BIDDING DOCUMENT

Procurement of Goods

Single-Stage: Two-Envelope Bidding Procedure

ASTHA/MMCH/GD/03/01
Procurement of Medical Equipment for MMCH–Package 1

- **Lot 1 - MRI 3 Tesla**
- **Lot 2 - BIPLANE DSA System with Large Flat Panel Detector with inbuilt Angiography and Intervention and Stereotactic Radiotherapy**
- **Lot 3 - 256-Slice Dual Energy Spectral High End CT Scanner Technical Specification**
- **Lot 4 - 64 Slice CT Scan Machine**

Issued on: 10-03-2026

Invitation for Bids No.: DME/51/2025

OCB No.: ASTHA/MMCH/GD/03/01

Purchaser: Directorate of Medical Education (DME), Government of Assam

Country: India

Preface

This Bidding Document for Procurement of Goods has been prepared by *O/o Directorate of Medical Education (DME) Government of Assam,* and is based on the Standard Bidding Document for the Procurement of Goods issued by the Asian Development Bank, dated December *2021*.

This document reflects the structure and the provisions of the Master Procurement Document for the Procurement of Goods, except where specific considerations within the Asian Development Bank have required a change.

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Invitation for Bids

Date: 10-03-2026
Loan/Grant No. and Title: Loan 4697-IND: Assam State Tertiary Health Care Augmentation Project (ASTHA)
Contract No. and Title: ASTHA/MMCH/GD/03/01: Procurement of Medical Equipment for MMCH–Package 1
Deadline for Submission of Bids: 27-04-2026, 2.00 pm

1. The Government of Assam has applied financing from the Asian Development Bank (ADB) toward the cost of Assam State Tertiary Health Care Augmentation (ASTHA) Project, and it intends to apply part of the proceeds of this financing to payments under the contract named above. Bidding is open to Bidders from eligible source countries of ADB.

2. The Directorate of Medical Education on behalf of Assam Health Infrastructure Development and management Society ("the Purchaser") invites sealed bids from eligible Bidders for **Procurement of Medical Equipment for MMCH–Package 1**
   - **Lot 1 - MRI 3 Tesla**
   - **Lot 2 - BIPLANE DSA System with Large Flat Panel Detector with inbuilt Angiography and Intervention and Stereotactic Radiotherapy**
   - **Lot 3 - 256-Slice Dual Energy Spectral High End CT Scanner Technical Specification**
   - **Lot 4 - 64 Slice CT Scan Machine**

3. Open competitive bidding will be conducted in accordance with ADB's Single-Stage: Two-Envelope Bidding procedure and is open to all Bidders from eligible countries as described in the Bidding Document.

4. Only eligible Bidders with the following key qualifications defined in the Bidding Document may participate in this bidding:

   i) Successfully completed as a main supplier within the last Three (3) years, of at least Two (2) contracts each valued at
      Lot 1: INR 14.50 Crore
      Lot 2: INR 10.50 Crore
      Lot 3: INR 9.50 Crore
      Lot 4: INR 4.50 Crore with nature, and complexity similar to the scope of supply described in Section 6 (Schedule of Supply)

   ii) Minimum average annual turnover of
      Lot 1: INR 36 Cr
      Lot 2: INR 26 Cr
      Lot 3: INR 24 Cr
      Lot 4: INR 11 Cr

   calculated as total payments received by the Bidder for contracts completed or under execution over the last three (3) years.

   Other details of key qualifications are at Bidding document

5. To obtain further information and inspect the Bidding Documents, Bidders should contact:
   O/O The Directorate of Medical Education, Sixmile, Khanapara, Guwahati-22, Assam,
   Email: dmeassam@gmail.com

6. To download the Bidding Documents in English, eligible Bidders should visit https://assamtenders.gov.in/nicgep/app

7. Submit online bids through Government e-tender portal **https://assamtenders.gov.in/** on or before the deadline **27th April 2026, 2.00 pm** together with a Bid Security as described in the Bidding Document.

8. Bids will be opened online on **27th April 2026 at 4.00 pm** in the presence of Bidders' representatives who choose to attend.

Section 1: Instructions to Bidders

Table of Clauses

A. General

1. Scope of Bid

1.1 In connection with the Invitation for Bids (IFB) indicated in the Bid Data Sheet (BDS), the Purchaser, as indicated in the BDS, issues this Bidding Document for the supply of Goods and Related Services incidental thereto as specified in Section 6(Schedule of Supply). The name, identification, and number of lots of the open competitive bidding (OCB) are provided in the BDS.

1.2 Throughout this Bidding Document,

(a) the term "in writing" means communicated in written form and delivered against receipt;

(b) except where the context requires otherwise, words indicating the singular also include the plural and words indicating the plural also include the singular; and

(c) "day" means calendar day.

2. Source of Funds

2.1 The Borrower or Recipient (hereinafter called "Borrower") indicated in the BDS has applied for or received financing (hereinafter called "funds") from the Asian Development Bank (hereinafter called "ADB") toward the cost of the project named in the BDS. The Borrower intends to apply a portion of the funds to eligible payments under the contract(s) for which this Bidding Document is issued.

2.2 Payments by ADB will be made only at the request of the Borrower and upon approval by ADB in accordance with the terms and conditions of the Financing Agreement between the Borrower and ADB (hereinafter called the Financing Agreement), and will be subject in all respects to the terms and conditions of that Financing Agreement. No party other than the Borrower shall derive any rights from the Financing Agreement or have any claim to the funds.

3. Fraud and Corruption

3.1 ADB requires Borrowers (including beneficiaries of ADB-financed activity) and their personnel, as well as firms and individuals participating in an ADB-financed activity, including but not limited to, Bidders, Suppliers, and Contractors, agents, subcontractors, subconsultants, service providers, subsuppliers, manufacturers (including their respective officers, directors, employees and personnel) under ADB-financed contracts to observe the highest standard of ethics during the procurement and execution of such contracts in accordance with ADB's Anticorruption Policy (1998, as amended from time to time). In pursuance of this policy, ADB

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

(i) "corrupt practice" means the offering, giving, receiving, or soliciting, directly or indirectly, anything of value to influence improperly the actions of another party;

(ii) "fraudulent practice" means any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;

(iii) "coercive practice" means impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;

(iv) "collusive practice" means an arrangement between two or more parties designed to achieve an improper purpose, including influencing improperly the actions of another party;

(v) "abuse" means theft, waste, or improper use of assets related to ADB-related activity, either committed intentionally or through reckless disregard;

(vi) "conflict of interest" means any situation in which a party has interests that could improperly influence that party's performance of official duties or responsibilities, contractual obligations, or compliance with applicable laws and regulations; and

(vii) "integrity violation" is any act, as defined under ADB's Integrity Principles and Guidelines (2015, as amended from time to time), which violates ADB's Anticorruption Policy, including (i) to (vi) above and the following: obstructive practice, violations of ADB sanctions, retaliation against whistleblowers or witnesses, and other violations of ADB's Anticorruption Policy, including failure to adhere to the highest ethical standard.

(b) will reject a proposal for award if it determines that the Bidder recommended for award or any of its officers, directors, employees, personnel, subconsultants, subcontractors, service providers, suppliers or manufacturers has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations in competing for the Contract;

(c) will cancel the portion of the financing allocated to a contract if it determines at any time that representatives of the Borrower or of a beneficiary of ADB-financing engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations during the procurement or the execution of that contract, without the Borrower having taken timely and appropriate action satisfactory to ADB to remedy the situation, including by failing to inform ADB in a timely manner at the time they knew of the integrity violations;

(d) will impose remedial actions on a firm or an individual, at any time, in accordance with ADB's Anticorruption Policy and Integrity Principles and Guidelines, including declaring ineligible, either indefinitely or for a stated period of time, to participate[1] in ADB-financed,-administered, or -supported activities or to benefit from an ADB-financed,-administered, or -supported contract, financially or otherwise, if it at any time determines that the firm or individual has, directly or through an agent, engaged in corrupt,

[1] Whether as a Contractor, Subcontractor, Consultant, Manufacturer or Supplier, or Service Provider; or in any other capacity (different names are used depending on the particular Bidding Document).

fraudulent, collusive, coercive,or obstructive practices or other integrity violations; and

(e) will have the right to require that a provision be included in bidding documents and in contracts financed, administered, or supported by ADB, requiring Bidders, suppliers and contractors, consultants, manufacturers, service providers and other third parties engaged or involved in ADB-related activities, and their respective officers, directors, employees and personnel, to permit ADB or its representative to inspect the site and their assets, accounts and records and other documents relating to the bid submission and contract performance and to have them audited by auditors appointed by ADB.

3.2 All Bidders, consultants, contractors, suppliers, manufacturers, service providers, and other third parties engaged or involved in ADB-related activities, and their respective officers, directors, employees and personnel, are obliged to cooperate fully in any investigation when requested by ADB to do so. As determined on a case by case basis by ADB, such cooperation includes, but is not limited to, the following:

(a) being available to be interviewed and replying fully and truthfully to all questions asked;

(b) providing ADB with any items requested that are within the party's control including, but not limited to, documents and other physical objects;

(c) upon written request by ADB, authorizing other related entities to release directly to ADB such information that is specifically and materially related, directly or indirectly, to the said entities or issues which are the subject of the investigation;

(d) cooperating with all reasonable requests to search or physically inspect their person and/or work areas, including files, electronic databases, and personal property used on ADB activities, or that utilizes ADB's Information and Communication Technology (ICT) resources or systems (including mobile phones, personal electronic devices, and electronic storage devices such as external disk drives);

(e) cooperating in any testing requested by ADB, including but not limited to, fingerprint identification, handwriting analysis, and physical examination and analysis; and

(f) preserving and protecting confidentiality of all information discussed with, and as required by, ADB

3.3 All Bidders, consultants, contractors and suppliers shall require their officers, directors, employees, personnel, agents to ensure that, in its contracts with its subconsultants, Subcontractors and other third parties engaged or involved in ADB-related activities, such subconsultants, Subcontractors and other third parties similarly are obliged to cooperate fully in any investigation when requested by ADB to do so.

3.4 The Purchaser hereby puts the Bidder on notice that the Bidder or any Joint Venture partner of the Bidder (if any) may not be able to receive

any payments under the Contract if the Bidder or any of its Joint Venture partners, as appropriate, is, or is owned (in whole or in part) by a person or entity subject to applicable sanctions.

3.5 Furthermore, Bidders shall be aware of the provision stated in Subclause 3.2 and Subclause 35.1 (a)(iii) of the General Conditions of Contract.

4. Eligible Bidders

4.1 A Bidder may be a natural person, private entity, or government-owned enterprises ubject to ITB 4.5-or any combination of them with a formal intent to enter into an agreement or under an existing agreement in the form of a Joint Venture. In the case of a Joint Venture,

(a) all parties to the Joint Venture shall be jointly and severally liable; and

(b) the Joint Venture shall nominate a representative who shall have the authority to conduct all businesses for and on behalf of any and all the parties of the Joint Venture during the bidding process and, in the event the Joint Venture is awarded the Contract, during contract execution.

4.2 A Bidder, and all parties constituting the Bidder, shall have the nationality of an eligible country, in accordance with Section 5(Eligible Countries). A Bidder shall be deemed to have the nationality of a country if the Bidder is a citizen or is constituted, incorporated, or registered, and operates in conformity with the provisions of the laws of that country. This criterion shall also apply to the determination of the nationality of proposed subcontractors or suppliers for any part of the Contract, including related services.

4.3 A Bidder shall not have a conflict of interest. All Bidders found to have a conflict of interest shall be disqualified. A Bidder may be considered to be in a conflict of interest with one or more parties in this bidding process if any of, including but not limited to, the following apply:

(a) they have controlling shareholders in common; or

(b) they receive or have received any direct or indirect subsidy from any of them; or

(c) they have the same legal representative for purposes of this Bid; or

(d) they have a relationship with each other, directly or through common third parties, that puts them in a position to have access to material information about or improperly influence the Bid of another Bidder, or influence the decisions of the Purchaser regarding this bidding process; or

(e) a Bidder participates in more than one bid in this bidding process, either individually or as a partner in a Joint Venture, except for alternative offers permitted under ITB 13. This will result in the disqualification of all Bids in which it is involved. However, subject to any finding of a conflict of interest in terms of ITB 4.3(a)–(d) above, this does not limit the participation of a Bidder as a subcontractor in another bid or of a firm as a subcontractor in more than one Bid; or

(f) a Bidder, Joint Venture partner, associates, parent company or any affiliated entity, participated as a consultant in the preparation of the design or technical specifications of the goods and services that are the subject of the Bid; or

(g) a Bidder was affiliated with a firm or entity that has been hired (or is proposed to be hired) by the Purchaser or Borrower as Project Manager for the contract; or

(h) a Bidder would be providing goods, works, or non-consulting services resulting from or directly related to consulting services for the preparation or implementation of the project specified in the BDS ITB 2.1 that it provided or were provided by any affiliate that directly or indirectly controls, is controlled by, or is under common control with that firm; or

(i) A Bidder that has a financial or familial relationship with staff of the Purchaser including project implementing/executing agency, or of a recipient of a part of the loan who: (i) are directly or indirectly involved in the preparation of the bidding documents or specifications of the contract, and/or the bid evaluation process of such contract; or (ii) would be involved in the implementation or supervision of such contract unless the conflict stemming from such relationship has been resolved in a manner acceptable to ADB throughout the procurement process and execution of the contract.

