बिड संख्या/Bid Number: GEM/2025/B/6356609

दिनांक /Dated: 26-06-2025

बिड दस्तावेज़ / Bid Document

बिड विवरण/Bid Details	
बिड बंद होने की तारीख/समय /Bid End Date/Time	08-07-2025 10:00:00
बिड खुलने की तारीख/समय /Bid Opening Date/Time	08-07-2025 10:30:00
बिड पेशकश वैधता (बंद होने की तारीख से)/Bid Offer Validity (From End Date)	180 (Days)
मंत्रालय/राज्य का नाम/Ministry/State Name	Ministry Of Science And Technology
विभाग का नाम/Department Name	Department Of Science And Technology (dst)
संगठन का नाम/Organisation Name	Sree Chitra Tirunal Institute For Medical Sciences And Technology (sctimst)
कार्यालय का नाम/Office Name	Thiruvananthapuram
कुल मात्रा/Total Quantity	1
वस्तु श्रेणी /Item Category	Angiography and DSA Lab Equipment, Single Plane (Cath Lab) (Q2)
उन्हीं/समान सेवा के लिए अपेक्षित विगत अनुभव के वर्ष/Years of Past Experience Required for same/similar service	3 Year (s)
वर्षों के अनुभव एवं टर्नओवर से एमएसई को छूट प्राप्त है / MSE Exemption for Years Of Experience and Turnover	Yes | Complete
स्टार्टअप के लिए अनुभव के वर्षों और टर्नओवर से छूट प्रदान की गई है / Startup Exemption for Years Of Experience and Turnover	Yes | Complete
विक्रेता से मांगे गए दस्तावेज़/Document required from seller	Experience Criteria,Past Performance,Certificate (Requested in ATC),OEM Authorization Certificate,Additional Doc 1 (Requested in ATC),Additional Doc 2 (Requested in ATC),Additional Doc 3 (Requested in ATC),Compliance of BoQ specification and supporting document *In case any bidder is seeking exemption from Experience / Turnover Criteria, the supporting documents to prove his eligibility for exemption must be uploaded for evaluation by the buyer
क्या आप निविदाकारों द्वारा अपलोड किए गए दस्तावेज़ों को निविदा में भाग लेने वाले सभी निविदाकारों को दिखाना चाहते हैं? संदर्भ मेनू है/Do you want to show documents uploaded by bidders to all bidders participated in bid?	No

बिड विवरण/Bid Details	
विगत प्रदर्शन /Past Performance	30 %
बिड से रिवर्स नीलामी सक्रिय किया/Bid to RA enabled	Yes
रिवर्स नीलामी योग्यता नियम/RA Qualification Rule	H1-Highest Priced Bid Elimination
व्यापक रखरखाव शुल्क आवश्यक / Comprehensive Maintenance Charges Required	Yes
बिड का प्रकार/Type of Bid	Two Packet Bid
तकनीकी मूल्यांकन के दौरान तकनीकी स्पष्टीकरण हेतु अनुमत समय /Time allowed for Technical Clarifications during technical evaluation	2 Days
निरीक्षण आवश्यक (सूचीबद्ध निरीक्षण प्राधिकरण /जेम के साथ पूर्व पंजीकृत एजेंसियों द्वारा)/Inspection Required (By Empanelled Inspection Authority / Agencies pre-registered with GeM)	No
अनुमानित बिड मूल्य /Estimated Bid Value	80000000
मूल्यांकन पद्धति/Evaluation Method	Total value wise evaluation
वित्तीय दस्तावेज की आवश्यकता है / Financial Document Required	Yes
मध्यस्थता खंड/Arbitration Clause	No
सुलह खंड/Mediation Clause	No

ईएमडी विवरण/EMD Detail

एडवाईजरी बैंक/Advisory Bank	State Bank of India
ईएमडी राशि/EMD Amount	2000000

ईपीबीजी विवरण /ePBG Detail

एडवाइजरी बैंक/Advisory Bank	State Bank of India
ईपीबीजी प्रतिशत (%)/ePBG Percentage(%)	5.00
ईपीबीजी की आवश्यक अवधि (माह) /Duration of ePBG required (Months).	62

(a). जेम की शर्तों के अनुसार ईएमडी छूट के इच्छुक बिडर को संबंधित केटेगरी के लिए बिड के साथ वैध समर्थित दस्तावेज़ प्रस्तुत करने है। एमएसई केटेगरी के अंतर्गत केवल वस्तुओं के लिए विनिर्माता तथा सेवाओं के लिए सेवा प्रदाता ईएमडी से छूट के पात्र हैं। व्यापारियों को इस नीति के दायरे से बाहर रखा गया है।/EMD EXEMPTION: The bidder seeking EMD exemption, must submit the valid supporting document for the relevant category as per GeM GTC with the bid. Under MSE category, only manufacturers for goods and Service Providers for Services are eligible for exemption from EMD. Traders are excluded from the purview of this Policy.

(b).ईएमडी और संपादन जमानत राशि, जहां यह लागू होती है, लाभार्थी के पक्ष में होनी चाहिए। / EMD & Performance securityshould be

in favour of Beneficiary, wherever it is applicable.

लाभार्थी /Beneficiary :

Director, SCTIMST
Thiruvananthapuram, Department of Science and Technology (DST), Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST), Ministry of Science and Technology
(Director, Sctimst)

विभाजन/Splitting

बोली विभाजन लागू नहीं किया गया/ Bid splitting not applied.

एमआईआई खरीद वरीयता/MII Purchase Preference

एमआईआई खरीद वरीयता/MII Purchase Preference	Yes

एमएसई खरीद वरीयता/MSE Purchase Preference

एमएसई खरीद वरीयता/MSE Purchase Preference	Yes

1. If the bidder is a Micro or Small Enterprise as per latest orders issued by Ministry of MSME, the bidder shall be exempted from the eligibility criteria of "Experience Criteria" as defined above subject to meeting of quality and technical specifications. The bidder seeking exemption from Experience Criteria, shall upload the supporting documents to prove his eligibility for exemption.
2. If the bidder is a Micro or Small Enterprise (MSE) as per latest orders issued by Ministry of MSME, the bidder shall be exempted from the eligibility criteria of "Bidder Turnover" as defined above subject to meeting of quality and technical specifications. If the bidder itself is MSE OEM of the offered products, it would be exempted from the "OEM Average Turnover" criteria also subject to meeting of quality and technical specifications. The bidder seeking exemption from Turnover, shall upload the supporting documents to prove his eligibility for exemption.
3. If the bidder is a DPIIT registered Startup, the bidder shall be exempted from the the eligibility criteria of "Experience Criteria" as defined above subject to their meeting of quality and technical specifications. The bidder seeking exemption from Experience Criteria, shall upload the supporting documents to prove his eligibility for exemption.
4. If the bidder is a DPIIT registered Startup, the bidder shall be exempted from the the eligibility criteria of "Bidder Turnover" as defined above subject to their meeting of quality and technical specifications. If the bidder is DPIIT Registered OEM of the offered products, it would be exempted from the "OEM Average Turnover" criteria also subject to meeting of quality and technical specifications. The bidder seeking exemption from Turnover shall upload the supporting documents to prove his eligibility for exemption.
5. Experience Criteria: In respect of the filter applied for experience criteria, the Bidder or its OEM of the product offered in the bid {themselves or through reseller(s)} should have regularly, manufactured and supplied same or similar Category Products to any Central / State Govt Organization / PSU for number of Financial years as indicated above in the bid document before the bid opening date. Copies of relevant contracts and delivery acceptance certificates like CRAC to be submitted along with bid in support of having supplied some quantity during each of the Financial year. In case of bunch bids, the category of primary product having highest value should meet this criterion.
6. Preference to Make In India products (For bids > 200 Crore) (can also be used in Bids < 200 Crore but only after exemption by competent authority as defined in Deptt of Expenditure OM dated 28.5.2020): Preference shall be given to Class 1 local supplier as defined in public procurement (Preference to Make in India), Order 2017 as amended from time to time and its subsequent Orders/Notifications issued by concerned Nodal Ministry for specific Goods/Products. The minimum local content to qualify as a Class 1 local supplier is denoted in the bid document. If the bidder wants to avail the Purchase preference, the bidder must upload a certificate from the OEM regarding the percentage of the local content and the details of locations at which the local value addition is made along with their bid, failing which no purchase preference shall be granted. In case the bid value is more than Rs 10 Crore, the declaration relating to percentage of local content shall be certified by the statutory auditor

or cost auditor, if the OEM is a company and by a practicing cost accountant or a chartered accountant for OEMs other than companies as per the Public Procurement (preference to Make-in -India) order 2017 dated 04.06.2020. The buyers are advised to refer the OM No.F.1/4/2021-PPD dated 18.05.2023. OM_No.1_4_2021_PPD_dated_18.05.2023 for compliance of Concurrent application of Public Procurement Policy for Micro and Small Enterprises Order, 2012 and Public Procurement (Preference to Make in India) Order, 2017.

7. Purchase preference will be given to MSEs having valid Udyam Registration and whose credentials are validated online through Udyam Registration portal as defined in Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 dated 23.03.2012 issued by Ministry of Micro, Small and Medium Enterprises and its subsequent Orders/Notifications issued by concerned Ministry. If the bidder wants to avail themselves of the Purchase preference, the bidder must be the manufacturer / OEM of the offered product on GeM. Traders are excluded from the purview of Public Procurement Policy for Micro and Small Enterprises and hence resellers offering products manufactured by some other OEM are not eligible for any purchase preference. In respect of bid for Services, the bidder must be the Service provider of the offered Service. Relevant documentary evidence in this regard shall be uploaded along with the bid in respect of the offered product or service and Buyer will decide eligibility for purchase preference based on documentary evidence submitted, while evaluating the bid. If L-1 is not an MSE and MSE Seller (s) has / have quoted price within L-1+ 15% (Selected by Buyer) of margin of purchase preference /price band defined in relevant policy, such MSE Seller shall be given opportunity to match L-1 price and contract will be awarded for 25% (selected by Buyer) percentage of total quantity. The buyers are advised to refer the OM No. F.1/4/2021-PPD dated 18.05.2023 OM_No.1_4_2021_PPD_dated_18.05.2023 for compliance of Concurrent application of Public Procurement Policy for Micro and Small Enterprises Order, 2012 and Public Procurement (Preference to Make in India) Order, 2017. Benefits of MSE will be allowed only if seller is validated on-line in GeM profile as well as validated and approved by Buyer after evaluation of documents submitted.
8. Estimated Bid Value indicated above is being declared solely for the purpose of guidance on EMD amount and for determining the Eligibility Criteria related to Turn Over, Past Performance and Project / Past Experience etc. This has no relevance or bearing on the price to be quoted by the bidders and is also not going to have any impact on bid participation. Also this is not going to be used as a criteria in determining reasonableness of quoted prices which would be determined by the buyer based on its own assessment of reasonableness and based on competitive prices received in Bid / RA process.
9. Past Performance: The Bidder or its OEM {themselves or through re-seller(s)} should have supplied same or similar Category Products for 30% of bid quantity, in at least one of the last three Financial years before the bid opening date to any Central / State Govt Organization / PSU. Copies of relevant contracts (proving supply of cumulative order quantity in any one financial year) to be submitted along with bid in support of quantity supplied in the relevant Financial year. In case of bunch bids, the category related to primary product having highest bid value should meet this criterion.

