID and AST System	1. The system should be Fully Automated, Walk-away, High-throughput & random- access bacterial identification & Antibiotic Susceptibility system. 2. The system must have the capacity to accommodate a minimum of 50 ID and AST tests at any point of time. 3. The system should be modular and can be upgraded with additional module with same capacity when required. 4. System should be able to perform simultaneously identification and susceptibility testing along with reporting of MIC values based on testing of serial doubling dilutions of antibiotic concentrations. 5. The manufacturer must provide single and ready to use consumables for inoculums preparation for simple and easy workflow with reduced hands on time for laboratory staff efficiency. 6. The ID and AST panels must not require refrigeration to minimize space constrains. 7. The system should provide Expert Rules and interpretation of AST results printed along with report. 8. The system must offer low inoculums option with Mcharland 0.25 to be used for ID and AST for scanty growth for reducing TAT. 9. The system should offer combo tests for ID and AST available on the same panel besides only ID and only AST panel formats. 10. System should work on colorimetric and fluorometric technology for reporting bacterial and yeast identification results. 11. AST determination should be based on more than one principle to reduce major errors and detection of delayed resistance tor accurate MIC determination. 12. The manufacturer should provide an option of testing and reporting more than 25 antibiotics on a single panel available in doubling dilutions. 13. Primary panels should be able to identity and confirm various resistant mechanisms in the isolate such as- ESBL, Carbapenemase Producing organisms, MRSA, VRE, HLAR, b-lactamase producing Staphylococcus (Penicillinase), Macrolide resistance in Streptococci (Efflux/MLSb), High Level Penicillin resistance in S. pneumoniae, Low Level Penicillin resistance in S. pneumonia, mecA mediate resistance in Staphylococcus. 14. The system must provide antibiotic susceptibility testing values by providing interpretation as SIR in line with the updated CLSI guidelines. 15. The primary AST test panel should be able to detect carabepenamse producing organisms with Ambler classification and newer antibiotics like ceftazidime/avibactum. 16. The waste generated from the system should be sealed, easy to dispose with safety features. 17. Consumables and software should have a provision for Upgradation according to recent CLSI guidelines. 18. The system should be supplied with online 3 KVA or suitable UPS with minimum2 hours backup for working/ installation. 19. The company must ensure proper demonstration and training to the hospital staff technicians at the site of installation. 20. All required consumables and reagents costs should also be quoted. 21. All technical specification will be evaluated with onsite/video

		demonstration of the equipment for verifying compliance to mentioned specifications. 22. The system should be US FDA certified.
	Fully Automated centrifuge with Vortex	The equipment should have the following features: 1. Table top version 2. Tube capacity: No. 24-36: Size 5-15 ml 3. Digital timer 4. Strong fabricated & corrosion resistant steel 5. Control panel- for start/stop Switch, dynamic brakes, step less speed regulator with zero start switch& sped indicator with timer & protective fuses. 6. Door interlock 7. Fully automated centrifuge 8. Maintenance free brushless drive motor with exact speed pre-selection & display. Speed range: 100 to 10,000 rpm & above, accuracy 1 rpm. 9. Centrifuge complete with Swig & basic rotors & four buckets- 01 set. 10. Power supply: power input: 220-240 V AC, 50Hz.
1	**Nephelometer**	1. Fully Automated Random Access Nephelometer for the determination of Proteins in Plasma, Serum, CSF & Urine. 2. Measurement mode to be Endpoint, V-L in Integral & Fixed Time kinetic. 3. The instrument should have capacity of storing all the required reagents and controls on- board in refrigerated condition to ensure reagent stability. It should have automated reagent cap-opener to prevent evaporation of reagents. 4. The instrument should be capable of generating Levy-Jennings plots, etc. from the stored data for efficient quality control. 5. The instrument should be able to have at least 40 samples on-board with continuous loading and off-loading facility. 6. The samples should be loadable in primary tubes, bar-coded or uncoded tubes and specific sample cups for running paediatric or low-volume samples. 7. The instrument should allow continuous loading. 8. The instrument should offer continuous STAT capability at any available sample position. 9. The instrument should have the capacity of bidirectional host interface. 10. The instrument should have a capacity of at least 90 Cuvettes on-board. 11. The instrument should offer analysis of all Ig classes, the IgG subclasses I to 4, free kappa and lambda light chains, Complement proteins C3 & C4, C1 inhibitor, hs-CRP, total protein in CSF and serum, Ig levels in CSF and serum, Rheumatoid Factor, ASO, Anti- DNase B, Retinol Binding Protein, Transferrin, Homocysteine, Fibrinogen, Serum Amyloid Assay, Myoglobin, Cystatin C, etc 12. The instrument should perform Multipoint calibration using a Single Standard should be able to store calibration curves for upto 3 different Reagent Lots and upto 2 curves for any Lot. 13. The instrument should have positive barcode identification for both Standard& Control vials loaded on-board.

		14. The instrument should have liquid level sensors for samples, reagents and external consumables like the buffer, diluents, wash solution (water) and waste.\ 15. There should be a single probe with an integrated pre-heater (for reagent preheating) and an integrated mixer for efficient reagent & sample delivery and mixing of reaction components. 16. The instrument should perform automatic dilutions for samples prior to performing the assay. 17. The instrument should have a dedicated and compatible computer workstation along with colour printer.
	Laboratory Refrigerators	1. Capacity 280-400 Liters. 2. Temperature 2-8°C 3. Preferably roller mounted 4. Adjustable shelves 5. Battery backup 6. Durable rust free exterior 7. Durable unbreakable interior 8. Control panel with temperature alarm, on/off switch and digital thermometer. 9. Interior lighting, Drip tray and defrosting arrangement. 10. Adequate circulation of air to ensure even cooling by DUCT system. 11. Door with lock, Inside of door provided with racks. Door hinges and latches should be chromium plated. 12. Electronic automatic temperature control, Operable at 220 V, 50 Hz, 13. Compressor unit to be hermetically sealed with guarantee for at least five years. 14. Three years warranty, 5 yrs comprehensive AMC should be available with service centres in close proximity. 15. Should have all the accessories required for the functioning of the equipment. 16. CE certified mark or other equivalent quality certification. 17. All electrical peripherals required for smooth functioning e.g. voltage stabilizer provided with the equipment. There should be provision for demonstration before final approval of equipment.
	Hot Air Oven 100 ltr	1. Capacity 280-400 Liters 2. Preferably roller mounted 3. Adjustable shelves 4. Control panel with temperature alarm, on/off switch and digital thermometer. 5. Electronic automatic temperature control, Operable at 220 V, 50 Hz. 6. Door fitted on heavy brass cast and chrome plated hinges. 7. Cabinet double walled MS. 8. Insulation: minimum thickness 2" of glass wool. 9. Three years warranty, 5 yrs comprehensive AMC should be available with service centres in close proximity. 10. Should have all the accessories required for the functioning of the equipment. 11. CE certified mark or other equivalent quality certification.

		12. All electrical peripherals required for smooth functioning e.g. voltage stabilizer provided with the equipment. There should be provision for demonstration before final approval of equipment.
	Air Petri Sampler	1. Air Petri Sampling System (Complete kit). 2. A handy system for monitoring the air for microbial presence indoors and outdoors. 3. Compatible with 90 mm Petri plates. 4. Min. aspiration volume of 300 litres/minute. 5. With remote control operations 6. With standard accessories 7. Power supply with power cord 8. Kindly provide original literature to support the technical details of the said instrument.
	Water Purifier	ULTRAPURE GRADE WATER SYSTEM 1. All in one pack containing a combination of technologies to produce ultrapure water directly from tap. 2. The first stage of reverse osmosis, deionization cartridge contains pre treatment for reverse Osmosis and reverse osmosis cartridge for the removal of ions, organics, particulates and colloids. 3. The second stage contains mixed bed 1on exchange resin for the removal of remaining 10ns and trace 1onic and organic contaminants. 4. Final stage contains a 0.22 micron PES membrane filter in stack disc configuration. 5. Automatic recirculation when the system is not in use. 6. Preset of fixed volume dispense. 7. Integrated reservoir with tap for dispensing RO water. 8. Product resistivity cell should be present. 9. The system should give the final water quality as: • Resistivity: 18.2 Mega Ohm cm • Conductivity: 0.055 uS/cm • TOC: <5-10 ppb • Bacteria: < l cfu/ml • Flow rate: 0.5 L/min • Particulates >0.22 um: < 1 particulate/ml • Endotoxin: < 0.001 Eu/ml
	BINOCULAR COAXIAL MICROSCOPE	
	SPECIFICATIONS: • Mechanical tube length 160 mm. • 45 inclined Binocular Head rotatable to 360 mm. • Co axial built in Mechanical stage 125X 150 mm with fine vernier graduation designed with convenient coaxial adjustment for smooth slide manipulation through 50 × 75mm. • Dust proof quadruples/quintuple ball bearing revolving nose piece with positive click stops. • The coaxial focusing system incorporates a very precise and wear resistant linear bearing mechanism that eliminates vibration and adjustment ring for focusing knob. • Sub stage Abbe type NA 1.25 Condenser focusable with rack and pinion continuously variable iris diaphragm with built in swing out filter holder.	

- Stipple grey chemical resistant back on finish Heavy rectangular study base with built in illumination-6v-20W halogen Lamp or 12 V-21 W.
- Exclusive preset focus lock prevents damage to valuable slides and objectives.

Objectives	Numerical aperture	Working distance
PLAN Achromatic 4X/15X	0.10	30.00mm
PLAN Achromatic 10X	0.25	7.14mm
PLAN Achromatic 40X/45X	0.65	0.57mm
PLAN Achromatic 100X Oil	1.25	0.20mm

Semi Automated Immunohaematology Analyzer based on column agglutination technology

3) Centrifuge should be able to perform centrifugation of all the tests for cross matching on combs and enzyme phase to pick both IgG & lgM antibodies, Blood grouping based on column agglutination.

a) System should have the Panel PC touch screen with easy to use interface.
b) Centrifuge should be microprocessor controlled.
c) RPM, time and function should be displayed (LCD).
d) Equipment should have automatic balance control.
e) Speed centrifuge should be 910+/-5 RPM and centrifuge time should be prefixed for 10 minutes for cards.
f) The technology should not have any washing step and should avoid non specific results.
g) It should be CE/FDA approved.
h) Consumables should be quoted separately.
   - Comb cross match for crass acting cards neutralization cards ADB forward and reverse grouping cards.
   - ABD forward and reverse grouping cards.
   - Liss Diluent-II.
   - Liss based coomb's cards with 6 "V" bottom shaped micro tubes containing poly specific AHG (raboit anti-IgG, Monoclonal anti- C3d, for Coombs Cross IAT, DAT based on CAT.
   - Mono specific DAT.
   - Rare Antigen Phonotyping cards and Antisera.
   - Elution kit for eluting the antibodies Extended Rh and Kell phenotyping.
   - Any other reagents cards specific for the equipments.

