Date: 03.12. 25

Tender (Ref: IISc-Med-2025-26/L-9)

LOCAL TENDER ENQUIRY

To Whom It May Concern

This RFQ invites proposals for the supply, installation, testing, commissioning, and comprehensive user training of a **High-end Ceiling-Suspended Digital Radiography (DR) System** along with a **High-end Mobile Digital Radiography (Mobile DR) Unit** for the Radiology Department.

The ceiling-suspended DR system shall be a fully integrated platform consisting of a digital X-ray generator, motorized ceiling-suspended tube stand with auto-positioning and auto-tracking features, digital flat-panel detector(s), vertical wall stand, and a digital acquisition workstation with workflow automation tools. The system shall provide high-resolution, low-dose imaging, fast positioning, and efficient throughput for routine and advanced clinical examinations.

The package shall also include a high-end, motorized, battery-operated Mobile Digital Radiography (DR) unit suitable for use across the hospital, including Emergency Departments, Wards, Intensive Care Units (ICUs), and Operating Theatres for bedside imaging applications. The mobile unit shall support smooth maneuverability, stable imaging performance, and rapid acquisition for critical-care environments.

All system components including operator workstation(s), medical-grade displays, radiation-protection accessories, imaging software, and DICOM connectivity modules shall be OEM-manufactured or OEM-authorized. The systems shall ensure reliability, safety, workflow efficiency, and scalability to support IISc's vision of developing a state-of-the-art clinical and translational research facility.

https://medicine.IISc.ac.in/

A. Procedure:

1. Vendors are required to submit a technical proposal and a commercial proposal in two separate sealed envelopes. Only vendors who meet the technical requirement will be considered for the commercial negotiation.
2. The Bidder should belong to either Class-1 or Class-2 suppliers distinguished by their "local content" as defined by recent edits to GFR. They should mention clearly which class they belong to in the cover letter.
    a) Class-1 supplier: Goods and services should have local content of equal to or more than 50%.
    b) Class-2 supplier: Goods and services should have local content of equal to or more than 20 % and less than 50%.
3. Quote should come only from Indian Original Equipment Manufacturer (OEM) or their Indian authorized distributor.
4. The quotations should be on FOR-IISc Bangalore basis in INR only.
5. Bidders offering imported products will fall under the category of non-local suppliers. They cannot claim themselves as Class-1 local suppliers/Class-2 local suppliers by claiming the services such as transportation, insurance, installation, commissioning, training, and other sales service support like AMC/CMC, etc., as local value addition.
6. Purchase preference as defined by the recent edits to GFR (within the "margin of purchase preference") will be given to the Class-1 supplier.
7. MSMEs can seek an exemption to some qualification criteria. IISc follows GFR2017 for such details.

Separate detailed justification needs to be given to substantiate the qualification as Class 1 and Class 2 suppliers, and the intender reserves the right to cross-check the factual validity of the same

8. Separate detailed justification needs to be given to substantiate the qualification as Class 1 and Class 2 suppliers, and the intender reserves the right to cross-check the factual validity of the same
9. The deadline for submission of proposals is **December 24, 2025, Wednesday, 5:30 pm Indian Standard Time.**
10. Bids in the sealed envelope should arrive at the office of Dean (A & F), Main building, Indian Institute of Science, Bangalore 560012, India, by the above deadline.
11. The technical proposal should contain a technical compliance table with 6 columns.
    a. The first column must list the technical requirements in the order that they are given in the technical requirement below in tender specifications.
    b. The second column should provide specifications of the equipment against the requirement (please provide quantitative responses wherever possible.)
    c. The third column should describe your compliance with a “Yes” or “No” only. Ensure that the entries in column 2 and column 3 are consistent.
    d. The fourth column should state the reasons/explanations/context for deviations, if any.
    e. The fifth column can contain additional remarks from the OEM. You can use this opportunity to highlight technical features and qualify the response of previous columns.
    f. The Sixth column should contain the datasheet & technical offer Page reference number.
    g. If the required information is not available in the Product Data Sheet and printed technical literature, it must be authenticated by the competent authority of the principal manufacturer, and in case of any discrepancy, the decision of the Technical Committee shall be final and binding on the supplier; additionally, the vendor must provide a legally binding declaration stating that the required information will be demonstrated at the time of handover and commissioning
12. Vendors are encouraged to highlight the advantages of their equipment over comparable equipment from the competitors.
13. In the commercial bid, please provide the itemized cost of the equipment and required accessories, etc.
14. Please provide itemized cost for any suggested/optional accessories/add-on items that may enhance the equipment usability, capability, accuracy or reliability. Vendors are encouraged to quote for as many add-ons as their product portfolio permits.
15. In the quote, you are requested to provide itemized cost for spares, accessories, consumables expected over 2 years of use.
16. Please indicate the warranty provided with the equipment.
17. Any questions or clarifications can be directed to:

    Dean (A & F)
    Main building, Indian Institute of Science,
    Bangalore 560012
    office@iiscmedicalschoolfoundation.org

B. Terms and Conditions

1. The decision of the purchase committee of IISc will be final.
2. The vendor is responsible for the planning, supply, installation, testing and commissioning of the equipment & the training of personnel of the installed equipment at the IISc.
3. The RFQ must include references to previous installations including the list of all customers where similar systems were installed in the past 5 years. Please provide the names and contact addresses of the referees so that the committee can contact them independently. Details of such systems with model numbers and users should be provided. The reference letters can be used to disqualify vendors with poor track records of service, build quality, system performance, or poor availability of spares.
4. The vendor should have qualified technical service personnel for the equipment based in India and must assure a response time of <2 hours after receiving a service request. The schedule for periodic preventive maintenance for the equipment and all the items related to OEMs should be provided.
5. The indenter reserves the right to withhold placement of the final order and to reject all or any of the quotations and to split up the requirements or relax any or all of the above conditions without assigning

any reason.

6. Wherever requested in this specifications sheet, data must be supplied along with technical compliance documents. Technical bids without supporting data will be deemed as technically non- compliant.
7. Upon request, all guaranteed specifications will have to be demonstrated in an active installation. Failure to demonstrate any promised specifications will be deemed as technical non-compliance.
8. Printed literature and published papers to support compliance with the prescribed specifications may be provided duly authenticated by qualified personnel in the company.
9. Technical evaluation by the IISc may include a demonstration to verify the functionalities and capabilities of the equipment quoted. Any discrepancy between the promised and demonstrated specifications will be deemed technical non-compliance. If the need arises, the vendor must be ready to visit IISc for a techno commercial discussion physically.
10. The validity of commercial quotations should be at least 90 days from the last date for the submission of tender documents.
11. **Payment terms:** LC will be opened with 70% payment on shipment of the item and remaining 20% on installation, testing & commissioning and 10% on user satisfaction. Insurance coverage should be till the commissioning of equipment.
12. The functionalities and capabilities of the equipment to be provided as part of documentation. Any discrepancy in technical specification between what was committed during technical evaluation and demonstrated specification on ground will be deemed technical non-compliance. If the need arises, the vendor must be ready to visit IISc for a techno commercial discussion in person.

C. Other terms

1. Shipment and Delivery Terms

1.1 Partial Shipments

a. Partial shipments are allowed; however, transshipment is strictly prohibited.

1.2 Delivery Confirmation

a. Delivery shall only be made after receiving written confirmation from the IISc purchase team.

1.3 Consignee Details

a. The address of the consignee and the markings on the containers must be clearly stated as per the details provided by IISc.

1.4 Packing Slip and Documentation

a. A packing slip detailing each item and its quantity shall accompany every shipment.

b. The packing slip must be securely attached to the exterior of one of the containers in a visible manner.

c. The purchase order (PO) number must be clearly marked on all packing slips, invoices, and correspondence.

1.5 Missing Items and Substitutions

a. Any items that are not found upon delivery must be clearly noted on the packing slip, and the anticipated availability of such items shall be indicated.

b. Substitutions of items shall not be made without prior written authorization from IISc.

1.6 Packing of Fragile Equipment

a. Fragile equipment shall be packed in wooden boxes to prevent damage during transit.

1.7 Packing of Critical Components

a. Critical components must be packed using foam/bubble wrap and cartons, and securely stuffed within containers to prevent any damage during transit or handling at the site.

1.8 Protection during Transit

a. The Seller shall ensure that all items are securely protected and packed in accordance with best established practices to avoid damage under conditions such as multiple handling, transportation by ship/road, storage, and exposure to heat, moisture, rain, etc.

1.9 Seller's responsibility for damage

a. The Seller shall bear full responsibility for any breakage, damage, or pilferage (including during transit or handling within the hospital) resulting from faulty packing.

1.10 Marking and Packing Slip

a. All packages must be visibly marked with the purchase order (PO) number and name of the Buyer in bold letters.
b. Copies of the packing slip must also be placed inside each package.

2. Insurance and Freight

a. The cost of all Freight & Insurance is Included in the purchase order value will be arranged by the supplier. The insurance should be from the vendor warehouse to the site till Installation & commissioning at IISc.

2.2 Seller Notification for Insurance

a. If IISc needs to arrange insurance, the Seller must notify promptly.

3. Warranty Terms

3.1 The equipment along with all the 3rd party items should carry a warranty of 12 months from the date of successful commissioning**.**

3.2 The warranty shall commence from the submission of a duly filled "Medical Equipment Acceptance Sheet Checklist," accompanied by all relevant documents, as per the specifications and requirements.

3.3 After-Sale Service

a. After-sales service will be provided by a service engineer trained by the principal company.
b. The credentials and certification of the service engineer shall be shared with IISc for approval.

3.4 Preventive Maintenance and Calibration

a. Preventive maintenance and calibration shall be performed according to the recommendations of the Original Equipment Manufacturer (OEM).

b. Preventive maintenance and calibration shall include calibration for any major breakdowns and be conducted in accordance with local rules and regulations, as well as OEM recommendations.

c. Maintenance and calibration shall also be based on the equipment performance history, using

calibrated equipment traceable to international or NABL standards, as required.

3.5 Responsibility for Malfunctions

a. The seller shall take full responsibility for any mishaps or malfunctions related to the ordered equipment caused by delayed periodic maintenance or calibration under warranty & subsequently in a comprehensive annual maintenance contract.

3.6 Maintenance and Calibration Costs

a. Preventive maintenance and calibration shall be executed free of cost during the warranty and Annual Maintenance Contract (AMC) period.

b. The seller shall clearly inform IISc about the list of consumables or maintenance kits that may incur additional costs (not covered under the maintenance contract) before the equipment is supplied.

c. All accessories, including computer systems, printers, laptops, and software versions, shall be covered free of charge under warranty, rental contracts, and subsequent maintenance agreements.

d. The vendor shall provide a separate quotation for the one-time maintenance call cost. This cost should cover the technician's visit charge, labor, and basic service expenses for each individual maintenance call requested by the customer (On call charges)

3.7 Annual Maintenance Contract (AMC) and Comprehensive AMC (CAMC)

The AMC & CAMC rate shall be quoted absolute value of the equipment cost per year till nine years post warranty period of equipment. Please refer to the template for GENERAL TERMS AND CONDITIONS FOR COMPREHENSIVE/LABOUR MAINTENANCE CONTRACT(CMC/AMC).

3.8 No Additional Terms to be imposed

a. The seller shall not impose any additional terms on the buyer when an Annual Maintenance Contract is established on a yearly basis.

b. All the terms mentioned in the tender and subsequent purchase order shall remain applicable without any modifications.

3.9 Warranty Terms during CAMC

a. The warranty terms, including those for preventive maintenance and calibration, shall remain valid and applicable throughout the duration of the CAMC, as per the terms outlined in the tender and subsequent purchase order.

3.10 Payment for AMC and CAMC

a. Payment for CAMC will be made on a quarterly or annual basis.

b. Payments will be disbursed upon the successful completion of preventive maintenance and calibration activities, in line with the terms and conditions of the tender and subsequent purchase order.

3.11 Consumables List

a. The vendor shall provide a list of consumables required for the equipment, along with their associated costs, before the supply of the equipment to IISc.

3.12 Equipment Recall and Standby Equipment

a. The vendor shall notify IISc of any recall related to the supplied equipment and ensure proper action is taken as per the buyer's recall terms and policies.

b. In the event of an equipment recall, the seller shall provide suitable standby equipment, ensuring the clinical functionality of the buyer is not impacted.

c. Any open recall or Field Safety Corrective Action (FSCA) associated with the quoted model shall be **fully disclosed** by the bidder in the technical bid submission.

3.13 Adverse Event Reporting

a. Any adverse events associated with the medical devices shall be promptly reported to IISc.

b. The vendor shall ensure that any adverse event is communicated to the National Collaboration Centre-Materiovigilance Programme of India, in accordance with regulatory requirements.

4. Maintenance and Calibration

4.1 Preventive Maintenance and Calibration

a. Preventive maintenance and calibration will be conducted free of charge under the warranty period and any subsequent Annual Maintenance Contracts (AMC).

b. Calibration will be performed in accordance with industry standards and OEM specifications.

4.2 Report of Maintenance and Calibration

a. The Seller shall provide a report of maintenance and calibration with details of the work performed, including calibration standards and methods.

4.3 Qualification of Engineers

a. The Seller must ensure the trained engineers are certified and qualified for preventive maintenance and calibration.

5. Spare Parts

5.1 Supply of Spare Parts

a. The Seller shall supply spare parts for the entire lifetime of the equipment and guarantee availability for a minimum of 10 years from the date of commissioning of equipment.

5.2 Price of Spare Parts

a. The Seller will provide the prices of major spare parts, which should not exceed 30% of the total equipment value.

b. A list of critical spare parts and their estimated prices shall be submitted with the tender as part of commercial bid.

5.3 Spare Parts Availability

a. The Seller must maintain a minimum stock of spare parts to ensure quick availability for repairs.

5.4 Spare Parts Pricing

a. The prices of spares shall be firm for 5 years, after which adjustments can be negotiated considering inflation and exchange variations.

6. Uptime and Compensation

6.1 Uptime Requirement

a. The bidder must ensure a minimum uptime of 98% based on a 365-day working year.

b. In case the uptime falls below the specified 98%, the Warranty/CAMC shall be extended by a ratio of 1:7 days for every additional day of downtime.

6.2 Compensation for Test Failures or Erroneous Results

a. The seller shall be liable to compensate the buyer for any test failures or erroneous results generated by the ordered equipment.

b. The compensation amount will be mutually agreed upon by both parties, and this provision will be legally binding.

7. Software and Support Services

7.1 Software Licenses

a. All software supplied as part of the equipment must come with the necessary licenses for use in India.

b. The seller shall provide a copy of the software license along with proof of ownership.

The supplied application & operating system software will be kept updated in the form of Free of cost as & when they are released by the factory.

However, for new application software any additional hardware is needed, the cost will be borne by IISc management at negotiated special price.

7.2 Software Support Services

a. Any software updates or bug-fixing services will be free of charge during the lifetime of equipment.

8. Integration with Clients HIS & PACS-RIS

8.1 Integration Requirement

a. The Seller must integrate the equipment with clients' Hospital Information System (HIS) & PACS-RIS at no extra cost, as applicable.

9. Confidentiality and Ownership Transfer

9.1 Confidentiality

a. The service provider must not acquire or retain any confidential data from IISc.

9.2 Ownership Transfer

a. Any change in the ownership of the principal company must honour all existing agreements with IISc.

10. Recall of Equipment

10.1 Equipment Recall

a. In the event of any recall of equipment, the Seller shall promptly inform IISc in writing.

b. During the period when the equipment is under recall, the Seller shall provide suitable standby equipment of similar or higher specifications to IISc, at no cost.

11.Force Majeure

If either Party is unable to carry out his obligations under this Contract due to an Act of God, war, riot, blockade, strike (I.e. national/ state or city), lockout, flood or earthquake or Government orders/ restrictions not within the control of the parties hereto which results In an Inability, In spite of due diligence of either party in performing its obligation In time, this Contract shall remain effective, but the obligation which the affected party Is unable to carry out shall be suspended for a period equal to the duration of the relevant circumstances provided that :

The non-performing party shall give the other Party prior written notice describing particulars of the Inability including but not limited to the nature of occurrence with its expected duration and the steps which the non-performing parties is taking to fulfil its obligation.

Upon receipt of such notice the other party shall discuss the matter with the non-performing party with a view to helping the non-performing party to fulfil obligations. This clause does not envisage financial assistance.

If in any event the Force Majeure situation continues for a period of three weeks both the parties shall meet again and discuss whether the Contract can be amended to overcome the Force Majeure situation so the Project can proceed further.

Notwithstanding anything contained to the contrary it is clarified that economic hardship, non-availability of material, labour and transport shall not constitute Force Majeure. The overall responsibilities and obligations of the parties shall not be excused by reasons of Force Majeure situation.

Notwithstanding the above If the Force Majeure continues for a period of three months or more in that event without prejudice to the rights of the parties, the Buyer shall have the right thereafter to terminate this contract.

12.Seller’s Personnel at Buyer’s Premises

12.1 Adherence to Safety Regulations

a. Seller’s personnel on IISc premises must adhere to all IISc safety regulations and protocols.

12.2 Seller’s Responsibility for Personnel’s Safety

a. The Seller is responsible for their personnel's safety and health while on IISc premises and shall indemnify IISc for any accidents or injuries.

13.Site Evaluation

a. The Seller must conduct a site evaluation including transportation path, power, air conditioning and other requirements before equipment installation, as applicable.

b. The Seller shall submit detailed drawings, specifications, and colour codes for all ordered items for Buyer review and approval via email or other methods, as applicable. Manufacturing shall commence only after drawing approval and joint inspection of the proposed site.

14.Skilled & trained Engineer for Installation

a. Installation must be carried out by a skilled engineer and is considered complete only when the equipment is fully operational as per the tender specification.

15.Inspection and Quality Plan

15.1 New Equipment Requirement

a. Only brand-new equipment will be accepted, and it must be accompanied by quality conformance and manufacturer test certificates.

15.2 Training

a. Hands-on training for IISc engineers and technicians must be provided at no extra cost.

16.Marketing Support

a. The Seller shall provide marketing support to IISc as mutually agreed upon.

17.Other terms and conditions

a. **Software Compatibility** – If the equipment includes software, it must support integration with hospital EMR/HIS via HL7/FHIR standards, as applicable.
b. **Standard Accessories** – The system should come with all essential accessories (e.g., power cords, consumables) required for full functionality.
c. **Regulatory Compliance** – The software should comply with National Health Stack requirements and undergo ABDM sandbox testing, if applicable.
d. **Data Protection** – Any patient-related data generated by the equipment must adhere to DPDP Act guidelines, if applicable.
e. **BMS Integration** – The system should include a portal for Building Management System (BMS) integration at no additional cost, if applicable.
f. **Local Service Support** – Supplier must have a registered office, trained engineers, spare parts, calibration equipment, and installation references in Bangalore.
g. **Country of Origin Restrictions** – Equipment/materials originating from countries sharing a land border with India will not be accepted.
h. **Cloud Based facilities-** All cloud-based facilities should be hosted in the IISc by the vendor
i. Vendor shall provide regulatory certificates (**like CDSCO/CE/FDA/ISO/AERB/BIS)** where applicable) for the quoted model and the same is to be enclosed on the technical bid.