4.4 A firm will not be eligible to participate in any procurement activities under an ADB-financed, -administered, or -supported project while under temporary suspension or debarment by ADB pursuant to its Anticorruption Policy (see ITB 3), whether such debarment was directly imposed by ADB, or enforced by ADB pursuant to the Agreement for Mutual Enforcement of Debarment Decisions. A bid from a temporarily suspended or debarred firm will be rejected and such bid may be in breach of debarment conditions, thereby subject to further ADB's investigation.

4.5 Government-owned enterprises in the Purchaser's country shall be eligible only if they can establish that they (i) are legally and financially autonomous, (ii) operate under commercial law, and (iii) are not a dependent agency of the Purchaser.

4.6 A Bidder shall not be under suspension from Bidding by the Purchaser as a result of the execution of a Bid–Securing Declaration.

4.7 Bidders shall provide such evidence of their continued eligibility satisfactory to the Purchaser, as the Purchaser shall reasonably request.

4.8 Bidders shall be excluded if, by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the Borrower's country prohibits any import of goods from, or payments to, a particularly country, person or entityin respect of goods or services originating in that country. Where the Borrower's country prohibits payments to a particular person or entity or for particular goods or services by such an act of compliance, that firm shall be excluded.

5. Eligible Goods and Related Services

5.1 All Goods and Related Services to be supplied under the Contract and financed by ADB, shall have their country of origin in eligible source countries as defined in ITB 4.2, and all expenditures under the Contract will be limited to such Goods and Related Services.

5.2 For purposes of this clause, the term "goods" includes commodities, raw material, machinery, equipment, and industrial plants; and "related services" includes services such as insurance, transportation, installation, commissioning, training, and initial maintenance.

5.3 The term "country of origin" means the country where the goods have been mined, grown, cultivated, produced, manufactured, or processed; or through manufacture, processing, or assembly, another commercially recognized article results that differs substantially in its basic characteristics from its imported components.

5.4 The nationality of the firm that produces, assembles, distributes, or sells the goods shall not determine their origin.

B. Contents of Bidding Document

6. Sections of the Bidding Document

6.1 The Bidding Document consists of Parts I, II, and III, which include all the sections indicated below, and should be read in conjunction with any addenda issued in accordance with ITB 8.

PART I Bidding Procedures

- Section 1 Instructions to Bidders (ITB)
- Section 2 Bid Data Sheet (BDS)
- Section 3 Evaluation and Qualification Criteria (EQC)
- Section 4 Bidding Forms (BDF)
- Section 5 Eligible Countries (ELC)

PART II Supply Requirements

- Section 6 Schedule of Supply (SS)

PART III Conditions of Contract and Contract Forms

- Section 7 General Conditions of Contract (GCC)
- Section 8 Special Conditions of Contract (SCC)
- Section 9 Contract Forms (COF)

6.2 The IFB issued by the Purchaser is not part of the Bidding Document.

6.3 The Purchaser is not responsible for the completeness of the Bidding Document and its addenda, if they were not obtained directly from the source stated by the Purchaser in the IFB.

6.4 The Bidder is expected to examine all instructions, forms, terms, and specifications in the Bidding Document. Failure to furnish all information or documentation required by the Bidding Document, may result in the rejection of the Bid.

7. Clarification of Bidding Document

7.1 A prospective Bidder requiring any clarification on the Bidding Document shall contact the Purchaser in writing at the Purchaser's address indicated in the BDS. The Purchaser will respond in writing to any request for clarification, provided that such request is received no later than 21 days prior to the deadline for submission of Bids. The

Purchaser shall forward copies of its response to all Bidders who have acquired the Bidding Document in accordance with ITB 6.3, including a description of the inquiry but without identifying its source. Should the Purchaser deem it necessary to amend the Bidding Document as a result of a clarification, it shall do so following the procedure under ITB 8 and ITB 24.2.

8. Amendment of Bidding Document

8.1 At any time prior to the deadline for submission of the Bids, the Purchaser may amend the Bidding Document by issuing addenda.

8.2 Any addendum issued shall be part of the Bidding Document and shall be communicated in writing to all who have obtained the Bidding Document directly from the Purchaserin accordance with ITB 6.3.

8.3 To give prospective Bidders reasonable time in which to take an addendum into account in preparing their Bids, the Purchaser may, at its discretion, extend the deadline for the submission of the Bids, pursuant to ITB 24.2

C. Preparation of Bids

9. Cost of Bidding

9.1 The Bidder shall bear all costs associated with the preparation and submission of its Bid, and the Purchaser shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

10. Language of Bid

10.1 The Bid, as well as all correspondence and documents relating to the Bid exchanged by the Bidder and the Purchaser, shall be written in the language specified in the BDS. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant passages in the language specified in the BDS, in which case, for purposes of interpretation of the Bid, such translation shall govern.

11. Documents Comprising the Bid

11.1 The Bid shall comprise two envelopes submitted simultaneously, one containing the Technical Bid and the other the Price Bid, both envelopes enclosed together in an outer single envelope.

11.2 The Technical Bids ubmitted by the Bidder shall comprise the following:

(a) Technical Bid Submission Sheet;

(b) Bid Security or Bid-Securing Declaration, in accordance with ITB 21;

(c) alternative Technical Bid, if permissible, in accordance with ITB 13;

(d) written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB 22;

(e) documentary evidence in accordance with ITB 16, establishing the Bidder's eligibility to bid;

(f) documentary evidence in accordance with ITB 17, that the Goods and Related Services to be supplied by the Bidder are of eligible origin;

(g) documentary evidence in accordance with ITB 18 and ITB 32, that the Goods and Related Services conform to the Bidding Document;

(h) documentary evidence in accordance with ITB 19, establishing the Bidder's qualifications to perform the contract if its Bid is accepted; and

(i) any other document required in the BDS.

11.3 The Price Bidsubmitted by the Bidder shall comprise the following:

(a) Price Bid Submission Sheet and the applicable Price Schedules, in accordance with ITB 12, ITB 14, and ITB 15;

(b) alternative Price Bid corresponding to the alternative Technical Bid, if permissible, in accordance with ITB 13; and

(c) any other document required in the BDS.

12. Bid Submission Sheets and Price Schedules

12.1 The Bidder shall submit the Technical Bid Submission Sheet and the Price Bid Submission Sheet using the form furnished in Section 4(Bidding Forms). These forms must be completed without any alterations to their format, and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested.

12.2 The Bidder shall submit, as part of the Price Bid, the Price Schedules for Goods and Related Services, according to their origin as appropriate, using the forms furnished in Section 4(Bidding Forms) and as required in the BDS.

13. Alternative Bids

13.1 Unless otherwise indicated in the BDS, alternative Bids shall not be considered.

14. Bid Prices and Discounts

14.1 The prices and discounts quoted by the Bidder in the Price Bid Submission Sheet and in the Price Schedules shall conform to the requirements specified below.

14.2 All items in the Schedule of Supply must be listed and priced separately in the Price Schedules. If a Price Schedule shows items listed but not priced, their prices shall be assumed to be included in the prices of other items. Items not listed in the Price Schedule shall be assumed not to be included in the Bid, and provided that the Bid is substantially responsive, the corresponding adjustment shall be applied in accordance with ITB 33.3.Unit rates and prices for all items in the Schedule of Supply shall be expressed in positive values. If unit rates and prices are expressed in negative values, the bid will be rejected.

14.3 The price to be quoted in the Price Bid Submission Sheet shall be the total price of the Bid excluding any discounts offered. Absence of the total bid price in the Price Bid Submission Sheet may result in the rejection of the Bid.

14.4 The Bidder shall quote discounts and the methodology for their application in the Price Bid Submission Sheet.

14.5 The terms EXW, CIF, CIP, and other similar terms shall be governed by the rules prescribed in the current edition of Incoterms, published by the International Chamber of Commerce, at the date of the Invitation for Bids or as specified in the BDS.

14.6 Prices proposed in the Price Schedule Forms for Goods and Related Services, shall be disaggregated, when appropriate, as indicated in this sub-clause. This disaggregation shall be solely for the purpose of facilitating the comparison of Bids by the Purchaser. This shall not in any way limit the Purchaser's right to contract on any of the terms offered

(a) for Goods offered from within the Purchaser's country:

(i) the price of the goods quoted EXW (ex works, ex factory, ex warehouse, ex showroom, or off-the-shelf, as applicable), including all customs duties and sales and other taxes already paid or payable on the components and raw material used in the manufacture or assembly of goods quoted ex works or ex factory, or on the previously imported goods of foreign origin quoted ex warehouse, ex showroom, or off-the-shelf;

(ii) sales tax and all other taxes applicable in the Purchaser's country and payable on the Goods if the Contract is awarded to the Bidder; and

(iii) the total price for the item.

(b) for Goods offered from outside the Purchaser's country:

(i) the price of the goods quoted CIF(named port of destination), or CIP (border point), or CIP (named place of destination), in the Purchaser's country, as specified in the BDS;

(ii) the price of the goods quoted FOB port of shipment (or FCA, as the case may be), if specified in the BDS; and

(iii) the total price for the item.

(c) for Related Services whenever such are specified in the Schedule of Supply:

(i) the local currency cost component of each item comprising the Related Services; and

(ii) the foreign currency cost component of each item comprising the Related Services,inclusive of all customs duties, sales and other similar taxes applicable in the Purchaser's country, payable on the Related Services, if the Contract is awarded to the Bidder.

14.7 Prices quoted by the Bidder shall be fixed during the Bidder's performance of the Contract and not subject to variation on any account, unless otherwise specified in the BDS. A Bid submitted with an adjustable price quotation shall be treated as nonresponsive and shall be rejected, pursuant to ITB 32. If in accordance with the BDS, prices quoted by the Bidder shall be subject to adjustment during the performance of the Contract in accordance with Clause 15.2 of the General Conditions of Contract in Section 7, a Bid submitted with a fixed price will also be treated as nonresponsive and be rejected.

14.8 If so indicated in ITB 1.1, Bids are being invited for individual contracts (lots) or for any combination of contracts (packages).Unless otherwise indicated in the BDS, prices quoted shall correspond to 100% of the items specified for each lot and to 100% of the quantities specified for each item of a lot.Bidders wishing to offer any price discount for the award of more than one Contract shall specify in their Price Bids the price discount applicable to each package, or alternatively, to individual Contracts within the package. Price discounts shall be submitted in accordance with ITB 14.4, provided the Price Bids for all lots are submitted and opened at the same time.

15. Currencies of Bid

15.1 Bid prices shall be quoted in the following currencies:

(a) Bidders may express their bid price in any freely convertible currency. If a Bidder wishes to be paid in a combination of amounts in different currencies, it may quote its price accordingly.

(b) If some of the expenditures for the Related Services are to be incurred in the borrowing country, such expenditures should be expressed in the Bid and will be payable in the Purchaser's currency.

16. Documents Establishing the Eligibility of the Bidder

16.1 To establish their eligibility in accordance with ITB 4, Bidders shall

(a) complete the eligibility declarations in the Bid Submission Sheet, included in Section 4(Bidding Forms); and

(b) if the Bidder is an existing or intended Joint Venture in accordance with ITB 4.1, submit a copy of the Joint Venture Agreement, or a letter of intent to enter into such an Agreement. The respective document shall be signed by all legally

authorized signatories of all the parties to the existing or intended Joint Venture, as appropriate.

17. Documents Establishing the Eligibility of Goods and Related Services

17.1 To establish the eligibility of the Goods and Related Services, in accordance with ITB 5, Bidders shall complete the Country of Origin Declaration Form included in Section 4(Bidding Forms).