Sterile Connecting Device

a) To create sterile tubing connection maintaining a functionally closed system.
b) Sterility should be preserved without damage to cell fluids.
c) Compatible with all standard tubing's.
d) User friendly.

	e) Compact & high weight. f) 320°C Temperature. g) Sensor controlled temperature welding. h) Should weld all PVC tubings
	Plasma expresser (manual):
	a) Should be user friendly. b) Provide pressure sufficient to transfer supernatant to other bag without damaging blood bag. c) Spring based. d) Front surface should be of glass & transparent.
	Suction Machine (High Vacuum)
	High vacuum suction unit, run on electricity with two section jars of 4-5 liters capacity each. Jars should be made of unbreakable Polysulfone with autoclavable lids
	Auto cut of device of preventing entry of fluid in pump
	Fast and efficient jar change facility
	Easy access and controls
	It should be heavy duty and noiseless, with piston/cylinder technology
	Should be able to create desired maximum vacuum in least possible time, vacuum should be up to -90 K Pascal with variable capacity of 40-60L/min
	Light and manoeuvrable fitted on a mobile trolley
	One plastic suction jar cover, steam sterilizable to be provided extra
	Two extra suction jar (PSU) of capacity 4-5 litres. Should be quoted along with accessories like lid, tubing etc. with the equipment to make the unit functional.
	Quantity certification of the product from international/ Indian Agency should be provided.
	The firm should clearly indicate in the technical bid itself that the prices of all standard accessories are included in the quoted price
	Noise Level should be less than 40dba The firm will give rate list of all possible spares, accessories & consumables if any, as part of financial bid. If price of any spare is not mentioned & is required for repair in life time of equipment/instrument, then the firm will be obliged to give it free throughout life cycle of the equipment
	Should be USFDA and European CE/BSI approved product
	DVT/VTE PUMP (With Battery)
	hnical Specifications: The device must be able to provide external pneumatic compression for patients who are assessed to be at risk of DVT. The device must provide choices between filling intermittently/uniformly and filling sequentially according type of cuff /garment used. Must provide pre-set gradient intermittent compressions of 40-80 mmHg. Must provide following -Inflation/Deflation Time with Cycle Time of 60 seconds Inflation: 12 seconds & Deflation: 48 seconds

Device pressure should be automatically fixed at 40 mmHg for Leg garments.
Also device pressure should be adjustable to pressure of 80 mmHg for foot garments.
Ability to select Single or Double Limb Garment.
Must be able to operate even on single leg if required.
Must have following display with audible and visible alarm prompts for normal working and faults- **Indicator Light:**

a) Green LED illuminated when power on by AC source; Red LED illuminated when power on by battery.
b) Amber LED for low pressure (flashing signal), high pressure (continuous signal), continuous pressure (flashing signal), and over pressure (continuous signal).
c) Blue LED for pressure setting and single garment function.

Audible Alarm:

Low pressure, high pressure, continuous pressure and over pressure alarms.
Must be supplied with accessory -Rechargeable Lithium Battery pack with following capacity: Nominal 2200 mAh, 2150 mAh minimum.
Device must begin to charge battery automatically once pump is plugged to AC power source; should have five battery indicator LEDs which will display to show battery's charging level.
Must have aswing outhook to hang the device to bed/ trolley sides and also carry handle.
Must have two distinct snap lock connections for tubing to garments.
Must have Connector Tubing - 120 inches long.
Sleeves must be made of brushed nylon & poly-foam lined tricot inner backing and must be free of latex.
Following two categories of cuff/Garment:

a) Calf/Thigh/Foot- Cuff that fills intermittently and uniformly.
b) Calf/Thigh-Cuff that fills sequentially

Navigation System HIP & Knee

Specifications-Details

A	Platform
1.	Navigation system should be easy to set up and should work under Windows/Linux/Unix operating system environment. The system should be plug n play and system software should be user friendly wizard guided to control set up, registration and navigation procedure.
2.	System should have Optical and advanced wireless passive marker tracking technology.
3.	The system should have touch-sensitive screen and could be used in sterile field. The display should be of Full HD resolution (1920×1080) with screen size of 21.5 inch or more.
4.	It should have Rapid data transfer directly to the navigation station with 4USB 3.0 port for direct data import and also have direct and seamless integration with the hospitals PACS system
5.	The system must have dynamic referencing so that registration is not lost even if the camera or patient moves
6.	It should have separate mobile cart for the camera stand for filexible epositioning and laser pointer for easier positioning & aiming. The mobile stand for the camera should be telescopic with pneumatic braking to take Jcare of ine of sight issues
7.	It Should be HIPPA compliant including authentication, accountability log land automatic log-off features
8.	The navigation system should be operable without keyboard or mouse
9.	Optical camera should have a large tracking volume for flexibility in positioning and addressing line-of-sight issues

10.	System should have RAM of 8 GB & 240GB SSD for fast performance
11.	System should have high end processor like i5 or equivalent with SSD 1240GB, and min 2GB Graphics and more
12.	System should have feature of screenshot for documentation
13.	System should have video Input and output ports for external device -integration e.g. Ultrasound, C-Arm and Microscope

B	**Knee Navigation Specifications**
1.	The system should have image free Knee navigation application package for knee replacement surgeries
2.	Software should automatically follow the surgeon without any system interaction. Software should have dynamic adaptation to the surgical steps based on automatic tool detection
3.	The navigation software should offer a workflow without implant data so that total Knee replacement implants from reputed manufacturers can easily be used with it. Software should provide information on Varus/Valgus, Resection details, Flexion/extension details in real-time as per selected position
4.	Software should allow surgeon to register patient with acquisition of minimal 1points with an option to skip additional registration steps like white side line and posterior condoyle for Femur and Tibial Plateau for Tibia. Accordingly rotational reference information should be available after registration
5.	The software should allow the navigated placement of cutting blocks for tibial resection.
6.	The software should allow the navigated placement of cutting blocks for distal femoral resection
7.	The software should allow the navigated placement of cutting blocks for anterior femoral resection
8.	The software should allow the verification of all performed resections
9.	Hip replacement system should also have non-invasive femur reference geometry to ensure that pins are not used in Femur during navigated surgery
10.	It should include extended pointer that could enable it to register patients using 1anatomical landmarks.
11.	The system should have screenshot storage function for documentation purpose
12.	The software should allow the registration of anatomical landmarks on pelvis and femur to reconstruct the relevant anatomy without any influence of additional device like a table
13.	System should have min 1 year warranty
14.	There should be facilities to upgrade the system to be compatible with PACS System
15.	System must have European CE and US FDA Certification

High speed Refrigerated Centrifuge	• Max. Speed: 25000 r/min • Max RCF: 61250XG • Max Capacity: 3000ml

	• Speed Accuracy: ±50 r/min • Temp. Accuracy: ± 1°C • Weight: 220 kg
Electrophoresis Fully Automatic	• Glass plate size: 1600 x 14L cms • Buffer Volume: 850 ml • No. of samples: 48 • No. of Co nibs: 2 with 15/20 wells of 1,5 mm each.
High Pressure Liquid Chromatography	• Flow range: 01001-9.999 ml/min • Wavelength: 280- 360 nm • Temperature Ambient: - 30°C
Top Pan balance digital weighing	• Capacity: 1gm-500gm
Digital colorimeters	• Wave length 400- 700nm with eight filters. • Sample volume: 1ul

Item Number	Item Title : **VAC Dressing**	Item Quantity
1.	Nanocrystalline silver in Knitted polyester mesh dressing with Silcryst technology, 10cm x12.5cm	1
2.	Nanocrystalline silver in Knitted polyester M&EQ mesh dressing with Silcryst technology, 10cm x 20cm Pack of 12	1
3.	Nanocrystalline silver in Knitted polyester mesh dressing with Silcryst technology,, 20cm x 40cm	1
4.	Nanocrystalline silver in Knitted polyester mesh dressing with Silcryst technology, 40cm x 40cm	1
5.	Nanocrystalline silver in Knitted polyester M&EQ mesh dressing with Silcryst technology, 10cm x 120cm	1
6.	Hydro Cellular Foam with ART Principle PU top M&EQ Layer with silicone gel, 12.5cm x 12.5cm	1
7.	Hydro Cellular Foam with ART Principle Antibacterial PU top Layer with silicone gel, 17.5cm x 17.5cm	1
8.	Hydro Cellular Foam with ART Principle Antibacterial PU top Layer with silicone gel 21cm x 21cm	1
9.	Hydro Cellular Foam with ART Principle PU top M&EQ Layer with silicone gel, 10cm x 25cm	1
10.	Hydro Cellular Foam with ART Principle PU top M&EQ Layer with silicone gel 10cm x 30cm	1
11.	Hydro Cellular Foam with ART Principle PU top M&EQ Layer with silicone gel, 7.5cm x7.5cm	1
12.	Paraffin Gauze roll 15Cm x 2 Mtr Box of 12- USFDA	1
13.	Grid pattern acrylic adhesive film dressing 6.5x5cm Pkt of 100	1
14.	Grid pattern acrylic adhesive film 15.5 x 8.5cm Pkt of 20	1
15.	Grid pattern acrylic adhesive film 25 x 10cm Pkt of 20	1

16.	Grid pattern acrylic adhesive film 35 x 10cm Pkt of 20	1
17.	Single use Negative pressure therapy system with portable pump and two dressing on one pack	1

Micro Drill with Burr Set

Instruments must be European CE and US FDA certified. Certificate must be attached. All the motors should be maintenance free D.C. brushless motors.
Should have operation from both hand switch and foot switch. All Attachments, hand-piece etc should be sterilizable through Steam and Flash Autoclave. Prior demo to be provided if needed.