18.Vendor is to provide compliance with remarks against all terms and conditions

a. The First column should describe your compliance with a “Yes” or “No” only. Ensure that the entries in column 1 and column 2 are consistent.
b. The Second column should state the reasons/explanations/context for deviations, if any.
c. The Third column can contain additional remarks from the OEM

19. A soft copy of the technical compliance sheet (only) in both pdf and worksheet like excel format should be submitted in pen drive along with technical bid

TEMPLATE FOR ACCEPTANCE OF MEDICAL EQUIPMENT FOR CLINICAL USAGE

Sr. No.	MEDICAL EQUIPMENT PRE-COMMISSIONING CHECK-LIST (To be filled during commissioning handover)	Vendor to fill the details
1	Equipment name	

2	Main Unit Model & Serial No	
3	Date of receipt of equipment at site	
4	Goods opening report (item wise)	
5	Principal Company name	
6	Dealer/ Vendor name	
7	Vendor contact details including email address	
8	Equipment Model name	
9	User Department name	
10	End User (Head of Dept) Signature	
11	Clinical Engineers name	
12	Clinical Engineers Signature	
13	Service Engineers name and Contact number	
14	Application specialist name and contact number	
15	Main Unit - hardware as per Purchase Order (Vendor-signed PO and list of items supplied as per PO with invoice) to be enclosed as part of the commissioning documentation.	
16	Main Unit - software as per Purchase Order (Vendor-signed PO and list of software supplied as per PO with invoice) to be enclosed as part of the commissioning documentation.	
17	OEM items as per Purchase Order (Vendor-signed PO and list of items supplied as per PO with invoice) to be enclosed as part of the commissioning documentation.	
18	Accessories as per Purchase Order (Vendor-signed PO and list of items supplied as per PO with invoice) to be enclosed as part of the commissioning documentation.	
19	Consumables as per Purchase order- (Vendor signed PO and List of items supplied as per PO with invoiced) to be enclosed as part of commissioning documentation	
20	Brochure of equipment to be enclosed as part of the commissioning documentation.	
21	Technical Data Sheet to be enclosed as part of the commissioning documentation.	
22	Set of service manuals (1 hard copy & 1 PDF soft copy) to be handed over to the Clinical Engineering Dept.	
23	Set of instruction manuals - Two copies (1 hard copy and 1 PDF) to be handed over to the Clinical Engineering Dept.	
24	List of spares & additional accessories with re-ordering codes and costs used along with the equipment as a standard package (PDF).	
25	Equipment demo training information materials like PPT/Video to be handed over to the Clinical Engineering department.	
26	Duly signed letter from the vendor organization head (MD/CEO) stating that the supplied unit, accessories & OEM items are brand new from the factory, to be enclosed as part of the commissioning documentation.	
27	Quality test certificate of equipment from the factory, duly signed by the factory production in-charge, to be enclosed as part of the commissioning documentation.	
28	Software license document (PDF); including OS, system and application software, and commitment to support over the lifetime of the equipment, to be	

	enclosed as part of the commissioning documentation.	
29	All cables from the equipment should have proper cable management, i.e., cable labeling.	
30	2S and HIRA (Hazard Identification and Risk Assessment) to be conducted during preventive maintenance wherever applicable to keep the working area clean.	
31	First-level training to Clinical Engineering (training certificate).	
32	Application training to the end-user on all functions demonstrated (training certificate).	
33	Do's and Don'ts for the equipment for the user group to be provided as part of the training module, to be enclosed as part of the commissioning documentation.	
34	Preventive maintenance frequency calculated based on Equipment Risk Classification, Usage and Operational Intensity, Manufacturer's Recommendations, Historical Performance, and Failure Data.	
35	Preventive maintenance (PM) checklist to be predefined & duly filled during preventive maintenance, to be enclosed as part of the commissioning documentation.	
36	Preventive maintenance kit specification & details to be shared in advance, to be enclosed as part of the commissioning documentation.	
37	Preventive maintenance schedule should be done during non-clinical work operational hours based on prior approval from the user.	
38	Calibration schedules should be based on Manufacturer's Recommendations and after every major equipment breakdown servicing.	
39	The calibration process should follow NABL 126 guidelines.	
40	With each maintenance work, the service provider should hand over two physical copies of the service report (one for the user and one for the Clinical Engineering Dept.) along with a duly filled PM checklist. If physical copies are not available, soft copies should be provided to both the user and the Clinical Engineering Dept. Accepted downtime in hours & accepted equipment breakdown frequency as per PO terms should be understood by the service team, including downtime penalty	
41	Accepted Downtime in hours & accepted equipment breakdown frequency as per PO terms are understood by service team including downtime time penalty.	
42	The service provider should maintain a logbook of maintenance at the user site.	
43	Shelf-life details of critical spares/accessories/consumables to be provided, to be enclosed as part of the commissioning documentation.	
44	Commissioning report should include (IQ/PQ/OQ) as part of equipment commissioning documents, duly signed by the user group, to be enclosed as part of the commissioning documentation.	
45	Cleaning & disinfection methodology, including the material used, to be provided at the time of commissioning of equipment, to be enclosed as part of the commissioning documentation.	
46	User application training schedule to be provided along with the PM schedule.	
47	Training materials soft copy (PPT/Video) to be shared for installation sign-off.	
48	Letter from the principal manufacturer stating their commitment to IISc for support of equipment for the coming years as per Purchase Order terms to be provided.	
49	CE/FDA, CDSCO Certificate to be enclosed as part of the commissioning	

	documentation.	
50	The single-phase power cord supplied along with the equipment should have a 3-pin plug (Neutral, Phase, Earth) for Indian usage.	
51	Warranty card and details of the warranty to be enclosed as part of the commissioning documentation.	
52	Short shipped items (if any) with quantity. The warranty will start only after full supply, installation, testing, and commissioning of hardware, application software, and third-party equipment supplied along with the main equipment.	
53	OEM and Dealer Sales and Service Escalation contact details, including CEO/MD, to be enclosed as part of the commissioning documentation.	
54	Life of the equipment as committed during technical discussions to be provided with maintenance and spare support during the course of the year, irrespective of dealer change, as per PO terms and conditions, to be given on the OEM letterhead. In case the OEM stops service support during the sales-committed life, the vendor is expected to compensate with the depreciated cost of equipment or provide buyback or upgrade options according to the hospital's requirements.	
55	Any adverse events and recalls related to the equipment, if reported, need to be intimated to IMSF in a timely manner to ensure patient & staff safety by the vendor.	
	Signature: User Dept Head Head-Clinical Engineering	
	Date and Time	
	All these details should be given in a spiral bound document by vendor to IISc.	
	EQUIPMENT WARRANTY WILL START ONLY AFTER FULL COMPLIANCE OF ABOVE FORM	

GENERAL TERMS AND CONDITIONS FOR COMPREHENSIVE/LABOUR MAINTENANCE CONTRACT(CMC/AMC)	
1)	ALL TERMS AND CONDITIONS REMAIN UNCHANGED AS PER SALES PO
2)	AMC & CMC VALID FROM _____ TO _____
3)	THIS CONTRACT INCLUDES
1	All equipment and items supplied by the OEM are covered under service contracts and must be replaced free of cost under CMC.
2	All equipment must be serviced by trained, authorized service engineers. The training certificate of the engineer must be submitted to the IMSF Clinical Engineering Team in advance.
3	Preventive maintenance frequency is calculated based on equipment risk classification, usage, operational intensity, manufacturer’s recommendations, historical performance, and failure data.
4	The equipment preventive maintenance must be performed according to the predefined checklist provided in the service manual.
5	Operating system and anti-virus updates are an integral part of preventive maintenance.
6	The vendor will not allow their service engineer to train junior staff on our equipment.

7	Vendor to attend unlimited breakdown calls.
8	Call response time of two hours to be maintained; response time to attend calls within 2 hours is applicable, including holidays and non-working hours.
9	Breakdown frequency should not exceed twice the frequency of preventive maintenance.
10	Vendor must submit soft copies of all reports in two copies.
11	Vendor must maintain a service logbook at the user department.
12	Yearly downtime and breakdown frequency will be calculated based on the call logbook.
13	Any damage to hospital property during maintenance by the company engineer should be compensated to the hospital.
14	Vendor must ensure two preventive maintenance visits per year before the due date. Any malfunction or harm to the patient due to delayed preventive maintenance or calibration will be the sole responsibility of the vendor, including legal compensation. Preventive maintenance and calibration must be mandatory after repair or replacement of any spare parts, and necessary kits are to be provided FOC.
15	A copy of the preventive maintenance report with a checklist and a soft copy of calibration, if applicable, is to be shared within one day of execution. The preventive maintenance and calibration label, with done and due dates, must be affixed to the machine without fail, along with the clinical engineer.
16	Periodic training to clinical engineers and end-users, as and when applicable, is mandatory. Training documents must be provided for all concerned staff prior to the renewal of the contract. It is the vendor's responsibility to ensure training, including application training for all staff, without fail. Training materials (PPT/Video) must be submitted to the clinical engineering team prior to any training.
17	Vendor should provide the cleaning and disinfection protocol for the equipment, carry out necessary training periodically, and ensure that all concerned members are trained on the same.
18	Any recall related to the above equipment must be notified in writing, and required corrective actions must be carried out FOC. Necessary training must be provided to concerned staff.
19	Any adverse event reported must be intimated to the Materiovigilance department, and corrective action must be shared within one working day with the hospital.
20	Complete breakdown details, including downtime and preventive maintenance/calibration history, must be shared before the renewal of the next contract. Any downtime of more than 48 hours must include root cause analysis and corrective & preventive action with due diligence. Service reports must be legible and include call received, call attended, and call closed (including date & time) accurately. Any report missing this information will be deemed incomplete.
21	Unlimited spare support must be provided, except for consumables (filters). All accessories and parts are covered and included in the contract. Spares must be ordered and moved immediately after diagnosis, including during holidays and non-working hours.
22	Uptime must be maintained at 98%, including holidays and non-working hours.
23	Uptime is defined by the machine working for its intended purpose without compromising patient care or revenue. Any deviation will count as downtime, and for any additional downtime, the contract will be extended by 1:7 days.
24	A maximum of two breakdowns per preventive maintenance frequency is permitted. Any deviation will increase the preventive maintenance frequency in the subsequent year with any cost escalation.
25	Standby equipment must be provided within a day if the issue cannot be resolved for movable

	equipment.
26	The vendor escalation matrix, including sales and service contact details (mobile numbers & email IDs), must be provided without fail.
27	First-level service training must be provided for the concerned equipment, and the training certificate must be provided to the clinical engineering team members.
28	Preventive maintenance must not be executed during peak working hours and must be carried out as per the user's convenience. The preventive maintenance kit is included in the CMC and must be replaced during preventive maintenance.
29	The AMC bill will only be cleared after the submission of the equipment log report, which must include details of downtime and preventive maintenance (PM) or calibration history. This report must be provided prior to the renewal of the contract.
30	For equipment under AMC, the quotation for spare parts must be provided within one day of the service engineer's recommendation in the service report.
31	For equipment under AMC, no cannibalization of spare parts from working equipment by the service engineer is allowed.
32	Any spare part ordered for equipment under CMC must reach the hospital site within 72 hours.
33	If the equipment remains non-functional after spare part installation, the concerned service engineer must be replaced from the IMSF site.
34	All defective spare parts under AMC will be retained by the hospital. For equipment under CAMC, IMSF will mark the spare part as defective, and a non-returnable gate pass will be issued.

Template for purchase order terms

General: Acceptance of this Purchase/ Work Order (hereinafter referred to as “PO/Order”) includes the acceptance of the following terms & conditions and is made expressly conditional on Seller’s assent to the exact terms contained herein. None of the terms in the Order may be modified, added to, or superseded, except with the written consent of Indian Institute of Science (“Buyer”).

1.Price: The prices mentioned in this Order are the prices at which Buyer has agreed to purchase the Goods or Services (as applicable). No escalation in the aforesaid prices shall be binding on Buyer, notwithstanding anything that may be mentioned in Seller’s terms of acceptance of Order.

2.Advice of Dispatch: A full and comprehensive dispatch advice notice shall be sent to stores or concerned departments of the Buyer (“Buyer Stores”). Instructions regarding dispatch & Insurance as mentioned in this Order should be complied with and the packing slips giving reference of Buyer order number shall be included securely with the goods in closed envelopes.

3.Delivery Terms:
(a) Deliver Date: Time is the essence in any Purchase Contract. Time of delivery/performance as mentioned in this Order shall be the essence of the Agreement and no variations shall be permitted except with prior authorization in writing from the Buyer.
(b) Place of Delivery: The goods/services shall be delivered/performed strictly as per the instructions in the Order. All Goods/Services delivered/performed should reach Buyer Stores before 2.00 p.m. on weekdays except that no deliveries/ dispatches shall be made or accepted on Sundays or holidays in the working place of the Buyer.
(c) Delayed Delivery: The time and date of delivery/performance as stipulated in the Order shall be deemed to be the essence of the Agreement. In case of delay in performance of its obligations by the Seller, or any extension granted by the Buyer, the Buyer shall at his option either (i) accept delayed deliveries at price reduced by a sum/ percentage (%) mentioned in the Purchase Order for every week of delay or part thereof; and/or (ii) cancel the Order in part or in full and purchase such cancelled quantities from open market at the prevailing market price at the risk & cost of the Seller without prejudice to his rights under 3(c) (i) noted above in respect to the goods delivered; and/or (iii) refuse to accept the Goods delivered beyond the delivery date and claim/set-off the difference between the prevailing market price and contracted price of such quantity delivered belatedly by the Seller.
(d) Delay due to force majeure: In the event of cause of force majeure occurring within the agreed delivery terms, the delivery date may be extended by the Buyer at its sole and absolute discretion on receipt of application from the Seller without imposition of liquidated damages. Only those cause which have duration of more than seven (7) consecutive calendar days will be considered the cause of force majeure. The Seller must inform the Buyer, by a Registered Post or courier letter duly Certified by the Chamber of Commerce or Statutory Authorities, the beginning and the end of the cause of delay immediately, but in no case later than ten (10) days from the beginning and end of each cause of force majeure as defined above.
(e) The goods shall correspond with the description of the samples of the original specification thereof in full details and must be delivered and dispatched within the stipulated time, as the case may be. Otherwise, the same shall be liable to be rejected and the Seller shall be deemed to have failed to deliver the goods in breach of the PO. The Buyer shall in that event at its sole and absolute discretion, will be entitled to either purchase such goods from other sources on Seller's account, in which case, the Seller shall be liable to pay to the Buyer any difference between the price at which such goods have been purchased and the price calculated at the rate set out in this Order or to hold the Seller liable to pay the Buyer damages for non-delivery of goods for such breach.
(f) Packing: Goods supplied against this order must be suitably and properly packed (conforming to special conditions stipulated by the Buyer, if any, for safe and/or undamaged transport by road or rail.)

4. Examination of goods: Irrespective of the fact that the goods are delivered to the Buyer by the Seller at the Seller's place or at Buyer's said office or are dispatched as per Buyer’s instructions by rail or road, the goods shall always be supplied, subject to detailed inspection, at the Buyer works or such other destinations as specified in the Order for ascertaining whether the goods are in conformity with the Agreement or not and until then in no event the Buyer shall be deemed to have accepted such goods and upon any rejection of goods in question the Seller shall be deemed to have failed to deliver the concerned goods in accordance with the Agreement.

5. Rejection/ Removal of rejected goods and replacement: Buyer shall have the right to reject the goods whether in full or parts which are not delivered in accordance with the terms of the PO. within fifteen days from the receipt of the intimation from the Buyer of his rejection to accept the goods the Seller shall remove, at his

own cost, the rejected goods from the Buyer's works or wherever such goods are lying. The Buyer shall not be in any way responsible for or be held liable for any loss or deterioration of the rejected goods as this shall be at the Seller's risk entirely. The Seller shall pay to the Buyer reasonable storage charges for storing such rejected goods for a period exceeding 15 days as aforesaid. Upon rejection, if the Seller fails to replace the goods with the goods acceptable to the Buyer within the contractual period then the Buyer may, solely at his discretion, exercise all or any of the following options in respect of the rejected/undelivered quantity:- a. Dispose-off the rejected goods and claim/set-off the difference between the prevailing market price and contracted price of such undelivered/rejected quantity to the Seller's account; and/or b. purchase such undelivered/rejected quantity from the open market at the prevailing market price at the risk and cost of the Seller.

6. Transit Insurance: In case insurance is not included in Seller's scope he must furnish details such as reference, Lorry Receipt, Note No., nature of packing, number of cases, gross weight net weight, train carrying the goods, value of the goods dispatched etc. immediately on dispatch to Buyer's office to take up insurance in case of goods sent by Regd... Post, the Regd. Post parcel No. should be furnished to the Buyer with a packing slip when action will be taken to insure the goods. This procedure will be adopted unless specially advised by the Buyer to the contrary.

7. Insurance: Seller agrees that during the term of its performance hereunder, it shall, at its sole cost, maintain worker's compensation insurance and other legally required insurance in accordance with and meeting requirements of applicable law.

8. Invoices: All bills/ invoices for supplies/ services made bearing registration number of the Seller should be marked to concerned Office or as mentioned in Order (quadruplicate) duly endorsed with Purchase Order, Reference Number and Date and be accompanied by advice of dispatch detailed packing list and by an appropriate certificate necessary under the GST Registration Rules and Regulations.

9. Billing Instructions: Seller must follow the billing instructions carefully and correctly to enable early settlement of his dues. Disregarding the same may involve delay in such settlement. Seller must mention the following information in his bill: (1) Vendor Code Number (2) Purchase Order Item Number (3) Material Code Number, if any. The abovementioned information will be always available in this Order sent to him. One copy of the above document is to be sent to Buyer at The Assistant Registrar, Stores and Purchase Section, Indian Institute of Science, Sir C V Raman Avenue, Bengaluru-560012 or to the address as advised by the Buyer.

10. Compliance with laws: It is clearly reiterated that the Seller is representing an Entity which is strictly complying with all the Laws of the Land as is expected generally from a Seller of a product. It is also made explicitly clear that (a) the Seller has and shall maintain as valid shall under this order strictly comply with the specifications and the requirements agreed upon. At any given point of time, the seller is obliged to produce all applicable licenses, permits, approvals, authorizations and/or or other statutory approvals required to perform its obligation/s under the PO; (b) shall at all times duly observe, perform and comply with all obligations, requirements and/ or prohibitions contained in any statutes, regulations or ordinance of any authority whether governmental or provincial, relating to or in any way affecting or regulating the respective performance of the PO by it.

11. Standard GST Clause: a. The price quoted in this PO for supply of goods shall be exclusive of any applicable Goods and Services Tax, Customs duties, or any other indirect tax as may be imposed by the Government of India from time to time. The Seller shall provide a proper invoice in the form and manner prescribed under GST Invoice Rules containing all the particulars mentioned therein. In the event that the Seller fails to provide the invoice in the form and manner prescribed under rules, Buyer shall not be liable to make any payment against such invoice. Notwithstanding anything contained anywhere in the Agreement, in the event that the input tax credit of the GST charged by Seller is denied by the tax authorities to Buyer, Buyer shall be entitled to recover such amount from the Seller by way of adjustment from the next invoice. In addition to the amount of GST, Buyer shall also be entitled to recover interest at the applicable rate and penalty, in case any penalty is imposed by the tax authorities on Buyer. b. As required by any applicable legislation, where identifiable cost savings are realised by virtue of the enactment of the GST law, those cost savings will be reflected in the calculations of the consideration under this Agreement and shall be passed on by the Seller to Buyer. c. Event of default clause – In the event that the Seller does not deposit the GST charged on the invoice issued to Buyer or such GST charged on the invoice and paid by Buyer is not reflected in online tax credit ledger on common GSTN portal of the govt. as eligible input tax credit for any reason whatsoever, this Agreement shall be liable to be terminated with immediate effect and Seller shall be liable to pay such damages as may be reasonably estimated by Buyer. In the event that the compliance rating prescribed under the GST Act, 2017 read with GST Rules, 2017 of Seller falls below prescribed level for any reason whatsoever, this Agreement shall be liable to be terminated with immediate effect and Seller shall be liable to pay such damages as may be reasonably estimated by Buyer. d. Representation and warranties clause – The Seller represents and warrants that it shall have and maintain in effect level of compliance rating as prescribed by the govt.