18. Documents Establishing the Conformity of the Goods and Related Services to the Bidding Document

18.1 To establish the conformity of the Goods and Related Services to the Bidding Document, the Bidder shall furnish as part of its Technical Bid documentary evidence that the Goods and Related Services conform to the requirements specified in Section 6(Schedule of Supply).

18.2 The documentary evidence may be in the form of literature, drawings or data, and shall consist of a detailed item-by-item description of the essential technical and performance characteristics of the Goods and Related Services, demonstrating substantial responsiveness of the Goods and Related Services to those requirements, and if applicable, a statement of deviations and exceptions to the provisions of Section 6(Schedule of Supply).

18.3 Standards for workmanship, process, material, and equipment, as well as references to brand names or catalogue numbers specified by the Purchaser in Section 6(Schedule of Supply), are intended to be descriptive only and not restrictive. The Bidder may offer other standards of quality, brand names, and/or catalogue numbers, provided that it demonstrates, to the Purchaser's satisfaction, that the substitutions ensure substantial equivalence or are superior to those specified in Section 6(Schedule of Supply).

19. Documents Establishing the Qualifications of the Bidder

19.1 To establish its qualifications to perform the Contract, the Bidder shall submit as part of its Technical Proposal the evidence indicated for each qualification criteria specified in Section 3(Evaluation and Qualification Criteria).

19.2 If so required in the BDS, a Bidder that does not manufacture or produce the Goods it offers to supply shall submit the Manufacturer's Authorization using the form included in Section 4(Bidding Forms) to demonstrate that it has been duly authorized by the manufacturer or producer of the Goods to supply these Goods in the Purchaser's country.

19.3 If so required in the BDS, a Bidder that does not conduct business within the Purchaser's country shall submit evidence that it will be represented by an agent in the country equipped and able to carry out the Supplier's maintenance, repair, and spare parts-stocking obligations prescribed in the Conditions of Contract and/or Technical Specifications.

20. Period of Validity of Bids

20.1 Bids shall remain valid for the bid validity period specified in the BDS.The bid validity period starts from the date fixed forthe bid submission deadline date prescribed by the Purchaser in accordance with ITB 24.1. A Bid valid for a shorter period shall be rejected by the Purchaser as nonresponsive.

20.2 In exceptional circumstances, prior to the expiration of the bid validity period, the Purchaser may request Bidders to extend the period of validity of their Bids. The request and the responses shall be made in writing. If a Bid Security is requested in accordance with ITB 21, it shall also be extended 28 days beyond the deadline of the extended bid validity period. A Bidder may refuse the request without forfeiting its Bid Security. A Bidder granting the request shall not be required or permitted to modify its Bid.

21. Bid Security/ Bid-Securing Declaration

21.1 Unless otherwise specified in the BDS, the Bidder shall furnish as part of its Bid, in original form, either a Bid-Securing Declaration or a bid security as specified in the BDS. In the case of a bid security, the amount and currency shall be as specified in the BDS.

21.2 If a Bid-Securing Declaration is required pursuant to ITB 21.1, it shall use the form included in Section 4 (Bidding Forms). The Purchaser will declare a Bidder ineligible to be awarded a Contract for a specified period of time, as indicated in the BDS, if a Bid-Securing Declaration is executed.

21.3 If abid security is specified pursuant to ITB 21.1, the bid security shall be, at the Bidder's option, in any of the following forms:

(a) an unconditional bank guarantee(hard copy of the bank guarantee or in the form of SWIFT message MT760), or

(b) an irrevocable letter of credit, or

(c) a cashier's or certified check.

all from a reputable source from an eligible country as described in Section 5 (Eligible Countries). In the case of a bank guarantee, the bid security shall be submitted either using the Bid Security Form included in Section 4(Bidding Forms), or another form acceptable to the Purchaser. The form must include the complete name of the Bidder. The bid security shall be valid for 28 days beyond the original validity period of the bid, or beyond any period of extension if requested under ITB 20.2.

21.4 Unless otherwise specified in the BDS,any bid not accompanied by a substantially compliant bid security or Bid-Securing Declaration, if one is required in accordance with ITB 21.1, shall be rejected by the Purchaser as nonresponsive.

21.5 If a bid security is specified pursuant to ITB 21.1, the bid security of substantially nonresponsive Technical Bids shall be returned before opening the Price Bids. The bid security of unsuccessful Bidders at Price Bid evaluation shall be returned promptly upon the successful Bidder's furnishing of the performance security pursuant to ITB 47.

21.6 If a bid security is specified pursuant to ITB 21.1, the bid security of the successful Bidder shall be returned promptly once the successful Bidder has signed the Contract Agreement and furnished the required performance security.

21.7 The bid security may be forfeitedor the Bid-Securing Declaration executed, if

(a) notwithstanding ITB 26.3,a Bidder withdraws its bid during the period of bid validity as specified by the Bidder on the Technical Bid Submission Sheet, except as provided in ITB 20.2; or

(b) the successful Bidder fails to

(i) sign the Contract Agreement in accordance with ITB 46;

(ii) furnish a performance security in accordance with ITB 47; or

(iii) accept the arithmetical corrections of its bid in accordance with ITB 36.

21.8 If a bid security is required as per ITB 21.1, the bid security of a Joint Venture shall be in the name of the Joint Venture that submits the bid. If the Joint Venture has not been legally constituted at the time of bidding, the bid security shall be in the name of any or all of the Joint Venture partners. If a Bid-Securing Declaration is required as per ITB 21.1, the Bid-Securing Declaration of a Joint Venture shall be in the name of the Joint Venture that submits the Bid. If the Joint Venture has not been legally constituted at the time of bidding, the Bid-Securing Declaration shall be in the names of all future partners, as named in the letter of intent mentioned in ITB 4.1.

22. Format and Signing of Bid

22.1 The Bidder shall prepare one original set of the Technical Bid and one original set of the Price Bid as described in ITB 11 and clearly mark each “ORIGINAL - TECHNICAL BID” and “ORIGINAL - PRICE BID”. In addition, the Bidder shall submit copies of the Technical Bid and the Price Bid, in the number specified in the BDS and clearly mark them “COPY NO… - TECHNICAL BID” and “COPY NO…. - PRICE BID”. In the event of any discrepancy between the original and the copies, the original shall prevail.

22.2 The original and all copies of the Bid shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Bidder. This authorization shall consist of a written confirmation as specified in the BDS and shall be attached to the Bid. The name and position held by each person signing the authorization must be typed or printed below the signature. If a Bidder submits a deficient authorization, the Bid shall not be rejected in the first instance. The Purchaser shall request the Bidder to submit an acceptable authorization within the number of days as specified in the BDS. Failure to provide an acceptable authorization within the period stated in the Purchaser’s request shall cause the rejection of the Bid.If either the Bid Submission Sheet or the Bid-Securing Declaration (if applicable) is not signed, the Bid shall be rejected.

22.3 Any amendments such as interlineations, erasures, or overwriting shall be valid only if they are signed or initialled by the person signing the bid.

D. Submission and Opening of Bids

23. Sealing and Marking of Bids

23.1 Bidders shall submit their bids as specified in the BDS. Procedures for submission, sealing and marking are as follows:

(a) Bidders submitting Bids by mail or by hand shall enclose the original of the Technical Bid, the original of the Price Bid, and each copy of the Technical Bid and each copy of the Price Bid, including alternative Bids, if permitted in accordance with ITB 13, in separate sealed envelopes, duly marking the envelopes as “ORIGINAL - TECHNICAL BID”, “ORIGINAL - PRICE BID” and “COPY NO… - TECHNICAL BID” and “COPY NO…. - PRICE BID”, as appropriate. These envelopes containing the original and the copies shall then be enclosed in one single envelope.The rest of the procedure shall be in accordance with ITB 23.2to ITB 23.6.

(b) Bidders submitting Bids electronically shall follow the electronic bid submission procedures specified in the BDS.

23.2 The inner and outer envelopes shall

(a) bear the name and address of the Bidder;

(b) be addressed to the Purchaser in accordance with ITB 24.1; and

(c) bear the specific identification of this bidding process indicated in the BDS.

23.3 The outer envelopes and the inner envelopes containing the Technical Bids shall bear a warning not to open before the time and date for the opening of Technical Bids, in accordance with ITB 27.1.

23.4 The inner envelopes containing the Price Bids shall bear a warning not to open until advised by the Purchaser in accordance with ITB 27.2.

23.5 If all envelopes are not sealed and marked as required, the Purchaser will assume no responsibility for the misplacement or premature opening of the Bid.

23.6 Alternative Bids, if permissible in accordance with ITB 13, shall be prepared, sealed, marked, and delivered in accordance with the provisions of ITB 22 and ITB 23, with the inner envelopes marked in addition “ALTERNATIVE NO….” as appropriate

24. Deadline for Submission of Bids

24.1 Bids must be received by the Purchaser at the address and no later than the date and time indicated in the BDS.

24.2 The Purchaser may, at its discretion, extend the deadline for the submission of Bids by amending the Bidding Document in accordance with ITB 8, in which case all rights and obligations of the Purchaser and Bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.

25. Late Bids

25.1 The Purchaser shall not consider any Bid that arrives after the deadline for submission of Bids, in accordance with ITB 24. Any Bid received by the Purchaser after the deadline for submission of Bids shall be declared late, rejected, and returned unopened to the Bidder.

26. Withdrawal, Substitution, and Modification of Bids

26.1 A Bidder may withdraw, substitute, or modify its Bid after it has been submitted by sending a written notice, duly signed by an authorized representative, and shall include a copy of the authorization in accordance with ITB 22.2 (except for withdrawal notices, which do not require copies). The corresponding substitution or modification of the bid must accompany the respective written notice. All notices must be

(a) prepared and submitted in accordance with ITB 22 and ITB 23 (except forwithdrawal notices, which do not require copies), and in addition, the respective inner and outer envelopes shall be clearly marked "WITHDRAWAL," "SUBSTITUTION," "MODIFICATION;" and

(b) received by the Purchaser prior to the deadline prescribed for submission of bids, in accordance with ITB 24.

26.2 Bids requested to be withdrawn in accordance with ITB 26.1 shall be returned unopened to the Bidders.

26.3 No Bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Technical Bid Submission Sheet or any extension thereof.

27. Bid Opening

27.1 The Purchaser shall open the Technical Bids in public at the address, on the date, and time specified in the BDSin the presence of Bidder's designated representatives and anyone who choose to attend.Any specific electronic bid opening procedures required if electronic bidding is permitted in accordance with ITB 23.1, shall be as specified in the BDS.

27.2 The Price Bids will remain unopened and will be held in custody of the Purchaser until the time of opening of the Price Bids. The date, time, and location of the opening of Price Bids will be advised in writing by the Purchaser. If the Technical Bid and the Price Bid are submitted together in one envelope, the Purchaser may reject the Bid. Alternatively, the Price Bid may be immediately resealed for later evaluation.

27.3 First, envelopes marked "WITHDRAWAL" shall be opened, read out, and recorded, and the envelope containing the corresponding bid shall not be opened, but returned to the Bidder. No bid withdrawal shall be permitted unless the corresponding withdrawal notice

contains a valid authorization to request the withdrawal and is read out and recorded at bid opening.

27.4 Next, outer envelopes marked “SUBSTITUTION” shall be opened. The inner envelopes containing the Substitution Technical Bid and/or Substitution Price Bid shall be exchanged for the corresponding envelopes being substituted, which are to be returned to the Bidder unopened. Only the Substitution Technical Bid, if any, shall be opened, read out, and recorded. Substitution Price Bid will remain unopened in accordance with ITB 27.2. No envelope shall be substituted unless the corresponding substitution notice contains a valid authorization to request the substitution and is read out and recorded at bid opening.

27.5 Next, outer envelopes marked “MODIFICATION” shall be opened. No Technical Bid and/or Price Bid shall be modified unless the corresponding modification notice contains a valid authorization to request the modification and is read out and recorded at the opening of Technical Bids. Only the Technical Bids, both Original as well as Modification, are to be opened, read out, and recorded at the opening. Price Bids, both Original as well as Modification, will remain unopened in accordance with ITB 27.2.

27.6 All other envelopes holding the Technical Bids shall be opened one at a time, and the following read out and recorded

(a) the name of the Bidder;

(b) whether there is a modification or substitution;

(c) the presence of a bid security or a Bid-Securing Declaration, if required; and

(d) any other details as the Purchaser may consider appropriate.

Only Technical Bids and alternative Technical Bids read out and recorded at bid opening shall be considered for evaluation. Unless otherwise specified in the BDS, all pages of the Technical Bid Submission Sheet are to be initialed by at least three representatives of the Purchaser attending the bid opening.No Bid shall be rejected at the opening of Technical Bids except for late bids, in accordance with ITB 25.1.