10. Reverse Auction would be conducted amongst all the technically qualified bidders except the Highest quoting bidder. The technically qualified Highest Quoting bidder will not be allowed to participate in RA. However, H-1 will also be allowed to participate in RA in following cases:

i. If number of technically qualified bidders are only 2 or 3.
ii. If Buyer has chosen to split the bid amongst N sellers, and H1 bid is coming within N.
iii. In case Primary product of only one OEM is left in contention for participation in RA on elimination of H-1.
iv. If L-1 is non-MSE and H-1 is eligible MSE and H-1 price is coming within price band of 15% of Non-MSE L-1
v. If L-1 is non-MII and H-1 is eligible MII and H-1 price is coming within price band of 20% of Non-MII L-1

Pre Bid Detail(s)

मूल्य भिन्नता खंड दस्तावेज़/Pre-Bid Date and Time	प्री-बिड स्थान/Pre-Bid Venue
03-07-2025 15:00:00	Mini Conference Hall, 3rd Floor, AMCHSS. Queries, if any, may please sent to email "purchase2@sctimst.ac.in" on or before 02.07.2025.

Angiography And DSA Lab Equipment, Single Plane (Cath Lab) (1 pieces)

(क्रमशः श्रेणी 1 और श्रेणी 2 के स्थानीय आपूर्तिकर्ता के रूप में अर्हता प्राप्त करने के लिए आवश्यक/Minimum 50% and 25% Local Content required for qualifying as Class 1 and Class 2 Local Supplier respectively)

तकनीकी विशिष्टियाँ /Technical Specifications

* जेम केटेगरी विशिष्टि के अनुसार / As per GeM Category Specification

विवरण/Specification	विशिष्टि का नाम /Specification Name	बिड के लिए आवश्यक अनुमत मूल्य /Bid Requirement (Allowed Values)
WARRANTY	**Warranty in years (Option of comprehensive warranty is available through bidding only, which if opted will supersede normal warranty in the catalogue)**	3, 5 Or higher **(year)**

व्यापक रखरखाव / **Comprehensive Maintenance**	
Warranty of required product	5 Year
Comprehensive Maintenance Duration (Post Warranty)	5 Year

*Warranty displayed under the AMC/CMC Details section will supersede the warranty displayed under the catalog specfication

Additional Specification Parameters - Angiography And DSA Lab Equipment, Single Plane (Cath Lab) (1 pieces)

Specification Parameter Name	Bid Requirement (Allowed Values)
Additional specification	Our requirement is mentioned in ATC

* Bidders offering must also comply with the additional specification parameters mentioned above.

परेषिती/रिपोर्टिंग अधिकारी तथा मात्रा/Consignees/Reporting Officer and Quantity

क्र.सं./S.No.	परेषिती/रिपोर्टिंग अधिकारी /Consignee Reporting/Officer	पता/Address	मात्रा /Quantity	डिलीवरी के दिन/Delivery Days
1	Shiju V S	695011,Sree Chitra Tirunal Institute For Medical Science and Technology,Medical College PO, Trivandrum	1	180

Special terms and conditions-Version:1 effective from 12-08-2024 for category Angiography and DSA Lab Equipment, Single Plane (Cath Lab)

1. 1. All Provisions of Drugs and Cosmetics Act, 1940 and Rules (including Medical Device Rule 2017) made there under as amended till date will always be applicable. This will include all notifications issued by Central Drugs Standard Control Organization (CDSCO), Ministry of Health & Family Welfare (MoHFW) and Department of Pharmaceuticals (DOP), Ministry of Chemicals & Fertilizers time to time

in this regard.

2. The sellers are registered on GeM based on self declaration of valid Medical Device License, product certification, test reports etc. However, buyers must check and validate the details at their end for all applicable licenses and certifications e.g., validity and authenticity/genuineness of Medical Device license, product certification, manufacturer certification/licenses, test reports etc.
3. In case of authorized resellers/distributors, it will be the legal & regulatory liability of the manufacturer to ensure that their resellers/distributors are operating in compliance with all relevant laws and regulations and are properly licensed to sell the manufacturer's products, including verifying the validity and authenticity of Medical Device license held by them.
4. The price offered by the seller/bidder shall not, in any case exceed the DPCO/NPPA controlled price or price fixed by State Government, if any. The seller must reduce the prices if there is any reduction in DPCO/NPPA ceiling price or price fixed by State Government, if any.
5. Any other Terms and Conditions which is not included or at variance with the conditions specified in STC/GTC, may be added by the buyer through Additional Terms and Conditions (ATC) in the bid to ensure items are procured from authentic/validated source with appropriate and applicable quality. The above terms and conditions are in reverse order of precedence i.e. ATC shall supersede specific STC which shall supersede General Terms and Conditions (GTC), whenever there are any conflicting provisions.
6. **Comprehensive warranty:** Comprehensive warranty shall include preventive maintenance including calibration as per technical/ service /operational manual of the manufacturer, service charges and spares. During the warranty period commencing from date of the successful completion of warranty period, Service personnel shall visit each consignee site as recommended in the manufacturer's technical/ service /operational manual, at least once in six months. warranty shall not be including the consumables. Further there will be 98% uptime warranty during warranty period on 24 (hrs) X 7 (days) X 365 (days) basis, with penalty, to extend warranty period by double the downtime period.
7. **Service centres:** Details of Service outlets in India to render services for equipment to be furnished to buyer/consignees with complete address, telephone numbers, e mails etc at time of making the supplies. It shall be the responsibility of seller to ensure that authorized service centres are available to cater to the areas where supplies are made within reasonable distance from where the service calls can be handled. Details of toll-free numbers for service call and online registration of service requests also to be provided buyer/consignee at the time of supplies.
8. **Source of supply:** It shall be responsibility of seller to provide Documents regarding source of equipments such as copy of Performa invoice or any other documents to establish that the products supplied are manufactured by OEM indicated and sourced from them.
9. **Packing and Marking:** Medical equipments being very delicate and sensitive packing for the goods should be strong and durable enough to withstand transit including transhipment (if any), rough handling, open storage etc. without any damage, deterioration etc. .The size, weights and volumes of the packing cases, remoteness of the final destination of the goods, availability or otherwise of transport and handling facilities at all points during transit up to final destination,. Quality of packing, the manner of marking within & outside the packages and provision of accompanying documentation shall take into consideration the type of medical equipments being supplied. The accessories shall be suitably labelled and packed. Each of the package shall be marked on three sides with indelible paint of proper quality: indicating contract number and date, brief description of goods including quantity, Packing list reference number, country of origin of goods and any other relevant details.
10. **Spare Parts:** Seller shall provide materials, information etc. pertaining to spare parts manufactured and supplied by the OEM. It shall be ensured that the required spares are available for purchase at least for 10 years from date of supplies. In case due to any reasons the production of the spare parts is discontinued sufficient advance notice should be given to the buyer/consignee before such discontinuation to provide adequate time to purchase the required spare parts etc. Further, OEM and their service centres/dealers shall carry sufficient inventories to assure ex-stock supply of consumables and spares for the equipments so that the same are available. OEM or reseller shall always accord most favoured client status to the buyer/consignee and shall give the most competitive price for spares and consumables of its machines/equipments supplied.
11. **Installation, Training, Manuals:** Seller shall be responsible to carry out Installation & commissioning, Supervision and Demonstration of the goods. They shall provide required jigs and tools for assembly, minor civil works for the completion of the installation and Training of Consignee's representatives for operating and maintaining the equipment and supplying required number of operation & maintenance manual for the goods. In case the category parameters are specifying any requirements regarding the installations, training and manuals the same shall also be applicable.
12. **Electrical safety checking:** Sellers are required to make sure that they furnish the list of equipments for carrying out routine and preventive maintenance to buyer/consignee .They should

make sure to periodically check the electrical safety aspects as per BIS Safety Standards or equivalent .In case they do not have required equipment for such testing should ensure that the equipments checked for electrical safety compliance through labs with facilities for such checking during every preventive maintenance call.

13. **Software:** All software updates should be provided free of cost during warranty period.

क्रेता द्वारा जोड़ी गई बिड की विशेष शर्तें/Buyer Added Bid Specific Terms and Conditions

1. **Generic**

   OPTION CLAUSE: The Purchaser reserves the right to increase or decrease the quantity to be ordered up to 25 percent of bid quantity at the time of placement of contract. The purchaser also reserves the right to increase the ordered quantity up to 25% of the contracted quantity during the currency of the contract at the contracted rates. The delivery period of quantity shall commence from the last date of original delivery order and in cases where option clause is exercised during the extended delivery period the additional time shall commence from the last date of extended delivery period. The additional delivery time shall be (Increased quantity ÷ Original quantity) × Original delivery period (in days), subject to minimum of 30 days. If the original delivery period is less than 30 days, the additional time equals the original delivery period. The Purchaser may extend this calculated delivery duration up to the original delivery period while exercising the option clause. Bidders must comply with these terms.

2. **Service & Support**

   Availability of Service Centres: Bidder/OEM must have a Functional Service Centre in the State of each Consignee's Location in case of carry-in warranty. (Not applicable in case of goods having on-site warranty). If service center is not already there at the time of bidding, successful bidder / OEM shall have to establish one within 30 days of award of contract. Payment shall be released only after submission of documentary evidence of having Functional Service Centre.

3. **Forms of EMD and PBG**

   Bidders can also submit the EMD with Account Payee Demand Draft in favour of

   Director, SCTIMST
   payable at
   Trivandrum
   .
   Bidder has to upload scanned copy / proof of the DD along with bid and has to ensure delivery of hardcopy to the Buyer within 5 days of Bid End date / Bid Opening date.

4. **Forms of EMD and PBG**

   Bidders can also submit the EMD with Fixed Deposit Receipt made out or pledged in the name of A/C

   Director, SCTIMST Trivandrum
   . The bank should certify on it that the deposit can be withdrawn only on the demand or with the sanction of the pledgee. For release of EMD, the FDR will be released in the favour of the bidder by the Buyer after making endorsement on the back of the FDR duly signed and stamped along with covering letter. Bidder has to upload scanned copy/ proof of the FDR along with bid and has to ensure delivery of hardcopy to the Buyer within 5 days of Bid End date/ Bid Opening date

5. **Generic**

   Bidder financial standing: The bidder should not be under liquidation, court receivership or similar proceedings, should not be bankrupt. Bidder to upload undertaking to this effect with bid.

6. **Generic**

   Bidders shall quote only those products (Part of Service delivery) in the bid which are not obsolete in the market and has at least 7 years residual market life i.e. the offered product shall not be declared end-of-life by the OEM before this period.

7. **Warranty**

   Bidder / OEM has to give an undertaking that after expiry of warranty period, it will provide Comprehensive Maintenance Service for next 5 years for the offered products at the rate not more than 5 % of contract price per annum. Buyer reserves the right to enter into a CMC agreement with the Successful Bidder / OEM after expiry of the Warranty period at above mentioned rate and the payment for the CMC charges would be made Biannually after rendering of the CMC Services of the relevant CMC period. Performance Security of the successful bidder shall be forfeited if it fails to accept the CMC contract when called upon by the buyer. CMC would include cost of

   As per specification
   (Upload the undertaking). The original Performance Security of contract will be returned only after submission and verification of AMC Performance Security for 3% of total CMC value valid up to CMC period plus 2 months (if there is no other claim).

8. **Certificates**

   Bidder's offer is liable to be rejected if they don't upload any of the certificates / documents sought in the Bid document, ATC and Corrigendum if any.