12. Warranty: The Seller warrants that goods and/or services supplier shall be of the highest grade and quality

unless otherwise specified; shall conform to the specifications, drawings, samples or other descriptions contained in the Order or furnished or specified by the Buyer; shall be performed in a workmanlike manner; shall be fit and sufficient for the purpose intended; shall not violate any third party intellectual property rights and shall be merchantable, of good material and workmanship and free from all the defects whether latent or patent. In case the same is found to be defective, inter-alia, in respect of materials, workmanship, design or process of manufacturing within a period 12 months after the same had been put in use or 20 months from the date of acceptance of the goods by the Buyer, whichever is earlier, the Seller shall refund the price paid by the Buyer in respect of the said goods. The Seller shall guarantee that the material Seller further agrees that all materials / goods shall be repaired or replaced as the case may be as noted in Clause 20 below. All spare parts should carry the following: a) Name of the Machine b) OEM/Party's name c) Sr. at his / her own expense. The Seller shall be liable for all costs and damages and replacements at the sole option of the Buyer. These warranties are in addition to those implied by or available at law to Purchaser and shall exist notwithstanding the acceptance and/or inspection by Purchaser of all or part of the goods or services.

13. Right of the Buyer to Set Off: In the event, the Seller fails to deliver the goods in accordance with the terms of this PO, the Buyer shall have the right to cancel the PO forthwith and claim refund of any payment made by the Buyer as advance or otherwise to the Seller under the PO. The Buyer shall also have the absolute right to withhold, adjust, and/ or set-off any payment required to be made by the Buyer to the Seller under this PO or any other PO entered into between the parties against the cost, losses, damages etc. suffered by the Buyer due to the failure of the Seller to deliver the Goods in accordance with the terms of this PO, and the Seller expressly waives any objections it may have in this respect.

14. Cancellation/Termination: The Buyer reserves the right to cancel/terminate this Purchase Order or any part thereof. The Buyer shall be entitled to rescind the Agreement wholly or in part in a written notice to the Seller if (i) The Seller fails to comply with the terms of the Purchase Order; or (ii) The Seller goes bankrupt or goes into liquidation proceedings; or (iii) The Seller fails to deliver the goods on time and / or replace the rejected goods promptly; or (iv) the Seller fails to deliver the Goods/Services of desired quality, weight, specification, drawing, layout, design, etc.; or (v) The Seller makes general assignment for the benefit of the creditors; or (vi) Receiver is appointed in respect of property of the Seller. The Buyer shall also be entitled to cancel this Order without assigning any reasons or becoming any way liable in such cancellation.

15. No Assignment: This Purchase Order shall not be assigned to any other agency by the Seller without obtaining prior written consent of the Buyer.

16. Force Majeure: Failure or omission to carry out or observe any of the stipulation or condition of the Agreement shall not give rise to any claim or be deemed a breach of the Agreement if the same shall arise from any of the following causes. viz. the imposition or restriction on Import, Acts of God. The Seller submits his acceptance of this agreement with the above conditions by acceptance of Buyer’s Order even in cases where the confirmation has been made under assumption of different conditions.

17. Special Conditions: Seller will ensure that all statutes, regulations of the Central or State Government are strictly followed. Buyer shall not be liable to pay any damages/compensation due to non-compliance of these rules
/ regulations by Seller.

18. Arbitration: Any dispute arising out of or in connection with the agreement shall be settled by Arbitration in accordance with the Arbitration Conciliation Act, 1996. The arbitration proceedings shall be conducted in English in Bengaluru by the sole arbitrator appointed by the Buyer. The cost of arbitration shall be shared equally between the parties unless decided otherwise by the arbitrator.

19. Dispute & Jurisdiction of Bengaluru: All disputes shall be subjected to the exclusive jurisdiction of the court in Bengaluru only or as provided in the PO/Order.

20. Limitation of Liability: In no event shall Buyer be liable to Seller, or to Seller’s officers, employees or representatives, or to any third party, for any indirect, consequential, incidental, special, punitive or exemplary damages of whatsoever nature (including, but not limited to, lost business, lost profits, damage to goodwill or reputation and/or degradation in value of brands, trademarks or trade names, service names or service marks, or injury to persons) whether arising out of breach of contract, warranty, tort (including negligence, failure to warn or strict liability), contribution, indemnity, subrogation or otherwise.

21. All spare parts should carry the following: a) Name of the equipment b) OEM/Party's name c) Sr. No. as per the catalogue d) Buyer's Order No. and date and e) Quantity all relevant information.

22. Works carried out in Buyer's Institution or premises by the Sellers representatives etc.: Agent representative or employees of the Seller who in pursuance of the Agreement have to work in Buyer/Owner's Institution/Premises will be subject to the rules and regulations existing in the works. The Buyer shall not be liable for any accident which may cause to the Sellers personnel.

23. Intellectual Property Rights: All drawings, specifications and other documents furnished by Buyer and

the Buyer's consultants, and copies thereof furnished to the Seller, are for use solely with respect to this Order. Such drawings, specifications and other documents are to be returned to the Buyer at the completion of the Order or earlier termination of this Agreement. All drawings, specifications and other documents prepared by or for Seller in contemplation of, in the course of, or as a result of performing the work shall be deemed works for hire and all right, title and interest therein shall vest in Buyer, whether or not the Order is ultimately completed. To the extent such drawings, specifications or other documents cannot be considered, by operation of law, works for hire, Seller shall assign to Buyer all right, title and interest thereto and all copies of such drawings, specifications and other documents shall be delivered to Buyer upon completion of the Order or earlier termination of this Agreement. Seller agrees to provide Buyer with reasonable assistance necessary to perfect Seller's interest in intellectual property created under this Agreement. This shall include, but not be limited to, the execution of documents necessary for the Copyright registration. No drawings, specifications or other documents may be used by the Seller or any Sub seller or material or equipment supplier on other projects or for additions to their Project outside the scope of the work without the specific written consent of the Buyer. The Seller, Sub suppliers, Sub-Sub suppliers and material or equipment suppliers are authorized to use and reproduce applicable portions of the drawings, specifications or other documents appropriate to and for use in the execution of their work under the contract documents. All copies made under this authorization shall bear the statutory copyright notice, if any, shown on the drawings, specifications and other documents prepared by or for the Buyer. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with this Project is not to be construed as publication in derogation of the Purchaser's copyrights or other reserved rights. Any intellectual property conceived or developed during the course of the Order based upon or arising from Buyer's confidential and proprietary information shall be solely owned by Buyer. Except as expressly provided herein, no license or right is granted hereby to the Seller, by implication or otherwise, with respect to or under any patent application, patent, claims or patent or proprietary rights of Buyer.

24. The terms and conditions of this Order constitute the entire Agreement between the parties here to and changes will be binding only if the amendments are made in writing and signed by the authorized representatives of the Buyer and the Seller.

25. Risk of loss and/or damage to any goods furnished hereunder shall be upon Seller until the goods are physically delivered to Buyer's facility specified on the face of the Order and accepted by the Buyer.

26. Indemnification: Seller agrees to defend, indemnify and hold harmless the Buyer, its affiliated companies or parent companies, and their officers, employees, agents, guests, invitees and customers from and against any and all liability, loss, damage, fine, penalty, cost or expense (including attorneys' fees) by reason of any allegation, claim, action or suit, whether for death, personal injury, property damage or otherwise, arising out of (1) failure of the goods or services supplied to meet specifications or warranties or for the goods or services to be otherwise defective; or (2) any alleged or actual, direct or contributory infringement or misappropriation of any patent, copyright, trade secret or other proprietary right arising from the purchase, use or sale of such goods or services; or (3) any leak or spill of any goods while being transported or delivered to Buyer; or (4) any breach by Seller of any term or condition contained in the Order; or (5) violation of applicable laws; or (6) alleged defect in the Goods and/or packaging material, or packed Product, or due to the Goods or packaging thereof being alleged to not adhere to any standard or quality set out herein or under any applicable laws; and/or (7) the acts, omissions, or wilful misconduct of Seller's employees and subcontractors, including their agents and representatives, and all other persons performing any services under the Order with the Seller, whether or not caused in part by a party indemnified hereunder. In the event that the goods or services, in Purchaser's reasonable opinion, are likely to infringe a patent or copyright, or misappropriate a trade secret (and in any event, if a court of law finds that the goods or services, in fact, do infringe or misappropriate), then Seller shall further provide Buyer one of the following forms of relief to be chosen by Seller: (a) obtain a license on Buyer's behalf to continue to use or sell the goods or services; (b) redesign the goods or services so that they do not infringe or misappropriate; or (c) refund Buyer the price paid for the goods or services in question. In any and all claims against Buyer by any employee of Seller, any subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation under the Paragraph shall not be limited in any way by any indemnity or limitation on the amount or type of damages, compensation or benefits payable by or for Supplier, any subcontractor, or anyone directly or indirectly employed by any of them under workers' compensation acts, disability benefit acts, or other employee benefit acts.

27. Confidentiality: Seller shall keep confidential all specifications and proprietary information furnished by Buyer or prepared by Seller in connection with the performance of the Order (including the existence and terms of the Order) and shall not divulge or use such specifications or information for the benefit of itself or any other party, except as required for the efficient performance of the Order. Upon completion of the Order, Supplier shall make no further use, either directly or indirectly, of any such specifications or information.

28. Disposal: If applicable, Seller shall at all times retain title of ownership to any and all materials, substances or chemicals not incorporated into the work that Seller or any subcontractor brings onto Buyer's premises.

Seller shall be solely responsible for the handling, transportation and disposal of any and all materials, substances and chemicals. Seller or any subcontractor brings onto Buyer's premises, and any waste generated or resulting from the use thereof. Seller shall not dispose or permit the release of any materials, substance or chemical, or any waste generated or resulting from the use thereof on Buyer's premises. Seller shall handle, transport, and dispose of any and all substances and chemicals, including but not limited to hazardous wastes and substances as defined by applicable federal, state and local laws, rules, regulations, codes and ordinances.
29. Severability: If any provision of this Agreement is held to be invalid, illegal or un- enforceable, either in whole or in part, that holding will not affect the validity, legality or enforceability of the remaining provisions of this Order
30. Original Excise Gate pass must accompany each delivery for excisable goods, if applicable.
31. The Seller will not claim without our knowledge any refund from the excise authorities for the amount of Central Excise duty on the supplies made to us. The Seller shall also undertake to refund to the Buyer all money recovered by him from Govt. authorities for which he has been paid by the Buyer.
32. Unless a specific objection to each of the terms of this Purchase order is raised within 24 hours from the date of Purchase order/email under which this PO is sent, it shall be deemed to be accepted in full.
33. Supplier (Seller) Code of Integrity: The Seller/ Supplier agrees to follow code of integrity and code of conduct as prescribed by General Financial Rules 2017.

TENDER SPECIFICATION

Annexure-1	
SN	**Technical specification for Digital Radiography**
	General
1	The offered model shall be state-of-the-art and shall be the latest model.
2	The unit shall be a completely integrated system comprising an integrated X-ray generator and an image acquisition control console. Out of the generator, X-ray tube, detector, and console, at least two shall be from the X-ray model manufacturer.
3	The system shall be a fully integrated, high-frequency digital radiography X-ray system equipped with dual flat-panel detectors, a wall stand, AEC electronics, a patient table, and a single integrated medical-grade console for controlling both the generator and imaging functions.
4	The system shall be capable of performing both supine and erect radiological examinations.
5	The system shall be fully motorized and shall provide a minimum of 100 auto-positions, along with auto-centering, auto-collimation, and auto-tracking features, with the X-ray tube and detector bucky operating in master-slave coordination.
6	The whole system shall be USFDA/CE certified, CDSCO approved.
7	The model shall be AERB approved.
8	The system shall have anti-collision sensors for the X-ray tube and the patient table. The vendor shall specify whether anti-collision protection is also available on the wall stand.
	1. Generator
1	The system shall be a 1000 mA unit equipped with a microprocessor-controlled, high-frequency X-ray generator with a power output of at least 80 kW.
2	The generator shall be a high-frequency type with a minimum operating frequency of at least 120 kHz.
3	The exposure range shall be 40–150 kV or better.
4	The minimum exposure time shall be 1 ms or less.
5	The maximum exposure time shall be at least 10 seconds.
6	An automatic exposure control (AEC) function shall be an essential requirement. (At least 3 Champers)
7	The system shall provide a clear indication of exposure timing along with the automatic exposure control facility.
	2. X-Ray Tube
1	A ceiling-suspended system shall be offered.
2	The X-ray tube shall have at least two focal spots.
3	The small focal spot shall be 0.6 mm or less, and the large focal spot shall be at least 1 mm.
4	Tube loading shall be at least 30 kW for the small focus and at least 80 kW for the large focus.
5	The system shall have motorized movement of the X-ray tube.
6	The system shall have electromagnetic locks with collision protection sensors.
7	Collimator field size programming shall be available.
8	The anode heat storage capacity shall be at least 400 KHU.
9	The X-ray tube and collimator section shall have automated image shuttering and cropping capability.
10	The system shall have both symmetric and asymmetric automated collimation.
11	The system shall have a manual knob control for override.
12	All movements of the overhead tube suspension (3D column stand) and the chest stand (vertical detector) shall be fully motorized and shall allow manual override.
13	Auto-positioning of the overhead tube suspension to both the vertical detector and the table detector shall be available. This shall be selectable from both the console and the wall stand control.
14	Tube tracking shall be available in all axes.

15	The overhead tube suspension (3D column stand) shall have a touch display showing SID, head angle, rotation angle, mAs, kVp, detector selection, positioning status, exam type, and shall include image preview.
16	Tube rotation shall be: Vertical axis ±150°or better , Horizontal axis +120° / –120° or better. The vendor shall specify the rotation of the offered model.
17	The system shall have motorized aluminium/copper filtration to reduce unwanted radiation.
18	The system shall provide filtration of at least 2.0 mm
19	The system shall provide a horizontal movement of at least 500 cm.
20	The system shall provide a transverse movement of at least 300 cm.
	3. Horizontal Bucky Table
1	The system shall have a motor-driven, adjustable-height floating table top made of carbon fibre or equivalent material, please specify the table top dimension
2	The table shall provide at least ±12 cm transverse movement and at least ±50 cm longitudinal movement.
3	The table shall be a compact bucky table with an integrated/Wireless digital flat-panel detector.
4	Foot switches shall be provided for adjusting height, longitudinal and side-to-side movements, and locking. Controls for auto-centering and tracking shall also be available.
5	Detector movement shall be synchronized with the movement of the X-ray tube.
6	Tube movement shall be synchronized with the table such that the SID is automatically maintained.
7	A Software based grid / removable grid suitable for a SID of at least 100 cm for horizontal table applications shall be available.
8	Software based/AI based automatic exposure control (AEC) shall be available
9	The system shall have at least three AEC chambers.
10	The table shall have a weight-carrying capacity of at least 280 kg.
11	The vendor shall specify the vertical travel range above the floor level.
	4. Vertical Bucky (Wall Stand)
1	The system shall have a motorized, counterbalanced, adjustable-height vertical bucky with an integrated/wireless digital flat-panel detector.
2	The vertical detector system shall be capable of tilting from at least –15° to +90°.
3	The system shall provide left/right bucky angulations of at least 45°.
4	Motorized motion shall be available for both vertical and tilt movements.
5	The vendor shall specify the vertical travel range above the floor level.
6	Detector movement shall be synchronized with the X-ray tube movement in all planes.
7	A removable grid suitable for a SID of at least 180 cm shall be provided for vertical bucky applications.
8	Software based/AI based automatic exposure control (AEC) shall be available
9	The system shall have at least three AEC chambers.
10	The system shall have controls for auto-centering, auto-positioning, vertical movement, auto-tracking, motorized tilting, and collimator functions.
	5. Detector System
1	The detector shall be a solid-state flat-panel detector of the latest technology with a Cesium Iodide (CsI) scintillator.
2	The system shall have two digital flat-panel detectors, one integrated/wireless detector for the wall stand and one integrated/wireless detector for the bucky table (a total of at least two separate detectors).
3	Each detector shall have a minimum size of at least 17" × 17" for both the vertical bucky and the table bucky applications.
4	The image matrix size shall be at least 3.0k × 3.0k pixels.
5	The pixel size shall be 140 microns or less.
6	The image resolution shall be at least 3.5 lp/mm.
7	The detector system DQE shall be at least 68 % at 0.05 lp/mm.
8	Tube assembly movement shall be automatically synchronized with both the horizontal and vertical detector movements.

9	The detector shall have 16-bit A/D conversion.
10	The detector shall have sensor protection and an ingress protection rating of at least IP54.
	6. Operating (Acquisition) Station
1	The storage disk capacity shall be at least 1 TB.
2	The system shall have high-resolution, at least 2MP medical-grade TFT/LCD monitors of at least 23", fully flat, with an anti-reflective front screen.
3	The image display matrix shall be at least 2k × 2k.
4	The system shall have an auto-protocol selection feature.
5	The operating console shall have facilities for patient identity entry, image viewing, image processing, and documentation.
6	A preview image shall be available in 5 seconds or less.
7.1	Ortho stitching shall be available on both the vertical stand and the table.
7.2	Stitching shall be automated and performed on the main DR system without external software dependency.
7.3	A built-in measurement scale shall be provided for accurate post-processing and reporting.
7.4	Automatic source-tilting image-stitching software shall support at least 3–4 images for full-leg, full-spine, and long-body imaging on both the vertical bucky and table bucky.
7.5	The system shall allow remote adjustment of collimator shutters from the operator console software, using a real-time camera-assisted region-of-interest selection feature.
8	Hardware (long-length imaging stand, step stool) and software for long-length imaging shall be provided.
9	The system shall support at least four long-length imaging (LLI) exposures in erect position and at least two exposures in the supine position.
10	The console software shall be manufactured by the X-ray system manufacturer.
11	The console software shall have AI-enabled noise reduction/cancellation. Scoliosis measurement and leg-length-difference measurement tools shall be provided.
12	The console shall have a smart-positioning facility for easy and accurate patient positioning, with video assist.
13	The console shall have post-processing facilities including anatomical marker addition, image annotation, magnification, crop, zoom, pan, and measurement tools, in addition to image-processing functions.
14.1	The console shall display mAs details for all acquired images.
14.2	The console shall support AI-based post-processing features such as bone-suppression imaging and automatic lung-nodule detection in single-exposure mode.
14.3	Image post-processing tools shall be fully integrated into the console software.
14.4	The console shall provide an automated exposure indication program to visually highlight over-exposure or under-exposure on the preview screen.
14.5	The console system shall have the capability to automatically detect and correct detector line artefacts, with the correction feature available to the user.
15	The console system shall support advanced AI-based image-processing features, including bone-suppression imaging and automatic lung-nodule identification from a single exposure.
16	Image post-processing tools shall be fully integrated into the console software and not require external systems.
17	System should have integrated DAP (Dose Area Product)
18	The system shall be capable of bariatric acquisition.
	7. Image Viewing, Post-Processing, and Reporting Station and Documentation. (To be quoted as Optional)
1	An independent workstation shall be provided with full post-processing and printing facilities, storage for at least 10,000 images, and the capability to review/report X-rays independent of the main console.
2	The workstation shall have a high-speed processor CPU of at least 3.0 GHz, post-processing capability, 16 GB RAM or more, and an independent hard disk of at least 2 TB.
3	The workstation shall have a high-resolution 2 MP diagnostic medical-grade LCD colour monitor of at least 23".
4	Post-acquisition image processing, viewing, reprocessing, hard-copy documentation, and onward transmission shall be possible.