27.7 The Purchaser shall prepare a record of the opening of Technical Bids that shall include, as a minimum: the name of the Bidder and whether there is a withdrawal, substitution, modification, or alternative offer; and the presence or absence of a bid securityor a Bid-Securing Declaration, if one was required. The Bidders’ representatives who are present shall be requested to sign the record. The omission of a Bidder’s signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall be distributed to all Bidders.

27.8 At the end of the evaluation of the Technical Bids, the Purchaser will invite bidders who have submitted substantially responsive Technical Bids and who have been determined as being qualified for award to attend the opening of the Price Bids. The date, time, and location of

the opening of Price Bids will be advised in writing by the Purchaser. Bidders shall be given reasonable notice of the opening of Price Bids.

27.9 The Purchaser will notify in writing Bidders who have been rejectedfor submitting nonresponsive Technical Bids and return their Price Bids unopenedtogether with their bid securities, before opening the Price Bids of the substantially responsive Bidders.

27.10 The Purchaser shall conduct the opening of Price Bids of all Bidders who submitted substantially responsive Technical Bids, in the presence of Bidders` representatives who choose to attend at the address, on the date, and time specified by the Purchaser. The Bidder's representatives who are present shall be requested to sign a register evidencing their attendance.

27.11 All envelopes containing Price Bids shall be opened one at a time and the following read out and recorded

(a) the name of the Bidder;

(b) whether there is a modification or substitution;

(c) the Bid Prices, including any discounts and alternative offers; and

(d) any other details as the Purchaser may consider appropriate.

Only Price Bids, discounts, and alternative offers read out and recorded during the opening of Price Bids shall be considered for evaluation. Unless otherwise specified in the BDS, all pages of the Price Bid Submission Sheet and Price Schedules are to be initialed by at least three representatives of the Purchaser attending bid the opening. No Bid shall be rejected at the opening of Price Bids.

27.12 The Purchaser shall prepare a record of the opening of Price Bids that shall include, as a minimum: the name of the Bidder, the Bid Price (per lot if applicable), any discounts, and alternative offers. The Bidders' representatives who are present shall be requested to sign the record. The omission of a Bidder's signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall be distributed to all Bidderswho submitted bids on time, and posted online when electronic bidding is permitted.

E. Evaluation and Comparison of Bids

28. Confidentiality

28.1 Information relating to the examination, evaluation, comparison, and qualification of Bids, and recommendation of contract award, shall not be disclosed to Bidders or any other persons not officially concerned with such process until the publication of Contract award.

28.2 Any attempt by a Bidder to influence the Purchaser in the examination, evaluation, comparison, and post qualification of the Bids or Contract award decisions may result in the rejection of its Bid.

28.3 Notwithstanding ITB 28.2, from the time of opening the Technical Bids to the time of Contract award, if any Bidder wishes to contact the

Purchaser on any matter related to the bidding process, it should do so in writing.

29. Clarification of Bids

29.1 To assist in the examination, evaluation, comparison and post-qualification of the Bids, the Purchaser may, at its discretion, ask any Bidder for a clarification of its Bid. Any clarification submitted by a Bidder with regard to its Bid and that is not in response to a request by the Purchaser shall not be considered. The Purchaser's request for clarification and the response shall be in writing. No change in the prices or substance of the Bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Purchaser in the evaluation of the Price Bids, in accordance with ITB 36.

29.2 If a Bidder does not provide clarifications on its Bid by the date and time set in the Purchaser's request for clarification, its bid may be rejected.

30. Deviations, Reservations, and Omissions

30.1 During the evaluation of Bids, the following definitions apply:

(a) "Deviation" is a departure from the requirements specified in the Bidding Document;

(b) "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the Bidding Document; and

(c) "Omission" is the failure to submit part or all of the information or documentation required in the Bidding Document.

31. Examination of Technical Bids

31.1 The Purchaser shall examine the Technical Bid to confirm that all documents and technical documentation requested in ITB 11.4 have been provided, and to determine the completeness of each document submitted.

31.2 The Purchaser shall confirm that the following documents and information have been provided in the Technical Bid. If any of these documents or information is missing, the offer shall be rejected:

(a) Technical Bid Submission Sheet in accordance with ITB 12.1;

(b) written confirmation of authorization to commit the Bidder;

(c) bid security or Bid-Securing Declaration, if applicable; and

(d) Manufacturer's Authorization, if applicable.

32. Responsive-ness of Technical Bid

32.1 The Purchaser's determination of a Technical Bid's responsiveness is to be based on the contents of the Technical Bid itself, as defined in ITB 11.

32.2 A substantially responsive Technical Bid is one that meets the requirements of the Bidding Document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that,

(a) If accepted, would

(i) affect in any substantial way the scope, quality, or performance of the Goods and Related Services specified in Section 6(Schedule of Supply); or

(ii) limits in any substantial way, inconsistent with the Bidding Document, the Purchaser's rights or the Bidder's obligations under the Contract; or

(b) if rectified, would unfairly affect the competitive position of other Bidders presenting substantially responsive Technical Bids.

32.3 The Purchaser shall examine the technical aspects of the Bid in particular, to confirm that all requirements of Section 6(Schedule of Supply) have been met without any material deviation, reservation, or omission.

32.4 If a Technical Bid is not substantially responsive to the Bidding Document, it shall be rejected by the Purchaser and may not subsequently be made responsive by the Bidder by correction of the material deviation, reservation, or omission.

33. Nonmaterial Non-conformities

33.1 Provided that a Technical Bid is substantially responsive, the Purchaser may waive nonconformities in the Bid that does not constitute a material deviation, reservation, or omission.

33.2 Provided that a Technical Bid is substantially responsive, the Purchaser may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities or omissions in the Technical Bid related to documentation requirements. Requesting information or documentation on such nonconformities shall not be related to any aspect of the Price Bid of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.

33.3 Provided that a Technical Bid is substantially responsive, the Purchaser shall rectify quantifiable nonmaterial nonconformities or omissions. To this effect, the Bid Price shall be adjusted during evaluation of Price Bids, for comparison purposes only, to reflect the price of the missing or non-conforming item or component. The adjustment shall be made using the method indicated in Section 3(Evaluation and Qualification Criteria).

34. Qualification of the Bidder

34.1 The Purchaser shall determine to its satisfaction during the evaluation of Technical Bids whether Bidders meets the qualifying criteria specified in Section 3 (Evaluation and Qualification Criteria).

34.2 The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB 19.Unless permitted in the BDS, the determination shall not take into consideration the qualifications of other firms such as the Bidder's subsidiaries, parent entities, or affiliates.

34.3 An affirmative determination shall be a prerequisite for the opening and evaluation of a Bidder's Price Bid. The Purchaser reserves the right to reject the bid of any bidder found to be in circumstances

described in GCC 35.2.A negative determination shall result into the disqualification of the Bid.

35. Examination of Price Bids

35.1 Following the opening of Price Bids, the Purchaser shall examine the Price Bids to confirm that all documents and financial documentation requested in ITB 11.3 have been provided, and to determine the completeness of each document submitted.

35.2 The Purchaser shall confirm that the following documents and information have been provided in the Price Bid. If any of these documents or information is missing, the offer shall be rejected:

(a) Price Bid Submission Sheet in accordance with ITB 12.1; and

(b) Price Schedules, in accordance with ITB 12, ITB 14, and ITB 15.

36. Correction of Arithmetical Errors

36.1 During the evaluation of Price Bids, the Purchaser shall correct arithmetical errors on the following basis:

(a) If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the Purchaser there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected.

(b) If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected.

(c) If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above.

36.2 If the Bidder that submitted the lowest evaluated Bid does not accept the correction of errors, its Bid shall be disqualified and its bid security may be forfeited, or its Bid-Securing Declaration executed.

37. Conversion to Single Currency

37.1 For evaluation and comparison of Price Bids, the Purchaser shall convert all bid prices expressed in the amounts in various currencies into a single currency, using the selling exchange rates established by the source and on the date specified in the BDS.

38. Domestic Preference

38.1 Unless otherwise specified in the BDS, domestic preference shall not apply.

39. Evaluation and Comparison of Price Bids

39.1 The Purchaser shall use the criteria and methodologies indicated in this clause. No other criteria or methodology shall be permitted.

39.2 To evaluate a Price Bid, the Purchaser shall consider the following:

(a) the bid priceas quoted in accordance with ITB 14;

(b) price adjustment for correction of arithmetic errors in accordance with ITB 36.1;

(c) price adjustment due to discounts offered in accordance with ITB 14.4;

(d) adjustment for nonmaterial nonconformities in accordance with ITB 33.3;

(e) assessment whether the bid is abnormally low in accordance with ITB 41;

(f) price adjustment due to application of the evaluation criteria specified in Section 3 (Evaluation and Qualification Criteria). These criteria may include factors related to the characteristics, performance, and terms and conditions of purchase of the Goods and Related Services which shall be expressed to the extent practicable in monetary terms to facilitate comparison of bids unless otherwise specified in Section 3; and

(g) converting the amount resulting from applying (a) to (c) above, if relevant, to a single currency in accordance with ITB 37.

39.3 The Purchaser's evaluation of a bid will exclude and not take into account,

(a) in the case of Goods offered from within the Purchaser's country, all sales tax and all other taxes, applicable in the Purchaser's country and payable on the Goods if the Contract is awarded to the Bidder;

(b) in the case of Goods offered from outside the Purchaser's country, all customs duties, sales tax, and other taxes, applicable in the Purchaser's country and payable on the Goods if the Contract is awarded to the Bidder; and

(c) any allowance for price adjustment during the period of performance of the Contract, if provided in the Bid.

39.4 If the Bidding Document allows Bidders to quote separate prices for different lots (contracts), and the award to a single Bidder of multiple lots (contracts), the methodology to determine the lowest evaluated price of the lot (contract) combinations, including any discounts offered in the Price Bid Submission Sheet, is as specified in Section 3(Evaluation and Qualification Criteria).

39.5 The Purchaser shall compare all substantially responsive Bids to determine the lowest evaluated bid, in accordance with ITB 39.

40. Abnormally Low Bids

40.1 An abnormally low bid is one where the bid price, in combination with other elements of the bid, appears to be so low that it raises concerns as to the capability of the Bidder to perform the contract for the offered bid price.

40.2 When the offered bid price appears to be abnormally low, the Purchaser shall undertake a three-step review process as follows:

(a) identify abnormally low costs and unit rates by comparing them with the engineer's estimates, other substantially responsive bids, or recently awarded similar contracts;

(b) clarify and analyze the bidder's resource inputs and pricing, including overheads, contingencies and profit margins; and

(c) decide whether to accept or reject the bid

40.3 With regard to ITB 40.2 (b) above, the Purchaser will seek a written explanation from the bidder of the reasons for the offered bid price, including a detailed analysis of costs and unit prices, by reference to the scope, proposed methodology, schedule, and allocation of risks and responsibilities. This may also include information regarding the economy of the manufacturing process; the services to be provided, or the construction method to be used; the technical solutions to be adopted; and any exceptionally favorable conditions available to the bidder for the goods or services proposed.

40.4 After examining the explanation given and the detailed price analyses presented by the bidder, the Purchaser may:

(a) accept the bid, if the evidence provided satisfactorily accounts for the low bid price and costs, in which case the bid is not considered abnormally low;

(b) accept the bid, but require that the amount of the performance security be increased at the expense of the bidder to a level sufficient to protect the Purchaser against financial loss. The amount of the performance security shall generally be not more than 20% of the contract price; or

(c) reject the bid if the evidence provided does not satisfactorily account for the low bid price, and make a similar determination for the next lowest evaluated bid, if required

41. Purchaser's Right to Accept Any Bid, and to Reject Any or All Bids

41.1 The Purchaser reserves the right to accept or reject any Bid, and to annul the bidding process and reject all Bids at any time prior to Contract award, without thereby incurring any liability to the Bidders. In case of annulment, all Bids submitted and specifically, bid securities, shall be promptly returned to the Bidders.

42. Notice of Intention for Award of Contract

42.1 If Standstill provisions apply as specified in the BDS, the standstill period shall be defined in the BDS to specify the duration subsequent to notification of intention for award of contract (before making the actual contract award) within which any unsuccessful bidder can challenge the proposed award.

F. Award of Contract

43. Award Criteria

43.1 The Purchaser shall award the Contract to the Bidder whose offer has been determined to be the lowest evaluated Bid and is substantially responsive to the Bidding Document, provided further that the Bidder has remained qualified to perform the Contract satisfactorily.