9. **Generic**

   Buyer Organization specific Integrity Pact shall have to be complied by all bidders. Bidders shall have to upload scanned copy of signed integrity pact as per Buyer organizations policy along with bid. Click here to view the file

10. **Buyer Added Bid Specific ATC**

    Buyer Added text based ATC clauses

A. Bidders are advised to quote prices as per technical specification. However detailed breakup of quoted prices should be provided in Price Format – A uploaded in the prescribed place (Financial Document Required) on online GeM portal. The prices quoted in the prescribed field on GeM portal will be considered for ranking purpose. Total price quoted in Price Format – A must match with the price quoted in GeM portal. Bidders should not include price bid in the technical bid. **The Price formats A, B, C, D and E to be submitted along with financial bid only. If any of the price components disclosed in the technical bid, the bid will summarily be rejected and the bidder will be DISQUALIFIED from further bidding process.**

B. The Bidders are advised to quote price of Spare parts, Consumables in the attached format “B” and “C” accordingly and uploaded the same in the prescribed place (Financial Document Required) on online GeM portal. The equipment should be supported with spares for a minimum period of 10 years after successful installation and commissioning.” All the spares and consumables required for the equipment should b e made available through GeM throughout the agreed supporting period”.

C. The five years warranty sought for is OEM/bidder free warranty without any additional cost towards extended warranty to fulfil the tender condition. The charges, if any, claimed by the bidder towards warranty in this regard and included in the product cost in Price Format –A should be mentioned in the price format D also, and uploaded the same in the prescribed place (Financial Document Required). This warranty charges shall not be considered for calculating actual CAMC value to be payable after warranty period. Where the total cost does not include such warranty charges, the bidder shall submit a declaration- "Certify that the E

quipment/accessories quoted in the bid is having OEM/bidder free warranty of three years and the total cost quoted in the bid does not include any warranty charges to fulfil the tender condition of three year warranty". This declaration shall be furnished along with the Technical bid in format G. False declaration may lead to rejection of bid. In the case of agents quoting on behalf of their foreign principal, proforma invoice from the OEM (Foreign principal company) indicating the nature of after sale service including warranty condition and commission payable to the Indian agent shall be furnished along with the price bid.

D. As per the Institutes general policy, the maximum CAMC charges after warranty period will be 5% of the cost of the equipment. However the bidders can quote CAMC charges in the range of 3 to 10 % of the cost of equipment, depending on the nature of equipment to be maintained.

E. The CAMC charges shall be quoted in percentage rate in GeM bid and escalation in CAMC charges shall be allowed at maximum 5% after every three years of CAMC.

F. This CAMC charges at Net Present Value shall be taken into account for arriving the lowest responsive bidder. The actual CAMC value to be payable after warranty period shall be separately worked out based on the "Cost of the equipment for CAMC calculation" and shall be furnished in "Format –E" and uploaded the same in the prescribed place (Financial Document Required). The year wise rate percentage of CAMC quoted in the bid for L1 evaluation should be used for calculating the actual CAMC value.

G. The "cost of the equipment for CAMC calculation" shall not include additional warranty cost (if any), cost towards Installation, Commissioning and Testing (in addition to the original equipment cost of the OEM), cost of transportation, including import customs duty, Agency commission, any specific excluded items from CAMC as per the tender condition and GST included in the product cost quoted.

H. The cost of the equipment for CAMC calculation shall be mandatorily furnished in format D.

I. The warranty (5 years) and CAMC (5 condition as given above should be applicable for the third party items, if any supplied. The successful bidder shall furnish the agreement executed in this regard with the third parties as and when called for. The genuineness of price quoted for the equipment / accessories are very important and this price shall not be loaded with any other cost.

J. The successful bidder shall enter into CAMC 3 (three) months prior to the completion of warranty period. The CAMC will commence after the date of expiry of warranty period from the date specified in the work order and as per the terms and conditions issued in this regard, which will be treated as the first year of CAMC. This tender will form part of the CAMC work order.

K. In case the items coming under the provisions of Drugs & Cosmetics Act & Rules, the following should be submitted :

a) For imported items : Central Drugs Controller Certificate from Central Drugs Standard Control Organization, New Delhi.
b) For indigenously manufactured items : Certificate issued by State Drugs Controller

L. Penalty clause:

i. **Delay in Delivery:** If the supplier fails to deliver or install/commission any or all of the goods or fails to perform the services within the time frame(s) incorporated in the Purchase Order, the Purchaser shall, without prejudice to other rights and remedies available to the Purchaser under the contract, deduct from the contract price, as liquidated damages, a sum equivalent to 0.5% per week of delay or part thereof on delayed supply of goods, installation, commissioning and/or services until actual delivery or performance subject to a maximum of 10% of the contract price. Once the maximum is reached Purchaser may consider termination of the contract. If any delay by the supplier in maintaining its contractual obligations towards delivery of goods and performance of services shall render the supplier liable to any or all of the following sanctions:

i. Imposition of liquidated damages,

ii. Forfeiture of its Performance Security and

iii. Termination of the Contract for default

ii. **Performance (during Warranty period)** Supplier should ensure uninterrupted service delivery of the equipment or product during the warranty period. In this regard following conditions also may be noted:

i. In case of failure of equipment or its components, breakdown call has to be attended within 48 hours of intimation and will be rectified in due course.

ii. In case of non-adherence to clause (i) above, downtime penalty will be realised a sum equivalent either the repairing charges met by the Institute to set right the equipment or 0.1 percent per day of cost of the equipment, whichever is higher, from the date of report of breakdown by way of deductions from SD/Performance Bank Guarantee.

iii. The time spent on the repair work will be added to the warranty period of the equipment.

iii. **Performance (during CMC/AMC period)**:

i. Uptime means 95 percent of total days in a year during which the equipment remains functional.

ii. Down time means any shortage in achieving the up-time

iii. Down time penalty will be levied as per following terms and condition:

iv. In the case of CMC, it shall be the responsibility of the service provider to set right the equipment and avoid down time. Down time penalty will be imposed @ 0.5 percent of contract value per day from the service provider.

v. In case auxiliary units/components attached to the ma

in equipment undergoes failure and the main equipment provides uninterrupted services, down time penalty will be im posed @ 0.1 percent of contract value per day per auxiliary u nit from the service provider.

vi. Service provider should ensure rectification of defect o f equipment within a reasonable period in the case of Labour Annual Maintenance Contract. In case break down is not atten ded within 48 hours of intimation, down time penalty will be i mposed @ 0.5 percent per day of contract value from the ser vice provider.

M. **Qualification criteria**

i. The bidder must be a manufacturer or their authorized agents having a place of business in any state of India are eligible to partici pate in this bid. The bidders should submit “Manufacturer’s Authoriz ation Form” for each items quoted and shall be submitted along wit h technical bid, as per the format enclosed in the bid document (For mat “F”).

ii. The bidder should submit compliance sheet together with tech nical bid (Format G)

iii. EMD should be submitted along with technical bid. The bidder see king EMD exemption, must submit the valid supporting document fo r the relevant category as per GeM GTC with the bid. Under MSE ca tegory only manufactures are eligible for exemption from EMD.

iv. Integrity Pact Agreement will form part and parcel of this tende r. It is mandatory to enclose the Integrity Pact Agreement along wit h the technical bid. Independent External Monitors: 1. Sri. Prahlad Kumar Sinha, IP & TAFS (Rtd.) Ph. No. 09423677066 E-mail pekay66 @gmail.com 2. Dr. Ved Prakash, ITS (Rtd.) Ph.No. 9810546996 E-ma il ved60prakash@gmail.com

N. Bidders may please be read as uptime warranty as 95 % instead of 98 % as pe r bid terms and conditions.

O. SCTIMST reserves the right to ask for a free demonstration of the quoted equip ment/ items after giving reasonable time to the bidder at a pre -determined pla ce acceptable to the purchaser or at a site (in case of non-portable and heavy e quipment) for evaluating the technical compatibility as per the bidding docume nt specifications, professionalism and quality of work of the bidder for technicall y qualifying for opening the Price Bid. SCTIMST reserves the right to accept/ reje ct the bid based on the product/ site evaluation as stated above.

P. List of documents to be attached along with bid.

i. Along with Technical Bid - Format F, G, EMD receipt and Integri ty Pact

ii. Along with Price bid - Format A, B, C, D and E

Q. On-site installation required. .

R. Payment Terms: 100% payment will be paid after satisfactory installation and commissioning of equipment along with submission of “Installation Report” to b

e issued by user department and DCE.

s. The delivery of the equipment should be completed within 150 days from t he date of issue of GeM contract. Installation should be completed within 4 5 days from the date of delivery.

T. As per approval from the Department of Science and Technology, non local suppliers can also partici pate together with local suppliers in the tender.

u. For all disputes arising out of this contract the legal jurisdiction will be Thir uvananthapuram

Bidders should also comply the additional specification mentioned bel ow:

PART - I	
1	**GENERAL**
	Competitive bids are invited for Single plane Cath lab system for cardiology diagnosti c angiography and interventional procedures.
1.B	Latest state of art Single plane with flat detector technology Digital Angiography Syst em, Rotational angiography, Roadmap required for Cardiology diagnostic angiograph y and interventional procedures Companies should quote the latest “state of the art” system which matches the below technical specifications available at the time of sub mission.
1.C	All capabilities detailed in the specification should be integral part of the quotation an d none of the essential requirement should be quoted as optional. If the supplier has any additional advance application or technique, the same should be quoted separate ly. Any item not covered under standard set should be quoted separately.
1.D	The original data sheet must support all the specification quoted by the company. Br oad specification of the proposed system is given below. Cost of the item/feature whe rever asked should be quoted in the price bid only. Additional relevant technical feat ures suitable for our requirement will be given due weight age. System must be DIC OM standard compatible and must be ready to connect with the existing PACS syste m of the institute.
1.E	System must be configured for higher performance to optimally deal with mixed case load of various cardiovascular procedures. The bidder should produce original technic al datasheet. When required additional information should be provided as a separate document referring to the specific section being addressed. Offer should comprise del ivery, installation, official release and safety acceptance until hand over the system i ncluding the accessories necessary for operation.
1.F	The bidder must be original manufacturer of the equipment or authorized dealer with good track record who has sold, installed and maintained a number of such equipme nts during last ten years. All standard software and tools needed for routine and regul ar use must be part of system.

1.G	If at the time of tender form sales and negotiation for equipment, new features are added to the system**, the bidders are directed to quote most recently launched system meeting the tender requirement**. At the time of negotiation, the latest system will be given priority within the constraints of budget allocation. Many advances and new features are regularly getting added in this system. The latest update in the system as per the latest recommendations must be included. Any upgrade/ new features launched prior to the installation of the equipment should be part of the supply, even if not quoted at the submitting the bid. All upgrades and updates should be made available during the warranty period. All updates should be made available during the comprehensive maintenance period. Technical committee may decide inclusion of new features and may evaluate fresh in case exact specification is not matching as per tender specification. Technical committee will take appropriate decision.
1.H	The bidder shall submit certification from the manufacturer which must show that the product is brand new, and should include the year of introduction of the model, country of manufacturer, and standards compliance.System should meet all National & International safety standards& comply with BARC & AERB guidelines.
1.I	Guarantee/Warranty: l. Five-year comprehensive onsite warranty of entire system. This will be followed by 5 yearscomprehensive maintenance contract for all equipment's including accessories and third-party items. 2. All accessory equipment including cables, adaptor, connecters should be included in comprehensivewarranty including third party items. 3.X ray tube warranty should be for a period of **10 years.** 4. The vendor should provide price of each consumable related to the cath lab and each equipmentsupplied with it for price fixation. 5. Post warranty on site annual comprehensive maintenance contract to cover, complete system including all components, accessories, should be quoted separately for additional Five years with year wise breakup. 6. Uptime guarantee of 95% must be agreed. Penalty clause will be applicable if the downtime of the unitexceeds 5% of the permissible downtime. The penalty will be in the form of extended warranty beyond 5years, which will be equal to the period of double the number of days for which he unit is non-functional 7.Free upgrade(s) not involving any hardware as applicable should be provided during the period of warranty/CMC.
PART - II	
2	**SYSTEM CONFIGURATION**
2.A	Gantry
2.B	Patient angiography table
2.C	X-Ray generator
2.D	X- Ray tube