5	Image processing functions such as rotate, mirroring, zoom, move, and windowing filter shall be available.
6	The workstation shall have measurement facilities.
7	The workstation shall have connectivity to a dry chemistry camera of at least 500 DPI.
8	Multi-format printing shall be possible with user-selectable options.
9	The system shall allow creation of alphabetical, date-wise, and exam-based worklists, and the worklist shall auto-refresh.
	8. Image Storage and Transmission
1	The acquisition system shall have hard-disk storage for at least 5,000 images. (At least 1 TB)
2	The additional post-processing workstation shall have storage for at least 10,000 images (2 TB or more). The vendor shall specify whether this is standard or optional.
3	The system shall support storage of images on CDs and DVDs.
4	The system shall be DICOM 3.0 or higher compliant (send, receive, print, CD/DVD record, acknowledge, etc.).
5	Integration and networking shall be possible with existing/future networks including HIS, RIS, PACS, and other modalities. Vendor shall ensure connection to existing RIS-PACS at no extra cost.
6	DICOM worklist management shall be available.
7	DICOM print shall be available.
8	DICOM export shall be available.
	9. Upgrading Requirement
1	A free comprehensive software update/upgrade (compatible with the offered platform) guarantee for 7 years after installation.
	10. Other Requirements
1	Turnkey work to be quoted as per the defined matrix as optional
2	Dose Reporting in DICOM Report format shall be offered
3	The remote management system shall be offered
4	Any additional items to make system completely functional is to be offered as standard
5	Hand control remote for table and wall stand control to quoted as optional if available
6	System shall have the capability for virtual collimation for organs such as chest, spine, and long leg
7	Hand control remote for table and wall stand control to quoted as optional if available
	11. Consumables, Accessories & Procurement Terms
1	The bidder shall provide a Rate Contract for 3 years from the date of supply / installation / commissioning, covering all system-specific consumables and accessories.
2	A complete itemized list of all consumables and accessories, including model/reference numbers/HSN code and unit of measurement, shall be submitted in the Technical Offer (without prices).
3	The corresponding unit prices for the same items shall be submitted only in the Commercial Offer.
	12. Country of origin
1	Please specify the Country of Origin.

Annexure-2		
SN	**Software Description**	**Availability / Upgrade Condition**
1	Advanced digital radiography with multi-detector configuration, automatic positioning, and optimized radiation exposure control.	Standard
2	AI-based image enhancement with bone suppression and noise reduction for improved diagnostic clarity.	Standard
3	Advanced computer-aided detection (CAD) for tuberculosis, pulmonary nodules, and pneumonia.	Standard
4	Structured reporting with AI-assisted draft generation capability.	Optional-If the feature is not currently available, the same shall be offered as an upgrade when released in the future, without any additional cost
5	Advanced digital radiography system with auto-exposure control and automated positioning features.	Standard
6	AI-enhanced bone visualization and image artefact reduction for superior diagnostic accuracy.	Standard
7	AI for bone age estimation, automated fracture detection, and skeletal deformity recognition.	Optional-If the feature is not currently available, the same shall be offered as an upgrade when released in the future, without any additional cost
8	Advanced stitching software for multi-frame extremity imaging with seamless alignment.	Standard
9	Orthopaedic planning tools including measurement calibration markers and deformity analysis features.	Optional-If the feature is not currently available, the same shall be offered as an upgrade when released in the future, without any additional cost
10	Structured reporting with AI-assisted interpretation and draft report creation.	Optional-If the feature is not currently available, the same shall be offered as an upgrade when released in the future, without any additional cost
11	Advanced digital radiography with motorized positioning and automatic collimation for workflow optimization.	Standard
12	AI-assisted contrast and edge enhancement with motion artefact reduction technology.	Standard
13	Cobb angle measurement and scoliosis severity scoring for spinal deformity assessment.	Standard
14	Advanced AI-driven stitching with automatic overlap detection, geometric distortion correction, seamless blending and high-resolution output.	Standard

15	AI-enabled vertebral angle measurement, vertebral height assessment and deformity analysis.	Optional-If the feature is not currently available, the same shall be offered as an upgrade when released in the future, without any additional cost
16	Structured reporting with AI-assisted draft generation.	Optional-If the feature is not currently available, the same shall be offered as an upgrade when released in the future, without any additional cost
17	Digital radiography with dose optimization features and automatic collimation control.	Standard
18	AI-enhanced contrast for bone and soft-tissue differentiation.	Standard
19	AI-based fracture detection, joint space measurement, and orthopaedic templating tools.	Optional-If the feature is not currently available, the same shall be offered as an upgrade when released in the future, without any additional cost
20	Optional module supporting composite full pelvis-to-spine radiographic views.	Optional-If the feature is not currently available, the same shall be offered as an upgrade when released in the future, without any additional cost
21	AI-assisted templating and angle/length measurement for hip and knee pre-operative planning.	Standard
22	Structured and AI-assisted reporting functionality.	Optional-If the feature is not currently available, the same shall be offered as an upgrade when released in the future, without any additional cost
23	Advanced multi-detector digital radiography with auto-positioning.	Standard
24	AI-enhanced bone visualization with noise reduction algorithms.	Standard
25	AI-based fracture detection, deformity assessment, and skeletal growth analysis.	Optional-If the feature is not currently available, the same shall be offered as an upgrade when released in the future, without any additional cost
26	Advanced stitching with AI-based multi-frame alignment, exposure normalization, and calibration markers.	Optional-If the feature is not currently available, the same shall be offered as an upgrade when released in the future, without any additional cost
27	AI-assisted measurements for bone length, angles, and deformity assessment.	Optional-If the feature is not currently available, the same shall be offered as an upgrade when released in the future, without any additional cost
28	Structured reporting with AI-assisted content generation.	Optional-If the feature is not currently available, the same shall be offered as an upgrade when released in the future, without any additional cost

29	High-end multi-detector digital radiography with automatic positioning and workflow automation.	Standard
30	Advanced multi-region stitching and AI-driven alignment software.	Standard
31	AI-based triage and multi-region abnormality detection with intelligent worklist prioritization.	Optional-If the feature is not currently available, the same shall be offered as an upgrade when released in the future, without any additional cost
32	Structured reporting with AI-assisted draft report generation.	Optional-If the feature is not currently available, the same shall be offered as an upgrade when released in the future, without any additional cost
33	Advanced DR console with multi-detector device support, auto-positioning and AI-based dose optimization.	Standard
34	AI-based denoising, motion artefact reduction and bone suppression for improved visualization.	Standard
35	AI-based stitching with automatic overlap correction, geometric distortion compensation and scoliosis measurement tools.	Standard
36	Advanced acquisition module enabling multi-angle image capture, slice reconstruction and adjustable slice thickness (chest, bone and breast).	Optional-If the feature is not currently available, the same shall be offered as an upgrade when released in the future, without any additional cost
37	Comprehensive CAD package (FDA/CE cleared) for TB, nodules, pneumonia and COPD.	Standard
38	AI-based fracture detection, bone age analysis and joint space measurement.	Optional-If the feature is not currently available, the same shall be offered as an upgrade when released in the future, without any additional cost
39	Advanced orthopaedic planning suite with AI-based Cobb angle measurement, implant templating and deformity analysis.	Optional-If the feature is not currently available, the same shall be offered as an upgrade when released in the future, without any additional cost
40	AI-driven dose analytics including automatic DAP/CTDI capture, patient-specific optimization and compliance dashboards.	Standard
41	Structured reporting with speech recognition, AI-assisted drafting and EHR/RIS integration.	Optional-If the feature is not currently available, the same shall be offered as an upgrade when released in the future, without any additional cost

42	Enterprise-grade PACS with advanced hanging protocols, multi-modality support, 3D tools and AI-enabled worklist prioritization.	Optional-If the feature is not currently available, the same shall be offered as an upgrade when released in the future, without any additional cost
43	Full RIS integration including modality worklist, billing, coding and workflow scheduling.	Standard
44	Secure cloud-enabled streaming, AI orchestration, multi-site reading and structured report sharing features.	Optional-If the feature is not currently available, the same shall be offered as an upgrade when released in the future, without any additional cost
45	AI-ready platform supporting de-identified dataset export, annotation tools and SDK for custom AI model development.	Optional-If the feature is not currently available, the same shall be offered as an upgrade when released in the future, without any additional cost
46	Enterprise-level security including role-based access control, encrypted data protection and HIPAA/GDPR compliance.	Standard
47	Teleradiology and remote reporting support system.	Optional-If the feature is not currently available, the same shall be offered as an upgrade when released in the future, without any additional cost
48	Cybersecurity and audit functionalities including advanced monitoring and reporting tools.	Standard

ANNEXURE: 3			
	MEDICAL EQUIPMENT UTILITY REQUIREMENTS FOR DIGITAL RADIOGRAPHY		Vendor to fill below details
EQUIPMENT	EQUIPMENT DETAILS	EQUIPMENT	
		MAKE	
		MODEL	
		LAUNCH YEAR	
DIMENSION	SPACE REQUIREMENT (L X B X H) IN MM	EXAM ROOM	
		CONSOLE ROOM	
		UPS AND BATTERY ROOM AS REQUIRED	
WEIGHT	MAXIMUM WEIGHT (KG)	MACHINE + TABLE	
		CONSOLE EQUIPMENT	
		UPS WEIGHT AS REQUIRED	
		UPS BATTERY WEIGHT AS REQUIRED	
TRANSPORTATION	BIGGEST SINGLE PART (TRANSPORTATION PACKAGING)	DIMENSIONS (L X W X H) IN MM	
		WEIGHT IN KG	
	EQUIPMENT MOBILISATION	UNLOADING RESPONSIBILITY	

		UNLOADING POINT TO INSTALLATION SITE	
		CRANES, PLATFORM, SPECIALISED TOOLS FOR EQUIPMENT MOBILISATION	
POWER	ELECTRICAL POWER & UPS REQUIRMENTS	TOTAL POWER CONSUMPTION IN KVA	
		ISOLATOR REQUIREMENT	
		MINIMUM LUX LEVEL FOR EACH ROOM	
		UPS POWER CAPACITY AS REQUIRED	
	POWER CABLE SPECIFICATION	MAIN POWER DISTRIBUTION PANEL TO UPS/STABILIZER	
		UPS/STABILIZER TO EQUIPMENT PANEL / CABINET	
		LOCATION OF ENERGY METER	
EARTHING	DEDICATED EARTHING REQUIREMENT & SPECIFICATIONS	QTY REQUIRED	
		EARTH VALUE IN OHM	
		STRIP/PLATE MATERIAL	
		MAXIMUM ACCEPTABLE DISTANCE OF EARTHING FROM EQUIPMENT	
		STRIP/PLATE DIMENSION (IN MM)	
NETWORKING	DATA POINT REQUIREMENT	EXAM ROOM	
		CONSOLE ROOM	
		UPS AND BATTERY ROOM AS REQUIRED	
TEMPERATURE	TEMPERATURE REQUIREMENT	EXAM ROOM	
		CONSOLE ROOM	
		UPS AND BATTERY ROOM AS REQUIRED	
	RATE OF CHANGE OF TEMPREATURE	EXAM ROOM	
		CONSOLE ROOM	
		UPS AND BATTERY ROOM AS REQUIRED	
HUMIDITY	HUMIDITY RANGE	EXAM ROOM	
		CONSOLE ROOM	
		UPS AND BATTERY ROOM AS REQUIRED	
	RATE OF CHANGE OF HUMIDITY	EXAM ROOM	
		CONSOLE ROOM	
		UPS AND BATTERY ROOM AS REQUIRED	
HVAC	HEAT LOAD (W) GENERATED	EXAM ROOM	
		CONSOLE ROOM	
		UPS AND BATTERY ROOM AS REQUIRED	
		EXAM ROOM	

	NUMBER OF AIR CHANGES REQUIRED	CONSOLE ROOM	
		UPS AND BATTERY ROOM AS REQUIRED	
		PRESSURE INSIDE PATIENT TREATMENT AREA WRTO OUTSIDE	
GIRDER WORK	GIRDER WORK REQUIREMENT	CEILING REQUIREMENT	
TRENCH WORK	CABLE TRENCH/TRAY REQUIREMENT	FLOOR TYPE	
		PREFERED WAY FOR ENCASEMENT TRENCH CABLE	
OTHERS	ANY OTHER DETAILS	ACCEPTABLE VIBRATION	
		PLUMBING REQUIREMENT (IF ANY)	
		MGPS REQUIREMENT (IF ANY)	
		OTHERS ANY	

ANNEXURE: 4						
SCOPE OF WORK MATRIX FOR DIGITAL RADIOGRAPHY						
SN	**DESCRIPTION**	**RESPONSIBILITY OF EQUIPMENT SUPPLIER**	**RESPONSIBILITY OF CLIENT**	**ADDITIONAL SCOPE REMARKS**	**STANDARD /OPTIONAL FOR SUPPLIER**	**COMPLIANCE (YES/NO)**
1. DESIGN AND PLANNING						
1.1	SITE SPECIFIC DRAWING WITH PRE-INSTALLATION DETAILS	YES			STANDARD	
1.2	APPROVAL OF DRAWINGS AND INCORPORATION INTO THE BUILDING PLAN		YES			
2. CIVIL WORKS AND SITE PREPARATION						
2.1	ENSURE LEVELED FLOOR IN EXAMINATION ROOM AS PER PRE-INSTALLATION REQUIREMENT		YES			
2.2	MAINTAIN REQUIRED FLOOR LEVEL BEFORE INSTALLATION		YES	SUPPLIER SCOPE- ANY MODIFICATION OR FINISHING WORK TO BE	OPTIONAL COST TO BE QUOTED FOR " ADDITIONAL SCOPE REMARKS"	

				CARRIED OUT AFTER INSTALLATION OF EQUIPMENT TO BE QUOTED AS OPTIONAL AS SEPARATE		
2.3	9-INCH BRICK WALL CONSTRUCTION AS PER AERB GUIDELINES		YES			
2.4	CONSTRUCTION OF CONCRETE BED IN EXAMINATION ROOM AS PER EQUIPMENT REQUIREMENT		YES			
2.5	FLOOR FINISHING WITH APPROPRIATE MATERIALS		YES	SUPPLIER SCOPE- ANY MODIFICATION OR FINISHING WORK TO BE CARRIED OUT AFTER INSTALLATION OF EQUIPMENT TO BE QUOTED AS OPTIONAL AS SEPARATE	OPTIONAL COST TO BE QUOTED FOR " ADDITIONAL SCOPE REMARKS"	
2.6	CUPBOARDS/RACKS WITH LOCKING FACILITY FOR ACCESSORIES, MANUALS, AND TOOLS		YES			
2.7	PAINTING, TILE WORK, AND GENERAL WALL & INTERIOR FINISHING		YES	SUPPLIER SCOPE- ANY MODIFICATION OR FINISHING WORK TO BE CARRIED OUT	OPTIONAL COST TO BE QUOTED FOR " ADDITIONAL SCOPE REMARKS"	

				AFTER INSTALLATION OF EQUIPMENT TO BE QUOTED AS OPTIONAL AS SEPARATE		
2.8	CABLE TRAY PROVISION INSIDE FACILITY AS REQUIRED		YES		OPTIONAL COST TO BE QUOTED	
2.9	RE-CLOSING OF WALLS IF OPENED FOR MOVING IN EQUIPMENT		YES			
3. TRANSPORTATION AND EQUIPMENT MOVEMENT						
3.1	DEFINE AND PREPARE EQUIPMENT TRANSPORTATION ROUTE		YES			
3.2	PROVISION OF CLEAN EQUIPMENT PATH FOR MOBILIZATION UNTIL THE DESIGNATED EQUIPMENT ROOM		YES			
3.3	PROVIDE TRANSPORTATION DIMENSIONS	YES			STANDARD	
3.4	PLATFORM FOR UNLOADING AS PER PRE-INSTALLATION REQUIREMENT		YES			
3.5	CONFIRM STRUCTURAL STRENGTH OF UNLOADING PLATFORM AND RIGGING ROUTE		YES			
3.6	ARRIVAL OF EQUIPMENT AT SITE	YES			STANDARD	
3.7	ARRANGEMENT OF CRANE FOR UNLOADING AS REQUIRED	YES			STANDARD	
3.8	UNLOADING OF EQUIPMENT	YES			STANDARD	
3.9	ARRIVAL OF SPECIAL TOOLS AT SITE FOR UNLOADING	YES			STANDARD	

4. ELECTRICAL AND POWER REQUIREMENTS						
4.1	POWER SUPPLY OF 415V, 3 PHASE, 50 HZ AS PER PRE-INSTALLATION REQUIREMENT		YES			
4.2	MAINS DISTRIBUTION PANEL TO BE INSTALLED AS PER LINE DIAGRAM		YES			
4.3	TERMINATION OF MAINS CABLE AT MAINS SWITCH (PANEL) IN EQUIPMENT ROOM		YES			
4.4	EARTHING AS PER EQUIPMENT PRE-INSTALLATION REQUIREMENT		YES			
4.5	DEDICATE EARTH PIT TO BE PROVIDED AND EARTHING CONNECTION TO BE ESTABLISHED AS PER VENDOR DEFINED LOCATIONS		YES			
9. POWER PANEL FOR EQUIPMENT						
9.1	ALL ELECTRICAL WORK INCLUDING SUPPLY & INSTALLATION OF DISTRIBUTION PANEL FROM MAINS CABLE.		YES		OPTIONAL COST TO BE QUOTED	
9.2	SUPPLY OF UPS/ STABILIZER AS REQUIRED FOR THE FUNCTIONING OF SYSTEM	YES			STANDARD	
6. LIGHTING AND FALSE CEILING						
6.1	LIGHTING IN ALL ROOMS		YES			
6.2	RADIATION ON SWITCH CONNECTED TO EQUIPMENT AND ITS ASSOCIATED ELECTRICAL WORK AND INSTALLATION	YES			STANDARD	

6.3	FALSE CEILING AND INTERIOR FINISHING OF EXAM ROOM		YES	SUPPLIER SCOPE- ANY MODIFICATION OR FINISHING WORK TO BE CARRIED OUT AFTER INSTALLATION OF EQUIPMENT TO BE QUOTED AS OPTIONAL AS SEPARATE	OPTIONAL COST TO BE QUOTED FOR " ADDITIONAL SCOPE REMARKS"	
7. HVAC (AIR CONDITIONING)						
7.1	DUCTING AND TERMINATION		YES			
7.2	MAINTAIN TEMPERATURE AS PER PRE-INSTALLATION REQUIREMENT		YES			
7.3	MAINTAIN RELATIVE HUMIDITY AS PER PRE-INSTALLATION REQUIREMENT		YES			
7.4	AIR-CONDITIONING TO BE FUNCTIONAL AND ENSURE DUST-FREE DIGITAL ENVIRONMENT		YES			
7.5	PROVIDE THERMOMETER WITH TEMPERATURE AND HUMIDITY DISPLAY IN EXAM AND CONSOLE ROOMS	YES			STANDARD	
7.6	AIR-CONDITIONING TO BE FUNCTIONAL TO ENSURE DUST-FREE DIGITAL ENVIRONMENT		YES			
8. RADIATION SHIELDING						
8.1	SUPPLY OF LEAD GLASS WINDOW AS PER SITE CONDITION (APPROX 1 M X 1 M) TO BE SUPPLIED AS PER SITE REQUIREMENTS	YES			STANDARD	