43.2 A Bid shall be rejected if the qualification criteria as specified in Section 3(Evaluation and Qualification Criteria) are no longer met by the Bidder whose offer has been determined to be the lowest evaluated Bid. In this event the Purchaser shall proceed to the next lowest evaluated Bid to make a similar reassessment of that Bidder's capabilities to perform satisfactorily.

44. Purchaser's Right to Vary Quantities at Time of Award

44.1 At the time the Contract is awarded, the Purchaser reserves the right to increase or decrease the quantity of Goods and Related Services originally specified in Section 6(Schedule of Supply), provided this does not exceed the percentages indicated in the BDS, and without any change in the unit prices or other terms and conditions of the Bid and the Bidding Document.

45. Notification of Award

45.1 Prior to the expiration of the period of bid validityand upon expiry of the standstill period specified in ITB 40.1, or upon satisfactory resolution of a complaint filed within standstill period, if applicable, the Purchaser shall transmit the Notification of Award using the form included in Section 9 (Contract Forms) to the successful Bidder, in writing, that its Bid has been accepted.

45.2 Unless standstill period applies, upon notification of award unsuccessful Bidders may request in writing to the Purchaser for a debriefing seeking explanations on the grounds on which their Bids were not selected. The Purchaser shall promptly respond in writing and/or in a debriefing meeting to any unsuccessful Bidder who, after publication of contract award, requests a debriefing.

45.3 Until a formal Contract is prepared and executed, the notification of award shall constitute a binding Contract.

45.4 Within 2 weeks of the award of contract or expiry of the standstill period, where such period applies, or, if a complaint has been filed within the standstill period, upon receipt of ADB's confirmation of satisfactory resolution of the complaint, the borrower shall publish in an English language newspaper or well-known freely accessible website the results identifying the Bid and lot or package numbers as applicable and the following information:

(a) name of each Bidder who submitted a Bid;

(b) bid prices as read out at bid opening;

(c) name and evaluated prices of each Bid that was evaluated;

(d) name of Bidders whose Bids were rejected and the reasons for their rejection; and

(e) name of the winning Bidder, and the price it offered, as well as the duration and summary scope of the contract awarded.

46. Signing of Contract

46.1 Promptly after notification, the Purchaser shall send to the successful Bidder the Agreement.

46.2 Within 28 days of receipt of the Agreement, the successful Bidder shall sign, date, and return it to the Purchaser.

47. Performance Security

47.1 Within 28 days of the receipt of notification of award from the Purchaser, the successful Bidder shall furnish the Performance Security in accordance with the GCC, subject to ITB 40.4, using for that purpose the Performance Security Form included in Section 9(Contract Forms), or another form acceptable to the PurchaserIf the bank issuing performance security is located outside the Purchaser's country, it shall be counter-guaranteed or encashable by a bank in the Purchaser's country.

47.2 Failure of the successful Bidder to submit the abovementioned performance security or sign the Contract Agreement shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security or execution of the Bid-Securing Declaration. In that event, the Purchaser may award the Contract to the next lowest evaluated Bidder whose offer is substantially responsive and is determined by the Purchaser to be qualified to perform the Contract satisfactorily.

48. Bidding-Related Complaints

48.1 The procedures for dealing with Bidding-Related Complaints arising out of this bidding process are specified in the BDS.

Section 2: Bid Data Sheet

A. General	
ITB 1.1	The number of the Invitation for Bids (IFB)is: **ASTHA/MMCH/GD/03/01**
ITB 1.1	The Purchaser is: **Director of Medical Education (DME), Assam** on behalf of **Project Director**, Assam Health Infrastructure Development & Management Society (AHIDMS). Assam Health Infrastructure Development & Management Society (AHIDMS) as a project implementation agency will be responsible for making payment as per the recommendation of Director of Medical Education (DME) Assam Director of Medical Education (DME) Assam will handle Procurement and Contract Management.
ITB 1.1	The name of the open competitive bidding (OCB) is: **Procurement of Medical Equipment for Mahendra Mohan Choudhury Hospital, Guwahati – package 1** • **Lot 1 - MRI 3 Tesla** • **Lot 2 - BIPLANE DSA System with Large Flat Panel Detector with inbuilt Angiography and Intervention and Stereotactic Radiotherapy** • **Lot 3 - 256-Slice Dual Energy Spectral High End CT Scanner** • **Lot 4 - 64 Slice CT Scan Machine** The identification number of the OCB is: **ASTHA/MMCH/GD/03/01** The number and identification of lots comprising this OCB is: 4
ITB 2.1	The Borrower is: **India**
ITB 2.1	The name of the Project is: **Assam State Tertiary Healthcare Augmentation (ASTHA) Project**
B. Contents of Bidding Document	
ITB 7.1	For **clarification purposes** only, the Purchaser's address is: Attention: Director of Medical Education Street address: G.S. Road, Sixmile, Khanapara Floor/Room number: 4th floor (Directorate of Medical Education, Assam) City: Guwahati ZIP code: 781022 Country: India

	Telephone: 0361-2366236 Fax: 0361-2366236 E-mail: dmeassam@gmail.com Add para as The Purchaser will also publish the response to clarifications on the web portal: https://assamtenders.gov.in including a description of the inquiry (but without identifying its source).
C. Preparation of Bids	
ITB 10.1	The language of the Bid is: English
ITB 11.2 (i)	The Bidder shall submit with its Technical Bidthe following additional documents: 1. catalogues with make (if any) and detail technical specifications of the offered goods/equipment in as required by the Purchaser. 2. Authorization of reputed manufacturer/affiliate (as the case may be). Any authorization from dealer/distributor will not be accepted. 3. Make & model of each item along with Technical Bid 4. For Indian Bidders against Goods and Service tax registration certificate.
ITB 11.3 (c)	The Bidder shall submit with its Price Bidthe following additional documents: Nil
ITB 12.2	The units and rates in figures entered into the Price Schedules should be in the BOQ/Financial Bid provided in Excel Format under BOQ/Financial Bid folder.
ITB 13.1	Alternative Bids shall not be permitted.
ITB 14.5	The Incoterms edition is: 2020
ITB 14.6 (b) (i)	For Goods offered from outside the Purchaser's country, the Bidder shall quote prices using the following Incoterms:CIP Mahendra Mohan Choudhury Hospital, Guwahati, Assam
ITB 14.6 (b) (ii)	In addition to the above, the Bidder shall quote prices for Goods offered from outside the Purchaser's country using the following Incoterms: FCA, Mahendra Mohan Choudhury Hospital, Guwahati, Assam
ITB 14.7	The prices quoted by the Bidder shall not be adjustable.
ITB 14.8	Prices quoted for each lot shall correspond at least to 100 % of the items specified for each lot. Prices quoted for each item of a lot shall correspond at least to 100 % of the quantities specified for this item of a lot.
ITB 19.2	The Bidder is required to submit a Manufacturer's Authorization.
ITB 19.3	The Bidder is required to include with its bid, evidence that it will be represented by an Agent in the Purchaser's country.

ITB 20.1	The bid validity period shall be 120 days.
ITB 21.1	The Bidder shall furnish a bid security in the amount of Lot 1: Rs 36 (Thirty-Six) lakh Lot 2: Rs 26 (Twenty-Six) lakh Lot 3: Rs 24 (Twenty-Four) lakh Lot 4: Rs 11 (Eleven) lakh
ITB 21.2	The ineligibility period will be; Not Applicable
ITB 21.3	Bid Security may be submitted through any of following mode: a) Bank Guarantee: Irrevocable Bank Guarantee issued by a Nationalized or Scheduled Bank located in India or by an international bank having a correspondent bank in India b) Fixed Deposit/Time Deposit certificate issued by a Nationalized or Scheduled Bank located in India or by an international bank having a correspondent bank in India for equivalent or higher values are acceptable provided it is pledged in favour of Assam Health Infrastructure Development and Management Society (AHIDMS) (Implementing agency) and such pledging has been noted and suitably endorsed by the bank issuing the certificate. In case bidder(s) opt to submit bid security in the form of Bank Guarantee/ Fixed Deposit/Time Deposit certificate, please comply the following instructions: a. Bidder has to submit the ORIGINAL Bank Guarantee/ Fixed Deposit/Time Deposit certificate before the bid submission end date & time, failing to which bid of the bidder shall be rejected outrightly and bid shall not be opened. ORIGINAL Bank Guarantee/ Fixed Deposit/Time Deposit certificate shall be submitted in the address mentioned in ITB/BDS 21.3. b. Only to accommodate the submission of Bank Guarantee/ Fixed Deposit/Time Deposit certificate, Option of “BID SECURTY/EMD EXEMPTION” provision is enabled in the e-procurement portal. Bidder has to select/click the 100% exemption option to proceed further for submission of bid. The scanned copy of Bank Guarantee/ Fixed Deposit/Time Deposit certificate needs to be submitted under Technical Folder along with other qualification documents. c. Bidder to note that there is otherwise no BID SECURTY/EMD EXEMPTION for any bidder whosoever. This option is only enabled to submit Bank Guarantee/ Fixed Deposit/Time Deposit certificate as bid security. d. In case bidder(s) opt to submit bid security in the form of Bank Guarantee, the following bank details may be used while obtaining Bank Guarantee: Account Name –Examination Fund, O/O The Directorate of Medical Education Number- 33706053208 IFSC –SBIN0003030 Bank Name- State Bank of India Branch Name- Dispur, Guwahati (Bidder should note date this above-mentioned account details only be used while obtaining Bank Guarantee.)

ITB 21.4	Subject to the succeeding sentences, any bid not accompanied by an irrevocable and callable bid security shall be rejected by the Purchaser as nonresponsive. If a Bidder submits a bid security that (i) deviates in form, amount, and/or period of validity, or (ii) does not provide sufficient identification of the Bidder (including, without limitation, failure to indicate the name of the Joint Venture or, where the Joint Venture has not yet been constituted, the names of all future Joint Venture Partners), the Purchaser shall request the Bidder to submit a compliant bid security within 7 days of receiving such a request. Failure to provide a compliant bid security within the prescribed period of receiving such a request shall cause the rejection of the Bid.
ITB 22.1	In addition to the original Bid, the number of copies is: Not Applicable as it is an e-procurements.
ITB 22.2	The written confirmation of Authorization to sign on behalf of the Bidder shall consist of: The written confirmation of Authorization to sign on behalf of the Bidder shall consist of: "An organizational document (a) Power of Attorney (in case the Bidder is a partnership or a sole proprietorship or a Joint Venture); (b) Board Resolution (in case the Bidder is a corporation); (c) Letter of Authorization, written on the Bidder's letterhead, (in case the Bidder is a partnership, sole proprietorship or a Joint Venture) specifying the representative's authority to sign the Bid on behalf of, and to legally bind, the Bidder. If the Bidder is an intended or an existing Joint Venture, the power of attorney should be signed by all partners and specify the authority of the named representative of the Joint Venture to sign on behalf of, and legally bind, the intended or existing Joint Venture. If the Joint Venture has not yet been formed, also include evidence from all proposed Joint Venture partners of their intent to enter into a Joint Venture in the event of a contract award in accordance with ITB 16.1 (b)".
ITB 22.2	The Bidder shall submit an acceptable authorization within7days.
D. Submission and Opening of Bids	
ITB 23.1(a)	**Replace the sub-clause as:** Bidders shall submit their Bids electronically only through the Assam Government eProcurement website https://assamtenders.gov.in. Submission by any other mode shall render the bidder non-responsive.
ITB 23.1 (b)	Electronic bidding submission procedures shall be as below: Bidders shall submit Bids electronically through NIC's e-Tendering Portal of Govt. of Assam, i.e. https://assamtenders.gov.in.