1. Console----------01

- Should have Software upgradeable Provision.
- Should have touch screen display control for incorporating multi-functions into systems.
- Outputs should represent in digital figures or in graphic charts.
- With inbuilt irrigating system Supply 220-240V only 50-60Hz.
- Should be able to identify different hand-pieces with display on console.
- Should have function of controlling brightness, contrast and alarm volumes on the console.
- Ability to recognize & accept 02 two hand-pieces at the same time.
- Able to change the setting of the BRAKING; Speed to provide hard or soft brake and acceleration of the hand-piece.
- Torque sensing feedback capability.
- Should be programmable as per surgeon preference.
- Should be able to store user setting for different surgeries
- Colour Display
- On Screen Help

2. Footswitch----------01

- Should have fully programmable footswitch as user need
  User should be able to control following functions via footswitch
  - Forward
  - Reverse
  - Oscillation
  - Select hand-piece
  - Irrigation Control with Increase/decrease water flow rate
  - Switch over to high/ low speed
  - Increase or decrease speed (Accelerator type for accurate speed control)

3. Drill Hand-piece----------01

- Maximum Speed not less than 48000-60000 RPM
- Should accept straight, angled attachments and contra-angle attachment
- Should have facility of hand controlled hand-switch also
- Should be able to mount accessories/ attachments without usage of any tools DC brushless motors

4. Attachments for the Drill----------01 Each

- Angled Long
- Angled Medium
- Straight Medium

	• Straight Long **Burs for the Attachments** Assorted Tungsten Carbide Cutting & Diamond from 1 mm to 8 mm 12 Burs of each size **5. Micro saws----------01 Each** • Saggital Saw Maximum speed of 22000-25000 CPM • Snap-lock assembly and disassembly of all attachments • Maintenance free DC brushless motor **Oscillating Saw** • Maximum speed of 20000-22000 CPM • Snap-lock assembly and disassembly of all attachments • Maintenance free DC brushless motor **Reciprocating Saw** • Maximum speed of 14000-18000 CPM • Snap-lock assembly and disassembly of all attachments • Maintenance free DC brushless motor **Assorted Blades for Saggital, Oscillating and Reciprocating Saws All sizes (Short, Medium, Long in Both Narrow and Wide Variant)-------5 each** **6. Wire and Pin Driver--------01** • Maximum speed of 1500 rpm • Trigger control for variable speed control on the hand-piece. • Cannulated for use with wires and pins. • Forward/Reverse and oscillation mode controls on the hand-piece. **7. Pin Cullet for Universal Driver----------01** **8. Jacobs Chuck with key----------01** **9. Wire Cullet of compatible and suitable diameter----01** **10. Connecting cord----------02** • 10ft long, 3/8" diameter flexible electrical connecting cord. • Dot-to-Dot type push-pull connectors at both ends • Autoclavable **11. Compatible Irrigation tubings----------20**

Hydro Surgery System II- Versajet-II

The Hydro Surgery System to be used for patients have extensive injuries with raw area requiring meticulous wound care. The cases of necrotizing infection of limbs and trunk traumatic Wound, Diabetic foot , Pressure Ulcers and wound debridement.

These cases required precisely select, excise and evacuate nonviable tissue, bacteria and contaminants from woundsand soft tissue injuries using a tissue-preserving technique. which increase the healing rate and reduces the hospital stay. This quickly prepares a cleaner, more uniform wound bed, simultaneously addressing multiple barriers to healing and better patient outcome

TheSystem must be having following components with specifications as given:

01.**Console**should be table top type with front panel displaying

(a) Power on/off with coloured light indicator

(b) LCD panel for digital display of power setting (1 to 10 level) of the equipment with control button for the same.

(c) Receptacle for the hand piece of equipment showing with light indicator, the proper fixation of hand piece to console.

(d) Foot switch receptacle with light indicator for same during use of foot peddles

(e) Light indicator in case of system error

(f) Console should be having receptacle for a detachable power cord 4-5 miters length with suitable conversion for Indian power socket type

(g) The console should be operating on the 200-240 V, 3A 50- 60 Hz power supply and should be having in built safety for fluctuation of voltage.

(i) The operation of power console system should be producing sound level with in the safe permissible limit for operation room/theatre.

(j) The power console should be having no interference with the electromagnetic equipment in the operation room/theatre

(k) Console should be able to function at 4^{o} - 38^{o} C ambient temperature and in humidity ranging from 0 – 100%

02. **Switch Control**(a) there should be detachable foot switch control

(b) It should be having control for changing power setting of console along with operation of the hand piece

(c) The foot switch control should be having 3-5 meter cord length

B: Accessories – Compatible Hand piece –All Assorted Sizes

Single Used Negative Pressure Wound Therapy System - All Assorted Sizes

- Portable Small Device (Dimensions- 85x85x25mm, Weight <120G)
- Life of 7 Days and Deliver Negative pressure of -80mmHg
- Pump operates on 2xAA batteries (Provided in the Kit)
- Kit Includes Two Compatible Dressings to support Application

	Specification	Product Description
	❖ **Antimicrobial Silver dressing** ❖ With Nano crystalline Silcryst technology ❖ This consists of a rayon/ polyester non-woven core laminated (by sonic welds) between an upper and lower layer of silver coated high density polyethylene mesh (HDPE). The silver coated HDPE layers are designed to be barriers against microbial infection of a wound. ❖ Sustained release of silver for 7 days should allow fewer dressing changes. ❖ Soft, highly flexible with stretch properties ❖ Allows exudate to transport through the dressing ❖ Low adherent wound contact layer ❖ Prevents the formation of Bio film ❖ Effective against MRSA & VRE, NDMA and certain superbugs ❖ Sizes : 5 x 5 cm / 10cm x 10 cm /10cm x 120 cm/ 20 cm x 40 cm/ 40x 40 cm	Nanocrystalline silver coated antimicrobial barrier dressing- sterile

E. Hydro cellular Foam with ART principle anti bacterial PU top layer with High MVTR:

Nomenclature of the Stores/service/Turnkey

Allevyn Ag Gentle Border 12.5cm x12.5cm

Allevyn Ag Gentle Border 17.5cm x17.5cm

Allevyn Ag Gentle Border 10cm x25cm

Allevyn Ag Gentle Border 10cm x30cm

Allevyn Ag Gentle Border 10cm x10cm

Technical Specifications
for Modular Operation Theatres & OT Integration system for Bone & Joint Hospital

Serial No		Brief Description of Goods (Item name)	
1.A		Supply, Installation, Testing & Commissioning of Modular Operation Theatres and OT Integration	

Item	TECHNICAL SPECIFICATION OF MODULAR OPERATION THEATRE (1 A)
PART 1 -A	**SCOPE OF WORK:** Complete plan, design, supply construction, testing and commissioning of Modular Operating Theatre in accordance with the specifications, bill of quantities. Complete plan, design, supply construction, testing and commissioning of HYBRID OT should be constructed in one Operation Theatre on the on the 7th floor of the new Surgical block on turnkey basis if required. The above works should also entail necessary Turnkey work including provision of free spare parts and service during Defect Liability Period. The design and construction of theatre shall be made using pre-engineered solution with objectives of Infection control, promoting high standard of asepsis, Facilitating coordinated services, ensuring maximum standard of safety, Optimizing utilization of OT with flexibility and staff time, optimizing working condition, Ensuring functional separation of spaces, Patient and staff comfort in terms of thermal, acoustic and lighting requirements, minimizing maintenance and regulating flow of traffic. **PART A: MODULAR OT** **1. WALL & CEILING SYSTEM** **a. Steel Structure:** Wall and Ceiling Panels, should be European CE Certified with notified body no. or ULC Certificate or UL Certificate must be submitted. All components: Laminated Panels, Steel Stub Structure, Aluminum profiles, Cover profiles, Angular supports should be from same make, same manufacturer and same standard. The Framework should be made of upright profiles entirely made of a galvanized steel sheet of suitable thickness. The structural steels shall have suitable section for rigidity and bearing the loads. The structure components should be joined together by means of coupling system in order to create a solid rectangular frame, able to support different infill panels with a load not

	less than 20kg/sqm. The "Z"/"C"/"I" suitable upright forms the vertical part of the frame and should be equipped with proper slot suitable for the panel coupling without screws. The profile should be the elements that constitute the basic module of the structure. The "U"/"O" profiles shall be placed in horizontal position on the upper and lower part of this structure. "U" shaped upper and lower extruded aluminum track profile should be suitably sized to support the weight of the self-loading modules. The bottom "U"/"O" track profile should be prearranged to receive a pressed skirting profile or, optionally, an integral cove profile. The "U"/"O" track profile should be prearranged to accommodate a double set of balloon seals designed to ensure airtight compartment and compensate for screed/floor level differences. The upright should be fitted in such a way as to accommodate the co-extruded upright gasket providing a vertical seal on the rear sides of the finishing panels. The front/side of the upright features a series of regularly spaced slots to allow the connection with interlocking gravity system of the finishing panels, after vertical level adjustment. The lower part of the system should be able to compensate for significant level differences and overcome imperfections and irregularities in the slab/floor. Spacer profile should be used to absorb level differences of the slab/floor and should be capable of connecting the finishing panel to the integral cove profile (if present), allowing the subsequent installation of resilient flooring with suitable upward curvature up to a nominal level of 100 mm. The structure shall be provided with stiffening ledgers or profiles for sliding door fixing and other accessories according to needs. Total thickness of the partition wall: 100 mm. The corners shall be equipped with a series of specific 90° and 135° corner positioners having a triple function: - the first function shall be for structural stiffening - the second function to make the specific angle of the corner - the third function for click-in system 90° and 135°internal/external corner profiles, with a durable thermosetting epoxy powder coating, to be installed in the final stage. Suspended ceiling perimeter support profile should be made of extruded aluminum to be fitted, after installation of the finishing panels, the suspended ceiling perimeter profile or, optionally, the suspended ceiling perimeter profile with integral coving. The suspended ceiling perimeter support profile should be equipped with a double level sealing system: a lip seal gasket at the base, designed to provide horizontal compartmentalization at the rear of the finishing panels, and a lip seal gasket at the top, designed to provide horizontal compartmentalization at the rear of the acoustic baffle panels, if present. **b. Wall System** The wall system should be based on a technological modular unit designed to clad and to divide interior space in bacteria-controlled environments in a flexible and functional manner. The outer surface of a wall surface should be created with high tech materials such as antibacterial Solid Mineral Composite Sheet. System should offer total ease of cleaning and sanitization of the partitions should have no live corners, adjacent surfaces should be molded