8.2	INSTALL LEAD GLASS WINDOW BETWEEN ROOM AND CONTROL ROOM		YES	SUPPLIER SCOPE- ANY MODIFICATION OR FINISHING WORK TO BE CARRIED OUT AFTER INSTALLATION OF EQUIPMENT TO BE QUOTED AS OPTIONAL AS SEPARATE	OPTIONAL COST TO BE QUOTED FOR " ADDITIONAL SCOPE REMARKS"	
8.3	LEAD SHIELDED DOOR AS PER SITE REQUIREMENT		YES			
9. ROOM FINISHES AND ACCESSORIES						
9.1	PROVIDE ANTI-STATIC FLOORING IN EXAMINATION ROOM AFTER EQUIPMENT INSTALLATION		YES	SUPPLIER SCOPE- ANY MODIFICATION OR FINISHING WORK TO BE CARRIED OUT AFTER INSTALLATION OF EQUIPMENT TO BE QUOTED AS OPTIONAL AS SEPARATE	OPTIONAL COST TO BE QUOTED FOR " ADDITIONAL SCOPE REMARKS"	
9.2	PROVIDE ANTI-STATIC FLOORING IN CONSOLE ROOM		YES	SUPPLIER SCOPE- ANY MODIFICATION OR FINISHING WORK TO BE CARRIED OUT AFTER INSTALLA	OPTIONAL COST TO BE QUOTED FOR " ADDITIONAL SCOPE REMARKS"	

				TION OF EQUIPMENT TO BE QUOTED AS OPTIONAL AS SEPARATE		
9.3	PROVIDE REQUIRED NUMBER OF WALL SOCKETS (5A/15A) NEAR CONSOLE AS PER SERVICE PROVIDER REQUIREMENT	VENDOR HAS TO PROVIDE REQUIREMENT	YES			
9.4	PROVIDE WALL SOCKETS (5A/15A) IN EQUIPMENT ROOM	VENDOR HAS TO PROVIDE REQUIREMENT	YES			
9.5	PROVIDE MGPS OUTLETS	VENDOR HAS TO PROVIDE REQUIREMENT	YES			
9.6	ELV SYSTEMS	VENDOR HAS TO PROVIDE REQUIREMENT	YES			
10. COMMUNICATION						
10.1	INSTALLATION OF STANDALONE INTERCOM AND COMMUNICATION SYSTEM FOR WORKFLOW	YES			STANDARD	
11. CLEANING AND READINESS						
11.1	CLEANLINESS OF SITE AND ENSURING DUST-FREE ENVIRONMENT		YES			
11.2	24 HR POWER SUPPLY		YES			
12. OTHER ITEMS			YES			
12.1	FIXED FURNITURE		YES			

12.2	LOOSE FURNITURE		YES			
12.3	FIREFIGHTING AND DETECTION SYSTEMS		YES			
12.4	HVAC		YES			
12.5	MEDICAL FURNITURE (TROLLEYS, STOOLS, ETC.)		YES			
12.6	SIGNAGE (DIRECTIONAL, WARNING, DEPARTMENTAL)		YES			
12.7	WORKFLOW-RELATED ITEMS (ZONING SIGNAGE, VISUAL BOARDS, ETC.)		YES			
12.8	TRENCH WORK AS REQUIRED		YES	SUPPLIER SCOPE- ANY MODIFICATION OR FINISHING WORK TO BE CARRIED OUT AFTER INSTALLATION OF EQUIPMENT TO BE QUOTED AS OPTIONAL AS SEPARATE	OPTIONAL COST TO BE QUOTED FOR " ADDITIONAL SCOPE REMARKS"	
12.9	GIRDER WORK AS REQUIRED	YES		SUPPLIER SCOPE- ANY MODIFICATION OR FINISHING WORK TO BE CARRIED OUT AFTER INSTALLATION OF EQUIPMENT TO BE QUOTED AS OPTIONAL AS	GIRDER WORK- STANDARD OPTIONAL COST TO BE QUOTED FOR " ADDITIONAL SCOPE REMARKS"	

				SEPARATE		
13. INSTALLATION						
13.1	INSTALLATION & COMMISSIONING OF EQUIPMENT	YES			STANDARD	
14.STATUTORY COMPLIANCE						
14.1	FACILITATING AERB, PCPNDT WHEREVER APPLICABLE	YES	YES		STANDARD	

Annexure: 5	
	Technical Specification for mobile digital radiography
A. General Requirements	
1	The unit shall be a high-powered, motorized, battery-operated mobile digital radiography machine with a collapsible column and telescopic cross-arm, suitable for bedside X-rays across the hospital in all clinical facilities within the hospital.
2	The system shall have a wireless digital flat panel detector for image acquisition.
3	The unit shall operate on single-phase power supply.
4	The system shall comprise a high-frequency generator, X-ray tube, collimator with display unit, flat panel detector (minimum 1 no), built-in workstation, and integrated mobile cart.
5	All software functionalities shall be provided by the OEM.
B. High-Frequency Generator	
1	The generator shall be microprocessor-controlled and of high-frequency type.
2	The generator power output shall be at least 40 kW and capable of delivering at least 400 mA at 100 kVp.
3	The generator shall have a radiographic kV range of at least 40–150 kV in 1 kV increments.
4	The generator shall have an mA range of at least 10–400 mA.
5	The generator shall have a mAs range of at least 0.1–400 mAs.
6	The exposure time shall be selectable from at least 1 ms to 10 sec.
7	The generator shall provide a digital display of kVp, mA, and mAs.
8	Individual settings of kVp, mA, mAs, and exposure time shall be possible.
9	Wired and wireless exposure switches shall be provided in addition to console exposure switch.
C. X-Ray Tube	
1	The X-ray tube shall be of rotating-anode type with at least 3000 rpm rotation speed.
2	The tube shall have dual focal spots: At least 0.6 mm and 1.2 mm or better.
3	The tube output shall match the generator output.
4	The anode heat storage capacity shall be at least 300 kHU.
D. Collimator & Display Unit	
1	The tube unit shall be fitted with an automatic collimator with individual blade control and manual override.

2	The collimator shall provide automatic selection of additional filters based on APR settings.
3	Copper filters of at least 0.1, 0.2, and 0.3 mm shall be provided.
4	The collimator shall have a bright LED light with at least 150 lux luminance.
5	The collimator shall be rotatable from −90° to 180°.
6	A measuring tape shall be provided.
7	The tube head shall have a minimum 5” colour touch-panel display of tube angulation, X-ray parameters, distance, and patient details.
8	Exposure parameters shall be selectable from the tube-head unit.
9	A preview of the image shall be displayed on the tube-head unit.
10	The detector angle shall be displayed for tube-angle correction.
E. Flat Panel Detector	
1	The detector shall be wireless with CsI scintillator and amorphous silicon technology, minimum size 14” ×17”.
2	The scintillator shall face the X-ray tube.
3	The detector pixel matrix shall be at least 2.5K×3K.
4	The pixel size shall be 150 µm or less.
5	DQE shall be at least 70% at 0 lp/mm.
6	Image processing time shall not exceed 5 sec.
7	Detector weight shall not exceed 3 kg.
8	The detector shall have removable Li-Ion rechargeable batteries, with at least one additional spare battery and in-unit charging provision.
9	The detector shall support at least 500 exposures per full charge.
10	The detector shall be dust and water resistant with at least IP54 rating.
11	The detector shall have minimum distributed weight-bearing capacity of 320 kg and bend capacity of 100 kg.
12	The detector shall have an inbuilt shock logging mechanism integrated with console software.
13	Paediatric detector, if available, shall be specified (optional).
F. Integrated Workstation & Control Panel	
1	The workstation shall have an integrated touchscreen of at least 21”.
2	The processor shall be latest generation with at least 16 GB RAM and 1 TB SSD.
3	The monitor shall have at least 1.3 MP resolution and Full HD capability.
4	The control panel shall provide ON/OFF switch and digital display of kV/mA/mAs/sec with adjustment switches.
5	Anatomical Programming (APR) shall be provided for automatic kV/mAs selection.
6	User-defined APR settings shall be storable.
7	A detachable exposure switch with at least 5 m cord and wireless remote with at least 5 m range shall be provided.
8	The console shall allow image viewing and post-processing including zoom, contrast, brightness, and window/level.
9	The workstation shall store at least 10,000 images.
10	Paediatric exposure management shall be available.
11	AI-based scatter correction shall be included and integrated with APR.
12	Dose measurement shall be provided and transferable as DICOM images to PACS.
13	Advanced AI features such as bone suppression, lung nodule detection, pneumothorax, and pleural effusion shall be available in a single exposure.
14	HDD encryption and cybersecurity protection shall be provided.
15	Minor tube-head adjustments to motorized movement shall be possible from the tube unit.
16	A laser-centering device for SID positioning shall be APR-based.

17	The workstation shall support DICOM Query/Retrieve, printing, external storage, and LAN/WLAN transfer.
18	RIS/PACS browser access shall be available within the console software.
19	Software-based AEC shall be offered as standard.
G. Mobile Cart Unit	
1	The mobile cart shall integrate generator, tube, workstation, battery, and column as a single wheeled unit.
2	The cart shall have a collapsible column with telescopic cross-arm.
3	A single lithium-ion/polymer battery shall power both movement and exposure.
4	Motorized drive shall achieve at least 5 km/hr and handle slopes of at least 5°.
5	The system shall support at least 300 exposures and 30 km movement per full charge.
6	The detector compartment shall provide charging and secure lock with password protection.
7	Collision sensors and effective braking for parking, transport, and emergency shall be provided.
8	Column rotation shall be ±300°, tube reach 80–130 cm, tube rotation ±180°, tube axis +90° to −30°.
9	All cables shall be concealed within the arm system.
10	The detector shall charge automatically in the compartment during movement.
11	Total unit weight shall not exceed 400 kg.
12	The cart battery shall charge from 220–240 V, 15 A socket in at least 5 hours.
H. Power Line Connection	
1	The unit shall operate on single-phase power supply, 150–240 V, 15 A.
I. Regulatory & Other Requirements	
1	The whole system shall be USFDA/CE certified, CDSCO approved.
2	The unit shall have valid AERB Type Approval.
3	Compliance sheets shall reference datasheet page numbers.
4	The OEM shall guarantee detector replacement with the same model during warranty and CAMC.
5	The system shall be DICOM 3.0 or higher compliant (send, receive, print, CD/DVD record, acknowledge, etc.).
6	Integration and networking shall be possible with existing/future networks including HIS, RIS, PACS, and other modalities. Vendor shall ensure connection to existing RIS-PACS at no extra cost.
7	DICOM worklist management shall be available.
8	DICOM print shall be available.
9	DICOM export shall be available.
J. Upgrading Requirements	
1	A free comprehensive software update/upgrade (compatible with the offered platform) guarantee for 7 years after installation.
K. Consumables, Accessories & Procurement Terms	
1	The bidder shall provide a Rate Contract for 3 years from the date of supply / installation / commissioning, covering all system-specific consumables and accessories.
2	A complete itemized list of all consumables and accessories, including model/reference numbers/HSN code and unit of measurement, shall be submitted in the Technical Offer (without prices).
3	The corresponding unit prices for the same items shall be submitted only in the Commercial Offer.
L. Country of origin	
1	Please specify the Country of Origin.

Annexure: 6		
	Software Description for Mobile digital radiography	**Availability / Upgrade Condition**
1	Image Acquisition & Control Software – Exposure Control & Image Capture	Standard
2	Automatic Exposure Detection (AED)	Standard
3	Patient Worklist Manager	Standard
4	Image Processing Software – Image Enhancement Algorithms	Standard
5	Grid Simulation / Virtual Grid	Standard
6	Paediatric / Anatomical Exposure Programs (APR)	Standard
7	Stitching / Long-Length Imaging	Standard
8	Bone Suppression	Standard
9	Exposure Index (EI) & Deviation Index (DI)	Standard
10	Review & Annotation Software – Image Viewer / Display Console	Standard
11	Annotation & Measurement Tools	Standard
12	Reject Analysis Module	Standard
13	Data Management & Connectivity – DICOM Send/Store/Print/Worklist/Query-Retrieve	Standard
14	Offline Archive / Backup Utility	Standard
15	Audit Log / User Access Control	Standard
16	System Maintenance – Self-diagnostic & Calibration Utility	Standard
17	Error Codes Display	Standard

ANNEXURE 7: SCOPE OF SUPPLY (FOR TECHNICAL BID)								
	EQUIPMENT NAME	DIGITAL RADIOGRAPHY (DR) X-RAY SYSTEM						
	VENDOR NAME							
	MAKE							
	MODEL NAME							
SNO	GROUP	ITEM NAME	QUANTITY	VENDOR CATALOGUE NUMBER	STANDARD/OPTIONAL	REMARKS (VENDOR ARE REQUESTED TO MAP THEIR ITEMS IN THEIR PROFORMA INVOICE WITH ENCLOSED LINE ITEMS)	QUOTE REFERENCE: SN)	QUOTE PAGE REFERENCE IF APPLICABLE)
1	HARDWARE	DIGITAL X-RAY WITH DUAL FLAT PANEL DETECTOR – CEILING MOUNTED SYSTEM	1		STANDARD			
2	HARDWARE	X-RAY GENERATOR WITH TUBE	1		STANDARD			
3	HARDWARE	EXAMINATION TABLE WITH DETECTOR	1		STANDARD			

4	**HARDWARE**	**VERTICAL BUCKY (WALL STAND) WITH DETECTOR**	**1**		**STANDARD**			
5	**HARDWARE**	**OPERATOR CONSOLE COMPUTER WITH MEDICAL GRADE IMAGE DISPLAY DEVICE, POST-PROCESSING, PATIENT SCHEDULING, ACQUISITION, REVIEW & PACS VIEWING**	**1**		**STANDARD**			
6	**HARDWARE**	**X-RAY TUBE HEAD CONTROL PANEL**	**1**		**STANDARD**			
7	**SOFTWARE**	**X-RAY SOFTWARE PACKAGE (HANDS, HIP, KNEE, SPINE)**	**1**		**STANDARD**			
8	**SOFTWARE**	**X-RAY SOFTWARE – HEPATO-BILIARY**	**1**		**STANDARD**			
9	**SOFTWARE**	**X-RAY SOFTWARE – HUMERUS**	**1**		**STANDARD**			
10	**SOFTWARE**	**X-RAY SOFTWARE – KUB**	**1**		**STANDARD**			
11	**SOFTWARE**	**X-RAY SOFTWARE – L-SPINE CONE VIEW**	**1**		**STANDARD**			
12	**SOFTWARE**	**X-RAY SOFTWARE – LUMBAR LATERAL**	**1**		**STANDARD**			
13	**SOFTWARE**	**X-RAY SOFTWARE – ABDOMEN, CHEST, CLAVICLE, ELBOW**	**1**		**STANDARD**			
14	**SOFTWARE**	**X-RAY SOFTWARE – ERECT**	**1**		**STANDARD**			
15	**SOFTWARE**	**X-RAY SOFTWARE – FACE, FEMUR, FINGERS, FOOT,**	**1**		**STANDARD**			

		FOREARM, GENITO-URINARY						
16	**SOFTWARE**	**X-RAY SOFTWARE – GASTRIGRAFIN STUDY**	**1**		**STANDARD**			
17	**SOFTWARE**	**X-RAY SOFTWARE – GENITO-URINARY**	**1**		**STANDARD**			
18	**SOFTWARE**	**X-RAY SOFTWARE – GENITO-URINARY ASU**	**1**		**STANDARD**			
19	**SOFTWARE**	**X-RAY SOFTWARE – GYNAECOLOGY HSG (HYSTEROSALPINGOGRAM)**	**1**		**STANDARD**			
20	**SOFTWARE**	**X-RAY SOFTWARE – HIP ACETABULUM ANT OBLIQUE (R/L)**	**1**		**STANDARD**			
21	**SOFTWARE**	**X-RAY SOFTWARE – MANDIBLE OBLIQUES (R/L)**	**1**		**STANDARD**			
22	**SOFTWARE**	**X-RAY SOFTWARE – MANDIBLE PA**	**1**		**STANDARD**			
23	**SOFTWARE**	**X-RAY SOFTWARE – NEUROLOGY CERVICAL MYELOGRAM**	**1**		**STANDARD**			
24	**SOFTWARE**	**X-RAY SOFTWARE – NEUROLOGY LUMBAR MYELOGRAM**	**1**		**STANDARD**			
25	**SOFTWARE**	**X-RAY SOFTWARE – NEUROLOGY THORACIC (DORSAL) MYELOGRAM**	**1**		**STANDARD**			
26	**SOFTWARE**	**X-RAY SOFTWARE – NEUROLOGY TWO REGIONS**	**1**		**STANDARD**			

		(CERVICAL/DORSAL)						
27	SOFTWARE	X-RAY SOFTWARE – PANTOMOGRAM	1		STANDARD			
28	SOFTWARE	X-RAY SOFTWARE – PARANASAL SINUSES (PNS)	1		STANDARD			
29	SOFTWARE	X-RAY SOFTWARE – PATELLA, SKULL, WRIST, TOES, STERNUM	1		STANDARD			
30	SOFTWARE	X-RAY SOFTWARE – PELVIS LATERAL	1		STANDARD			
31	SOFTWARE	X-RAY SOFTWARE – SACRO-ILIAC JOINT POSTERIOR OBLIQUE (R/L)	1		STANDARD			
32	SOFTWARE	WHOLE SPINE ACQUISITION	1		STANDARD			
33	SOFTWARE	WHOLE LEG ACQUISITION	1		STANDARD			
34	SOFTWARE	AUTO STITCHING	1		STANDARD			
35	SOFTWARE	RADIATION DOSE MONITORING SOFTWARE	1		STANDARD			
36	SOFTWARE	ADVANCED DIGITAL RADIOGRAPHY WITH MULTI-DETECTOR CONFIGURATION, AUTOMATIC POSITIONING, AND OPTIMIZED RADIATION EXPOSURE CONTROL.	1		STANDARD			
37	SOFTWARE	AI-BASED IMAGE ENHANCEMENT WITH BONE SUPPRESSION	1		STANDARD			

		AND NOISE REDUCTION FOR IMPROVED DIAGNOSTIC CLARITY.						
38	SOFTWARE	ADVANCED COMPUTER-AIDED DETECTION (CAD) FOR TUBERCULOSIS, PULMONARY NODULES, AND PNEUMONIA.	1		STANDARD			
39	SOFTWARE	ADVANCED DIGITAL RADIOGRAPHY SYSTEM WITH AUTO-EXPOSURE CONTROL AND AUTOMATED POSITIONING FEATURES.	1		STANDARD			
40	SOFTWARE	AI-ENHANCED BONE VISUALIZATION AND IMAGE ARTEFACT REDUCTION FOR SUPERIOR DIAGNOSTIC ACCURACY.	1		STANDARD			
41	SOFTWARE	ADVANCED STITCHING SOFTWARE FOR MULTI-FRAME EXTREMITY IMAGING WITH SEAMLESS ALIGNMENT.	1		STANDARD			

42	**SOFTWARE**	**ADVANCED DIGITAL RADIOGRAPHY WITH MOTORIZED POSITIONING AND AUTOMATIC COLLIMATION FOR WORKFLOW OPTIMIZATION.**	**1**		**STANDARD**			
43	**SOFTWARE**	**AI-ASSISTED CONTRAST AND EDGE ENHANCEMENT WITH MOTION ARTEFACT REDUCTION TECHNOLOGY.**	**1**		**STANDARD**			
44	**SOFTWARE**	**COBB ANGLE MEASUREMENT AND SCOLIOSIS SEVERITY SCORING FOR SPINAL DEFORMITY ASSESSMENT.**	**1**		**STANDARD**			
45	**SOFTWARE**	**ADVANCED AI-DRIVEN STITCHING WITH AUTOMATIC OVERLAP DETECTION, GEOMETRIC DISTORTION CORRECTION, SEAMLESS BLENDING AND HIGH-RESOLUTION OUTPUT.**	**1**		**STANDARD**			
46	**SOFTWARE**	**DIGITAL RADIOGRAPHY WITH DOSE OPTIMIZATION FEATURES AND**	**1**		**STANDARD**			