2.E	Collimator
2.F	Flat panel detector
2.G	Image display monitors
2.H	Rotational angiography
2.I	Digital imaging processing system and work-station
2.J	System operation
2.K	Radiation protection
2.L	Software
2.M	DICOM compatibility
2.N	**Accessories**
2. N.1	Radiation safety gears
2.N.2	UPS
2.N.3	Hemodynamic recorder
2.N.4	Pressure injector for cardiac angiography
2.N.5	ACT machine
2.N. 6	Standalone Cath- lab/ OT examination light
2. N. 7	Ceiling suspended lamp with shield
2.O	Additional requirements
2.P	**Turnkey work**
2.P.1	Electrical work
2.P.2	HVAC work
2.P.3	MGPS
2.P.4	Wall
2.P.5	Ceiling

2.P.6	Floor
2.P.7	Doors
2.P.8	Peripheral Lighting System
2. P. 9	Pendants
2.P.10	Consol Glass
2.Q	General Terms & Condition
2.R	DICOM/HL7/IHE Requirements
2.A	**Gantry**
2.A.1	The system should have floor mounted table and floor mounted or ceiling suspended gantry
2.A.2	Arm design should allow sufficient space around the table during resuscitation and de fibrillation. It is desirable to have full body coverage.
2.A.3	The system should have the capability to pre-program the gantry for multiple examin ations / positions
2.A.4	All movements of the gantry including collimator should be motorized and controlled from the table side.
2.A.5	The system should have in-built patient collision prevention mechanism.
2.A.6	The C arm rotation should be at least 15 degrees/second in RAO/LAO and 15 degree/s econd in cranial/caudal direction.
2.A.7	Gantry angulations should be freely user-selectable to satisfy clinical imaging needs. The C or G arm movement control should be possible from any side of the table.
2.A.8	Angulations of LAO/RAO should be at least 105/105 degrees and cranial/caudal shoul d be at least 40 degrees or more.
2.A.9	Variable focal spot-to-detector within 90 cm and119cm distance and speed up to 8.9c m/sec or more.
2.A.10	Facility for fully motorized/ manual positioning/rotation of stand from the floor base/c eiling pivot by at least 180 degrees range for improved workflow and for ease of oper ation from both
2.A.11	Left and right side of the patient in addition to zero-degree normal head end position.

2.A.12	Patient access should be possible from either left or right side at the head end and gr oin (leg) end
2.B	**Patient angiography table**
2.B.1	Cardiac table – patient table must have radiolucent carbon fiber table-top or equivale nt.
2.B.2	The table should have longitudinal, horizontal and vertical travel
2.B.3	It should be possible to swivel the table in case of emergencies (desirable) and it sho uld be possible to park the C arm away from table for patient shifting.
2.B.4	The table should be floor mounted with a carbo-fiber table-top
2.B.5	The system should have an in-built patient collision prevention mechanism
2.B.6	Large unobstructed cantilevered table top and wide range of rotations enables access to patient from all sides and easy transfer and positioning
2.B.7	Table control module for operation of all table functions.The tabletop should be equip ped with gantry controls, table system controls, collimation controls and Intravenous poles.There should be a touch screen on the table for selection of va rious exposure and displayparameters.The table should have additional control knob f or movement of table in horizontal and longitudinal direction by the primary operator
2.B.8	Extendable arm rest both sides, elbow guard
2.B.9	Table height adjustable from at least 80cm to 100 cm
2.B.10	Table length 250cm or more
2.B.11	Lift speed 2 cm/s or more
2.B.12	Table rotation (on pivot)
2.B.13	With various locked position +/-90 deg or more
2.B.14	Motorized longitudinal travel 110 cm or more
2.B.15	Manual transverse travel +/- 14 cm or more
2.B.16	Maximum unobstructed overhangs 125cm or more
2.B.17	The maximum patient weight on table should be 200 kg or higher with additional wei ght of atleast 50 kgs during resuscitation.
2.B.18	Resuscitation should be possible without having to retract the table back on its base

2.B.19	**Table should have the following accessories**
2.B.19.a	Long table top/mattress: mattress should provide high patient comfort for long interv entional procedure, made of slow recovery foam with ideal density and thickness.
2.B.19.b	Accessory clamps
2.B.19.c	Arm / elbow supports – radiolucent
2.B.19.d	The table should have electromagnetic locks.
2.B.19.e	Peripheral filter set
2.B.19.f	Catheterization arm support
2.B.19.g	Foot support
2.B.19.h	Head end holder
2.B.19.i	Handles with support
2.B.19.j	Articulating arm support – 2nos
2.B.19.k	IV set holder
2.C	**X-Ray generator**
2.C.1	The generator must be optimized for the latest cardiac application for electrophysiolo gical / interventional procedures.
2.C.2	Generator should be microprocessor controlled multi pulse/high frequency for consta nt output with automatic dose rate control for radiography and fluoroscopy
2.C.3	The generator should be of the latest technology of high frequency type and with at l east 100kW output at maximum factor.
2.C.4	SID (source to image distance) tracking (automatic tube current adjustment to focus-to-detector distance)
2.C.5	Output should be 100kw or more
2.C.6	KVP range selectability should be mentioned; ideally must be 50-125KV or more
2.C.7	Output at 100 KV should be 1000ma or more and should be able to deliver up to 100 0ma.The system should have fluoro mA of 130 mA or more for shorter pulses for lowe r motion artifactsand lower scattered dose.

2.C.8	It should have automatic exposure control device for radiographic fluoroscopy and An gio mode.The system should have fluoroscopy pulse rate ranging from at least 5 fram es/sec to 30 frame/sec.
2.C.9	It should have digital display of KV & mA. It should have overloading protection.
2.C.10	It should have the facility for pulsed fluoroscopy at variable rates for reducing the x-ra y dose to the patient during intervention procedure.
2.D.	**X-ray tubes**
2.D.1	Tube should be supplied with preferably liquid bearing tube technology or equivalent and other performance proven tube technology for silent efficient, long-lasting functio n and reducing dose and scattered radiation.
2.D.2	There should be at least two focal points with the large focus of 1.0 mm or less and the small focus of 0.6 mm or less. **The focal spot should have the following size:**
2.D.2.a	1mm or less with load 80kw or more
2.D.2.b	0.6mm or less with load 30 kw or more
2.D.3	Anode angle 12 degrees or less
2.D.4	Output 10min 4000w, 20min 3000w, >30min 2500w
2.D.5	Anode heat storage capacity should be 3.3MHU or more having liquid bearing technol ogy or metal lubricant or equivalent performance. The system should have adequate cooling facility for the X-Ray tubes for uninterrupted, performance during procedure. It should have liquidbearing technology or metal lubricant to permit long procedure ti mes and continuous machine working for at least 12 hours continuously without heati ng of tube.
2.D.6	Tube must have very high heat dissipation rate and effective filtration to reduce patie nt dose significantly. Models having highest heat dissipation to be offered
2.E	**Collimator:**
2.E.1	Collimator should have facility for copper pre-filtration for reducing the X-Ray dose.Th e system should have integrated computer-controlled X-ray Beam filtering with autom atic/programmable copper filters of various sizes from 0.2 mm to 0.9 mm or better.
2.E.2	Facility for asymmetric/ virtual collimation will be an added advantage and will be pre ferred.
2.E.3	The collimator leads should have iris type or rectangular type arrangement.

2.E.4	The collimator should have the facility for dose measurement chamber in order to dis play the skin dose on the monitor in the lab.
2.F	**Flat panel detector**
2.F.1	The detector size should be at least 20 x 20 cms.
2.F.2	Flat detector should be made of cesium iodide amorphous silicon photo diode scintilla tor or similar material, ideal for excellent high-resolution 1024x1024 image matrix or more to achieve a resolution of 2.51p/mm or higher in routine use.The detector size s hould be at least 20 x 20 cms.
2.F.3	High speed fiber-optic connection to the imaging system
2.F.4	Integrated temperature stabilizer
2.F.5	Integrated collision protection with removable grid.
2.F.6	Detector / image rotation landscape/portrait selection with vertical display in case of r ectangular detector
2.F.7	Pixel size 200 microns or less.
2.F.8	Nyquist frequency 2.5 LP/mm or higher
2.F.9	Acquisition speed from 5 up to 30 images/sec or more.There should be at least 3 leve l acquisitions zoom facility.
2.F.10	Digitalization depth 14 bit or more
2.F.11	Spatial resolution of the detector 2.5LP/mm or more
2.F.12	Detector quantum efficiency (DQE) >75%) (at 0 LP/mm) or more
2.F.13	Control room should have antiglare provision with high resolution display in the contr ol room.
2.G	**Image display monitors –**
2.G.1	Image display monitors in examination room: 55inch or higher size Single monitor or 4 or more 19inch or higher size to serve the purpose

2.G.1.a	**For 55 inch or higher Single medical grade FHD monitors.** Should be able more than 8 image sources in same display. I luminance intensity mor e than 400cd/m2. Should have Multi display controller. Machine should be supplied with medical grade large high-definition display (at least 55 inches)to display live, reference, 3D, hemodynamic, imaging and electrophysiology waveforms withlayout selection from table side control or separate touch screen module in exam room. Thereshould be a provision for at least one back-up monitor of at least 19" with the system . Should have more than 7 physical and simultaneously usable inputs including digital, Analog and High speed Analog. Power supply redundancy with hot swap capability. Fo r live and reference back up two 19 inch or higher medical grade monitor should also be provided along with the single monitor.
2.G.1.b	**For LCD/LED flat 19 inch or higher size monitor.** FHD monitors with wide viewing angle, high Luminance, high contrast, flicker free, dis tortion-free: one for live image and two for reference. One additional color monitors fo r displaying images of other external devices like 3D rotational angiography, IVUS, Ec ho display and for hemodynamic recorder etc. minimum 4 monitors in examination ro om should be ceiling suspended with height adjustment and longitudinal travel to eit her side of Table & swivel capabilities. All monitors may be incorporated into a single suspension frame. Any additional feature to switch various video signals from various sources in a single monitor should be offered as standard. There should be video-out facility from the system.
2.G.2	**Image display monitors in control room: 4nos / Equivalent nos to fulfill the below mentioned specifications.**
2.G.2.a	LCD/ LED flat 19-inch or higher size medical grade monochrome monitors with wide vi ewing angle, high luminance high contrast, flicker free, distortion free:
2.G.2.b	Displays in control room/console: at least twonos of19 inches or higher size, for live i mage and for reference image.
2.G.2.c	One colour display for patient data/ RIS information.
2.G.2.d	Cath lab should be supplied with state of art complete coronary, ventricular, and vasc ular online& off-line (both) quantifications software programs which are clinically vali dated with operationfrom exam room and control room. It should have an auto calibr ation facility for stenosismeasurement with geometrical and densitometry calculation. The analysis should be possiblefrom tableside in the examination room and from the control room. A full quantitative analysispackage should be provided. QCA facility sho uld be also available for recorded CD/DVDs.
2.G.2.e	There should be parallel view of archived examinations, permit concurrent measurem ents of both archived studies and any images of the current study while fluoroscopy o r cineradiography (acquisition) is going on. The system should have facility for storag e of fluoro-loop scene at least 10 seconds.
2.H	**Rotational angiography**
2.H.1	Digital Rotational angiography

2.H.2	Rotational speed 40 degree/sec or more
2.H.3	Rotational angle 90 degree or more
2.H.4	Frame rate in the range of 10 to 30 FPS with at least one additional option.
2.I	**Digital image processing system & work station**
2.I.1	Cine loop & image hold during fluoroscopy, pulsed fluoroscopy with frame rates of 3. 25/7.5 / 15/30 images at 1024x1024 matrix/8-bit resolution or better.
2.I.2	Advanced image processing for real time edge enhancement, real-time harmonizatio n & noise reduction.
2.I.3	Digital system with acquisition & processing in 1k matrix at 25/30 FPS
2.I.4	Last image hold and fluoro store (manual)
2.I.5	Minimum storage capacity of 1,00,000 images or more in 1024x1024/8bit resolution o r better.
2.I.6	Background transfer of images from cath lab to digital storage/ CD / DVD archiving wi thout interruption of cath lab procedure. (Preferably automatic).
2.I.7	Ability to display images back to cath lab.
2.I.8	Image processing features like zoom, post processing.
2.I.9	Both on line & off line coronary analysis & ventricular analysis from table side & cons ole room. There should be facility for view of archived examinations, permit measure ments of both archived studies and any images of the current study.
2.I.10	True on-line digital subtraction facility at selectable frame speeds. Specify system ca pability for on line DSA and frame rate per second
2.I.11	Facility to measure & display X-Ray dose delivery during procedure.
2.I.12	DICOM based CD / DVD recording; CD have embedded software for instant review in a ny PC. Should have ability to run DSA run on CD. Facility to achieve multiple patient a ngiograms on single CD.There should be a CD/DVD writer provided with the system.
2.I.13	Clinically validated QCA for control & exam room.
2.I.14	Desirable: Storage and display of dynamic fluoro sequences: eg. 10 sec at 30 FPS.
2.I.15	Desirable: Digital subtraction angiography in real time at variable frame rate specifies.It should be possible to upgrade the system for installation of software for T AVI andElectrophysiology procedures if needed in the future.