	flush by means of connecting elements (Surfaces should be completely co-planar without protrusions). System should afford the maximum versatility at the planning stage and flexibility during erection, ensuring openness to future alternations and trouble-free maintenance. During the installation of first the structural parts and subsequently the finishing elements, the system should ensure perfect integration of technical networks and allow ample operational flexibility on the construction site. Individual design elements (illuminated wall and ceiling elements, printed wall elements) are available. The clean, dry installation method should enable optimum programming of the various work phases, allowing optimization of the installation of technical systems and any necessary alterations to be made - right up to checking and final testing of the installed systems - before the modules are sealed. System should comprise of: i) Sub frame; ii) Wall panels iii) Sealing gasket System should assure the maximum independence from the surrounding environment because it should be composed of a sub frame made of section bars specifically manufactured for the loading structure and designed to create the necessary technical voids to house utility networks and pipe/cable drops. This entire system comprising of the sub frame, wall and sealing gasket should be of a single make. **c. Sub frame** Horizontal guides (upper and lower) sized to support the modules and prearranged for the future attachment of the curved connecting profile. Upright made of galvanized steel pillars with broad cross section and dual cavity, with geometry designed to achieve exceptional rigidity. The upright should be shaped in order to accommodate a vertical gasket. The upright features a series of slots arranged at a constant center distance to accept the sealing gaskets and allow the suspension of partition panels by means of a gravity interlocking system. A mechanical device for connection between upright and horizontal profiles makes it possible to adjust and secure the profiles, ensuring the maximum rigidity and self-loading capacity of the system. This uprights level adjustment system makes it possible to compensate for floor level differences. **d. Wall panels:** In order to create a smooth uninterrupted surface between adjacent panels, thereby preventing the risk of the accumulation of dust and bacteria in gaps, the panel should be produced in a single full height floor-to ceiling piece. The Panels should be truly modular type and can be

removed at any point of time.
Panels should not be less than 18mm thick.

e. Sealing gaskets/ Silicon sealants:

Vertical and horizontal gaskets in non-toxic silicone rubber/ silicon sealants around all the contact perimeters between the various materials, and the hermetically sealed gaps between modules, should ensure optimum space segregation and ensure that sterile air pressure values are maintained in the protected environment, this be being a fundamental prerequisite for guaranteed sterility.

Wall modules should be joined with a hermetic seal. The various sealing solutions range from the rubber non-toxic silicon rubber gasket, shaped in such a way as to assure a seamlessly connected surface, to the monolithic structural sealing, both materials should be immune to attack by microorganism. The wall modules should be individually dismountable independently from ceiling and floor system to allow inspect ability, maintenance of technical systems, and any variations that may become necessary for future alteration, modification and repair.

Continuous electrical conductivity of the partition modules for the scope of earth bonding or in order to create a Faraday cage effect should be obtained by interconnecting sub-structural elements with jumper leads.

f. Hermetic Suspended Ceiling System

The hermetic suspended ceiling should be a loading structure in heavy gauge material forming the grid on which the ceiling panels (made of Solid Mineral Composite Sheet and it should not be any other GI /EGP material) are mounted. The ceiling panels should be min 6mm thick.
The modular grid, which shall be 600 x 1200mm/600mm x 600mm, or variable, allows the integration of sealed lighting fixtures, air anemostats and /or various service units. The variable module grid should make it possible to adapt the size of the ceiling module to match the equipment to be mounted. It should also allow the use of different module sizes within the same room.

The grid should be formed of loading profiles, suspended from the ceiling slab, to which the crossbar profiles are secured by means of rigid mechanical couplings. The thus formed grid should be rigid and remains perfectly stable during all the subsequent site operations.

The suspended ceiling should be hermetically sealed by means of silicon gasket application. The function of silicon sealing should be that of assuring an airtight environment in the room and eliminating crevices in which dust could accumulate. The gaskets to be made of nontoxic silicon in compliance with regulations applicable to clean rooms (to US FDA standards), providing a durable and non-degradable seal that should be resistant to microorganism attack Color of inner surface wall of OT shall be as per the advice of the client.

One installed, the vendor is to provide AIIMS with a third-party certification in order to ensure compliance to the desired specifications. Payment to the vendor shall be made only after the third [arty certification

has been submitted.

LAMINAR AIR FLOW CEILING SYSTEM

Unit for laminar flow diffuser should be made of thick aluminum sheet. The complete unit should have factory prepared fine sealing system along with proper test certificates. The laminar air flow should be supplied at site duly sealed in factory made packing. The laminar air flow unit should be made of extruded aluminum sections which should support the fire-retardant housings in such a manner that the air is passed only through the Minipleat Hepa/H14 filters (not S type Hepa filter). A test certificate of this regard should be provided along with the unit. The Laminar flow system should have anodized aluminum perforated diffuser grill. The laminar flow system should have such design that it provides cleanliness of class 100. (< = 100 particles/ft3) and bacteriological class B (< = 20 cfu/m3).

The absolute filters installed in the system should be suitable for applications for Laminar flow and clean rooms, these absolute filters should be mini pleat HEPA filters having extruded anodized aluminum, 65 - 70 mm deep frame, and filter should provide following specifications:

1. Protective grids White epoxy painted micro drawn grid
2. Separators Continuous thermo plastic chord
3. Sealant Polyurethane
4. Gasket One piece polyurethane
5. EN 1822 class H14
6. MPPS average efficiency > - 99.99%
7. 3-micron DOP efficiency > - 99.99%
8. Final pressure drop 600 Pa (maximum)
9. Maximum operating temperature 60 degree centigrade
10. Maximum RH 90 percent
11. Efficiency Tests Filters individually tested and certified

Perfect tightness should be guaranteed by a liquid seal between filters and holding structure enabling no bypass of Mini Pleat filters. A written confirmation from the original product catalogue is required. Laminar air flow system and mini–Pleat HEPA Filters should meet relevant European/ US standards and should have appropriate certifications to prove the claim of compliance. In order to have perfect sealing both laminar air flow and filters from the same manufacturer. Complete air management system should be supplied with complete test certificates. Testing & maintenance of air quality with periodic replacements of Mini Pleat HEPA filters should be done at least
once in 6 months or earlier if required. Once installed the vendor shall be responsible to get a third party certification to ensure that the laminar air flow and the Hepa filter supplied are compliant to the specifications desired. In addition, the vendor shall also be responsible to get a third-party certification done for the Hepa filters when replaced within one week of replacement. Failing to submit the third party certifications, the vendor shall be liable to be penalized @ Rs.10,000 for every instance.

3 OPERATION THEATRE FLOORING (ANTISTATIC CONDUCTIVE PVC ROLL)

	The operation theatre floor finish should be laid with 3 mm antistatic seamless conductive PVC Roll on a semi-conductive adhesive base. The floor should be scratch resistant, fire resistant, chemical resistant, non-corrosive, slip resistant, smooth, anti-fungi, antimicrobial impervious material conductive enough to dissipate static electricity but not conductive enough to endanger personnel from electric shock. The floor finish should pass over a concealed cove former and continue up the wall for 100mm. The floor should be provided flat to within a tolerance of ±3mm over any 30 Sq.mtr areas. Copper grounding strip (0.05 thick, 50 mm width) should be laid flat on the floor in the conductive adhesive and connect to copper wire of grounding. The connection from copper grid should be brought out uniformly at places to form equi-potential grid. A self levelling compound should be laid prior to lying of the floor finish. One earthing lead should be brought out of from every 150 Sq.ft. area and attaching it to main earthing strip/ground. Continuous roll should be used and all the joints should be welded by heat fusion process to get seamless floor. The joints in the flooring should be sealed by using a PVC welding bar of matching color and hot air gun for fusion of welding bar with flooring to provide a continuous sealed surface, confirming the European/US standards. The sheets should be highly durable with resistance to shock, scratch proof and indentation. Corners should be uniformly curved. The conductive material should be uniformly impregnated as grains. The floor should be inert to body fluids, chemicals, detergents and disinfectants and it should not be affected by temperature variation within the OT. Color should be uniform, pleasant and matching with ambience. The floor should have electrical resistance (Point to ground) within 2.5x10 to 2.5 x 10_6 Ohms as per NFPA-99/ DIN 51953/ATMF-150 B1 class of fire resistance. The floor should efficiently discharge electric charges up to 2 KV. The floor should not allow buildup of electrical charge beyond 100 volts due to antistatic effect. It should fulfill product requirement s as per EN649. The corner should not be terminated sharply and concealed cove-former (Aluminum) should be used overlap to a height of approx.25mm and sealed perfectly and uniformly. Self-levelling compounds should be used for this purpose. Radius for corner coving - 70R **4.DOORS AND FRAMES (AUTOMATIC HERMETICALLY SEALED SLIDING DOORS)** To maintain sterility and correct air pressure in the theatre, the door should be sliding and hermetically sealed type. Door should meet international quality and safety requirements. - Controller should be Microprocessor based controller (CE marked) and should have digital display - Regulated electro-mechanical sliding door drive. - Suitable capacity of Motor should be equipped. - Noise level of movement should not be more than 60 decibels. - Power efficiency should be 0.95 (in AC 100 V full load). - The track should be made up of single piece extruded aluminum - Environment temperature should be –20 ºC to +55º C. - Electrical safety codes for High & Low voltage system design should meet HTM 2020/2021 standards. - The door and control should comply current IEE regulations and BS 7971 standard. Hermetically sealed Sliding Automatic Door shall be with Vision Panels 300 mm x 300 mm/ 600mm x 300mm with double glazed panels and hermetically sealed should be equipped for OT.