	The Bidder shall take due precaution to upload technical bid documents and price bid document onto the respective envelopes defined in the e-Tendering platform. Bidders, who wish to participate in the bidding process, shall have to procure Digital Certificate as per Information Technology Act 2000 using which they can sign their electronic bids. Bidders can procure the same from any Controller of Certifying Agency (CCA) approved certifying agency. Online bids will have to be digitally signed and submitted in a Time stamped electronic sealed tender box on https://assamtenders.gov.in The Bidders are required to download the documents as mentioned in ITB 11.2, needs to be signed and uploaded at the portal. The information on eligibility and qualification provided in the bidding forms only will be considered. Bidder will also provide reference of supporting documents provided in its support in the bidding forms. The downloaded Bid forms shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Bidder. The Technical Bid, shall be uploaded under technical bid folder' on e-procurement website. Bidders are informed to get acquainted with the bid submission process in e-Procurement system by contacting the e-procurement cell of the Government of Assam. Please refer to https://assamtenders.gov.infor further details. The Purchaser reserve the right to verify original copies of scanned documents uploaded by bidders may seek additional documentary evidence on their technical proposals, which the bidders shall provide either online using the e-Procurement or in manual form. Bidders shall not lock electronic files uploaded in their proposal with passwords of their choice. The Purchaser reserves the right to reject password locked files outright and not consider contents within such locked files for bid evaluation. The Purchaser reserves the right to extend bid submission timeline or recall the tender if e-Tendering server is inaccessible or inoperative for a prolonged period of time within the last 24 hours of the bid submission due date. The Purchaser shall consult the e-Tendering service provider and seek its opinion and decide to extend the bid submission timeline in accordance with the technical explanation provided by the e-Tendering service provider. The Purchaser reserves the right to verify original copies of scanned documents uploaded by bidders. The Bidder shall take due care to ensure that the documents uploaded by it in the e-Procurement system are virus free. If the documents uploaded by the Bidder could not be opened, due to virus during tender opening, the bid is liable to be rejected. Only those bids marked as submitted, as acknowledged by a bid submission reference, at the bid submission time will be considered for evaluation.

ITB 23.2	The identification of this bidding process is: Procurement of Medical Equipment for MMCH – Package 1 (ASTHA/MMCH/GD/03/01) • Lot 1 - MRI 3 Tesla • Lot 2 - BIPLANE DSA System with Large Flat Panel Detector with inbuilt Angiography and Intervention and Stereotactic Radiotherapy • Lot 3 - 256-Slice Dual Energy Spectral High End CT Scanner Technical Specification • Lot 4 - 64 Slice CT Scan Machine
ITB 23.3, 23.4, 23.5 and 23.6	Not applicable, deleted
ITB 24.1	Bids shall be **submitted electronically on e-Procurement site** online in the *www.assamtenders.gov.in* Bid submission timelines will be defined as per the e-Procurement server clock.
ITB 24.1	**The deadline for bid submission is:** Date: **27-04-2026** Time: **14:00 hrs**
ITB 25.1	Sub clause 25.1 shall be replaced with: The e-procurement system will not allow any late submission of Bids after the specified due date and time as per server system. After electronic online proposal submission, the system will generate a unique Identification number which is time stamped. This shall be treated as acknowledgement of the Bid submission.
ITB 26.1 and 26.2	Replace ITB 26.1 to 26.2 with following: Bidders submitting their Bids electronically may withdraw, substitute or modify their bids by logging at the eProcurement website indicated in ITB 23.1(a) of the BDS, no later than the deadline for submission of bid, as indicated in ITB 24.1.
ITB 27.1	**The technical bid opening shall take place at:** Street address: G.S. Road, Sixmile, Khanapara, Guwahati-22 Floor/Room number: 4th Floor, Directorate of Medical Education, Assam City :Guwahati Country: India Date: 27-04-2026 Time: 16:00 hrs
ITB 27.1	The electronic bid opening procedure shall be as follows: The Purchaser shall open the Bids at the Purchaser's e-procurement portal indicated in ITB 23.1 of the BDS In case the opening date is declared as a Holiday then bid will be opened in the immediate next working day at the same time.
ITB 27.6	The Technical Bid Submission Sheet shall be initialed by minimum 3 representatives of the Purchaser attending Technical Bid opening.

ITB 27.11	The Price Bid Submission Sheet and Price Schedules shall be initialed by minimum 3 representatives of the Purchaser attending Price Bid opening.
E. Evaluation and Comparison of Bids	
ITB 34.2	The qualifications of other firms such as the Bidder's subsidiaries, parent entities, or affiliates shall not be permitted.
ITB 37.1	The currency that shall be used for bid evaluation and comparison purposes to convert all bid prices expressed in various currencies into a single currency is: Indian Rupees (INR) The source of the selling exchange rate shall be: Reserve Bank of India The date for the selling exchange rate shall be: Deadline for bid submission
ITB 38.1	Domestic preference shall not apply.
ITB 42.1	Standstill provisions shall not apply.
F. Award of Contract	
ITB 44.1	The maximum percentage by which quantities may be increased is: 25% The maximum percentage by which quantities may be decreased is: 25%
ITB 48.1	The procedures for Bidding-Related Complaints are referenced in the Procurement Regulations for ADB Borrowers (Appendix 7). The Bidder should submit its complaint following these procedures, in writing, to: For the attention: Title/position: Director of Medical Education Purchaser: Director of Medical Education E-mail address: dmeassam@gmail.com Fax number: 0361-2366236

Section 3: Evaluation and Qualification Criteria

Table of Criteria

1. Technical Evaluation

1.1 Technical Criteria

The cost of all quantifiable deviations or deficiencies from the technical requirements as specified in Section 6 (Schedule of Supply) shall be evaluated. The Purchaser will make its own assessment of the cost of these deviations or deficiencies for the purpose of ensuring fair comparison of Bids.

2. Qualification Criteria

Contract Type B: Custom-Designed, High-Value, and Technically Complex Items

2.1 Eligibility

Criteria	Compliance Requirements				Documents
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	

2.1.1 Nationality

Nationality in accordance with ITB 4.2.	Must meet requirement	Must meet requirement	Must meet requirement	Not applicable	Technical Bid Submission Sheet; Forms ELI – 1 and ELI - 2

2.1.2 Conflict of Interest

No conflicts of interest in accordance with ITB 4.3.	Must meet requirement	Must meet requirement	Must meet requirement	Not applicable	Technical Bid Submission Sheet

2.1.3 ADB Eligibility

Not having been declared ineligible by ADB, as described in ITB 4.4.	Must meet requirement	Must meet requirement	Must meet requirement	Not applicable	Technical Bid Submission Sheet

2.1.4 Government-Owned Enterprise

Bidder required to meet conditions of ITB 4.5.	Must meet requirement	Must meet requirement	Must meet requirement	Not applicable	Technical Bid Submission Sheet; Forms ELI – 1 and ELI - 2

2.1.5 United Nations Eligibility

Not having been excluded by an act of compliance with a United Nations Security Council resolution in accordance with ITB 4.8.	Must meet requirement	Must meet requirement	Must meet requirement	Not applicable	Technical Bid Submission Sheet

2.2 Historical Contract Nonperformance

2.2.1 History of Nonperforming Contracts

Criteria	Compliance Requirements				Documents
		Joint Venture			
Requirement	Single Entity	All Partners Combined	Each Partner	One Partner	Submission Requirements
Non performance of a contract did not occur as a result of contractor default since 1 January 2021	Must meet requirement	Must meet requirement	Must meet requirement[b]	Not applicable	FormCON-1

2.2.2 Suspension Based on Execution of Bid-Securing Declaration

Criteria	ComplianceRequirements				Documents
		JointVenture			
Requirement	SingleEntity	AllPartners Combined	Each Partner	One Partner	Submission Requirements
Not under suspension based on execution of a Bid-Securing Declaration pursuant to ITB 4.6..	Mustmeet requirement	Mustmeet requirement	Mustmeet requirement	Not applicable	BidSubmission Sheet

2.2.3 **Pending Litigation**

Criteria	ComplianceRequirements				Documents
		JointVenture			
Requirement	SingleEntity	AllPartners Combined	Each Partner	One Partner	Submission Requirements
All pending litigation and arbitration, if any, shall be treated as resolved against the Bidder and so shall in total not represent more than 50 percent of the Bidder's net worth calculated as the difference between total assets and total liabilities.	Mustmeet requirement	Not applicable	Mustmeet requirement	Not applicable	FormCON–1

2.3 Experience and Technical Capacity

2.3.1 Contractual Experience

Criteria	Compliance Requirements				Documents
		Joint Venture			
Requirement	**Single Entity**	**All Partners Combined**	**Each Partner**	**One Partner**	**Submission Requirements**
Successful completion as main supplier within the lastThree (3) years, of at least Two (2) contracts each valued at Lot 1: INR 14.50 Crore Lot 2: INR 10.50 Crore Lot 3: INR 9.50 Crore Lot 4: INR 4.50 Crore with nature, and complexity similar to the scope of supply described in Section 6 (Schedule of Supply).	Must meet requirement	Must meet requirement	Not applicable	Not applicable	Form EXP – 1 [a]

[a] *In addition to the submission of Form EXP-1, the Bidder shall provide the Signed Contract Agreement.*

2.3.2 Technical Experience

Criteria	Compliance Requirements				Documents
		JointVenture			
Requirement	Single Entity	AllPartners Combined	Each Partner	One Partner	Submission Requirements
The Bidder shall demonstrate that the goods offered have (i) been in production for at least Five(5) years, and (ii) been sold a minimum of two(2) units of similar type and specification over the last three (3) years; (iii) been in operation for a minimum of Five(5) years.	Mustmeet requirement	Mustmeet requirement	Not applicable	Not applicable	FormEXP–2

2.3.3 Production Capacity

Criteria	ComplianceRequirements				Documents
		JointVenture			
Requirement	SingleEntity	AllPartners Combined	Each Partner	One Partner	Submission Requirements
The Bidder or manufacturer shall demonstrate that it can supply the type, size, and quantity of the goods as required by Purchaser in accordance with the Delivery and Completion Schedule in Section 6 (Schedule of Supply).	Mustmeet requirement	Mustmeet requirement	Not applicable	Not applicable	FormEXP–3

[a]BidderorManufacturershallprovideevidenceofproductionoutput.

2.4 Financial Situation

2.4.1 Historical Financial Performance

Criteria	Compliance Requirements				Documents
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
Submission of audited financial statements or, if not required by the law of the Bidder's country, other financial statements acceptable to the Purchaser, for the last three (3) years to demonstrate the current soundness of the Bidder's financial position. As a minimum, the Bidder's net worth for the last year calculated as the difference between total assets and total liabilities should be positive.	Must meet requirement	Not applicable	Must meet requirement	Not applicable	Form FIN – 1

2.4.2 Size of Operation (Average Annual Turnover):

Criteria	Compliance Requirements				Documents
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
Minimum average annual turnover of Lot 1: INR 36 Cr Lot 2: INR 26 Cr Lot 3: INR 24 Cr Lot 4: INR 11 Cr calculated as total payments received by the Bidder for contracts completed or under execution over the last three (3) years.	Must meet requirement	Must meet requirement	Must meet 25% of the requirement	Must meet 40% of the requirement	Form FIN – 2

2.4.3 Cash Flow Capacity

If the bid evaluation process and the decision for the award of the Contract takes more than 1 year from the date of bid submission, Bidders may be asked to resubmit their latest information on financial resources supported by latest audited accounts/audited financial statements or if not required by the law of the Bidder'scountry, other financial statements acceptable to the Purchaser, and the Bidders' financial capacity will be reassessed on this basis

Criteria	ComplianceRequirements				Documents
Requirement	Single Entity	JointVenture			Submission Requirements
		AllPartners Combined	Each Partner	One Partner	
Availabilityoforaccess to liquid assets,[a]linesofcredit,andother financessufficienttomeetcash flowrequirementwhichisas follows: Lot 1: 4.5 Cr Lot 2: 3.25 Cr Lot 3: 3 Cr Lot 4: 1.38 Cr	Mustmeet requirement	Mustmeet requirement	Mustmeet 25% Ofthe requirement	Mustmeet 40% Ofthe requirement	FormFIN–3

[A]Liquid assets mean cash and cash equivalents, short-term financial instruments, short-term available-for-sale-securities, marketable securities, trade receivables, short-term financing receivables, and other assets that can be converted into cash within 1 year.

Bidder is not a Manufacturer under Contract TypeB

If a Bidder is not a manufacturer, but is offering the Goods on behalf of the Manufacturer under Manufacturer's Authorization Form (Section 4, Bidding Forms), the Bidder shall demonstrate that it meets the requirements for

- 2.1 Eligibility,
- 2.2 Historical Contract Nonperformance,
- 2.3.1 Contractual Experience,
- 2.4.1 Historical Financial Performance,
- 2.4.2 Size of Operation (Average Annual Turnover),and
- 2.4.3 Cash Flow Capacity.

The Manufacturer shall separately demonstrate that it meets the requirements for

- 2.1 Eligibility,
- 2.3.2 Technical Experience, and
- 2.3.3 Production Capacity.