		AUTOMATIC COLLIMATION CONTROL.						
47	**SOFTWARE**	**AI-ENHANCED CONTRAST FOR BONE AND SOFT-TISSUE DIFFERENTIATION.**	**1**		**STANDARD**			
48	**SOFTWARE**	**AI-ASSISTED TEMPLATING AND ANGLE/LENGTH MEASUREMENT FOR HIP AND KNEE PRE-OPERATIVE PLANNING.**	**1**		**STANDARD**			
49	**SOFTWARE**	**ADVANCED MULTI-DETECTOR DIGITAL RADIOGRAPHY WITH AUTO-POSITIONING.**	**1**		**STANDARD**			
50	**SOFTWARE**	**AI-ENHANCED BONE VISUALIZATION WITH NOISE REDUCTION ALGORITHMS.**	**1**		**STANDARD**			
51	**SOFTWARE**	**HIGH-END MULTI-DETECTOR DIGITAL RADIOGRAPHY WITH AUTOMATIC POSITIONING AND WORKFLOW AUTOMATION.**	**1**		**STANDARD**			
52	**SOFTWARE**	**ADVANCED MULTI-REGION STITCHING AND AI-DRIVEN ALIGNMENT SOFTWARE.**	**1**		**STANDARD**			

53	**SOFTWARE**	**ADVANCED DR CONSOLE WITH MULTI-DETECTOR DEVICE SUPPORT, AUTO-POSITIONING AND AI-BASED DOSE OPTIMIZATION.**	**1**		**STANDARD**			
54	**SOFTWARE**	**AI-BASED DENOISING, MOTION ARTEFACT REDUCTION AND BONE SUPPRESSION FOR IMPROVED VISUALIZATION.**	**1**		**STANDARD**			
55	**SOFTWARE**	**AI-BASED STITCHING WITH AUTOMATIC OVERLAP CORRECTION, GEOMETRIC DISTORTION COMPENSATION AND SCOLIOSIS MEASUREMENT TOOLS.**	**1**		**STANDARD**			
56	**SOFTWARE**	**COMPREHENSIVE CAD PACKAGE (FDA/CE CLEARED) FOR TB, NODULES, PNEUMONIA AND COPD.**	**1**		**STANDARD**			
57	**SOFTWARE**	**AI-DRIVEN DOSE ANALYTICS INCLUDING AUTOMATIC DAP/CTDI CAPTURE, PATIENT-SPECIFIC OPTIMIZATION AND**	**1**		**STANDARD**			

		COMPLIANCE DASHBOARDS.						
58	**SOFTWARE**	**FULL RIS INTEGRATION INCLUDING MODALITY WORKLIST, BILLING, CODING AND WORKFLOW SCHEDULING.**	**1**		**STANDARD**			
59	**SOFTWARE**	**ENTERPRISE-LEVEL SECURITY INCLUDING ROLE-BASED ACCESS CONTROL, ENCRYPTED DATA PROTECTION AND HIPAA/GDPR COMPLIANCE.**	**1**		**STANDARD**			
60	**SOFTWARE**	**CYBERSECURITY AND AUDIT FUNCTIONALITIES INCLUDING ADVANCED MONITORING AND REPORTING TOOLS.**	**1**		**STANDARD**			
61	**SOFTWARE**	**MPPS LICENSE (FOR MODALITY–PACS CONNECTIVITY)**	**1**		**STANDARD**			
62	**SOFTWARE**	**MODALITY WORKLIST LICENSE (ONLINE ORDERING/SCHEDULING)**	**1**		**STANDARD**			
63	**SOFTWARE**	**HIS & RIS INTEGRATION**	**1**		**STANDARD**			

64	**SOFTWARE**	**DICOM (STORAGE, PRINT, QUERY/RETRIEVE – ALL CAPABILITIES)**	**1**		**STANDARD**			
65	**SOFTWARE**	**OPERATING SYSTEM – LIFETIME VALIDITY (CONSOLE)**	**1**		**STANDARD**			
66	**SOFTWARE**	**ANTIVIRUS – LIFETIME VALIDITY CONSOLE)**	**1**		**STANDARD**			
67	**SOFTWARE**	**APPLICATION SOFTWARE – LIFETIME VALIDITY (CONSOLE)**	**1**		**STANDARD**			
68	**SOFTWARE**	**FREE SOFTWARE UPGRADES FOR 7 YEARS POST INSTALLATION**	**1**		**STANDARD**			
69	**HARDWARE: OEM**	**DOOR BULB ALARM INTERFACE WITH RADIATION SIGNAGE**	**1**		**STANDARD**			
70	**HARDWARE: OEM**	**UPS/STABILIZER AS REQUIRED BASED ON PRE-INSTALLATION REQUIREMENT**	**1**		**STANDARD**			
71	**ACCESSORY**	**POWER CABLES, EARTHING MATERIALS**	**1**		**STANDARD**			
72	**ACCESSORY**	**AERB MANDATORY SAFETY SIGNAGE**	**1**		**STANDARD**			
73	**ACCESSORY**	**PATIENT STRAPS AND BELTS**	**1**		**STANDARD**			
74	**ACCESSORY**	**APRON, ULTRA-LIGHTWEIGHT, LEAD-FREE (SKIRT & VEST)**	**2**		**STANDARD**			
75	**ACCESSORY**	**THYROID AND GONAD SHIELDS**	**2**		**STANDARD**			

76	ACCESSORY	LEAD APRON STAND	1		STANDARD			
77	ACCESSORY	X-RAY PROTECTION GOGGLES	1		STANDARD			
78	ACCESSORY	LEAD GLASS WITH WINDOW FRAME FOR CONSOLE VIEWING AS PER THE SITE CONDITION (APPROX. 1METER X 1 METER)	1		STANDARD			
79	ACCESSORY	STANDALONE INTERCOM & COMMUNICATION SYSTEM FOR WORKFLOW	1		STANDARD			
80	ACCESSORY	THERMOMETER WITH TEMPERATURE & HUMIDITY DISPLAY (EXAM & CONSOLE ROOMS) WITH TEST CERTIFICATE	2 (1 EACH)		STANDARD			
81	ACCESSORY	ORTHO STITCHING STAND WITH STEP STOOL	1		STANDARD			
82	ACCESSORY	WORK BENCH FOR CONSOLE	1		STANDARD			
83	ACCESSORY	LED VIEW BOX – DUAL FILM	1		STANDARD			
84	ACCESSORY	QA PHANTOM	1		STANDARD			
85	ACCESSORY	FOOT SWITCH FOR TABLE	1		STANDARD			
86	TURNKEY WORK	GIRDER WORK	1		STANDARD			
87	ANY OTHER PART TO MAKE SYSTEM	INCLUDING INSTALLATION, TESTING AND COMMISSIONING			STANDARD			

	COMPLETE & WORKING							
88	**ANY ITEM, ACCESSORY, CONSUMABLE, CABLE, CONNECTOR, SOFTWARE, OR COMPONENT THAT IS PART OF THE SYSTEM AS PER TENDER REQUIREMENTS BUT NOT EXPLICITLY MENTIONED OR ITEMIZED IN THE BOQ SHALL BE DEEMED INCLUDED IN THE SCOPE OF SUPPLY AND MUST BE PROVIDED BY THE VENDOR WITHOUT ADDITIONAL COST. THE VENDOR MAY LIST SUCH ITEMS UNDER "STANDARD INCLUSIONS (NOT SEPARATELY CHARGED)" FOR DOCUMENTATION PURPOSES.**				**STANDARD**			

SNO	OPTIONAL GROUP	OPTIONAL ITEM NAME	QUANTITY	VENDOR CATALOGUE NUMBER	STANDARD/OPTIONAL	REMARKS (VENDOR ARE REQUESTED TO MAP THEIR ITEMS IN THEIR PROFORMA INVOICE WITH ENCLOSED LINE ITEMS)	QUOTE REFERENCE: SN)	QUOTE PAGE REFERENCE IF APPLICABLE)
1	SOFTWARE	REPORTING AND DOCUMENTATION SOFTWARE-IF AVAILABLE	1					
2	SOFTWARE	STRUCTURED REPORTING WITH AI-ASSISTED DRAFT GENERATION CAPABILITY.	1		OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST			

3	SOFTWARE	AI FOR BONE AGE ESTIMATION, AUTOMATED FRACTURE DETECTION, AND SKELETAL DEFORMITY RECOGNITION.	1		OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST			
4	SOFTWARE	ORTHOPAEDIC PLANNING TOOLS INCLUDING MEASUREMENT CALIBRATION MARKERS AND DEFORMITY ANALYSIS FEATURES.	1		OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST			
5	SOFTWARE	STRUCTURED REPORTING WITH AI-ASSISTED INTERPRETATION AND DRAFT REPORT CREATION.	1		OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST			

6	SOFTWARE	AI-ENABLED VERTEBRAL ANGLE MEASUREMENT, VERTEBRAL HEIGHT ASSESSMENT AND DEFORMITY ANALYSIS.	1		OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST			
7	SOFTWARE	STRUCTURED REPORTING WITH AI-ASSISTED DRAFT GENERATION.	1		OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST			
8	SOFTWARE	AI-BASED FRACTURE DETECTION, JOINT SPACE MEASUREMENT, AND ORTHOPAEDIC TEMPLATING TOOLS.	1		OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST			

9	SOFTWARE	OPTIONAL MODULE SUPPORTING COMPOSITE FULL PELVIS-TO-SPINE RADIOGRAPHIC VIEWS.	1		OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST			
10	SOFTWARE	STRUCTURED AND AI-ASSISTED REPORTING FUNCTIONALITY.	1		OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST			
11	SOFTWARE	AI-BASED FRACTURE DETECTION, DEFORMITY ASSESSMENT, AND SKELETAL GROWTH ANALYSIS.	1		OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST			

12	SOFTWARE	ADVANCED STITCHING WITH AI-BASED MULTI-FRAME ALIGNMENT, EXPOSURE NORMALIZATION, AND CALIBRATION MARKERS.	1		OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST			
13	SOFTWARE	AI-ASSISTED MEASUREMENTS FOR BONE LENGTH, ANGLES, AND DEFORMITY ASSESSMENT.	1		OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST			
14	SOFTWARE	STRUCTURED REPORTING WITH AI-ASSISTED CONTENT GENERATION.	1		OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST			

15	**SOFTWARE**	**AI-BASED TRIAGE AND MULTI-REGION ABNORMALITY DETECTION WITH INTELLIGENT WORKLIST PRIORITIZATION.**	**1**		**OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST**			
16	**SOFTWARE**	**STRUCTURED REPORTING WITH AI-ASSISTED DRAFT REPORT GENERATION.**	**1**		**OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST**			
17	**SOFTWARE**	**ADVANCED ACQUISITION MODULE ENABLING MULTI-ANGLE IMAGE CAPTURE, SLICE RECONSTRUCTION AND ADJUSTABLE SLICE THICKNESS (CHEST, BONE AND BREAST).**	**1**		**OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST**			

18	SOFTWARE	AI-BASED FRACTURE DETECTION, BONE AGE ANALYSIS AND JOINT SPACE MEASUREMENT.	1		OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST			
19	SOFTWARE	ADVANCED ORTHOPAEDIC PLANNING SUITE WITH AI-BASED COBB ANGLE MEASUREMENT, IMPLANT TEMPLATING AND DEFORMITY ANALYSIS.	1		OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST			
20	SOFTWARE	STRUCTURED REPORTING WITH SPEECH RECOGNITION, AI-ASSISTED DRAFTING AND EHR/RIS INTEGRATION.	1		OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST			

21	SOFTWARE	ENTERPRISE-GRADE PACS WITH ADVANCED HANGING PROTOCOLS, MULTI-MODALITY SUPPORT, 3D TOOLS AND AI-ENABLED WORKLIST PRIORITIZATION.	1		OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST			
22	SOFTWARE	SECURE CLOUD-ENABLED STREAMING, AI ORCHESTRATION, MULTI-SITE READING AND STRUCTURED REPORT SHARING FEATURES.	1		OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST			
23	SOFTWARE	AI-READY PLATFORM SUPPORTING DE-IDENTIFIED DATASET EXPORT, ANNOTATION TOOLS AND SDK FOR CUSTOM AI MODEL DEVELOPMENT.	1		OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST			

24	SOFTWARE	TELERADIOLOGY AND REMOTE REPORTING SUPPORT SYSTEM.	1		OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST			
25	HARDWARE: OEM	POST PROCESSING WORKSTATION	1					
26	HARDWARE: OEM	DOSE AREA PRODUCT (DAP) METER	1					
27	TURNKEY WORK	AS PER DEFINED TURNKEY SCOPE TO BE LISTED BELOW SEPARATELY WITH DETAILED BREAKUP	WORK					
28	ACCESSORY	HAND CONTROL REMOTE TO BE QUTOED AS OPTIONAL IF AVAILABLE	1					

ANNEXURE 8: SCOPE OF SUPPLY (FOR TECHNICAL BID)								
	EQUIPMENT NAME	MOBILE DIGITAL RADIOGRAPHY (DR) X-RAY SYSTEM						
	VENDOR NAME							
	MAKE							
	MODEL NAME							
SNO	GROUP	ITEM NAME	QUANTITY	VENDOR CATALOGUE NUMBER	STANDARD/ OPTIONAL	REMARKS (VENDOR ARE REQUESTED TO MAP THEIR ITEMS IN THEIR PROFORMA INVOICE WITH ENCLOSED LINE ITEMS)	QUOTE REFERENCE:SN)	QUOTE PAGE REFERENCE IF APPLICABLE)
1	HARDWARE	MOBILE DIGITAL X-RAY WITH FLAT PANEL DETECTOR	1		STANDARD			
2	HARDWARE	HIGH-FREQUENCY GENERATOR	1		STANDARD			

3	**HARDWARE**	**X-RAY TUBE – ROTATING ANODE**	**1**		**STANDARD**			
4	**HARDWARE**	**AUTOMATIC COLLIMATOR WITH DISPLAY UNIT**	**1**		**STANDARD**			
5	**HARDWARE**	**WIRELESS FLAT PANEL DETECTOR – ADULT**	**1**		**STANDARD**			
6	**HARDWARE**	**DETECTOR RECHARGEABLE BATTERIES**	**2**		**STANDARD**			
7	**HARDWARE**	**CHARGING COMPARTMENT FOR DETECTOR**	**1**		**STANDARD**			
8	**HARDWARE**	**INTEGRATED WORKSTATION & CONTROL PANEL**	**1**		**STANDARD**			

9	**HARDWARE**	**MOBILE CART UNIT**	**1**		**STANDARD**			
10	**HARDWARE**	**LASER CENTERING DEVICE**	**1**		**STANDARD**			
11	**HARDWARE**	**COLLISION SENSORS AND BRAKING MECHANISM**	**1**		**STANDARD**			
12	**SOFTWARE**	**ANATOMICAL PROGRAMMING (APR) SOFTWARE**	**1**		**STANDARD**			
13	**SOFTWARE**	**AI-BASED IMAGE PROCESSING & POST-PROCESSING SOFTWARE**	**1**		**STANDARD**			

14	**SOFTWARE**	**DICOM / PACS / RIS CONNECTIVITY SOFTWARE**	**1**		**STANDARD**			
15	**SOFTWARE**	**RADIATION DOSE MONITORING SOFTWARE**	**1**		**STANDARD**			
16	**SOFTWARE**	**MPPS LICENSE (PACS CONNECTIVITY)**	**1**		**STANDARD**			
17	**SOFTWARE**	**MODALITY WORKLIST LICENSE (PACS SCHEDULING)**	**1**		**STANDARD**			
18	**SOFTWARE**	**HIS & RIS INTEGRATION**	**1**		**STANDARD**			
19	**SOFTWARE**	**DICOM STORAGE / PRINT / QUERY / RETRIEVE**	**1**		**STANDARD**			

20	**SOFTWARE**	**APPLICATION SOFTWARE – LIFETIME LICENSE**	**1**		**STANDARD**			
21	**SOFTWARE**	**OPERATING SYSTEM – LIFETIME LICENSE**	**1**		**STANDARD**			
22	**SOFTWARE**	**ANTIVIRUS – LIFETIME LICENSE**	**1**		**STANDARD**			
23	**SOFTWARE**	**IMAGE ACQUISITION & CONTROL SOFTWARE – EXPOSURE CONTROL & IMAGE CAPTURE**	**1**		**STANDARD**			
24	**SOFTWARE**	**AUTOMATIC EXPOSURE DETECTION (AED)**	**1**		**STANDARD**			
25	**SOFTWARE**	**PATIENT WORKLIST MANAGER**	**1**		**STANDARD**			

26	**SOFTWARE**	**IMAGE PROCESSING SOFTWARE – IMAGE ENHANCEMENT ALGORITHMS**	**1**		**STANDARD**			
27	**SOFTWARE**	**GRID SIMULATION / VIRTUAL GRID**	**1**		**STANDARD**			
28	**SOFTWARE**	**PAEDIATRIC / ANATOMICAL EXPOSURE PROGRAMS (APR)**	**1**		**STANDARD**			
29	**SOFTWARE**	**STITCHING / LONG-LENGTH IMAGING**	**1**		**STANDARD**			
30	**SOFTWARE**	**BONE SUPPRESSION**	**1**		**STANDARD**			
31	**SOFTWARE**	**EXPOSURE INDEX (EI) & DEVIATION INDEX (DI)**	**1**		**STANDARD**			

32	**SOFTWARE**	**REVIEW & ANNOTATION SOFTWARE – IMAGE VIEWER / DISPLAY CONSOLE**	**1**		**STANDARD**			
33	**SOFTWARE**	**ANNOTATION & MEASUREMENT TOOLS**	**1**		**STANDARD**			
34	**SOFTWARE**	**REJECT ANALYSIS MODULE**	**1**		**STANDARD**			
35	**SOFTWARE**	**DATA MANAGEMENT & CONNECTIVITY – DICOM SEND/STORE/PRINT/WORK LIST/QUERY-RETRIEVE**	**1**		**STANDARD**			
36	**SOFTWARE**	**OFFLINE ARCHIVE / BACKUP UTILITY**	**1**		**STANDARD**			
37	**SOFTWARE**	**AUDIT LOG / USER ACCESS CONTROL**	**1**		**STANDARD**			

38	**SOFTWARE**	**SYSTEM MAINTENANCE – SELF-DIAGNOSTIC & CALIBRATION UTILITY**	**1**		**STANDARD**			
39	**ACCESSORIES**	**WIRED EXPOSURE SWITCH**	**1**		**STANDARD**			
40	**ACCESSORIES**	**WIRELESS REMOTE EXPOSURE SWITCH**	**1**		**STANDARD**			
41	**ACCESSORIES**	**CABLES AND CABLE MANAGEMENT SYSTEM**	**1**		**STANDARD**			
42	**ACCESSORIES**	**APRON, ULTRA-LIGHTWEIGHT, LEAD-FREE (SKIRT & VEST)**	**1**		**STANDARD**			
43	**ACCESSORIES**	**THYROID AND GONAD SHIELDS**	**1**		**STANDARD**			