	The Door panels are to be of the same material as that of the wall panels. Doors to be made of Antibacterial Solid Mineral Surface sheet: The Door Panel is 50 – 65 mm thick in Antibacterial Solid Mineral Surface sheet; this being a bacteriostatic, dense and non-porous material, Sp. 3 mm., composed of a uniform blend of 1/3 acrylic resin (methyl methacrylate) and 2/3 natural mineral substances. The result is a durable and uniform bacteriostatic material that is easy to clean and extremely hygienic. Cuts, scratches, or stains can be easily removed simply by sanding. The leaf is a sandwich panel with a hardwood perimeter frame, core in sheet of expanded polystyrene (Styrofoam type) having reaction to fire class 1, and cladding in Antibacterial Solid Mineral Surface, reaction to fire class 1. The thus, formed panel is extremely rigid and offers a high level of acoustic and thermal insulation. Should be in the color selected by GMC Jammu Sealed airtight system should be provided to prevent further ingress of any microbial organism. The door should be fixed to Aluminum frame. Reinforcement of Extruded Anodized Aluminum material for HP Laminated Board Panel should be with door frames. Nylon runner guides should be fixed to the door in such a way that there shall be no obstruction to the Trolley movement. The door leaf should have high quality synthetic rubber gasket with long life to ensure hermetic sealing to maintain pressure differential. Air tightness 99.99% at a pressure 75pa (Test certificate for hermetic sealing with door frame should be provided with pre dispatch documents. The finished door on either side of the door should be perfectly level (maximum permissible difference +1mm). The track of the door should be made up of single piece extruded Aluminum and the running surface for the top rollers shall be suitably angled to reduce resistance to movement. The door leaf should be hung by means of hard plastic rollers of high quality with double bearing at the top. Powder coated Roller should be provided under the stainless steel/extruded aluminum track to enable smooth and noiseless movement. The doorframe, track and the wheel should be designed in such a way that during last 50 mm at travel on the closing cycle, the door should make a tight sealing with the frame. The door should be provided with high quality cylindrical lock. The lock should be activated or switched off by means of the key switch. The door should be governed by two sensors for half and full closure. The door controller should sense overload condition and in overload case the door shall be automatically stopped and reversed the direction of travel. The controller should be capable of either operated by elbow switch; foot switch & radar switch (Touch fewer sensors). The door should be operated easily manually in the event of failure of the power supply or the automatic mechanism. Door opening handle should be strong and sturdy and the handle material should be AISI-304 Stainless steel and glossy finish. High and Low voltage system of the door should meet electrical safety code. **4a. DOORS AND FRAMES (AUTOMATICALLY HERMETICALLY SEALED SLIDING DOOR) FROM SCRUBBER** Same as Sl. No 4 DOORS AND FRAMES (AUTOMATIC HERMETICALLY SEALED SLIDING DOORS) 5**. HINGED DOOR SYSTEM (DOUBLE LEAF 2100mm X 1500mm)**

	The Door panels are to be of the same material as that of the wall panels. Doors to be made of Antibacterial Solid Mineral Surface sheet: The Door Panel is 60mm thick in Antibacterial Solid Mineral Surface sheet; this being a bacteriostatic, dense and non-porous material, Sp. 3 mm., composed of a uniform blend of 1/3 acrylic resin (methyl methacrylate) and 2/3 natural mineral substances. The result is a durable and uniform bacteriostatic material that is easy to clean and extremely hygienic. Cuts, scratches, or stains can be easily removed simply by sanding. The leaf is a sandwich panel with a hardwood perimeter frame, core in sheet of expanded polystyrene (Styrofoam type) having reaction to fire class 1, and cladding in Antibacterial Solid Mineral Surface, reaction to fire class 1. The thus, formed panel is extremely rigid and offers a high level of acoustic and thermal insulation. Should be in the color selected by AIIMS. 6. **HINGED DOOR SYSTEM (SINGLE LEAF 2100 X 1000)** Same as Sl. No.-5 7. **PRESSURE RELIEF DAMPERS** The Pressure Relief Dampers are to be equipped with the theatre to prevent contamination of air from clean and dirty areas. The Dampers of suitable size should have AISI-304 Stainless Steel blades of thickness 1 mm each. The body should be epoxy powder coated as per standard BS colors. The statically and dynamically balanced Pressure Relief Damper should be properly placed. The Dampers enable to maintain differential room pressure to close tolerance inside the operation theatre. Counter weight balancing system should be provided in the Pressure Relief Damper to maintain positive pressure inside the operation rooms. The PRD should remain closed at pressure below the set pressure and should open fully at a pressure only fractionally above the threshold pressure. **8 INTERNAL DUCTING** The internal ducting till the existing AHU system of the Operating theatre should be done as per ISI-655 duly fabricated out of 22 swg Aluminum sheet complete with flanges and accessories such as GI suspenders and GI support completely sealed with Silicon sealant duly insulated with Aluminum foil and (XLPE) Polyethylene/ Nitrile Rubber self-adhesive type insulation. The type of insulation and its thickness should be such that there is no sweating. **9 PERIPHERAL LIGHT CUM CLEAN ROOM LUMINARIES** It should be fitted outside the air ceiling system area and flush with the ceiling in the operation theatre suitable to required illumination (500 Lux) of OT. Peripheral lights should be LED based (Size-2ft x 2ft) and clean room luminaries fitted in the frame should be 8 in numbers for each OT. The fluorescent lamps / Non-hygroscopic high glow low power LED based peripheral lights having high quality low wattage LED lighting system with highly spectacular anodized Aluminum reflectors and optical antiglare system for adjustable light distribution. Luminaire cover made of highly resistant, disinfectant proof laminated safety glass with fine grained surface, glass pane with white powder coated steel frame. Luminaire body made of sheet steel, white, powder coated supplied ready for connection. The reflectors should be of high quality, cleanable and non- deteriorating. Dimmable ballasts of reputed companies to be used and diffuser should be constructed with opaque acrylic diffuser material in aluminum frames. It should have flicker less design with color. Recess frames should be gas tight. The fitting should be flush with the ceiling and should be removable form top or bottom. Lighting units should be

properly sealed with the ceiling by means of fillers and beadings so that all lighting units are airtight with ceiling panels. The light fitting should be uniformly and aesthetically distributed on the ceiling to provide uniform illumination in the OR. Peripheral lighting should be done according to IP65 protocol. Light should not interfere when green mode of Endoscopy is performed.

10. SURGEON CONTROL PANEL

The OT Control Panel should be designed to cope with changing technology and equipment in operating environments. Control panel should be user friendly and ease of operating and maintaining purpose.

The touch screen typed Control Panel should be 19" medical grade color TFT/LED panel stationed in the sterile field. The Control Panel should be configured to incorporate all the services required by the staff in the operation theatre. It should be mounted flush in the theatre wall. In case of breakdown, a bypass system should be provided with the pendant at the time of installation.

The Control Panel should comprise of following services in addition to Instruction board, Communication interfaces- both audio and video etc.:

- Day Time Clock
- Time Elapse Day Clock
- General Lighting System
- Hands free telephone set with memory card
- Temperature and Humidity Indicator with Controller
- HEPA Filter status
- Medical Gas status/alarm
- Digital Room Pressure indicator
- Music control

Day Time clock/Time Elapsed day Clock should be digital type and bright and the height not less than 30mm.

Temperature and Humidity Indicator should indicate temperature and humidity of the theatre and the display shall be digital and bright and the height not less than 30mm. The temperature and Humidity controller should be connected to the Air Conditioning system.

General Lighting System should incorporate all the necessary controls of all the lighting system including Dimmer for peripheral/planar lights. Medical Gas Alarm should indicate high, normal and low of gas pressure for each gas service provided in the operation room. Alarm should be equipped with audible buzzer. The pressure sensor of the Alarm should be connected to MGPS for monitoring the pressures. The control panel should be user friendly and ease of operation and maintenance. All internal wires should be marked with plastic ferrule type cable markers, for ease of identification. The control panel should be able to be integrated with the commonly used OT software in future. The control panel should meet Electrical Safety Code for High and Low voltage system, wired to the current IEE regulations.

11. ADJUSTABLE MOVABLE BOOM ARM SYSTEMS

The Ceiling boom arm systems designed to provide convenient positioning of medical equipment, medical gas terminal units, electrical and specialty services. The Ceiling Pendants should comply with international standard. The support arms should be extremely robust and

	revolve on high quality bearings, so that the pendant head glides smoothly and quickly to any desired position. The pendant should be at least have 1200 – 1500 mm column length. Pendant should be European CE/US FDA marked. a. Equipment Boom System with boom suspension (Surgeon Pendant) Description: The Equipment Boom should be custom designed to meet all of the specific needs of the operating room such as concealed cables and tubes, unlimited equipment combinations. The arms should be easy to move, and each should come with electromagnetic/pneumatic brakes as a standard option to support a locked position. The Equipment Pendant with a service head column adjustable height and should be with Double-arm (1000 + 800 mm) with Horizontal Motion & Vertical motion. There should not be any sharp edges. Should have a motorized articulating vertical drop. Vertical articulation should be through a Heavy-Duty Electric motor. Should have at least 5 shelves of minimum 750mm size for various medical devices having a load bearing capacity of minimum 200 Kg. Top-arm Rotation & Lower-arm Rotation should be at least 330₀ & Service-head rotation should be at least 330₀. The external surface of the should be painted using antibacterial paint to ensure 100% shield against infectious agent. The pendant lids should be removable to allow access to the aluminum sections. Segregation shall be provided within the side sections to ensure that services rae not accessible when removing the lid. Preferably, should have break light indicator LEDs. Service Points/Outlets: It should have pre piped gas outlet points with NIST connection and manometer. It should have color coded high pressure rubber tubing for individual gas outlet points with NIST connection at the ceiling ened which should be connected with inside OT copper pipe lines. Should have standard Medical Gas Service outlets (7 bar Surgical Air outlet x2, CO2 outlet x 2, Vacuum Outlet x 2) &at least 10 no. of standard duplex conditioned Electrical Service outlets (same as in Anesthesia Boom System). Outlets should be European CE certified/UL listed. Each terminal unit should be identified by the appropriate recognized name or symbol, color, coding and shape as per HTM 02-01 /NFPA 99C. The Column should have at least 8 no. of Data (Audio/Video/Control) Ports for connections to various other medical devices desired to be integrated in future. Pendant should have RJ 45 /cat 5 for telephone communication and RJ 45 /cat 6 for data communication. b. Anesthesia Boom System The boom system should be available as follows: ✓ 1200 – 1500 mm column length. ✓ 1000 mm and 800mm with moveable arms with 330 deg. Horizontal movement. ✓ Double Arm Anesthesia pendant. The head of the pendant should move the machine up & down. ✓ the weight carrying capacity of the arm should not be less than 200 KG. ✓ Each arm should be capable of 330 degrees of rotation, which can be easily adjusted to suit the desired mode of operation. ✓ the arms may be fitted with electromagnetic/pneumatic brakes to prevent inadvertent movement.