3. Economic Evaluation

3.1 Adjustment for Scope

3.1.1 Local Handling and Inland Transportation

Costs for inland transportation, insurance, and other incidental costs for delivery of the goods from the EXW premises, or port of entry, or border point to Project Site as defined in Section 6 (Schedule of Supply), shall be quoted in the Price Schedule for Related Services to Be Offered from Outside and Within the Purchaser's Country provided In Section 4 (Bidding Forms). These costs will be taken into account during bid evaluation. If a Bidder fails to include such costs in its Bid, then these costs will be estimated by the Purchaser on the basis of published tariffs by the rail or road transport agencies, insurance companies, or other appropriate sources, and added to EXW or CIF or CIP price.

3.1.2 Minor Omissions or Missing Items

Pursuant to ITB 33.3, the cost of all quantifiable nonmaterial nonconformities or omissions from the contractual and commercial conditions shall be evaluated. The Purchaser will make its own assessment of the cost of any nonmaterial nonconformities and omissions for the purpose of ensuring fair comparison of Bids.

3.2 Adjustment for Deviations from the Terms of Payment

Deviations from the Terms of Payment as specified in SCC 16.1 are not permitted.

3.3 Adjustment for Deviations in the Delivery and Completion Schedule

Deviations from the Delivery and Completion Schedule specified in Section 6 (Schedule of Supply) are not permitted.

3.4 Operation and Maintenance (O&M) Costs - Deleted

3.5 Spare Parts

The Bidders shall also quote in their financial bids the indicative prices of crucial spares and their quantities estimated to be required for maintenance of equipment. This information is for future spares ordering, and the prices would not be added to the bid amount. The Bidders who are OEM must give undertaking for supply of spare parts for a period of the expected life of the machine/equipment. Other Bidders must submit undertakings from their OEM to supply spare parts for a period of the expected life of the machine/equipment.

3.6 Performance and Productivity of the Goods

The method of calculation shall be the following: NOT APPLICABLE

3.7 Multiple Lots (Contracts)

Goods are grouped in lots. The Purchaser will evaluate and compare Bids on the basis of a lot, or a combination of lots, or as a total of lots to arrive at the least cost combination for the Purchaser by taking into account discounts offered by Bidders in case of award of multiple contracts.

If a Bidder as defined in ITB 4.1 submits successful Bids for multiple lots (lowest evaluated substantially responsive Bids), the evaluation will also include an assessment of the Bidder's capacity to meet the aggregated qualifying requirements relating to:**Average Annual Turnover**

3.8 Domestic Preference

If domestic preference is provided for under ITB 38.1, the following procedure shall apply: **Not Applicable**

Section 4: Bidding Forms

Table of Forms

Technical Bid Submission Sheet

– Note –

The Bidder must accomplish the Technical Bid Submission Sheet on its letterhead clearly showing the Bidder's complete name and address.

Date: _____
Open Competitive Bidding (OCB) No.: _____
Invitation for Bid (IFB) No.: _____
Alternative No.: _____

To: [*insert complete name of the Purchaser*]

We, the undersigned, declare that:

(a) We have examined and have no reservations to the Bidding Document, including the Addenda issued in accordance with Instructions to Bidders (ITB) 8.

(b) We acknowledge that we have read and understand ADB's Anticorruption Policy (1998) and Integrity Principles and Guidelines (2015), both as amended from time to time.

(c) We offer to supply in conformity with the Bidding Document and in accordance with the delivery schedule specified in Section 6(Schedule of Supply), the following Goods and Related Services:[*insert a brief description of the goods and related services*]

(d) Our Bid consisting of the Technical Bid and the Price Bid shall be valid for a period of [*insert validity period as specified in ITB 20.1 of the BDS*] days starts from the date fixed for the bid submission deadline in accordance with ITB 24.1, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

(e) Our firm, including any Subcontractors or suppliers for any part of the Contract, have nationalities from eligible countries in accordance with ITB 4.2.

(f) We, our directors, key officers, key personnel, including any Subcontractors, consultants, subconsultants, manufacturers, service providers or suppliers for any part of the contract, do not have any conflict of interest in accordance with ITB 4.3.

If there is any conflict of interest, please state details:

(i) Parties involved in the conflict of interest: _____

(ii) Details about the conflict of interest: _____

(g) We are not participating, as a Bidder, either individually or as partner in a Joint Venture, in more than one Bid in this bidding process in accordance with ITB 4.3(e), other than alternative offers in accordance with the Bidding Document.

(h) Our firm, Joint Venture partners, our respective direct and indirect shareholders, directors, key officers, key personnel, associates, parent company, affiliates or subsidiaries, including any Subcontractors,consultants, subconsultants, manufacturers, service providers or Suppliers for any part of the contract, are not subject to, or not controlled by any entity or individual that is

subject to, a temporary suspension or a debarment imposed by the Asian Development Bank or a debarment imposed by the Asian Development Bank in accordance with the Agreement for Mutual Enforcement of Debarment Decisions between the Asian Development Bank and other development banks.[2]

(i) Our firm, Joint Venture partners, our respective direct and indirect shareholders, directors, key officers, key personnel, associates, parent company, affiliates or subsidiaries, including any Subcontractors, consultants, subconsultants, manufacturers, service providers or Suppliers for any part of the contract, are not under ongoing investigation and/or sanctions proceedings by the Asian Development Bank or any multilateral development bank.

If under ongoing investigation and/or sanction proceedings by the Asian Development Bank or any multilateral development bank, please state details:

(i) Name of the multilateral development bank: _____
(ii) Reason for the ongoing investigation / allegations: _____

(j) Our firm, Joint Venture partners, our respective direct and indirect shareholders, directors, key officers, key personnel, associates, parent company, affiliates or subsidiaries, including any Subcontractors, consultants, subconsultants, manufacturers, service providers or Suppliers for any part of the Contract, are not temporarily suspended, debarred, declared ineligible, or subject to any national and/or international sanctions by any country, any international organization, any multilateral development bank and other donor agency.

If so temporarily suspended, debarred, declared ineligible, or subject to any national and/or international sanctions by any country, any international organization, any multilateral development bank and other donor agency, please state details (as applicable to each Joint Venture partner, their respective direct or indirect shareholders, directors, key officers, key personnel, associate, parent company, affiliate, subsidiaries, Subcontractors, consultants, subconsultants, manufacturers, service providersand/or Suppliers):

(i) Name of Institution: _____
(ii) Period of the temporary suspension, debarment, ineligibility, or national or international sanction[*start and end date*]: _____
(iii) Reason for the temporary suspension, debarment, ineligibility, or national or international sanction: _____

(k) Our firm, Joint Venture partners, associates, parent company, affiliates or subsidiaries, including any Subcontractors consultants, subconsultants, manufacturers, service providers, Suppliers, key officers, directors and key personnel have never been charged or convictedwithany criminal offense (including felonies but excluding misdemeanors) or infractions and/or violations of ordinance; nor charged or found liable in any civil or administrative proceedings in the last 10 years; or undergoing investigation for such, or subject to any criminal, civil or administrative orders, monitorship or enforcement actions.

If so charged, convicted/found liable, under ongoing investigation, or subject to orders, monitorship or enforcement actions, please state details:

[2]These institutions include African Development Bank, European Bank for Reconstruction and Development (EBRD), Inter-American Development Bank (IADB), and the World Bank Group. According to paragraph 9 of the Agreement, other international financial institutions may join upon the consent of all Participating Institutions and signature of a Letter of Adherence by the international financial institution substantially in the form provided (Annex B to the Agreement). Upon adherence, such international financial institution shall become a Participating Institution for purposes of the Agreement. Bidders are advised to check www.adb.org/integrity for updates.

(i) Nature of the offense, violation, proceedings, investigation, and/or monitorship or enforcement actions: _____
(ii) Court, area of jurisdiction and/or the enforcement agency: _____
(iii) Resolution [i.e. dismissed; settled; or convicted/duration of penalty]: _____
(iv) Other relevant details[*please specify*]: _____

(l) Our firm, Joint Venture partners, our respective direct and indirect shareholders, directors, key officers, key personnel, associates, affiliates or subsidiaries, including any Subcontractors, consultants, subconsultants, manufacturers, service providers or Suppliers, can make and receive electronic fund transfer payments through the international banking system or otherwise discharge the Employer's obligation upon initiation of wire transfer.

If unable to make or receive funds through the international banking system or otherwise discharge the Purchaser's obligation upon initiation of wire transfer, please state the details:

(i) Nature of the restriction: _____
(ii) Jurisdiction of the restriction: _____
(iii) Other relevant details: _____

(m) Our firm, Joint Venture partners, associates, parent company, affiliates or subsidiaries, including any Subcontractors, consultants, subconsultants, manufacturers, service providers or Suppliers, key officers, directors and key personnel are not from a country which is prohibited to export goods or services to, or receive any payments from the Purchaser's country and/or are not prohibited to receive payments for particular goods or services by the Purchaser's country by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations.

(n) We have paid, or will pay the following commissions, gratuities, or fees with respect to the bidding process or execution of the Contract.[3]

Name of Recipient	Address	Reason	Amount
.....	.....	.....	.....
.....	.....	.....	..... .

(o) We understand that it is our obligation to notify the Purchaser of any changes in connection with the matters described in paragraphs (f), (h), (i), (j), (k), (l), (m) and (n) of this Technical Bid Submission Sheet.

(p) [We are not a government-owned enterprise] / [We are a government-owned enterprise but meet the requirements of ITB 4.5].[4]

(q) We have not been suspended nor declared ineligible by the Purchaser based on execution of a Bid-Securing Declaration in accordance with ITB 4.6.

(r) At any time following submission of our Bid, we shall permit, and shall cause our Joint Venture partners, directors, key officers, key personnel, associates, parent company, affiliates or subsidiaries, including any Subcontractors, consultants, subconsultants, manufacturers, service providers or Suppliers for any part of the contract to permit ADB or its representative to inspect our site, assets, accounts and records and other documents relating to the bid submission and to

[3] If none has been paid or is to be paid, indicate "None".

[4] Use one of the two options as appropriate.

have them audited by auditors appointed by ADB. We understand that failure of this obligation may constitute obstructive practice that may result in debarment and/or contract termination.

(s) Regardless of whether the contract will be awarded to us, we shall preserve all accounts, records and other documents related to bid submission for at least 3 years from the date of submission of the bid or the period prescribed in applicable law, whichever is longer.

(t) If we are awarded the contract, we shall preserve all accounts, records and other documents related to the procurement and execution of the contract for at least 5 years after completing the works contemplated in the relevant contracts or the period prescribed in applicable law, whichever is longer.

(u) We certify on behalf of the Bidder, that the information provided in the bid has been fully reviewed, given in good faith, and to the best of our knowledge is true and complete. We understand that it is our obligation to inform the Purchaser of any changes to the information as and when it becomes known to us.We understand that any misrepresentation that knowingly or recklessly misleads, or attempts to mislead may lead to the automatic rejection of the Bid or cancellation of the contract, if awarded, and may result in remedial actions, in accordance with ADB's Anticorruption Policy(1998, as amended to date) and Integrity Principles and Guidelines (2017, as amended from time to time).

Name _____

In the capacity of _____

Signed _____

Duly authorized to sign the Bid for and on behalf of _____

Date _____

Country of Origin Declaration Form

Name of Bidder _____ IFB Number _____ Page ___ of ___

Item	Description	Country of Origin

Price Bid Submission Sheet

– Note –

The Bidder must accomplish the Price Bid Submission Sheet on its letterhead clearly showing the Bidder's complete name and address.

Date: _____
Open Competitive Bidding (OCB) No.: _____
Invitation for Bid (IFB) No.: _____
Alternative No.: _____

To: [*insert complete name of the Purchaser*]

We, the undersigned, declare that:

(a) We have examined and have no reservations to the Bidding Document, including the Addenda issued in accordance with Instructions to Bidders (ITB) 8.

(b) We acknowledge that we have read and understand ADB's Anticorruption Policy (1998) and Integrity Principles and Guidelines (2015), both as amended from time to time.

(c) We offer to supply in conformity with the Bidding Document and in accordance with the delivery schedule specified in Section 6(Schedule of Supply), the following Goods and Related Services:[*insert a brief description of the goods and related services*]

(d) The total price of our Bid, excluding any discounts offered in item (d) below, is

[*amount of foreign currency in words*], [*amount in figures*], and [*amount of local currency in words*], [*amount in figures*]

The total bid price from the price schedules should be entered by the Bidder inside this box.Absence of the total bid price in the Price Bid Submission Sheet may result in the rejection of the bid.