44	**ACCESSORIES**	**LEAD APRON STAND**	**1**		**STANDARD**			
45	**ACCESSORIES**	**X-RAY PROTECTION GOGGLES**	**1**		**STANDARD**			
46	**ACCESSORY**	**POWER CABLES, EARTHING MATERIALS**	**1**		**STANDARD**			
47	**ACCESSORY**	**AERB MANDATORY SAFETY SIGNAGE**	**1**		**STANDARD**			
48	**ACCESSORY**	**QA PHANTOM**	**1**		**STANDARD**			
49	**ANY OTHER PART TO MAKE SYSTEM COMPLETE & WORKING**				**STANDARD**			

50	ANY ITEM, ACCESSORY, CONSUMABLE, CABLE, CONNECTOR, SOFTWARE, OR COMPONENT THAT IS PART OF THE SYSTEM AS PER TENDER REQUIREMENTS BUT NOT EXPLICITLY MENTIONED OR ITEMIZED IN THE BOQ SHALL BE DEEMED INCLUDED IN THE SCOPE OF SUPPLY AND MUST BE PROVIDED BY THE VENDOR WITHOUT ADDITIONAL COST. THE VENDOR MAY LIST SUCH ITEMS UNDER “STANDARD INCLUSIONS (NOT SEPARATELY CHARGED)” FOR DOCUMENTATION PURPOSES.				STANDARD			

SNO	OPTIONAL GROUP	OPTIONAL ITEM NAME	QUANTITY	VENDOR CATALOGUE NUMBER	STANDARD/ OPTIONAL	REMARKS (VENDOR ARE REQUESTED TO MAP THEIR ITEMS IN THEIR PROFORMA INVOICE WITH ENCLOSED LINE ITEMS)	QUOTE REFERENCE:SN)	QUOTE PAGE REFERENCE IF APPLICABLE)
1	SOFTWARE:APPLICATION	REPORTING AND DOCUMENTATION SOFTWARE-IF AVAILABLE	1					
2	HARDWARE	PEDIATRIC DETECTOR (IF AVAILABLE)	1					

ANNEXURE 9: SCOPE OF SUPPLY (FOR COMMERCIAL BID)												
	EQUIPMENT NAME	DIGITAL RADIOGRAPHY (DR) X-RAY SYSTEM										
	VENDOR NAME											
	MAKE											
	MODEL NAME											
SNO	GROUP	ITEM NAME	QUANTITY	VENDOR CATALOGUE NUMBER	STANDARD/OPTIONAL	REMARKS (VENDOR ARE REQUESTED TO MAP THEIR ITEMS IN THEIR PROFORMA INVOICE WITH ENCLOSED LINE ITEMS)	QUOTE REFERENCE:SN)	QUOTE PAGE REFERENCE IF APPLICABLE)	UNIT PRICE	TOTAL COST FOR THE QUANTITY MENTIONED	GST %	TOTAL COST WITH GST
1	HARDWARE	DIGITAL X-RAY WITH DUAL FLAT PANEL DETECTOR – CEILING MOUNTED SYSTEM	1		STANDARD							
2	HARDWARE	X-RAY GENERATOR WITH TUBE	1		STANDARD							
3	HARDWARE	EXAMINATION TABLE WITH DETECTOR	1		STANDARD							

4	**HARDWARE**	**VERTICAL BUCKY (WALL STAND) WITH DETECTOR**	**1**		**STANDARD**							
5	**HARDWARE**	**OPERATOR CONSOLE COMPUTER WITH MEDICAL GRADE IMAGE DISPLAY DEVICE, POST-PROCESSING, PATIENT SCHEDULING, ACQUISITION, REVIEW & PACS VIEWING**	**1**		**STANDARD**							
6	**HARDWARE**	**X-RAY TUBE HEAD CONTROL PANEL**	**1**		**STANDARD**							
7	**SOFTWARE**	**X-RAY SOFTWARE PACKAGE (HANDS, HIP, KNEE, SPINE)**	**1**		**STANDARD**							
8	**SOFTWARE**	**X-RAY SOFTWARE – HEPATO-BILIARY**	**1**		**STANDARD**							
9	**SOFTWARE**	**X-RAY SOFTWARE – HUMERUS**	**1**		**STANDARD**							
10	**SOFTWARE**	**X-RAY SOFTWARE – KUB**	**1**		**STANDARD**							

11	**SOFTWARE**	**X-RAY SOFTWARE – L-SPINE CONE VIEW**	**1**		**STANDARD**							
12	**SOFTWARE**	**X-RAY SOFTWARE – LUMBAR LATERAL**	**1**		**STANDARD**							
13	**SOFTWARE**	**X-RAY SOFTWARE – ABDOMEN, CHEST, CLAVICLE, ELBOW**	**1**		**STANDARD**							
14	**SOFTWARE**	**X-RAY SOFTWARE – ERECT**	**1**		**STANDARD**							
15	**SOFTWARE**	**X-RAY SOFTWARE – FACE, FEMUR, FINGERS, FOOT, FOREARM, GENITO-URINARY**	**1**		**STANDARD**							
16	**SOFTWARE**	**X-RAY SOFTWARE – GASTRIGRAFIN STUDY**	**1**		**STANDARD**							
17	**SOFTWARE**	**X-RAY SOFTWARE – GENITO-URINARY**	**1**		**STANDARD**							
18	**SOFTWARE**	**X-RAY SOFTWARE – GENITO-URINARY ASU**	**1**		**STANDARD**							

19	**SOFTWARE**	**X-RAY SOFTWARE – GYNECOLOGY HSG (HYSTERO-SALPIN)**	**1**		**STANDARD**							
20	**SOFTWARE**	**X-RAY SOFTWARE – HIP ACETABULUM ANT OBLIQUE (R/L)**	**1**		**STANDARD**							
21	**SOFTWARE**	**X-RAY SOFTWARE – MANDIBLE OBLIQUES (R/L)**	**1**		**STANDARD**							
22	**SOFTWARE**	**X-RAY SOFTWARE – MANDIBLE PA**	**1**		**STANDARD**							
23	**SOFTWARE**	**X-RAY SOFTWARE – NEUROLOGY CERVICAL MYELOGRAM**	**1**		**STANDARD**							
24	**SOFTWARE**	**X-RAY SOFTWARE – NEUROLOGY LUMBAR MYELOGRAM**	**1**		**STANDARD**							
25	**SOFTWARE**	**X-RAY SOFTWARE – NEUROLOGY THORACIC (DORSAL) MYELOGRAM**	**1**		**STANDARD**							

26	**SOFTWARE**	**X-RAY SOFTWARE – NEUROLOGY TWO REGIONS (CERVICAL/DORSAL)**	**1**		**STANDARD**							
27	**SOFTWARE**	**X-RAY SOFTWARE – PANTOMOGRAM**	**1**		**STANDARD**							
28	**SOFTWARE**	**X-RAY SOFTWARE – PARANASAL SINUSES (PNS)**	**1**		**STANDARD**							
29	**SOFTWARE**	**X-RAY SOFTWARE – PATELLA, SKULL, WRIST, TOES, STERNUM**	**1**		**STANDARD**							
30	**SOFTWARE**	**X-RAY SOFTWARE – PELVIS LATERAL**	**1**		**STANDARD**							
31	**SOFTWARE**	**X-RAY SOFTWARE – SACRO-ILIAC JOINT POSTERIOR OBLIQUE (R/L)**	**1**		**STANDARD**							
32	**SOFTWARE**	**WHOLE SPINE ACQUISITION**	**1**		**STANDARD**							
33	**SOFTWARE**	**WHOLE LEG ACQUISITION**	**1**		**STANDARD**							
34	**SOFTWARE**	**AUTO STITCHING**	**1**		**STANDARD**							

35	**SOFTWARE**	**RADIATION DOSE MONITORING SOFTWARE**	**1**		**STANDARD**							
36	**SOFTWARE**	**ADVANCED DIGITAL RADIOGRAPHY WITH MULTI-DETECTOR CONFIGURATION, AUTOMATIC POSITIONING, AND OPTIMIZED RADIATION EXPOSURE CONTROL.**	**1**		**STANDARD**							
37	**SOFTWARE**	**AI-BASED IMAGE ENHANCEMENT WITH BONE SUPPRESSION AND NOISE REDUCTION FOR IMPROVED DIAGNOSTIC CLARITY.**	**1**		**STANDARD**							
38	**SOFTWARE**	**ADVANCED COMPUTER-AIDED DETECTION (CAD) FOR TUBERCULOSIS, PULMONARY NODULES, AND PNEUMONIA.**	**1**		**STANDARD**							

39	**SOFTWARE**	**ADVANCED DIGITAL RADIOGRAPHY SYSTEM WITH AUTO-EXPOSURE CONTROL AND AUTOMATED POSITIONING FEATURES.**	**1**		**STANDARD**							
40	**SOFTWARE**	**AI-ENHANCED BONE VISUALIZATION AND IMAGE ARTEFACT REDUCTION FOR SUPERIOR DIAGNOSTIC ACCURACY.**	**1**		**STANDARD**							
41	**SOFTWARE**	**ADVANCED STITCHING SOFTWARE FOR MULTI-FRAME EXTREMITY IMAGING WITH SEAMLESS ALIGNMENT.**	**1**		**STANDARD**							

42	**SOFTWARE**	**ADVANCED DIGITAL RADIOGRAPHY WITH MOTORIZED POSITIONING AND AUTOMATIC COLLIMATION FOR WORKFLOW OPTIMIZATION.**	**1**		**STANDARD**							
43	**SOFTWARE**	**AI-ASSISTED CONTRAST AND EDGE ENHANCEMENT WITH MOTION ARTEFACT REDUCTION TECHNOLOGY.**	**1**		**STANDARD**							
44	**SOFTWARE**	**COBB ANGLE MEASUREMENT AND SCOLIOSIS SEVERITY SCORING FOR SPINAL DEFORMITY ASSESSMENT.**	**1**		**STANDARD**							

45	**SOFTWARE**	**ADVANCED AI-DRIVEN STITCHING WITH AUTOMATIC OVERLAP DETECTION, GEOMETRIC DISTORTION CORRECTION, SEAMLESS BLENDING AND HIGH-RESOLUTION OUTPUT.**	**1**		**STANDARD**							
46	**SOFTWARE**	**DIGITAL RADIOGRAPHY WITH DOSE OPTIMIZATION FEATURES AND AUTOMATIC COLLIMATION CONTROL.**	**1**		**STANDARD**							
47	**SOFTWARE**	**AI-ENHANCED CONTRAST FOR BONE AND SOFT-TISSUE DIFFERENTIATION.**	**1**		**STANDARD**							
48	**SOFTWARE**	**AI-ASSISTED TEMPLATING AND ANGLE/LENGTH MEASUREMENT FOR HIP AND KNEE PRE-OPERATIVE PLANNING.**	**1**		**STANDARD**							

49	**SOFTWARE**	**ADVANCED MULTI-DETECTOR DIGITAL RADIOGRAPHY WITH AUTO-POSITIONING.**	**1**		**STANDARD**							
50	**SOFTWARE**	**AI-ENHANCED BONE VISUALIZATION WITH NOISE REDUCTION ALGORITHMS.**	**1**		**STANDARD**							
51	**SOFTWARE**	**HIGH-END MULTI-DETECTOR DIGITAL RADIOGRAPHY WITH AUTOMATIC POSITIONING AND WORKFLOW AUTOMATION.**	**1**		**STANDARD**							
52	**SOFTWARE**	**ADVANCED MULTI-REGION STITCHING AND AI-DRIVEN ALIGNMENT SOFTWARE.**	**1**		**STANDARD**							

53	**SOFTWARE**	**ADVANCED DR CONSOLE WITH MULTI-DETECTOR DEVICE SUPPORT, AUTO-POSITIONING AND AI-BASED DOSE OPTIMIZATION.**	**1**		**STANDARD**							
54	**SOFTWARE**	**AI-BASED DENOISING, MOTION ARTEFACT REDUCTION AND BONE SUPPRESSION FOR IMPROVED VISUALIZATION.**	**1**		**STANDARD**							
55	**SOFTWARE**	**AI-BASED STITCHING WITH AUTOMATIC OVERLAP CORRECTION, GEOMETRIC DISTORTION COMPENSATION AND SCOLIOSIS MEASUREMENT TOOLS.**	**1**		**STANDARD**							

56	**SOFTWARE**	**COMPREHENSIVE CAD PACKAGE (FDA/CE CLEARED) FOR TB, NODULES, PNEUMONIA AND COPD.**	**1**		**STANDARD**							
57	**SOFTWARE**	**AI-DRIVEN DOSE ANALYTICS INCLUDING AUTOMATIC DAP/CTDI CAPTURE, PATIENT-SPECIFIC OPTIMIZATION AND COMPLIANCE DASHBOARDS.**	**1**		**STANDARD**							
58	**SOFTWARE**	**FULL RIS INTEGRATION INCLUDING MODALITY WORKLIST, BILLING, CODING AND WORKFLOW SCHEDULING.**	**1**		**STANDARD**							

59	**SOFTWARE**	**ENTERPRISE-LEVEL SECURITY INCLUDING ROLE-BASED ACCESS CONTROL, ENCRYPTED DATA PROTECTION AND HIPAA/GDPR COMPLIANCE.**	**1**		**STANDARD**							
60	**SOFTWARE**	**CYBERSECURITY AND AUDIT FUNCTIONALITIES INCLUDING ADVANCED MONITORING AND REPORTING TOOLS.**	**1**		**STANDARD**							
61	**SOFTWARE**	**MPPS LICENSE (FOR MODALITY–PACS CONNECTIVITY)**	**1**		**STANDARD**							
62	**SOFTWARE**	**MODALITY WORKLIST LICENSE (ONLINE ORDERING/SCHEDULING)**	**1**		**STANDARD**							
63	**SOFTWARE**	**HIS & RIS INTEGRATION**	**1**		**STANDARD**							

64	**SOFTWARE**	**DICOM (STORAGE, PRINT, QUERY/RETRIEVE – ALL CAPABILITIES)**	**1**		**STANDARD**							
65	**SOFTWARE**	**OPERATING SYSTEM – LIFETIME VALIDITY (CONSOLE)**	**1**		**STANDARD**							
66	**SOFTWARE**	**ANTIVIRUS – LIFETIME VALIDITY CONSOLE)**	**1**		**STANDARD**							
67	**SOFTWARE**	**APPLICATION SOFTWARE – LIFETIME VALIDITY (CONSOLE)**	**1**		**STANDARD**							
68	**SOFTWARE**	**FREE SOFTWARE UPGRADES FOR 7 YEARS POST INSTALLATION**	**1**		**STANDARD**							
69	**HARDWARE: OEM**	**DOOR BULB ALARM INTERFACE WITH RADIATION SIGNAGE**	**1**		**STANDARD**							
70	**HARDWARE: OEM**	**UPS/STABILIZER AS REQUIRED BASED ON PRE-INSTALLATION REQUIREMENT**	**1**		**STANDARD**							

71	ACCESSORY	POWER CABLES, EARTHING MATERIALS	1		STANDARD							
72	ACCESSORY	AERB MANDATORY SAFETY SIGNAGE	1		STANDARD							
73	ACCESSORY	PATIENT STRAPS AND BELTS	1		STANDARD							
74	ACCESSORY	APRON, ULTRA-LIGHTWEIGHT, LEAD-FREE (SKIRT & VEST)	2		STANDARD							
75	ACCESSORY	THYROID AND GONAD SHIELDS	2		STANDARD							
76	ACCESSORY	LEAD APRON STAND	1		STANDARD							
77	ACCESSORY	X-RAY PROTECTION GOGGLES	1		STANDARD							
78	ACCESSORY	LEAD GLASS WITH WINDOW FRAME FOR CONSOLE VIEWING AS PER THE SITE CONDITION (APPROX. 1METER X 1 METER)	1		STANDARD							
79	ACCESSORY	STANDALONE INTERCOM & COMMUNICATION SYSTEM FOR WORKFLOW	1		STANDARD							

80	ACCESSORY	THERMOMETER WITH TEMPERATURE & HUMIDITY DISPLAY (EXAM & CONSOLE ROOMS) WITH TEST CERTIFICATE	2 (1 EACH)		STANDARD							
81	ACCESSORY	ORTHO STITCHING STAND WITH STEP STOOL	1		STANDARD							
82	ACCESSORY	WORK BENCH FOR CONSOLE	1		STANDARD							
83	ACCESSORY	LED VIEW BOX – DUAL FILM	1		STANDARD							
84	ACCESSORY	QA PHANTOM	1		STANDARD							
85	ACCESSORY	FOOT SWITCH FOR TABLE	1		STANDARD							
86	TURNKEY WORK	GIRDER WORK	1		STANDARD							
87	ANY OTHER PART TO MAKE SYSTEM COMPLETE & WORKING	INCLUDING INSTALLATION, TESTING AND COMMISSIONING			STANDARD							

88	ANY ITEM, ACCESSORY, CONSUMABLE, CABLE, CONNECTOR, SOFTWARE, OR COMPONENT THAT IS PART OF THE SYSTEM AS PER TENDER REQUIREMENTS BUT NOT EXPLICITLY MENTIONED OR ITEMIZED IN THE BOQ SHALL BE DEEMED INCLUDED IN THE SCOPE OF SUPPLY AND MUST BE PROVIDED BY THE VENDOR WITHOUT ADDITIONAL COST. THE VENDOR MAY LIST SUCH ITEMS UNDER “STANDARD INCLUSIONS (NOT SEPARATEL				STANDARD							

	Y CHARGED)" FOR DOCUMENTATION PURPOSES.											
GRAND TOTAL												

SNO	OPTIONAL GROUP	OPTIONAL ITEM NAME	QUANTITY	VENDOR CATALOGUE NUMBER	STANDARD/OPTIONAL	REMARKS (VENDOR ARE REQUESTED TO MAP THEIR ITEMS IN THEIR PROFORMA INVOICE WITH ENCLOSED LINE ITEMS)	QUOTE REFERENCE:SN)	QUOTE PAGE REFERENCE IF APPLICABLE)	UNIT PRICE	TOTAL COST FOR THE QUANTITY MENTIONED	GST %	TOTAL COST WITH GST
1	SOFTWARE	REPORTING AND DOCUMENTATION SOFTWARE-IF AVAILABLE	1									
2	SOFTWARE	STRUCTURED REPORTING WITH AI-ASSISTED DRAFT GENERATION CAPABILITY.	1		OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST							

3	SOFTWARE	AI FOR BONE AGE ESTIMATION, AUTOMATED FRACTURE DETECTION, AND SKELETAL DEFORMITY RECOGNITION.	1		OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST							
4	SOFTWARE	ORTHOPAEDIC PLANNING TOOLS INCLUDING MEASUREMENT CALIBRATION MARKERS AND DEFORMITY ANALYSIS FEATURES.	1		OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST							
5	SOFTWARE	STRUCTURED REPORTING WITH AI-ASSISTED INTERPRETATION AND DRAFT REPORT CREATION.	1		OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE,							

					WITHOUT ANY ADDITIONAL COST							
6	**SOFTWARE**	**AI-ENABLED VERTEBRAL ANGLE MEASUREMENT, VERTEBRAL HEIGHT ASSESSMENT AND DEFORMITY ANALYSIS.**	**1**		**OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST**							
7	**SOFTWARE**	**STRUCTURED REPORTING WITH AI-ASSISTED DRAFT GENERATION.**	**1**		**OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST**							