	✓ It should have pre piped gas outlet points with NIST connection and manometer ✓ Preferably, should have break light indicator LEDs. ✓ The Pendant Service Head should be supplied with medical gas terminal units and 5/15 Amps. Sockets. Each pendant should have: · Oxygen Outlets– 4 · Nitrous Oxide Outlet - 2 · Medical Air (7 bar) Outlet– 2 · Vacuum Outlets– 2 · Carbon Dioxide outlet: 1 No. · AGSS Outlets-2 no. s · Electrical Sockets –10 nos. · Shelf with two rails one on each side – 2 no. · Monitor input & Output – 1no. · Infusion pump pole – 2 No. · IV management – 2 No. · RJ 45 /cat 5 for telephone communication. · RJ 45 /cat 6 for data communication. Outlets should be CE certified/UL listed. Each terminal unit should be identified by the appropriate recognized name or symbol, color, coding and shape as per HTM 02-01 /NFPA 99C.The Gas Outlets to be provided with adapters in OT Pendants and must be as per the standards/guideline maintained in the Medical Gas Manifold System in the hospital. **12. X-RAY FILM VIEWER** The system should electrical safety codes for high & low voltage system. The theatre is to be equipped with a 2-plate X-Ray viewing screen. It should be designed to provide flicker free luminance for the film viewing purpose. It should be installed flushed with the theatre wall for hygienic and ease of cleaning purpose. The X-Ray viewing screen should be designed for the purpose of front access. The X-Ray viewing screen should be illuminated by 4 pieces of high frequency fluorescent lamps and the dimming is controlled by the usage of dimming ballast with the PCB that is mounted inside the box. Size of the unit should be not less than 800 x 400 mm. **13. HATCH/PASS BOX** It should be of 610 mm x 610 mm size for disposal of dirty linen/waste to non-sterile store with Door open/close indication. Each Hatch should be equipped with two doors and the door should be operated electronically. The Hatch should be designed in such a way that only one door will be opened at one time. The Hatch Box should be constructed of Stainless Steel AISI-304 Door and completed with interlocked UV light and electro-magnetic mechanism complete with indicators and hours meter. This UV light should be automatically turned off in case of opening of either of the doors. Indicators should be provided on both sides of the OT so that door open / close status can be monitored from both sides. **14.WRITING BOARD (OPERATING LIST BOARD)** Writing Board as operating list Board of size-1000 x 700 x 60 deep should be made of ceramic having magnetic properties and should be flushed to the wall of the operating Room.

15.BUILT-IN STORAGE UNIT

Storage Unit should be made out of 0.80 - 1.60 mm thick AISI-304 Stainless steel. The storage unit should be divided 2 or more parts and each part should have individual glass doors with high quality locking system. These doors should be installed on the storage units with the help of imported fittings allowing an opening allowance of 90-100 degree. Each part should be provided with Stainless steel-304 racks which should be completely detachable type. The storage unit should be fitted with 5mm thick glass door and mounted flush with the theatre wall. The storage unit should be continuously ventilated by positive air in the OT through ventilation holes provided at the bottom and top of opposite sides. The dimensions of each storage unit should not be less than height 1800 - 2100mm x width 900 – 1200 mm x depth 300 - 350mm.

The storage units should be designed in a way that they are flush with the OT wall panels and the units should be air tight, not allowing any leakage between units and the wall panels.

16.DISTRIBUTION BOARD ELECTRICAL WIRING, CONDUITING WITH FIXTURES INSIDE THE OPERATION THEATRE

Electrical Distribution Board should be installed in a separate enclosure. Transformers, Mains, Relays, Circuit protective equipment, for all circuits of Operation theatre shall be installed in the remote cabinet. All electrical wiring should be terminated to the connectors mounted on DIN/CE approved rail and labeled with indelible labels. Individual fuse and miniature circuit breakers should protect all internal circuits. Complete schematic diagram drawing description should be enclosed with the equipment.

Laying of PVC conduits, Modular Switch Boxes, Modular Switches-sockets, Power and Light wiring including earthing wire for all the lighting controls, Pendant and other equipment fixtures and fittings inside the theatre Wiring with low leakage current wires of FRLS wires should be as per requirements.

5/15 Amps switched socket outlet set- 2 Nos. shall be equidistant flushed in each wall at 325mm height from FFL of OT. Wiring for 250 volts single phase and earth4 sq.mm and 2.5 sq.mm PVC insulated copper conductor 1100 volts stranded flexible wires should be concealed with conduit for switch & sockets. One switch and socket along with suitable size of wire must be fitted inside the OT for operating 'C'Arm.

Installation of all electrical cabling must be of IS: 1554 (As per latest amendment) standard and wiring as per IS: 732 standard and proper earthing of OT and other accessories in the OT room as per standard guidelines of BIS. Fittings should be sealed on accordance with the standard IP54. Earthed equipotent bonding of all exposed metal work should be provided.

17.SCRUB STATION

· It should manufacture from high density polyester resin and mineral fabric which feature complete sterilization, mold resisted, acid resisted, anti-scratch, heat resisted and easy cleaning functions. The special designed basin is based on the advanced human engineering which protects from water splashing to keep a dry floor. The whole basin base material featured long lasting 304 stainless steel

and to be supported by wall brackets enable floor cleaning.

· The basins are equipped with latest chrome surfaces, infra-red electronic start/stop detection tap which features the water-saving flow time, temperature control ranged from 35°C to 45°C, including an infra-red automated soap dispenser.

· Dual sinks size: 1600(w) x 860(h) x 672(d) mm

18.MEDICAL GAS LINE INSTALLATION

Oxygen, Air (Medical & Surgical), Vacuum, Nitrous Oxide and AGSS supply to Operation Theatres from the existing manifold system should be provided. The medical gas alarm system shall be installed which fully satisfies the principles of HTM 01-02/NFPA99c.

Medical graded Copper pipes shall be solid drawn, tempered, seamless, phosphorous deoxidized, nonarsenic and degreased for oxygen service. Copper to Copper joints shall be made on site using silver copper-
phosphorous brazing alloy to BS-1845. Copper to brass or gunmetal joints shall not be made on site. Except for mechanical joints used for components, all metallic pipeline joints shall be brazed or welded. All pipelines shall be routed in such a way that they're not exposed to a temperature less than 5 deg Celsius above the dew point of the gas distribution pressure. The chemical composition shall be as per BS-6017: 1981 Table 2, Cu-DHP grade.
Distribution Copper Pipe manufactured as per BSEN:13348:2008 Each pipe shall be capped at both ends before supply. Pipeline shall be supported at interval to prevent sagging. The supply of pipes shall accompany with manufacturers test certificates for physical properties and chemical composition. The supply of pipes shall be further substantiated with inspection certificates from third party inspectors like LLOYDS. Medical graded Copper Piping should be laid down from Pendant of OT to the nearby Valve Box outside the Operation Theatre via Surgeon Control Panel.

19.VIEW WINDOW WITH MOTORIZED BLINDS

View window with motorized horizontal Venetian blinds sandwiched in two parallel toughened glasses of thickness 5 mm should be complete with FHP Motor Control for 90° rotation. The Window frame should be powder coated Aluminum of approved shape flush mounted with wall paneling. The entire assembly should be completely sealed and fitted with proper Aluminum profile. The assembled thickness of the Window should be 33 mm. The window blinds should be operated with Remote Control and manually.

20.EXHAUST AIR CABINETS

The openable and cleanable return-air exhaust cabinets should be provided in the operation theater. The air cabinets should have suction from bottom. The supplier of wall and ceiling system should manufacture and supply the exhaust air cabinet. Specification of materials and aesthetic should match perfectly with the ceiling system.

21. Medical Isolation Panels

Minimum 20 KVA Medical Isolation Panel for each OT BMS integration possible and should have digital output.
Should comply with EN standard IEC 60364-7-710 regulation.
Medical Isolation panels should be specific for the supply of electrical systems in medical areas, in accordance with the regulation CEI 64-8. It should guarantee total protection from macro and micro shock through electrical segregation between utilizer and electric net. They are provided with a display which allows to view all the parameters and to set up the values.
Measuring of the isolation resistance of the circuit (50-500 Kohm) and of the excess temperature

	of the transformer (60-150C°). Possibility of setting up alarms and pre-alarms. display which allows to set up the limit values of the monitored parameters. Maximum leakage current at full leak condition with 1mA. Maximum insulation at load condition will be less than 0,6mA. Remote control alarm facility: Double alarm signal visual and acoustic, with the possibility of silencing the latter. European CE Compliance as per medical devices class-1 IN ADDITION TO THE ABOVE, FOLLOWING TURNKEY WORKS FOR INSTALLATION AND COMMISSIONING OF MODULAR OT ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR: The turnkey work includes all modifications to the built-up space provided at the hospital site including civil modifications, electrical works, plumbing works, all cable trenches and railings wherever required, interior decoration, air conditioning duct, furniture and other related works of the Operation Theatre required for the smooth and efficient functioning of the center. These works shall comply with all relevant safety and standards guidelines. The vendor is fully responsible for installation and commissioning of all equipment mentioned in the tender. Bidders are strongly advised to visit the site for assessment before the submission of tender offer. Demolishing, re-constructing, water roofing, plumbing, repainting and replacement Any demolition, reconstruction, water proofing, necessary plumbing, anti-microbial painting, replacement of any door or windows to provide structured design for modular OT The vendor shall be responsible for ensuring appropriate ducting with regards to the HVAC system so as to ensure minimal space wastage. Electrical cabling of IS: 1554 standard and wiring as per IS: 732 standards from MDB (Single point source) to Electric Distributional Panel and to the corresponding load points. Earthing system of Control panel and other electrical instrument and accessories in the OT area as per standard guidelines of BIS (Latest edition). All cable trenches and railings should be made wherever required. Providing fixing of Electrical Gadgets like ELCB, MCB, Light Points, Power points, in the Modular OT room. Number of fans, power point, bulbs/tube light. Apart from these supplies to the individual equipments with ELCB & MCB for Modular OT. Installation of MCB, ACB, ELCB & OCB of Havell /Siemens/L&T/Schneider etc for Control Panel for Modular OT. In addition to the above-mentioned equipment/appliances, if the contractor thinks it necessary to include any other equipment/appliances, accessories etc. for the Modular OT then that may be provided and any other necessary work required for satisfactory working of the Modular OT and not mentioned. The sizes are approximate. Minor variations in sizes shall be acceptable subject to prior approval of the Engineer.