2.1.16	Latest stent visualization features like stent boost or equivalent.The latest complete s oftware and hardware should be provided for visualizing stents with the facility of ste nt enhancement with relation of vessel lumen.
2.I.17	Image inversion facility for live procedures.
2.I.18	Facility for reporting and printing of report by attached printer. Printer (preferably wit h toner/ink tank type) for printing of angiography reports preferably with colour printi ng facility (highly desirable for generation and printing of immediate reports)
2.J	**System operation:**
2.J.1	In exam room: complete system operation with controls at patient table for controllin g c-arm projection, patient table and collimator. Two multi-function joy stick for opera tion of the image system. One control box at foot end and another at table side.
2.J.2	Multifunction foot switch for fluoroscopy, radiography, table brakes (the operator sho uld be able to release the table from braked position), light source, parallel view etc. Data display monitor system and table geometry, system messages, dose data etc in addition to other monitors in examination room.
2.J.3	Dedicated touch pad for review/zoom, play/pause, previous/next image, store /recall r eference images at the table side.
2.J.4	There should be facility to enter the patient demographics from the examination roo m or the console room
2.J.5	**The following functions should be selectable in the examination room**
2.J.5.a	Run and image selection
2.J.5.b	File and run cycle
2.J.5.c	Review speed
2.J.5.d	Run and file overview
2.J.5.e	Active exam folder selection
2.J.5.f	Flagging image and run storage
2.J.5.g	Subtraction and image mask selection
2.J.5.h	Digital zoom
2.J.5.i	Storing reference run or image to reference monitors
2.J.5.j	Select reference monitors for review and/ or processing of previous run exposures
2.J.5.k	System emergency brake should be available in the procedure room

2.J.5.l	Review of a patient exam
2.J.5.m	Exam and run cycle
2.J.5.n	Adjustment of contrast, brightness and edge
2.J.5.o	Exam, run and image stepping
2.J.5.p	Run and exam over view
2.J.5.q	Basic review functionality as image invert and digital zoom
2.J.5.r	Go to original settings.
2.J.5.s	Reset fluoroscopy timer and switch x-ray on/off
2.J.5.t	Quantitative analysis package.
2.J.5.u	Land marking (increase/decrease of degree of subtraction)
2.J.5.v	Video invert
2.J.5.w	Zoom and pan image
2.J.5.x	View trace & Pixel shift
2.J.5.y	Electronic shutter
2.J.5.z	There should be a dedicated 3D workstation to free the main system after acquisition . It shouldbe possible to process patient images on this workstation independent of c ase in exam room. Thiswould be in addition to CD/DVD writing station/workstation
2.K	**Radiation protection features**
2.K.1	Conformation of the fluoroscopy system to standards of international electro technical commission (IEC) and latest FDA regulations or equivalent.
2.K.2	Automatic x-ray control system for automatic calculation and optimization of exposur e data based on fluoroscopic values.
2.K.3	Collimators and wedge filters for spatial filtering.
2.K.4	Five level adaptive cu filtration for reduction of skin dose. (desirable).
2.K.5	Pulsed fluoroscopy with additional reduced pulse frequencies (specify range of freque ncies)

2.K.6	Low dose fluoroscopy mode upto 7.5 FPS and 3.75 FPS
2.K.7	Modulation of fluoroscopy pulsing to obtain less noise and scatter
2.K.8	Radiations free positioning of primary and semi-transparent collimators via graphic la st image hold on image monitor.
2.K.9	Radiation measurement and display chamber integrated collimator housing.
2.K.10	Exam and patient related automatic parameter setting
2.K.11	Radiation-free positioning of primary and secondary collimators via graphic represent ation on last image hold.**(desirable)**
2.K.12	Manual protocol selection for different types of examinations (eg: low dose EP and hig h dose interventional)
2.K.13	Real time display of patient dose and archiving of x ray exposure data
2.K.14	Scattered dose estimation for operator exposure in real time (proprietary or third part y functionality) real time display of radiation exposure to primary and secondary oper ator, using wearable exposure detectors (minimum of 5) and real time display on mo untable display panel subject to regulatory approval.
2.K.15	Any available special software which will work with the quoted model required for inc reasing the image quality and reducing the image noise for Realtime Motion correctio n, Realtime Image enhancement & Realtime Noise reduction should be offered as par t of the standard offer.
2.K.16	Upper body and lower body shields for operator protection (ceiling and table mounted) the upper body shield should contain flexible radiation protective strips, for contact with patient body. The lead equivalent of the shields should be defined and should be more than 0.5 lead. Accessory rails should be available at the head of the table for lo wer body protection during left and right anterior chest procedures. The lower body pr otection shield should be minimum two in number (one for each side of the table) the flexible vertical fold of the lower body screen should provide additional 25 cm of upw ard protection.
2.L	**Software**
2.L.1	**Quantification software**
2.L.1.a	**Quantification software should have the following capabilities**
2.L.1.a.1	Vascular analysis with stenosis quantification
2.L.1.a.2	Quantitative coronary analysis
2.L.1.a.3	Ventricular analysis

2.L.1.a.4	Measurements-linear where reference points can be manually edited.
2.L.1.a.5	There should be option for manual selection of reference points or ability to edit the automated detection system.
2.L.1.a.6	ECG should be displayed beneath the image for reference.
2.L.2	**Image optimization software (Optional)**
2.L.2.a	**Image optimization software should have the following capabilities (optiona l)**
2.L.2.a.1	Angiographic image roadmap linked with corresponding intravascular ultrasound (IVU S) image.
2.L.2.a.2	Should have facility for automatic image transfer between IVUS and angiographic syst em
2.L.2.a.3	There should be option for measurement of length and area of vessel with manual pul lback at desired location
2.L.2.a.4	Should be option for manual selection of reference points or ability to edit the autom ated detection system.
2.L.3	**Physiology co registration system.(Optional)**
2. L.3.a.	Ability to link angiographic image with functional stenotic assessment using a physiol ogy assessment method using either fractional flow reserve (FFR) or instantaneous w ave free ratio is desirable Co-registration will be useful to allow operator to optimally measure vessel size and a rea using ultrasound and correlate with real time angiographic roadmap
2.L.3.b	Should be able to manually adjust reference points and length measurements with im age display combining physiology assessment index (iFR/ FFR/ RFR) and angiographic roadmap shown on monitor
2.L.4	**Fusion imaging with echocardiography (optional)**
2.L.4.a	Image guidance to integrate live fluoroscopy image and 3d live echocardiography in a single image monitor.
2.L.4.b	Capability to integrate 3D live echocardiography in real time with fluoroscopic image. Fusion imaging will be useful to have real time integrated guidance of 3D echocardio graphy with X- Ray image for TAVI, Mitral valve interventions, left atrial appendage oc clusion.
2.M	**DICOM compatibility (DICOM 3 compatible)**

2.M.1	Archiving / recording in DICOM modes
2.M.2	DICOM storage commitment for archiving on CD
2.M.3	DICOM print of image through laser printer.
2.N	**Essential Accessories**
2.N.1	Ceiling suspended lead partition should be part of the standard system offered
2.N.2	Focused ceiling mounted cool light of high quality
2.N.3	Revolving chairs with user-adjustable height, medium backrest height, with hand-rest 6 numbers needed,Work station Tables (2 in number) to be customized at site in accordance with departmental need
2.N.4	Console room and review station in the cath lab with computer and DVD/ CD writing
2.N.5	1 desktop computer (at least 8 GB RAM & 1 TB hard disk and i7 configuration) and 1 l aser printer of high resolution (at least 1200 dots per inch) with minimum 128 MB memory and 1200 dpi should also be offeredfor high quality image printing on A4 paper.
2.N.6	Communication facility from reputed brand should be provided for two-way communi cation. There should be provision to communicate between operator and view-station (microphone – on /off, volume control, speaker on/off with volume control); 3 handset s
2.N.7	Lead protection skirting the tableside for operator’s lower body protection
2.N.8	Mobile shield with lower body protection
2.N.9	**Radiation safety gear with attached specifications**
2.N.9.a	It includes radiation procedure apron, thyroid shields and radiation protection glasses
2.N.9.a.1	**Radiation protection apron- Light weight lead (Non lead protection gadgets would be desirable) 10 nos,(2-piece type)**
2.N.9.a.1.1	Lightweight full cover
2.N.9.a.1.2	Abdominal belt to share the weight to the shoulders and back.
2.N.9.a.1.3	Should cover front, side, and rear.
2.N.9.a.1.4	The over-the-shoulder snap lock for easy wearing and removing

2.N.9.a.1.5	Provides full front/back protection in a one-piece style.
2.N.9.a.1.6	Includes fully adjustable back-saver belt for lower lumbar support.
2.O.9.a.1.7	Should have 0.5 mm PB -equivalent front protection and 0.25 mm back protection.
2.N.9.a.2	**Thyroid shields: 10**
2.N.9.a.2.1	Ultra light washable thyroid shields aprons
2.N.9.a.2.2	Provides 0.5mm pb-equivalent protection
2.N.9.a.2.3	Extremely lightweight and comfortable—free of top binding to help prevent
2.N.9.a.2.4	Radiation protection glasses:
2.N.9.a.2.5	Lightweight frame design provides both maximum coverage and clarity.
2.N.9.a.2.6	Secure wrap temple and arms for stability and comfort
2. N.9.a.3	**Radiation protection goggles: 10 nos,10 lead caps**
2. N.4.	**UPS: 1no**
2. N.4.a	Suitable on line UPS of at least 120 kVA with 30 minutes uninterrupted power back up .
2. N.4.b	Should adhere to the following standards
2. N.4.c	EN 62040-1 - Uninterruptible Power Systems (UPS) part 1: general and safety require ments for UPS.
2. N.4.d	EN 62040-2 - Static Uninterruptible Power Systems (UPS) part 2: electromagnetic com patibility (EMC) requirements.
2. N.4.e	EN 62040-4 - Environmental Aspects - requirements and reporting.
2. N.4.f	IEC 61000-4 - Electromagnetic compatibility (EMC) - part 4: testing and measurement techniques.
2.N.4.g	Battery replacement for the UPS during the warranty as well as the CAMC period shou ld be the scope of the vender.
2. N.5.	**Hemodynamic recorder**
2. N.5.a	12 channel ECG waveform display – should be able to print out