8	SOFTWARE	AI-BASED FRACTURE DETECTION, JOINT SPACE MEASUREMENT, AND ORTHOPAEDIC TEMPLATING TOOLS.	1		OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST							
9	SOFTWARE	OPTIONAL MODULE SUPPORTING COMPOSITE FULL PELVIS-TO-SPINE RADIOGRAPHIC VIEWS.	1		OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST							
10	SOFTWARE	STRUCTURED AND AI-ASSISTED REPORTING FUNCTIONALITY.	1		OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE,							

					WITHOUT ANY ADDITIONAL COST							
11	**SOFTWARE**	**AI-BASED FRACTURE DETECTION, DEFORMITY ASSESSMENT, AND SKELETAL GROWTH ANALYSIS.**	**1**		**OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST**							
12	**SOFTWARE**	**ADVANCED STITCHING WITH AI-BASED MULTI-FRAME ALIGNMENT, EXPOSURE NORMALIZATION, AND CALIBRATION MARKERS.**	**1**		**OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST**							

13	SOFTWARE	AI-ASSISTED MEASUREMENTS FOR BONE LENGTH, ANGLES, AND DEFORMITY ASSESSMENT.	1		OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST							
14	SOFTWARE	STRUCTURED REPORTING WITH AI-ASSISTED CONTENT GENERATION.	1		OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST							
15	SOFTWARE	AI-BASED TRIAGE AND MULTI-REGION ABNORMALITY DETECTION WITH INTELLIGENT WORKLIST PRIORITIZATION.	1		OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE,							

					WITHOUT ANY ADDITIONAL COST							
16	**SOFTWARE**	**STRUCTURED REPORTING WITH AI-ASSISTED DRAFT REPORT GENERATION.**	**1**		**OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST**							

17	**SOFTWARE**	**ADVANCED ACQUISITION MODULE ENABLING MULTI-ANGLE IMAGE CAPTURE, SLICE RECONSTRUCTION AND ADJUSTABLE SLICE THICKNESS (CHEST, BONE AND BREAST).**	**1**		**OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST**							
18	**SOFTWARE**	**AI-BASED FRACTURE DETECTION, BONE AGE ANALYSIS AND JOINT SPACE MEASUREMENT.**	**1**		**OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST**							

19	**SOFTWARE**	**ADVANCED ORTHOPAEDIC PLANNING SUITE WITH AI-BASED COBB ANGLE MEASUREMENT, IMPLANT TEMPLATING AND DEFORMITY ANALYSIS.**	**1**		**OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST**							
20	**SOFTWARE**	**STRUCTURED REPORTING WITH SPEECH RECOGNITION, AI-ASSISTED DRAFTING AND EHR/RIS INTEGRATION.**	**1**		**OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST**							

21	SOFTWARE	ENTERPRISE-GRADE PACS WITH ADVANCED HANGING PROTOCOLS, MULTI-MODALITY SUPPORT, 3D TOOLS AND AI-ENABLED WORKLIST PRIORITIZATION.	1		OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST							
22	SOFTWARE	SECURE CLOUD-ENABLED STREAMING, AI ORCHESTRATION, MULTI-SITE READING AND STRUCTURED REPORT SHARING FEATURES.	1		OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST							

23	**SOFTWARE**	**AI-READY PLATFORM SUPPORTING DE-IDENTIFIED DATASET EXPORT, ANNOTATION TOOLS AND SDK FOR CUSTOM AI MODEL DEVELOPMENT.**	**1**		**OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST**							
24	**SOFTWARE**	**TELERADIOLOGY AND REMOTE REPORTING SUPPORT SYSTEM.**	**1**		**OPTIONAL-IF THE FEATURE IS NOT CURRENTLY AVAILABLE, THE SAME SHALL BE OFFERED AS AN UPGRADE WHEN RELEASED IN THE FUTURE, WITHOUT ANY ADDITIONAL COST**							
25	**HARDWARE: OEM**	**POST PROCESSING WORKSTATION**	**1**									
26	**HARDWARE: OEM**	**DOSE AREA PRODUCT (DAP) METER**	**1**									

27	**TURNKEY WORK**	**AS PER DEFINED TURNKEY SCOPE TO BE LISTED BELOW SEPARATELY WITH DETAILED BREAKUP**	**WORK**									
28	**ACCESSORY**	**HAND CONTROL REMOTE TO BE QUTOED AS OPTIONAL IF AVAILABLE**	**1**									

ANNEXURE 10: SCOPE OF SUPPLY (FOR COMMERCIAL BID)												
	EQUIPMENT NAME	MOBILE DIGITAL RADIOGRAPHY (DR) X-RAY SYSTEM										
	VENDOR NAME											
	MAKE											
	MODEL NAME											
SNO	GROUP	ITEM NAME	QUANTITY	VENDOR CATALOGUE NUMBER	STANDARD/ OPTIONAL	REMARKS (VENDOR ARE REQUESTED TO MAP THEIR ITEMS IN THEIR PROFORMA INVOICE WITH ENCLOSED LINE ITEMS)	QUOTE REFERENCE:SN)	QUOTE PAGE REFERENCE IF APPLICABLE)	UNIT PRICE	TOTAL COST FOR THE QUANTITY MENTIONED	GST %	TOTAL COST WITH GST
1	HARDWARE	MOBILE DIGITAL X-RAY WITH FLAT PANEL DETECTOR	1		STANDARD							

2	**HARDWARE**	**HIGH-FREQUENCY GENERATOR**	**1**		**STANDARD**							
3	**HARDWARE**	**X-RAY TUBE – ROTATING ANODE**	**1**		**STANDARD**							
4	**HARDWARE**	**AUTOMATIC COLLIMATOR WITH DISPLAY UNIT**	**1**		**STANDARD**							
5	**HARDWARE**	**WIRELESS FLAT PANEL DETECTOR – ADULT**	**1**		**STANDARD**							
6	**HARDWARE**	**DETECTOR RECHARGEABLE BATTERIES**	**2**		**STANDARD**							
7	**HARDWARE**	**CHARGING COMPARTMENT FOR DETECTOR**	**1**		**STANDARD**							

8	**HARDWARE**	**INTEGRATED WORKSTATION & CONTROL PANEL**	**1**		**STANDARD**							
9	**HARDWARE**	**MOBILE CART UNIT**	**1**		**STANDARD**							
10	**HARDWARE**	**LASER CENTERING DEVICE**	**1**		**STANDARD**							
11	**HARDWARE**	**COLLISION SENSORS AND BRAKING MECHANISM**	**1**		**STANDARD**							
12	**SOFTWARE**	**ANATOMICAL PROGRAMMING (APR) SOFTWARE**	**1**		**STANDARD**							
13	**SOFTWARE**	**AI-BASED IMAGE PROCESSING & POST-PROCESSING SOFTWARE**	**1**		**STANDARD**							

14	**SOFTWARE**	**DICOM / PACS / RIS CONNECTIVITY SOFTWARE**	**1**		**STANDARD**							
15	**SOFTWARE**	**RADIATION DOSE MONITORING SOFTWARE**	**1**		**STANDARD**							
16	**SOFTWARE**	**MPPS LICENSE (PACS CONNECTIVITY)**	**1**		**STANDARD**							
17	**SOFTWARE**	**MODALITY WORKLIST LICENSE (PACS SCHEDULING)**	**1**		**STANDARD**							
18	**SOFTWARE**	**HIS & RIS INTEGRATION**	**1**		**STANDARD**							
19	**SOFTWARE**	**DICOM STORAGE / PRINT / QUERY / RETRIEVE**	**1**		**STANDARD**							

20	**SOFTWARE**	**APPLICATION SOFTWARE – LIFETIME LICENSE**	**1**		**STANDARD**							
21	**SOFTWARE**	**OPERATING SYSTEM – LIFETIME LICENSE**	**1**		**STANDARD**							
22	**SOFTWARE**	**ANTIVIRUS – LIFETIME LICENSE**	**1**		**STANDARD**							
23	**SOFTWARE**	**IMAGE ACQUISITION & CONTROL SOFTWARE – EXPOSURE CONTROL & IMAGE CAPTURE**	**1**		**STANDARD**							
24	**SOFTWARE**	**AUTOMATIC EXPOSURE DETECTION (AED)**	**1**		**STANDARD**							
25	**SOFTWARE**	**PATIENT WORKLIST MANAGER**	**1**		**STANDARD**							

26	**SOFTWARE**	**IMAGE PROCESSING SOFTWARE – IMAGE ENHANCEMENT ALGORITHMS**	**1**		**STANDARD**							
27	**SOFTWARE**	**GRID SIMULATION / VIRTUAL GRID**	**1**		**STANDARD**							
28	**SOFTWARE**	**PAEDIATRIC / ANATOMICAL EXPOSURE PROGRAMS (APR)**	**1**		**STANDARD**							
29	**SOFTWARE**	**STITCHING / LONG-LENGTH IMAGING**	**1**		**STANDARD**							
30	**SOFTWARE**	**BONE SUPPRESSION**	**1**		**STANDARD**							
31	**SOFTWARE**	**EXPOSURE INDEX (EI) & DEVIATION INDEX (DI)**	**1**		**STANDARD**							

32	**SOFTWARE**	**REVIEW & ANNOTATION SOFTWARE – IMAGE VIEWER / DISPLAY CONSOLE**	**1**		**STANDARD**							
33	**SOFTWARE**	**ANNOTATION & MEASUREMENT TOOLS**	**1**		**STANDARD**							
34	**SOFTWARE**	**REJECT ANALYSIS MODULE**	**1**		**STANDARD**							
35	**SOFTWARE**	**DATA MANAGEMENT & CONNECTIVITY – DICOM SEND/STORE/PRINT/WORKLIST/QUERY-RETRIEVE**	**1**		**STANDARD**							
36	**SOFTWARE**	**OFFLINE ARCHIVE / BACKUP UTILITY**	**1**		**STANDARD**							
37	**SOFTWARE**	**AUDIT LOG / USER ACCESS CONTROL**	**1**		**STANDARD**							

38	**SOFTWARE**	**SYSTEM MAINTENANCE – SELF-DIAGNOSTIC & CALIBRATION UTILITY**	**1**		**STANDARD**							
39	**ACCESSORIES**	**WIRED EXPOSURE SWITCH**	**1**		**STANDARD**							
40	**ACCESSORIES**	**WIRELESS REMOTE EXPOSURE SWITCH**	**1**		**STANDARD**							
41	**ACCESSORIES**	**CABLES AND CABLE MANAGEMENT SYSTEM**	**1**		**STANDARD**							
42	**ACCESSORIES**	**APRON, ULTRA-LIGHTWEIGHT, LEAD-FREE (SKIRT & VEST)**	**1**		**STANDARD**							
43	**ACCESSORIES**	**THYROID AND GONAD SHIELDS**	**1**		**STANDARD**							

44	**ACCESSORIES**	**LEAD APRON STAND**	**1**		**STANDARD**							
45	**ACCESSORIES**	**X-RAY PROTECTION GOGGLES**	**1**		**STANDARD**							
46	**ACCESSORY**	**POWER CABLES**	**1**		**STANDARD**							
47	**ACCESSORY**	**AERB MANDATORY SAFETY SIGNAGE**	**1**		**STANDARD**							
48	**ACCESSORY**	**QA PHANTOM**	**1**		**STANDARD**							
49	**ANY OTHER PART TO MAKE SYSTEM COMPLETE & WORKING**				**STANDARD**							

50	**ANY ITEM, ACCESSORY, CONSUMABLE, CABLE, CONNECTOR, SOFTWARE, OR COMPONENT THAT IS PART OF THE SYSTEM AS PER TENDER REQUIREMENTS BUT NOT EXPLICITLY MENTIONED OR ITEMIZED IN THE BOQ SHALL BE DEEMED INCLUDED IN THE SCOPE OF SUPPLY AND MUST BE PROVIDED BY THE**				**STANDARD**							

	VENDOR WITHOUT ADDITIONAL COST. THE VENDOR MAY LIST SUCH ITEMS UNDER "STANDARD INCLUSIONS (NOT SEPARATELY CHARGED)" FOR DOCUMENTATION PURPOSES.											
GRAND TOTAL												

SNO	OPTIONAL GROUP	OPTIONAL ITEM NAME	QUANTITY	VENDOR CATALOGUE NUMBER	STANDARD/ OPTIONAL	REMARKS (VENDOR ARE REQUESTED TO MAP THEIR ITEMS IN THEIR PROFORMA INVOICE WITH ENCLOSED LINE ITEMS)	QUOTE REFERENCE:SN)	QUOTE PAGE REFERENCE IF APPLICABLE)	UNIT PRICE	TOTAL COST FOR THE QUANTITY MENTIONED	GST %	TOTAL COST WITH GST
1	SOFTWARE	REPORTING AND DOCUMENTATION SOFTWARE- (IF AVAILABLE)	1									
2	HARDWARE	PEDIATRIC DETECTOR (IF AVAILABLE)	1									

Annexure 11: Checklist for Technical Bid to be completed and attached along with the tender submission

CHECKLIST FOR VENDOR BEFORE SENDING THE TECHNICAL BID			
Sl. No.	**Checklist parameter**	**Yes/ No**	**Tender reference**
1	**A covering letter, compliance statement, and all pages of the tender document duly signed and sealed by the authorized signatory, as part of the tender compliance, must be enclosed with the technical bid.**		
2	Availability of technical proposal need to be provided with separate sealed envelope, mentioning on its envelope IISc tender reference number **(PLEASE DO NOT INCLUDE COMMERCIAL BID IN TECHNICAL ENVELOPE)**		Section A - point 1
3	Availability of technical offer (without cost) with model number and make for the quoted model enclosed in technical bid.		Section A - point 1
4	Availability of the Declaration of warranty period (as required in tender) for the quoted model to be enclosed on the technical bid.		Section A - point 16
5	**Availability of the technical compliance table with six columns for the quoted model to be enclosed on the technical bid. Please provide both pdf and worksheet like excel format**		Section A - point 11
6	Availability of the technical compliance with datasheet and technical offer page number reference for the quoted model to be enclosed on the technical bid.		Section A - point 11. c
7	Availability of the quoted model technical advantage over comparable equipment from the competitor to enclosed on the technical bid.		Section A - point 12
8	Availability of the scope of supply (BOQ) as per tender to be enclosed along with technical bid. Please provide both pdf and worksheet like excel format (Excluding cost)		
9	Availability of brochure and any supporting document to validate technical compliance for the quoted model enclosed in technical bid.		Section A - point 11. g
10	**Availability of the technical datasheet for the quoted model, with the relevant specifications highlighted in reference to the Tender technical requirements, must be enclosed with the technical bid.**		

11	Availability of the regulatory certificate (like CDSCO/CE/FDA/ISO/AERB type approval where applicable) for the quoted model to be enclosed on the technical bid.		Section C - point 17. I
12	Availability of the manufacturer authorization letter for the quoted model to be enclosed on the technical bid where applicable.		
13	Availability of the list of installation sites with contact details for the quoted model to be enclosed on the technical bid.		Section B- point 3
14	Availability of the confirmation letter on 10 Years of spares support for the quoted model to be enclosed on the technical bid.		Section C - point 5.1
15	Availability of the Details of local service center with technical manpower for the quoted model to be enclosed on the technical bid.		Section C - point 17. f
16	Availability of the Power supply & environmental requirement details for the quoted model to be enclosed on the technical bid.		Section C - point 13. a
17	Availability of the deviation statement from tender specs (with justification) for the quoted model to be enclosed on the technical bid.		Section C - point 18. b
18	The soft copy of technical bid only in both excel and pdf format to be made available in pen drive for the quoted model and enclosed on the technical bid envelope. The pen drive to be labelled with tender reference number and vendor name		Section C - point 19
19	Any open recall or Field Safety Corrective Action (FSCA) associated with the quoted model shall be fully disclosed by the bidder in the technical bid submission.		Section C-Point 3.12
20	Note: Kindly index your technical bid considering the above-mentioned check sheet (not limited) preferably in spiral bound mentioning page number.		
21	The Declaration of Local Content by Local supplier should be provided		

Annexure 12: Checklist for Commercial Bid to be completed and attached along with the tender submission

	Checklist for Commercial Bid	**Yes/No**	**Remarks**
Sl. No.	**General Requirements**		

1	Commercial offer should be in complete alignment with technical offer as mentioned in point no 3 of technical offer checklist		
2	Availability of commercial quote need to be provided with separate sealed envelope, mentioning on its envelope IISc tender reference number		
3	The scope of supply (BOQ) with commercial details should be in align with technical offer mentioned in point 8 of technical offer checklist		
4	The country of origin is clearly mentioned.		
5	Word "quote" should be mentioned in the first page instead of Proposal		
6	The quote should be signed and sealed. If a digital signature is used, it is clearly indicated		
7	The validity period of the quote is clearly mentioned		
8	Commercial Quote to be prepared on letter head of the company and it should include		
8.1	· Registered office address and billing address		
8.2	· Company GST number should be mentioned on the first page		
8.3	· Validity		
8.4	· Payment Terms – 70% payment on shipment, 20% payment after Installation & commissioning, and remaining 10 % on user satisfaction.		
8.5	· Warranty details		
8.6	HSN code of items: Each item shall be listed with its **HSN code** along with supporting document/literature justifying the HSN classification.		
9	The total amount to be mentioned as unit price, GST percentage, Total price inclusive of tax, total price for total quantity mentioned in the tender)		
10	Breakup of cost to be given as annexure and it should include:		
10.1	· Equipment cost- with GST		
10.2	· Accessories- with GST		
10.3	· Consumables- with GST		
10.4	· Other Items- with GST		

	(Tax should be clearly mentioned as IGST 18% or With CGST 9% and SGST 9% or as applicable)		
1 1	OEM certificate or Authorized distribution letter to be attached		
12	Additional documents required:		
12.1	List of critical spare parts and their estimated unit price. (Item cost should not exceed 30% of the total equipment value)		
12.2	Vendor shall provide a supporting document clearly specifying the AMC and CAMC rates as fixed absolute values per year for each of the nine (9) years after the warranty period.		
12.3	Rate Contract for 3 years from the date of supply / installation / commissioning, covering all system-specific consumables and accessories.		
12.4	Quotation for the one-time maintenance call cost (On call charges)		

***(To be submitted in the company letter head by supplier)**

Declaration of Local Content by Local supplier

Subject: Public Procurement (Preference to Make in India)

References:
Preference to Make in India including counter offering will be as per the Public Procurement (Preference to Make in India), Order 2017 available in the following links https://dipp.gov.in/public- procurements

http://dipp.nic.in/sites/default/files/publicProcurement_MakeinIndia_15June2017.pdf
http://dipp.nic.in/sites/default/files/Revised-PPP-MII-Order-2017_28052018.pdf
https://dipp.gov.in/sites/default/files/PPP-MII%20Order%20dt%2029th%20May%2019_0.pdf
https://dipp.gov.in/sites/default/files/PPP%20MII%20Order%20dated%204th%20June%202020.pdf

We hereby declare with reference to above subject and references that

M/s (Tick whichever is applicable as below)

"Class-I local supplier" meeting the requirement of minimum local content equal to 50% (fifty percent) or more defined in the above government notification for the goods and services

(or)

"Class-II local Supplier" meeting the requirement of local content 20% to less than 50% (fifty percent) defined in the above government notification for the goods and services

(or)

Non Local supplier (If not belonging to Class-I & Class-II)

Please mention the details against the following:

Enquiry no: dated.

Type of Supplier (Class-I/Class-II) ……

Product:

Project:……..

Details of location at which local value addition will be made is as follows:

We also understand that the false declarations will be in breach of the code of Integrity under rule 175(1)(i)(h) of the General financial rules for which a bidder or its successors can be debarred for up to two years as per Rule 151(iii) of the General Financial Rules along with such other actions as may be permissible under law.

Authorized Signature M/s (Signature and seal)

Place:……..

Date:……