	Note: All electrical accessories like cable wire, electrical outlets, switches etc supplied by the contractor should be fire proof of reputed make, certified for electrical safety. Wherever makes have not been specified for certain items, the same shall be as per BIS. · The contractor should provide test certificate for all material used for construction of pre-fabricated Modular OT · The contractor should prepare and submit layout plan for Modular OTs, Laminar flow System including ducting, Electrical Wiring to the stores for approval before beginning of supply and installation and As-built drawing after installation. · The contractor shall be responsible for the complete works including submission of working drawing and walk-through view. · The contractor should provide complete Operation Manual/Equipment & parts manual/Service manuals for all systems and subsystems. · The contractor shall bear the cost of Final electrical safety test, system test and calibration to be done by authorized person with test instruments. · Training for 7 working days should be provided by the contractor. · Third party quality certification of the OT items from SGS/TUV(SUD)/Lloyds should be submitted by the contractor with contract No (Contract No. in the third-party certificate should be mentioned). Scope of work in the scope of Modular OT vendor with regards OT Integration. 1. Share the Modular OT layout drawing (CAD Drawings) to the OT integration vendor for superimposing the OT integration system components and cables, before the commencement of manufacturing of Modular OT walls, ceilings, Pendants etc. 2. Provide cable trenches/trays, ϕ 50mm PVC conduits for Fiber optic and electrical cables and railings, power sockets of ratings 16A/6A (14 Nos. per OT) wherever required as per the drawings submitted by OT integration vendor and duly approved by Tender authority. 3. Provide cutout for Patch panels on the pendants and wall wherever required as per the drawings provided by the OT Integration vendor. 4. Modular OT Ceiling should be walkable and should provide easy access to ceiling suspended equipment for installation and service in the future. 5. Modular OT drawing shall be approved by authority only after the OT integration system has been superimposed in the Modular OT layout. 6. Ceiling cut outs required for the OT light in accordance to the requirements stated by the OT integration vendor. 7. Conduits should be ensured in all the OT'S in order to ensure future upgradation and integration of the Operation Theatres which are not being integrated in the current tender. 8. Ensure Site readiness:

	a. Stabilized and uninterrupted power supply to ensure proper functioning of equipment. b. AC up and running. c. Permanent power available in all rooms through online UPS. d. OT Door installed. e. Dust free environment. f. Two nos. of LAN cables and data ports in surgical pendant. g. Multicast enabled network, public IP for Video conference system with 8-10 mbps connection. h. Installation of power outlets above the false ceiling or on walls in OT and in Corridor as per approved drawings. i. 2 nos. of IP with subnet mask, getaway. j. 2nos. of data cables with RJ-45 jack on the surgical and anesthesia pendant each. k. UPS power for the OT Integration system. l. Back box to be provided for the wall monitors and touch panels if required.

1.B	PART -B	Technical Specifications for OT Integration

- **<u>Latest State of art OT integration system</u>**

- **Fully functional integration specs for OT with OT light, in-light camera.**

MONITOR ARMS

1. The monitors Full HD and 4K, should be mounted/ suspended on a separate Flat Panel Arms. It must be versatile for variety of medical grade monitors in laparoscopy / endoscopy / C ARM monitor etc.
2. Suitable panel for power & signal to be laid down for extra various sizes Monitor at Wall of Modular OT.

AUDIO-VISUAL COMMUNICATION SYSTEM

3. The operating rooms should be connected to the Conference room or hall for video conferencing and live transmissions. Suitable cable provision should be laid accordingly
4. The Audio/Video Router system should have the minimum following outputs. The router should be having 12x12 Digital and upgradable to 18x18 (DVI-I/ DVI-D) with 4K routing capability and open architecture and which is upgradable to future input / output requirements. The routing system should be able to integrate any signal including 4K from within the OT.
5. Audio – Visual system should receive the signal from different sources like Room camera, Endoscopy camera, overhead camera, Archiving System, C-Arm, Video Microscope, Mobile ultrasound.
6. The routing system should allow selection of multiple views for simultaneous transmission in PIP and QUAD formats.
7. Loudspeakers to be installed within the Operating room. 3-Channel Loudspeaker with Digital volume control and Audio mixer and Audio equalizer should be installed at a most suitable place. Suitable cable material and a patch panel should be offered as per the position of the Loudspeaker
8. The surgeon and his team should be able to do Bi-Directional Audio/Video communication from OT toconference Room.
9. An HD Video Conferencing system should be there for external communication from the operating room. The system should be able to transfer high-quality real-time images and audio signals from multipoint at a suitable data transfer speed. The system should be compatible with 1080p full HD resolution for transmission over the ISDN lines or IP Service. The conferencing system should be controlled via the touch screen of the integration system from the OT. Suitable Number / Sets of Transmitters, Receivers and Cables, connectors and accessories should be offered as per the requirement.

CENTRAL CONTROL SYSTEM

10. Full High Definition minimum 19inch or more medical grade LED monitor should be

		wall mounted or desk mounted for the display of live transmission of images and video sequences from the Operating Room (e.g., images from C arm, endoscope, OR light camera, Microscope etc.). 11. Should have provision to record the images and video sequences from OT. 12. The Full High-Definition and 4K Digital Documentation System should be a high-end computer system based onWindows embedded platform designed specifically for recording, managing, and archiving surgical images and video in native 4K &full HD. The captured full high-definition images & videos can be accessed from the hard drive for printing or saving onto multiple forms of external media which includes CD/DVD, USB Flash Drive & Hospital network. It should be able to preview and simultaneously record views from two video sources parallel and archive as single patient file. 13. It should have at least 1 TB internal Hard Disk Drive for in-system archiving. Also, it should have a feature of real time in-procedure DVD burning besides at-the-end procedure DVD burning. 14. Patient and image data should be able to call up and distributed to required monitors in the operating room **HIGH-DEFINITION MONITOR FOR IMAGE DATA MANAGEMENT SYSTEM** 1. 32 inch or more Full High Definition 4K medical grade monitor should be mounted on the separate monitor Arm 2. Should have individual high definition DICOM Compatible minimum 42-inch LED monitor, wall mounted for images of PACS 3. Patient and image data should be able to call up and distributed to required monitors in the operating room. **CAMERA INSIDE OT** 4. HD cameras high speed with 10X Digital zoom lens, with pan tilt with power supply and reliable strongmounting assembly should be provided and integrated to the central control system. It should be controlled via 19inch touch screen of integrated system **Streaming Solution** The system should provide streaming solution to see live surgery in a training center or outpatient room without the need of additional hardware. Preferably, there should be provision for PIP (Picture in Picture) and Quad display for viewing multiple input signals at the same time and for multi cast view for remote access the same should be based out of server application.

Interconnectivity between OT's:

1. The System shall allow central connectivity of all the OTs in the Hospital using Hospitals LAN Infrastructure.

2. The System should do Inter –OT Transmission of Video Signals in True HD 1080p format and must be integratable with Router system. The System should be capable of Streaming True HD videos from each of the ORs to multiple locations like Conference room, Doctors Lounge and Auditorium etc. simultaneously.

User Licenses

1. The system shall provide minimum 30 User Licenses to allow multiple and simultaneous login of browser-based application, based on user privileges and secure login details, to remotely view video sources in the OR's.
2. The Users should be able to simultaneously select and view different video sources of the OR's remotely through a browser-based application on laptop/desktop
3. The system shall facilitate Tele -conferencing through Central Hub of all the connected OTs with Outside world by using a suitable codec.

OT LIGHTS

Configurations

OT Lights Should have Two Domes 160 K Lux each dome.

Technical data	
Light head diameter	75 cm
Dimming range	10-100%
Diameter light fields	16-29 cm
Depth of illumination (L1+L2) (2nd edition)	80-120 cm
Color index (Ra)	96
Color temperature (Standard)	4,500 K
Color Select (Variable Color)	3,600K-4000K-4500K-5,000 K
No. of LEDs per dome	>100 LEDs
Ø Life time LED	40,000 h
Light intensity	160,000 lx
Increase of temperature @ head	< 2°C
Laminarflow-Index	< 28
Mounting options	Ceiling
Certificates	CE, UL, US FDA

Features

- OR Light should have Very homogeneous & Shadow free Litchfield with >500 overlapping beams.
- OR Light should have one button, very easy switching to dimmed mode for better endoscopic

		work. • OR Light should have ambient light mode for better orientation in the OR when operating endoscopic ally. • OR Light must have electronically adjustment of light field diameter (No mechanical parts inside the light head) • OR Light Head should be made of Aluminum and front should be of Glass. No Plastic material should be used. • OR Light must produce large light emitting surface (no multi-spots) for better shadow Dilution. • OR Light should have White LED Modules with possibility to adjust color temperature (Color-Select), no effect of colored shadows ("Disco-effect") of multi-color Light. • High CRI (Color rendering index) of Ra=96 for representation of the image true to life with rich contrast. • Programmable range of dimming from 10-100% or 50-100% • OR Light should have 4 Step Variable Color Temperature from 3600K-5000K, so that Possible adjustment of light to different tissue structures. • Ensures rotation of light head and complete installation in all axis of 360° (no limits) • 360° rail on the light head maximum handling comfort for non-sterile OR personnel from all directions. • Scratch and shock resistant under glass (no plastic!) => Very long-life quality even after years / reliable / precise focus even after years • Domes should have no sharp contours, no screw for easy-to-clean design very fast cleaning possible. • OR Light should have Protection class IP53, so that dome can be wet cleaned not allowing any dust or Moist gets inside. • OR Light should have laminar flow compliance SWKI 5&DIN 1946-4 certifiedwithaerodynamic design,very low temp. increase for avoiding turbulences • OR Light should have adjustment of the light values at the light head or at the wall control or at both. • All light heads should be camera ready. **<u>HD In Light Camera</u>** i. Light should have light-center integrated full high definition (HD-1080i/1080p) video camera System with digital signal processing. Camera should not need independent power connection and Should draw power (low power 3.8W) from Light Head only. ii) in. 2 Megapixel HD camera with 3 chip CCD/CMOS sensor with 20 X optical zoom possible to take video of object from min. 10mm distance with Auto white balance. iii) The HD in light camera should be USFDA Approved ***NOTE: - ALL the above-mentioned items i.e., OT Light and In Light Camera, should be from the same manufacturer and same company***.