2. N.5.b	Two or more invasive pressure outputs should be displayed simultaneously on the scr een. Necessary transducers, connectors etc should be supplied
2. N.5.c	dp /dT waveform display
2. N.5.d	SpO2, noninvasive BP display and necessary equipment
2. N.5.e	Storage of ECG/pressure recording on CD
2. N.5.f	Storage on hard disk of at least 1TB with 16 GB RAM
2. N.5.g	One LCD monitor in examination room with ceiling suspension and one in console. Mo nitor inside the Cath lab should be medical grade.
2. N.5.h	Should have algorithm for hemodynamic calculations as well as freezing and superim position ofwaveforms from various chambers.
2. N.5.i	Should have all calculation packages for pressure wave form analysis, valve area; gra dient off-line and on-line.Standard calculation should be available
2. N.5.j	Should provide 4 transducer-connector cables.System should be supplied with 100 re usable pressure transducers
2. N.5.k	Respiration display
2. N.5.l	Integrate ECG with fluoroscopy / cine output in monitor and should be saved in image media/ CD
2. N.5.m	Apart from standard page prints, it should be possible to scroll the selection across p ages and save hemodynamic traces – for short and long strips (preferably up to 30 se conds) into a single image. (Desirable)
2. N.5.n	Extra cables: ECG – three sets of trunk cable (interphase cable), lead wire – 5 sets ext ra, SpO2 probe with cable – 5 sets extra, pressure transducer cables – 4 sets extra
2. N.5.o	Wi-Fi connectivity options (desirable)
2.N.6	**Pressure injector for cardiac angiography**
2.N.6.a	Microprocessor-controlled compact, powerful digital high-pressure injector, suitable fo r procedures in digital subtraction angiography.
2.N.6.b	There should be automatic protection for overflow, over volume and over pressure.

2.N.6. c	Syringe: 150 ml polypropylene disposable It should be supplied with 500 Syringes (syringes to be supplied in staggered fashion as per departmental requirement). Unit price of each 5 0-syringe pack shouldbe quoted in the bid and this will be valid for subsequent 10 ye ars
2.N.6.d	The make and the model shall be clearly indicated
2.N.6.e	It should be pedestal version, smaller footprint, a flexible articulating arm and a smoo th arc design.
2.N.6.f	Clearly visible and intuitive user interface that guides through the proper setup.
2.N.6.g	Should have a syringe front-load system for simple insertion and clean removal
2.N.6.h	Pedestal contrast medium injector can be positioned anywhere at the patient position ing table on a mobile unit
2.N.6.i	For direct operation of all functions in the examination room.
2.N.6.j	There should be a facility to control the flow rate of contrast during injection
2.N.6.k	Pressure limit: selectable, ranging at least from 50 psi to 1200 psi.
2.N.6.l	Flow rate: at least 0.1 ml/sec up to 40 ml/sec.
2.N.6.m	Programmable control: Minimum up to 6 different flow-rate, volumes and/or delays an d transition time for one automatic injection series.
2.N.6.n	Timer synchronization of injection to image acquisition with variable delay.
2.N.6.o	Syringe heater to maintain preheated contrast at body temperature
2.N.6.p	Indicator light to indicate injector ready or in progress.
2.N.6.q	Scale reading indicating amount of contrast in syringe.
2.N.6.r	There should be a colour touch screen in the console room
2.N.6.s	The unit should be synchronized with the application
2.N.6.t	LED display for ensuring proper orientation for viewing of the power head in rotation; i ndicates programmed protocol and volume remaining in the syringe. the information needed must be highlighted
2.N.6.u	Control bar for easy one finger operation, variable speed control of ram for syringe fill ing, pull-back, or infusion

2.N.6.v	Should provide a clear view of the contrast.
2.N.6.w	Air detection and warning system to detect empty syringes and air bolus
2.N.6.x	The pressure sensitive touch screen display
2.N.6.y	Protocol manager to store and recall user defined protocols
2.N.6.z	Single button for switching between angio and CT modes
2.N.7	**ACT MACHINE - 1 NO**
2.N.7.a	System should be microprocessor controlled designed to determine coagulation end points in whole blood, Citrated blood and plasma samples.
2.N.7.b	It should be compact & portable for bed-side testing
2.N.7.c	One Button Operation- Easy to Use
2.N.7.d	LED/LCD based screen for displaying results (fully digital display screen)
2.N.7.e	It should be capable of displaying two reports at one time
2.N.7.f	Measurement range 0-1500 sec.
2.N.7.g	Temparature Range: 37.0.±2 Degree c
2.N.7.h	Environment-15degree-30degree C
2.N.7.i	It should require less than 2ml of blood for each test.
2.N.7.j	It should have inbuilt mechanism to heat the cuvette
2.N.7.k	Dual well testing method
2.N.7.l	Desirable: Rate of Actual Clot Formation (CR, Clot Rate: Thrombin Activity, Low Molecular Weight Heparin Management).
2.N.7.m	It should have a battery backup of 2 hrs
2.N.7.n	Data transfer capability: Printer option available facility to store view multiple patient data
2.N.7.o	Cuvettes for each test to be supplied with machine - 100 nos.
2.N.8	**Standalone Cath lab/ OT examination light** –

2.N.8. a	It should be floor mounted and portable with adequate luminance (over 30,000 lux) a nd cable length (more than 2 meters) to connect to power supply.
2.O	**ADDITIONAL REQUIREMENTS(Other essential Accessories that must be suppl ied as part of machine)**
2.O.1	Ceiling-suspended lamps with shield Two ceiling suspended operation lamps, one on each side of the table with adequate l uminosity forpacemaker procedures.
2.O.2	Two remote control units should be provided with the system for display of images an d otherparameters.One cordless control for doing fluoroscopy and cine should be avai lable in console room
2.O.3	There should be a - (i) Ceiling suspended lead glass (without a lower flexible lead curtain) radiation prote ction system (ii) Table side lead curtain radiation protection system. (iii) There should be a table top radiation protection shield The ceiling suspended glass should have slot for keeping the remote for viewing cine and fluoroscopy runs
2.O.4	One biphasic Defibrillator I. Biphasic defibrillator capable of delivering at least 200 joules with adult and pediatri c modes 11. Should have paddles (adult and pediatric) and patch modes. ... 111. Monitor should display ECG waveforms and a thermal printer iv. Should have an AED mode **V.** Should be rechargeable and able to work in battery mode vi. Should be supplied with ECG cables vii. Should be supplied with a crash cart for storing drugs and IV pole viii.Should have facility for self-test/ check before usage and setup function
2.O.5	Ultrasonic pest repellents- Four units to be provided and installed
2.O.6	Name boards for all rooms 5 numbers
2.O.7	Dustbins (plastic with lid)

2.O.8	Communications • Cabling of Network (LAN) connectivity for all system including con sole system, works tation and computers along with connectivity to nearest point of hospita l should be done. • Vendor will be responsible for all networking and connection with existing network o f hospital. CCTV cameras with 2 GB DVR to be provided with LCD display .
2.O.9	Internet and telephone connectivity and wiring to be provided by the vendor in the co nsole room __
2.P	**Turnkey work**
2.P.1	**Supply, installation and commissioning of CATH LAB consist of following:**
2.P.1.a	Electrical Work
2.P.1.b	HVAC Work inside Cath lab
2.P.1.c	Medical gas line installation
2.P.1.d	Wall
2.P.1.e	Ceiling System
2.P.1.f	Flooring inside cath lab
2.P.1.g	High Quality Doors
2.P.1.h	Peripheral lighting
2.P.1.i	Pendants
2.P.1.j	Console Glass
2.P.2	All products should be designed and manufactured according to ISO 9001:2000 stand ards.
2.P.1.a	**Electrical Work**
2.P.1.a.1	Power distribution within the Cath lab should be "provided' from distribution boards lo cated near the Cath lab. The bidder shall provide the necessary documents to the ge neral contractor in the required format to obtain statutory approvals. There will be se parate distribution boards for raw power, UPS power and isolated supply. All electrical works inside the Cath lab shall be in the scope of the Cath lab bidder and shall confir m to the Kerala State Electrical Inspectorate guidelines.
2.P.1.a.2	Earthed equipment bonding of all exposed metalwork should be provided

2.P.1.a.3	Sufficient power sockets required within the Cathlab and ancillary areasshall be provided by the bidder as required and should be matched to the rest of the hospital.
2.P.1.a.4	Light fittings within Cathlab and ancillary areas should be recessed LED type with control gear and is in the scope of the bidder.
2.P.1.a.5	Fittings should be sealed in accordance with the standard IP54.
2.P.1.a.6	All equipment should be fully and permanently labeled to identify and describe the function, operation and voltage of the apparatus concerned. Throughout and upon completion of the electrical installation, tests in accordance with relevant sections of the local wiring regulations should be carried out and the results recorded.
2.P.1.a.7	Cathlab has8 circuits with an average length of 50 meters. 3 nos of earthing with 70s. mm cable connectivity will be provided. All internal cabling should be the scope of the qualifying vendor. Any additional dedicated earthing is required should be the scope of the qualifying vendor and the same should be quoted separately in the BOQ. Earthing should be as per local authority standards.
2.P.1.a.8	All items should be BIS certified.
2.P.1.b	**HVAC Work inside Cath lab**
2.P.1.b.1	The cathlab vender should provide HVAC ducting from the available 7TR 3400CFM (for examination room) floor mounted AHU to the terminal unit (diffusers/ grilles). Ducting and all terminal unit design should be in the scope of the vendor. Cath lab vendor should coordinate with the AHU supplier.
2.P.1.b.2	Supply and return air Ducting, Return Air Dampers including insulation, supports, hangers, diffusers, grilles etc. inside the Cath lab to be provided by the vendor. Relevant Healthcare related ASHRAE standards for HVAC works to be followed. Ducting works to meet relevant SMACNA standards
2.P.1.c	**Medical Gas Line Installation**
2.P.1.c.1	Coordinate with Medical Gas Vendor for installation of Pendants
2.P.1.d	**Wall**
2.P.1.d.1	Polished glazed Vitrified Tiles (PGVT) of size 600x600mm in the Cath lab room, console room and equipment room, Cath wash,etc up to false ceiling height . Outer walls of angio room should be constructed with 9" thick brick work .
2.P.1.d.2	**Lead Protection**
2.P.1.d.2.1	It should meet AERB requirements. Lead protection on all doors to the examination room glazing - Pb 2 mm in radiation areas wherever required.
2.P.1.e	**Ceiling System: Examination room**

2.P.1.e.1	The use of nanotechnology should provide 24-hour protection against bacteria, fungi and mold, including against Staphylococcus aureus resistant to methicillin, Salmonella, Pseudomonas and Legionella colon.
2.P.1.e.2	Ceiling tiles should have a standard module sized with minimum 600 x 600 mm.
2.P.1.e.3	Installation Ceiling should create a tight space.
2.P.1.e.4	The ceiling plates /cassettes should be made up of Stainless steel sheets, 0.8 mm thick and powder coated by any of RAL color with the addition of silver ions, which are embedded in the cover of panels during their production
2.P.1.e.5	**The ceiling suspension should be as follows.**
2.P.1.e.5.1	Support elements: Suspension bracket with tension spring
2.P. 1.e.5.2	Suspension Height: Continuously adjustable from 250 to 1100 mm
2.P. 1.e.5.3	Stability: Permanent and non-stop after adjustment.
2.P. 1.e.5.4	Material: High quality galvanized or powder coated steel
2.P. 1.e.5.5	Room lighting, air supply inlet, ceiling service units; return air outlets, etc as should be integrated with SS metal ceiling system.
2.P. 1.e.5.6	The individual panels except those at the edges should be removable individually.
2.P.1.f.	**Flooring inside Cath lab**
2.P.1.f.1	Necessary modifications needed for the satisfactory installation on the existing Polished glazed Vitrified Tiles (PGVT) of the Cath lab room, console room , etc.
2.P.1.g	**High Quality Doors-**
2.P.1.g.1	**Doors hinged, double and single-wing:**
2.P.1.g.1.1	Doors should be manufactured of high quality flush door.
2. P. 1.g.1.2	Wooden door: shutters 10cm width and 2.1m height with 32mm ply wood & laminated (1mm) both sides fixed with wooden frame
2. P. 1.g.1.3	Doors should be able to be equipped with door viewers, windows used for room observation.
2. P. 1.g.1.4	Floor: either side of the door should be perfectly level (maximum permissible difference +1mm).
2. P. 1.g.1.5	The colour and design of the doors should match with the other doors in the same corridor.