Bill of Qty
BILL OF QUANTITY (BOQ)

PART-1

(A) MODULAR OT

Item No.	Description	Unit		
1	WALL & CEILING SYSTEM Complete with all accessories as per technical specification			
2	LAMINAR AIR FLOW SYSTEM Complete with all accessories as per technical specification			
3	OPERATION THEATRE FLOORING (ANTISTATIC CONDUCTIVE PVC ROLL) Complete with all accessories as per technical specification			
4	DOORS AND FRAMES (AUTOMATICALLY HERMETICALLY SEALED SLIDING DOOR) (2100 x 1500) Complete with all accessories as per technical specification			
5	DOORS AND FRAMES (AUTOMATICALLY HERMETICALLY SEALED SLIDING DOOR) FROM SCRUBBER Complete with all accessories as per technical specification			
6	DOORS AND FRAMES (AUTOMATICALLY HERMETICALLY SEALED SLIDING DOOR) FROM SCRUBBER Complete with all accessories as per technical specification			
7	HINGE DOOR (Double Leaf 2100 x 1500)- Complete with all accessories as per technical specification			
8	HINGE DOOR -(Single Leaf 2100 x 1000) Complete with all accessories as per technical specification			
9	PRESSURE RELIEF DAMPERS Complete with all accessories as per technical specification			
10	INTERNAL DUCTING Complete with all accessories as per technical specification			
11	PERIPHERAL LIGHT CUM CLEAN ROOM LUMINARIES Complete with all accessories as per technical specification			
12	SURGEON CONTROL PANEL Complete with all accessories as per technical specification			
13	ADJUSTABLE MOVABLE BOOM ARM SYSTEMS			
14	SURGEON PENDANT Complete with all accessories as per technical specification			
15	ANESTHETIST PENDANT Complete with all accessories as per technical specification			
16	X-RAY FILM VIEWER Complete with all accessories as per technical specification			
17	HATCH/PASS BOX Complete with all accessories as per technical specification			
18	WRITING BOARD (LIST BOARD) Complete with all accessories as per technical specification			
19	BUILT-IN STORAGE UNIT Complete with all accessories as per technical specification			
20	DISTRIBUTION BOARD ELECTRICAL WIRING, CONDUITING WITH FIXTURES INSIDE THE OPERATION THEATRE Complete with all accessories as per technical specification			
21	SCRUB STATION Complete with all accessories as per technical specification			
22	MEDICAL GAS LINE INSTALLATION Complete with all accessories as per technical Specification			

23	VIEW WINDOW Complete with all accessories as per technical specification			
24	EXHAUST CABINETS Complete with all accessories as per technical specification			
25	Medical Isolation panels			
26	TURNKEY WORKS			

Bill of Qty
BILL OF QUANTITY (BOQ)

PART 1(B)	**OT INTEGRATION**			
Item No.	**Description**	**Unit**		
1	OT integration System as per technical specification			
2	32 INCHES HD LED Flat Screen (Medical Grade) Monitor			
3	42 INCHES HD LED Flat Screen (Medical Grade) Monitor			
4	In room Camera			
5	Loudspeaker System			
6	Wireless Mic System			
7	HD Documentation system with built in Screen			
8	Browser Based application for laptop / Desktop with 30 users license			
9	OT Double Dome Lights with 1, monitor arm in single suspension tube with Prewired Fiber Optic Cables.			
10	Audio and Video recording system as per specification (The Full High-Definition Digital Documentation System should be a high-end computer system based on Windows embedded platform designed specifically for recording, managing, and archiving surgical images and video in native full HD resolution. It should have at least 1 TB internal Hard Disk Drive for in system archiving. Also, it should have a feature of real time in-procedure DVD burning besides at-the-end procedure DVD burning.)			

Note-

· All fixture and fittings shall be as specified or as approved by JKMSCL/SCI, GMC Jammu. No extra payment whatsoever shall be payable for any work which is required to achieve the final functionality and/or design/aesthetics. The decision of the competent authority/ concerned committee shall be binding for purpose of this interpretation.

· All dismantled material and building rubbish including the GI ducting etc. but excluding equipments shall be taken away by the vendor and credit for the same shall be deemed to have been considered while quoting for the tender/site preparation

· Rates shall be deemed to include all paints, polishes, finishes and making good the damages caused to existing and adjacent structures during the course of work.

ILLIZAROV/EXTERNAL Fixator for tibia and femur	Each Set
IMPLANT DETAILS	Rates to be quoted on each basis
Dia : 140mm/half ring	
Dia : 150mm/half ring	
Dia : 160mm/half ring	
Dia : 180mm/half ring	
'Dia : 140mm5/8half ring	
'Dia : 150mm5/8half ring	
'Dia : 160mm5/8half ring	
'Dia : 180mm5/8half ring	
90 deg. Arch,small size	
90 deg. Arch,Large size	
120 deg.Arch,small size	
120 deg.Arch,Large size	
Size : 100mm, Threaded Rods	
Size : 120 mm, Threaded Rods	
Size : 150 mm, Threaded Rods	
Size : 200 mm,Threaded Rods	
Size : 250 mm, Threaded Rods	
Size : 300 mm,Threaded Rods	
Size : 150 mm, G. telescopic Rods	
Size : 200 mm, G. telescopic Rods	
Size : 250 mm, G. telescopic Rods	
Size : 2 Holes, Male post	
Size : 3 Holes, Male post	
Size : 4 Holes, Male post	
Size : 2 Holes, Female post	
Size : 3 Holes, Female post	
Size : 4 Holes, Female post	
Hinges female Standard.	
Hinges Male Standard	
Hinges-90 degree Standard	
Short Conn.Plate 2 Holes Length 35mm	
Short Conn.Plate 3 Holes Length 45mm	
Short Conn.Plate 4 Holes Length 55mm	
Short Conn.Plate 5 Holes Length 65mm	
Short Conn.Plate 6 Holes Length 75mm	
Size : 10 mm, Connection Bolts	
Size : 16 mm, Connection Bolts	
Size : 20 mm, Connection Bolts	
Size : 30 mm, Connection Bolts	
Nut 6mm	

Nut 13mm	
Thin Nut	
Nylon Insert Nut	
Square Nut	
Spacing Washers 1.5mm	
Spacing Washers 2.0mm	
Conical Washer Couple	
Wire fixation Bolt Slotted	
Wire fixation Bolt' Cannulated	
Size : 1 Holes/Rancho Cube	
Size : 2 Holes/Rancho Cube	
Size : 3 Holes/Rancho Cube	
Size : 4 Holes/Rancho Cube	
Size : 5 Holes/Rancho Cube	
Universal Joint	
Oblique Support Connection	
Box Wrench for Nut	
Box Wrench for Bolt	
Combination wrench (10 mm.)	
Combination wrench (13 mm.)	
Wire tensioner- Mechanical.	
Wire tensioner- Direct measuring.	
Bayonet Point-Cortical 1.8mm x 370mm	
Trocar Point-Cancellous 1.8mmx370mm	
With Stopper(Bayonet Point) 1.5x300mm	
With Stopper(Bayonet Point) 1.8x400mm	
Cannulated knarling bolt	
Knarling post male	
Length 130 mm Thread Length 40 mm/Pins	
Length 150 mm Thread Length 40 mm/Pins	
Length 170 mm Thread Length 50 mm/Pins	
Length 200 mm Thread Length 50 mm/Pins	

Item	Technical Specification
OT Light System	1. The Lights should have LED light engines in which the mixing of the various LED lights should take place inside the engines itself which should prevent the casting of color shadows active shadow management. 2. Should be LED based microprocessor control technology. 3. One major dome and one satellite dome. 4. Dome body should be of single piece and should have provision for air circulation. 5. Intensity at 1-meter distance 1,50,000 to 1,60,000 lux for both major dome and the satellite dome. 6. Should have variable Colour Temperature: 3500-5500 K. 7. Having on off switch and light intensity control on light dome. 8. Homogenous luminous field with lowest possible amount of shadow. 9. The contrast between the lighted area and the surrounding should not cause stress to the

	surgeon's eye. 10. Depth of illumination should be 100-140 cms or more for main & satellite dome. 11. Illuminated field diameter should be approx. 20-30 cms. 12. Colour rendering index (CRI) should be 93 -98. 13. Height adjustment more than 1 meter. Intensity & focus should be constant between 0.8 to 1.3 meters. 14. LED life span 50000 or more Hrs. 15. Light field adjustment by sterilizable handles (2 sets). 16. Control panels on the light assembly as well as away from it for adjustment of light intensity, illuminated area and for switching on and off, focusing etc. 17. The light head should be so constructed as to provide optimum conditions for laminar flow. 18. User selectable intensity variation with digital display from 30 to 100% in 6 or more steps. 19. At least three light systems should have a HDR Camera in Centre. 20. It should have a back light or ENDO mode to allow appropriate visibility of the screen. The unit shall be capable of being stored continuously in ambient temperature of 0-50 deg C and relative humidity of 15-90%. a) The unit shall be capable of operating continuously in ambient temperature of 10-40 °C and relative humidity of 15-90% b) Power input: 220-240V/ 50 Hz AC Single phase fitted with appropriate Indian plugs and sockets. c) Electronic Voltage corrector/stabilizer of appropriate ratings meeting BIS Standards/Specifications. Input 160-260 V and output 220-240 V and 50 Hz) d) Electrical safety conforms to standards for electrical safety IEC 60601-1 General Requirements. e) Shall meet internationally recognised standard for Electro Magnetic Compatibility (EMC) for electromedical equipment: IEC-60601-1: latest edition or should comply with 89/366/EEC; EMC-directive as amended. f) Certified to be compliant with IEC 60601-2-41: Particular requirements for the safety of Operation Theatre Light or equivalent if applicable. g) Equipment should have US FDA and European CE approved/certified