2. P. 1.g.1.6	2mm Lead lined doors: Solid cored(30mm) Lead(2mm) lined flush door side hung two rebated shutters with plywood(6mm) & laminated (1mm) on both sides and all accessories (SS hinges (4 no's), tower bolt , SS handles etc..). 2.1 (H) X 1.8m (W) with square or round Pb protected viewer.
2. P. 1.g.1.7	2mm Lead lined door frames: Lead(2mm) lined flush door side hung single shutter with plywood(6mm) & laminated (1mm) on both sides and all accessories (Lead sheet should overlap door frame & wall)
2. P. 1.g.1.8	Floor: either side of the door should be perfectly level (maximum permissible difference +1mm).
2. P. 1.g.1.9	X ray protection as per AERB regulation (Lead equivalent at 100kV is 0.27mm)
2.P.1.h	**Peripheral Lighting System**
2. P.1.h.1	Minimum required IP protection is 65 and intensity of lighting in Cath lab should be min. 1000 lux.
2. P. 1.h.1	The index of color tone shades should be better than Ra=90.
2. P. 1.h.2	Peripheral lights and clean room luminaries fitted in the CG frame should be 8 in numbers for each Cathlab. High quality recessed luminaries should be with at least 4Nos of 32W LED lamps (T5 or equivalent).
2. P. 1.h.3	Framed luminaries cover should be made of bacterial resistant, non-fading, disinfectant resistant laminated clear safety glass, laser-able and semi specular. The reflectors should be so designed as to limit glare.
2. P. 1.h.4	The driver should be accessed by removing the front panel below ceiling for maintenance.
2. P. 1.h.5	Color of visible parts of lighting fitting must be in accordance with color of ceiling cassettes.
2.P.1.i	**Pendants**
2.P.1.i.1	Coordinate with the Medical gas vendor to install the Pendants.
2.P.1.j	**Console Glass**
2.P.1.j.1	It should meet AERB requirements. Lead protection on the console glass -Pb 2 mm in radiation areas wherever required.
2.P.1.j.2	Lead glass at least 100 x 150 cm for console room to have complete view of the patient.
2. P.1.j.3	Wood frame for fixing Lead Glass (Lead sheet should overlap door frame & wall).
2.Q	**General Terms &Condition:**

2.Q.1	All products should be designed and manufactured according to ISO 9001:2000 standards. Ceiling panels, interior doors and windows should be designed for operating theatres, treatment rooms as well as rooms in which high sanitary and hygienic standards are required.
2.Q.2	The quoted Single plane cath lab and all other accessory equipment requested should have a valid Indian quality certification. If there is no Indian quality certification is available for an item then it should have US FDA / European CE with 4 digit certified Marking according to Directive 93 / 42 / EEC. For US FDA certified, Self-declaration of conformity documents with other related certificates e.g. Notified Body certificates shall be uploaded. Additional documents to verify the claims may be asked for.The Cath Lab should meet or exceed all AERB mandated radiation safety guidelines.
2.Q.3	Bidder should clearly mention country of origin of each and every product quoted.
2.Q.4	Obtaining statutory approval from Kerala State Electrical Inspectorate (KSEI) is the responsibility of the bidder. Soon after releasing of PO, the bidder must associate with an electrical contractor and prepare the drawings for initial scheme approval after collecting the required documents from the institute and submit the documents in KSEI. Work can be started after obtaining initial approval. After completion of electrical work, the bidder must prepare the completion report and submit the same to KSEI. The bidder shall follow up regularly with KSEI throughout the approval process and submit any additional documents and clarifications as required by KSEI. The bidder shall be absolved of any delay solely attributable to SCTIMST provided; the bidder submits the required documents to KSEI in time as mentioned above.
2.Q.5	Necessary AERB inspection and certification as per the radiation guideline should be obtained by the bidder.
2.R	Bidders should also meet the following parameters with regard to DICOM/HL7/IHE Requirements
2.R.1	The modality must be DICOM (Digital Imaging in Communications and Medicine) compliant, provide at a minimum Level 2 conformance, and be able to function with other DICOM compliant modalities and systems within SCTIMST.
2.R.2	The intent is to provide maximum automation for the institution utilizing DICOM standards. This includes specifically the institutions PACS (Picture Archiving and Communications System), and any other DICOM equipment specified in the bid.
2.R.3	Functionality at a minimum includes DICOM Storage Service Class User (SCU) and DICOM Verification Service Class User and Provider (SCU and SCP) capability. These classes should be current and appropriate for the modality, and if requirements specify connection to an older system, should include any potential ‘retired’ SOP (Service Object Pairs) the older modality may require. If the modality does not yet have the capabilities below, they must be installed at no additional charge within one year from purchase. These items must be clearly stated in the bid submissions, along with projected time frames for implementation.

2.R.4	The modality must be able to perform DICOM Modality Work List Information Model Find functions so that patient orders can be selected from a worklist provided by PACS/RIS (Radiology Information System), rather than requiring manual entry by the technologist. The worklists will be provided MWL License pack.
2.R.5	The modality must be able to perform DICOM Modality Performed Procedure Step functions, so that exam progress status can be automatically sent back to PACS/RIS, and DICOM Storage Commitment
2.R.6	The modality must be able to perform DICOM Query/Retrieve functions as a Service Class User for all appropriate image sets to allow for retrieval of prior studies for comparison at the modality
2.R.7	The modality must be able to perform DICOM Print as a Service Class User for all appropriate image sets, and must work with SCTIMST DICOM Print servers
2.R.8	SCTIMST currently has GE's PACS (Centricity 6.0 Sp 10) and RIS system (Centricity RIS 6.0 Sp 10.3), It is the vendor's responsibility to ensure that images can be stored, retrieved and properly displayed from PACS, and that all requested DICOM/HL7/IHE functions work with the appropriate SCTIMST systems. This includes any additional licenses, fees and service required to connect the modality and to provide the functionality. MPPS SOP class must be implemented by the vendor. If this connection does not work due to the vendor's product not properly implementing the DICOM standard, it must be fixed. It is the intention of this bidder to ensure a complete installation, and that there will not be any 'gaps' left to SCTIMST to pay for outside of the bid to make the systems work as intended.
2.R.9	Once the modality is installed, the vendor will work with SCTIMST to provide validation testing before production use to ensure proper exchange of intended information.
2.R.10	The vendor must be a participant in the IHE (Integrating the Healthcare Enterprise) initiative. A current IHE Integration Statement must be provided prior to the bid. It is SCTIMST intent to utilize IHE principles to support the integration of systems in the healthcare enterprise. The vendor must be working in the same direction in order to be considered for this bid. There are currently a number of Integration Profile specifications, with varied degree of support from Vendors. Ultimately, all Integration Profiles should be a standard part of a Vendors offer. The specific profiles are listed below, and are required if applicable to the system being bid. If the Vendor does not currently support applicable profiles, they must be made available upon Vendor implementation at no extra charge to SCTIMST. The vendor must provide User Authentication/Access Control at the device, as well as node authentication and exportable audit logs in the IHE Audit Trail and Node Authentication (ATNA) format. There must be an ability to synchronize the clock on the device with a central clock specified by SCTIMST.
2.R.11	The following features should be available with the system provided
2.R.11.a	Patient Information Reconciliation (PIR)
2.R.11.b	Scheduled Workflow (SWF)
2.R.11.c	Presentation of Grouped Procedures (PGP)
2.R.11.d	Post Processing Workflow (PWF)
2.R.11.e	Reporting Workflow (RPW)

2.R.11.f	Charge Posting (CP)
2.R.11.g	Consistent Presentation of Images (CPI)
2.R.11.h	Evidence Documents (ED)
2.R.11.i	Key Image Notes (KIN)
2.R.11.j	Simple Image and Numeric Reports (SINR)
2.R.11.k	Access to Radiology Information (ARI)
2.R.11.l	Portable Data for Imaging (PDI)
2.R.11.m	Import Reconciliation Workflow (IRWF)
2.R.11.n	Audit Trail and Node Authentication (ATNA)
2.R.11.o	Nuclear Medicine Image (NMI)
2.R.11.p	Mammography Image (MMI)
2.R.11.q	Image Fusion (IF)
2.R.11.r	Teaching File and Clinical Trial Export (TCT)
2.R.11.s	Cross Enterprise Document Sharing for Imaging
2.R.12	If the modality provides storage to removable devices (DVD or MOD), this storage must comply with the DICOM Part 10 Media Interchange standards and the IHE Portable Data for Imaging (PDI) profile. To insure compliance with SCTIMST HIPAA policy, the storage mechanism must at least have the option to remove Identifiable Healthcare Information from the image sets that will be transferred via this mechanism, and all creation functions must be logged according to the IHE ATNA profile.
2.R.13	**Software Patches**
2.R.13.a	The vendor must provide critical (security or operational) patches on a timely basis, including the process of FDA approval. If the system is affected by an attack on an unpatched (one that has a patch available for it but has not been installed pending approval by the vendor) security hole, it is the vendors responsibility to bring the system back to a functional state within the emergency response time specified under service.
2.R.14	**Network requirements**

2.R.14.a	Network connections should be located within 15 feet of the console. The bid system should support 1000mbps (1000BaseT) network speeds. 1000mbps network speed is preferred, particularly for modalities that create large data sets, such as multi-slice CT. The SCTIMST PACS network shall be segmented from the rest of the hospital network, and utilize category 6a cables for all installations. Network jacks must be 8 pin modular (RJ45). The system should be connected to the network via patch cord connection to the facility infrastructure. SCTIMST will provide AE Titles, IP address, default router IP address, and subnet mask for each system installed.
2.R.15	**Hardware and Operating System requirements**
2.R.15.a	All computer hardware and operating systems must be current versions. For Windows at this time that would be Windows 10/11 Professional or Server editions 2019 or above. If a vendor is currently utilizing an older operating system, the system must be upgraded within a year to the current version of the operating system.
2.R.15.b	Current models (within last 6 months) should be quoted. Latest model meeting the tender specification should be quoted. Document to support the same should be submitted along with quotation.
2.R.15.c	If the specification document refers to technical terms/features which may reflect the product line of a particular manufacturer, the equivalent proven technology/feature can be quoted. If this document does not elaborate on a particular specification, state of art industry standards will be applicable. For all clarifications, refer to state of art industry standards.

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11. **Buyer Added Bid Specific ATC**

    Buyer uploaded ATC document Click here to view the file.

12. **Forms of EMD and PBG**

    Successful Bidder can submit the Performance Security in the form of Account Payee Demand Draft also (besides PBG which is allowed as per GeM GTC). DD should be made in favour of

    Director, SCTIMST
    payable at
    Trivandrum
    . After award of contract, Successful Bidder can upload scanned copy of the DD in place of PBG and has to ensure delivery of hard copy to the original DD to the Buyer within 15 days of award of contract.

13. **Forms of EMD and PBG**

    Successful Bidder can submit the Performance Security in the form of Fixed Deposit Receipt also (besides PBG which is allowed as per GeM GTC). FDR should be made out or pledged in the name of

    Director, SCTIMST Trivandrum
    A/C (Name of the Seller). The bank should certify on it that the deposit can be withdrawn only on the demand or with the sanction of the pledgee. For release of Security Deposit, the FDR will be released in favour of bidder by the Buyer after making endorsement on the back of the FDR duly signed and stamped along with covering letter. Successful Bidder has to upload scanned copy of the FDR document in place of PBG and has to ensure delivery of hard copy of Original FDR to the Buyer within 15 days of award of contract.

14. **Generic**

Without prejudice to Buyer's right to price adjustment by way of discount or any other right or remedy available to Buyer, Buyer may terminate the Contract or any part thereof by a written notice to the Seller, if:
i) The Seller fails to comply with any material term of the Contract.
ii) The Seller informs Buyer of its inability to deliver the Material(s) or any part thereof within the stipulated Delivery Period or such inability otherwise becomes apparent.
iii) The Seller fails to deliver the Material(s) or any part thereof within the stipulated Delivery Period and/or to replace/rectify any rejected or defective Material(s) promptly.
iv) The Seller becomes bankrupt or goes into liquidation.
v) The Seller makes a general assignment for the benefit of creditors.
vi) A receiver is appointed for any substantial property owned by the Seller.
vii) The Seller has misrepresented to Buyer, acting on which misrepresentation Buyer has placed the Purchase Order on the Seller.

15. **Generic**

1. The Seller shall not assign the Contract in whole or part without obtaining the prior written consent of buyer.
2. The Seller shall not sub-contract the Contract in whole or part to any entity without obtaining the prior written consent of buyer.
3. The Seller shall, notwithstanding the consent and assignment/sub-contract, remain jointly and severally liable and responsible to buyer together with the assignee/ sub-contractor, for and in respect of the due performance of the Contract and the Sellers obligations there under.

अस्वीकरण/Disclaimer

The additional terms and conditions have been incorporated by the Buyer after approval of the Competent Authority in Buyer Organization, whereby Buyer organization is solely responsible for the impact of these clauses on the bidding process, its outcome, and consequences thereof including any eccentricity / restriction arising in the bidding process due to these ATCs and due to modification of technical specifications and / or terms and conditions governing the bid. If any clause(s) is / are incorporated by the Buyer regarding following, the bid and resultant contracts shall be treated as null and void and such bids may be cancelled by GeM at any stage of bidding process without any notice:-

1. Definition of Class I and Class II suppliers in the bid not in line with the extant Order / Office Memorandum issued by DPIIT in this regard.
2. Seeking EMD submission from bidder(s), including via Additional Terms & Conditions, in contravention to exemption provided to such sellers under GeM GTC.
3. Publishing Custom / BOQ bids for items for which regular GeM categories are available without any Category item bunched with it.
4. Creating BoQ bid for single item.
5. Mentioning specific Brand or Make or Model or Manufacturer or Dealer name.
6. Mandating submission of documents in physical form as a pre-requisite to qualify bidders.
7. Floating / creation of work contracts as Custom Bids in Services.
8. Seeking sample with bid or approval of samples during bid evaluation process. (However, in bids for attached categories, trials are allowed as per approved procurement policy of the buyer nodal Ministries)
9. Mandating foreign / international certifications even in case of existence of Indian Standards without specifying equivalent Indian Certification / standards.
10. Seeking experience from specific organization / department / institute only or from foreign / export experience.
11. Creating bid for items from irrelevant categories.
12. Incorporating any clause against the MSME policy and Preference to Make in India Policy.
13. Reference of conditions published on any external site or reference to external documents/clauses.
14. Asking for any Tender fee / Bid Participation fee / Auction fee in case of Bids / Forward Auction, as the case may be.
15. Buyer added ATC Clauses which are in contravention of clauses defined by buyer in system generated bid template as indicated above in the Bid Details section, EMD Detail, ePBG Detail and MII and MSE Purchase

Preference sections of the bid, unless otherwise allowed by GeM GTC.

16. In a category based bid, adding additional items, through buyer added additional scope of work/ additional terms and conditions/or any other document. If buyer needs more items along with the main item, the same must be added through bunching category based items or by bunching custom catalogs or bunching a BoQ with the main category based item, the same must not be done through ATC or Scope of Work.

Further, if any seller has any objection/grievance against these additional clauses or otherwise on any aspect of this bid, they can raise their representation against the same by using the Representation window provided in the bid details field in Seller dashboard after logging in as a seller within 4 days of bid publication on GeM. Buyer is duty bound to reply to all such representations and would not be allowed to open bids if he fails to reply to such representations.

Additional Clause For Comprehensive Maintenance Charges

1.CMC shall include preventive maintenance including calibration as per technical/ service /operational manual of the manufacturer, service charges and spares, after satisfactory completion of Warranty. During the CMC period commencing from date of the successful completion of warranty period, Service personnel shall visit each consignee site as recommended in the manufacturer's technical/ service /operational manual, at least once in six months or as per user requirement. Cost of consumables shall not be included in CMC.Further there will be 98% uptime warranty during CMC period on 24 (hrs) X 7 (days) X 365 (days) basis, with penalty, to extend CMC period by double the downtime period.
2.CMC charges to be indicated as percentage of cost of equipment quoted for each year after the warranty period.
3.GST shall be included in the CMC Charges quoted.
4.Cost of CMC will be added for Ranking/Evaluation purpose with depreciation formula.A 10% discounting rate per year shall be applied on CMC Charges for price evaluation on Net Present Value.
5.The payment of CMC will be made on quarterly basis after satisfactory completion of said period, duly certified by end user.
6.While creating a bid or RA, buyers shall indicate whether CMC is required against Yes/No" options. If CMC Charges are included, an option for number of years for CMC required after the warranty period shall be available.Under this option up to 10 years can be chosen for CMC charges beyond warranty period.
7.In case the bid has a provision for CMC, the warranty of the product will also be deemed to have been converted into Comprehensive warranty including preventive maintenance and calibration as per technical/ service /operational manual of the manufacturer, service charges and spares, during the Warranty Period also. Sellers are therefore advised to include the cost of Comprehensive Warranty including spares (excluding consumables) also in product Cost.
8.The CMC functionality shall be available in bid only and no direct RA shall be applicable.In case of bid to R/A decrement rules shall be applicable on total price inclusive of CMC charges. Bunching of products shall not be available while creating bids with CMC charges.

8.1.Buyer shall indicate number of years of warranty by selecting different options available in the field depending on warranty parameter applicable in category parameters for the equipment. No. of years of warranty indicated here shall supersede the warranty period indicated elsewhere in bid or product specifications. The Seller while participating in Bid/RA will get fields to indicate CMC charges as percentage depending on number of years of CMC selected by Buyer. The following shall be applicable, if 5 year CMC selected:

CMC charges for 1st year after warranty period– Percentage to be indicated- A1
CMC charges for 2nd year after warranty period– Percentage to be indicated- A2
CMC charges for 3rd year after warranty period – Percentage to be indicated- A3
CMC charges for 4th year after warranty period – Percentage to be indicated- A4
CMC charges for 5th year after warranty period – Percentage to be indicated- A5

Similarly, A6 to A10 are to be indicated for 6th to 10th year of CMC if applicable.
8.2.The calculation of CMC Charges shall take into account the number of years of warranty and duration of CMC as specified while creating bid.
8.3.In the price evaluation, the system shall provide function to calculate the cost of each equipment by formula indicated below includingCMC and then show the inter-se-ranking of the bidders. The following are the variables

(i) Number of years for which CMC required.
(ii) Number of years of product warranty

The formula for calculating total cost including CMC charges shall be as under:
Total Cost for evaluation=

C+C*{(A1/100)/(1.10^n)+(A2/100)/(1.10^n+1)+(A3/100)/(1.10^n+2)+(A4/100)/(1.10^n+3)+(A5/100)/(1.10^n+4)} and so on
C – Cost for equipment quoted and n shall be number of years of product warranty specified.
If 2 year warranty specified, n shall be2 and if 5 year warranty specified, n shall be 5. A1,A2, A3, A4& A5shall depend on how many years CMC selected. For3 yearCMC, only A1,A2 and A3 factors are to be taken into account and A4 and A5 will not be applicable.
8.4.CMC charges offered for each subsequent year should be same or higher than preceding year.
8.5.The CMC charges shall be offered within range of 3 to 10% of cost of equipment.

9.Since CMC charges are to be paid only later for each year during CMC period,applicable performance guarantee amount after placement of contract shall be based on the cost of equipment excluding the cost of CMC Charges.
10.Performance bank guarantee applicable for CMC is to be submitted at start of the CMC and shall be applicable between 2.5% to 10% as specified in bid on total CMC Charges.The PBG submitted after award of contract shall be released only after new PBG for the CMC period is submitted and accepted by buyer/consignee after due verification.Bank guarantee for CMC is to remain valid till completion of CMC period plus one year. The bank guarantee for CMC shall be submitted to buyer directly. In case, seller fails to submit the PBG or does not provide services for the CMC contract after expiry of warranty period then PBG of equipment shall be forfeited.
11.In case of splitting of order quantity, equipment cost and CMC charges offered by L1 bidder shall be matched by higher quoting eligible bidders on one-to-one basis.The equipment cost and CMC charges (year to year) shall be matched individually.
12.The CMC Contract shall be an offline contract to be handled by buyer.The payment of CMC will be made on quarterly basis after satisfactory completion of said period, duly certified by end user and scope of CMC will be as per para 1 above.
13.CMC Charges are inclusive of all the charges for Transportation, Lodging, Boarding, all insurances including third party insurance and all other incidental charges. The same shall include GST. The prices also include cost of spares and damaged parts. Purchaser does not have any liability, whatsoever, over and above the cost of CMC. It also includes for arranging hand tools & tackles, special tools etc. required to carry out the work.

All GeM Sellers / Service Providers are mandated to ensure compliance with all the applicable laws / acts / rules including but not limited to all Labour Laws such as The Minimum Wages Act, 1948, The Payment of Wages Act, 1936, The Payment of Bonus Act, 1965, The Equal Remuneration Act, 1976, The Payment of Gratuity Act, 1972 etc. Any non-compliance will be treated as breach of contract and Buyer may take suitable actions as per GeM Contract.

यह बिड सामान्य शर्तों के अंतर्गत भी शासित है /This Bid is also governed by the General Terms and Conditions

जेम की सामान्य शर्तों के खंड 26 के संदर्भ में भारत के साथ भूमि सीमा साझा करने वाले देश के बिडर से खरीद पर प्रतिबंध के संबंध में भारत के साथ भूमि सीमा साझा करने वाले देश का कोई भी बिडर इस निविदा में बिड देने के लिए तभी पात्र होगा जब वह बिड देने वाला सक्षम प्राधिकारी के पास पंजीकृत हो।बिड में भाग लेते समय बिडर को इसका अनुपालन करना होगा और कोई भी गलत घोषणा किए जाने व इसका अनुपालन न करने पर अनुबंध को तत्काल समाप्त करने और कानून के अनुसार आगे की कानूनी कार्रवाई का आधार होगा।/In terms of GeM GTC clause 26 regarding Restrictions on procurement from a bidder of a country which shares a land border with India, any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority. While participating in bid, Bidder has to undertake compliance of this and any false declaration and non-compliance of this would be a ground for immediate termination of the contract and further legal action in accordance with the laws.

---धन्यवाद/Thank You---