(e) The discounts offered and the methodology for their application are as follows:

Discounts: If our Bid is accepted, the following discounts shall apply: [*specify in detail each discount offered and the specific item of the Schedule of Supply to which it applies*]

Methodology of Application of the Discounts: The discounts shall be applied using the following method: [*specify in detail the method that shall be used to apply the discounts*]

(f) Our bid shall be valid for a period of [*insert validity period as specified in ITB 20.1 of the BDS*] days starts from the date fixed for the submission deadline in accordance with ITB 24.1, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

(g) If our Bid is accepted, we commit to obtain a Performance Security in accordance with the Bidding Documents.

(h) We understand that this Bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal Contract is prepared and executed.

(i) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.

(j) At any time following submission of our Bid, we shall permit, and shall cause our Joint Venture partners, directors, key officers, key personnel, associates, parent company, affiliates or subsidiaries, including any Subcontractors, consultants, subconsultants, manufacturers, service providers or Suppliers for any part of the contract to permit ADB or its representative to inspect our site, assets, accounts and records and other documents relating to the bid submission and to have them audited by auditors appointed by ADB.We understand that failure of this obligation may constitute obstructive practice that may result in debarment and/or contract termination.

(k) Regardless of whether the contract will be awarded to us, we shall preserve all accounts, records and other documents related to bid submission for at least 3 years from the date of submission of the bid or the period prescribed in applicable law, whichever is longer.

(l) If we are awarded the contract, we shall preserve all accounts, records and other documents related to the procurement and execution of the contract for at least 5 years after completing the works contemplated in the relevant contracts or the period prescribed in applicable law, whichever is longer.

(m) We confirm and stand by our commitments and other declarations made in connection with the submission of our Technical Bid Submission Sheet.

(n) We certify on behalf of the Bidder, that the information provided in the bid has been fully reviewed, given in good faith, and to the best of our knowledge is true and complete. We understand that it is our obligation to inform the Purchaser of any changes to the information as and when it becomes known to us. We understand that any misrepresentation that knowingly or recklessly misleads, or attempts to mislead may lead to the automatic rejection of the Bid or cancellation of the contract, if awarded; and may result in remedial actions, in accordance with ADB's Anticorruption Policy (1998, as amended to date) and Integrity Principles and Guidelines (2015, as amended from time to time).

Name _____

In the capacity of _____

Signed _____

Duly authorized to sign the Bid for and on behalf of _____

Date _____

Special Instruction to Bidder:

1. All the Price Schedule Forms (BOQ) shall be available in Excel format under Financial Folders of the bid in the www.assamtenders.gov.in . Bidder has to download the forms and fill all the required information including the price. The excel file will be otherwise Write Protected, except the cells where bidder has to fill the required information will be opened. After filling up the required information bidder has to save the file and then required to upload in the Financial Folder. Further bidder must upload the “Price Bid Submission Sheet” in pdf. format in the Financial Folder only. Bid shall be evaluated in Lot basis comprising all supply requirement, related services including CAMC

2. Price quoted for “Comprehensive Annual Management Contract (CAMC) for preventive and breakdown maintenance including all required spare parts, Service Engineers, Consumables, Special tools etc. (for 5 Years)” shall not be less than 15% of overall contract value for Goods and Related Service. In case, the quoted price of the same is less than 15% percentage, payment shall be adjusted through retention to the extent CMC value becomes 15% of overall contract value of Goods and Related Service.

Price Schedule for Goods to be Offered from Within the Purchaser's Country

Name of Bidder _____ IFB Number _____ Page ___ of ___

1	2	3	4	5	6	7	8	9	10
Line Item N°	Description of Goods	Delivery Date as defined by Incoterms	Quantity and physical unit	Unit price EXW	Total EXWprice per line item (Col. 4×5)	Price per line item for inland transportation and other services required in the Purchaser's Country to convey the Goods to their final destination at Guwahati, Assam	Cost of local labor, raw materials and components from with origin in the Purchaser's Country % of Col. 5	Sales and other taxes payable per line item if Contract is awarded (in accordance with ITB 14.8(a)(ii)	Total Price per line item (Col. 6+7)
Lot 1	Supply, Installation, Testing and commissioning of MRI 3 Tesla(along with associated works, accessories and allied items as specified)	Within 3 months from the date from the day of signing of Contract.	1 no						
								Total Price	

Name of Bidder *[insert complete name of Bidder]* Signature of Bidder *[signature of person signing the Bid]* Date *[insert*

1	2	3	4	5	6	7	8	9	10
Line Item N°	Description of Goods	Delivery Date as defined by Incoterms	Quantity and physical unit	Unit price EXW	Total EXWprice per line item (Col. 4×5)	Price per line item for inland transportation and other services required in the Purchaser's Country to convey the Goods to their final destination at Guwahati, Assam	Cost of local labor, raw materials and components from with origin in the Purchaser's Country % of Col. 5	Sales and other taxes payable per line item if Contract is awarded (in accordance with ITB 14.8(a)(ii)	Total Price per line item (Col. 6+7)
Lot 2	Supply, Installation, Testing and commissioning of BIPLANE DSA System with Large Flat Panel Detector with inbuilt Angiography and Intervention and Stereotactic Radiotherapy (along with associated works, accessories and allied items as specified)	Within 3 months from the date from the day of signing of Contract.	1 no						
								Total Price	

Name of Bidder *[insert complete name of Bidder]* Signature of Bidder *[signature of person signing the Bid]* Date *[insert*

1	2	3	4	5	6	7	8	9	10
Line Item N°	Description of Goods	Delivery Date as defined by Incoterms	Quantity and physical unit	Unit price EXW	Total EXWprice per line item (Col. 4×5)	Price per line item for inland transportation and other services required in the Purchaser's Country to convey the Goods to their final destination at Guwahati, Assam	Cost of local labor, raw materials and components from with origin in the Purchaser's Country % of Col. 5	Sales and other taxes payable per line item if Contract is awarded (in accordance with ITB 14.8(a)(ii)	Total Price per line item (Col. 6+7)
Lot 3	Supply, Installation, Testing and commissioning of 256-Slice Dual Energy Spectral High End CT Scanner (along with associated works, accessories and allied items as specified)	Within 3 months from the date from the day of signing of Contract.	1 no						
								Total Price	

Name of Bidder *[insert complete name of Bidder]* Signature of Bidder *[signature of person signing the Bid]* Date *[insert*

1	2	3	4	5	6	7	8	9	10
Line Item N°	Description of Goods	Delivery Date as defined by Incoterms	Quantity and physical unit	Unit price EXW	Total EXWprice per line item (Col. 4×5)	Price per line item for inland transportation and other services required in the Purchaser's Country to convey the Goods to their final destination at Guwahati, Assam	Cost of local labor, raw materials and components from with origin in the Purchaser's Country % of Col. 5	Sales and other taxes payable per line item if Contract is awarded (in accordance with ITB 14.8(a)(ii)	Total Price per line item (Col. 6+7)
Lot 4	Supply, Installation, Testing and commissioning of 64 Slice CT Scan Machine(along with associated works, accessories and allied items as specified)	Within 3 months from the date from the day of signing of Contract.	1 no						
								Total Price	

Name of Bidder *[insert complete name of Bidder]* Signature of Bidder *[signature of person signing the Bid]* Date *[insert*

Price Schedule for Goods to be Offered from Outside the Purchaser's Country

Name of Bidder _____ IFB Number _____ Page ___ of ___

1	2	3	4	5	6	7	8	9
Line Item N°	Description of Goods	Country of Origin	Delivery Date as defined by Incoterms	Quantity and physical unit	Unit price CIP,*Guwahati, Assam* in accordance with ITB 14.8(b)(i)	CIP Price per line item (Col. 5x6)	Price per line item for inland transportation and other services required in the Purchaser's Country to convey the Goods to their final destination specified in BDS	Total Price per Line item (Col. 7+8)
Lot 1	Supply, Installation, Testing and commissioning of MRI 3 Tesla (along with associated works, accessories and allied items as specified)		Within 3 months from the date from the day of signing of Contract.	01 no				
							Total Price	

Name of Bidder *[insert complete name of Bidder]* Signature of Bidder *[signature of person signing the Bid]* Date

1	2	3	4	5	6	7	8	9
Line Item N°	Description of Goods	Country of Origin	Delivery Date as defined by Incoterms	Quantity and physical unit	Unit price CIP,*Guwahati, Assam* in accordance with ITB 14.8(b)(i)	CIP Price per line item (Col. 5x6)	Price per line item for inland transportation and other services required in the Purchaser's Country to convey the Goods to their final destination specified in BDS	Total Price per Line item (Col. 7+8)
Lot 2	Supply, Installation, Testing and commissioningof BIPLANE DSA System with Large Flat Panel Detector with inbuilt Angiography and Intervention and Stereotactic Radiotherapy(along with associated works, accessories and allied items as specified)		Within 3 months from the date from the day of signing of Contract.	01 no				
							Total Price	

Name of Bidder *[insert complete name of Bidder]* Signature of Bidder *[signature of person signing the Bid]* Date

1	2	3	4	5	6	7	8	9
Line Item N°	Description of Goods	Country of Origin	Delivery Date as defined by Incoterms	Quantity and physical unit	Unit price CIP,*Guwahati, Assam* in accordance with ITB 14.8(b)(i)	CIP Price per line item (Col. 5x6)	Price per line item for inland transportation and other services required in the Purchaser's Country to convey the Goods to their final destination specified in BDS	Total Price per Line item (Col. 7+8)
Lot 3	Supply, Installation, Testing and commissioning of 256-Slice Dual Energy Spectral High End CT Scanner(along with associated works, accessories and allied items as specified)		Within 3 months from the date from the day of signing of Contract.	01 no				
							Total Price	

Name of Bidder *[insert complete name of Bidder]* Signature of Bidder *[signature of person signing the Bid]* Date

1	2	3	4	5	6	7	8	9
Line Item N°	Description of Goods	Country of Origin	Delivery Date as defined by Incoterms	Quantity and physical unit	Unit price CIP,*Guwahati, Assam* in accordance with ITB 14.8(b)(i)	CIP Price per line item (Col. 5x6)	Price per line item for inland transportation and other services required in the Purchaser's Country to convey the Goods to their final destination specified in BDS	Total Price per Line item (Col. 7+8)
Lot 4	Supply, Installation, Testing and commissioning 64 Slice CT Scan Machine (along with associated works, accessories and allied items as specified)		Within 3 months from the date from the day of signing of Contract.	01 no				
							Total Price	

Name of Bidder *[insert complete name of Bidder]* Signature of Bidder *[signature of person signing the Bid]* Date

Price Schedule for Related Services to Be Offered from Outside and Within the Purchaser's Country

Name of Bidder _____ IFB Number _____ Page ___ of ___

1	2	3	4	5	6	7
Service N°	Description of Services (excludes inland transportation and other services required in the Purchaser's Country to convey the goods to their final destination)	Country of Origin	Delivery Date at place of Final destination	Quantity and physical unit	Unit price(PerYear)	Total Price per Service (Col. 5*6 or estimate)
01	Comprehensive Annual Maintenance Contract (CAMC) of the complete unit (MRI 3 Tesla)includingspares and consumablesfor 5 Years (after initial On-SiteWarranty Period)		After end of 5 years comprehensive warranty	5 years		
					Total Bid Price	

1	2	3	4	5	6	7
Service N°	Description of Services (excludes inland transportation and other services required in the Purchaser's Country to convey the goods to their final destination)	Country of Origin	Delivery Date at place of Final destination	Quantity and physical unit	Unit price (Per Year)	Total Price per Service (Col. 5*6 or estimate)
02	Comprehensive Annual Maintenance Contract (CAMC) of the complete unit (BIPLANE DSA System with Large Flat Panel Detector with inbuilt Angiography and Intervention and Stereotactic Radiotherapy)including spares and consumables for 5 Years (after initial On-Site Warranty Period)		After end of 5 years comprehensive warranty	5 years		
					Total Bid Price	

1	2	3	4	5	6	7
Service N°	Description of Services (excludes inland transportation and other services required in the Purchaser's Country to convey the goods to their final destination)	Country of Origin	Delivery Date at place of Final destination	Quantity and physical unit	Unit price (Per Year)	Total Price per Service (Col. 5*6 or estimate)
03	Comprehensive Annual Maintenance Contract (CAMC) oft he complete unit (256-Slice Dual Energy Spectral High End CT Scanner)including spares and consumables for 5 Years (after initial On-SiteWarranty Period)		After end of 5 years comprehensive warranty	5 years		
				Total Bid Price		

1	2	3	4	5	6	7
Service N°	Description of Services (excludes inland transportation and other services required in the Purchaser's Country to convey the goods to their final destination)	Country of Origin	Delivery Date at place of Final destination	Quantity and physical unit	Unit price (Per Year)	Total Price per Service (Col. 5*6 or estimate)
04	Comprehensive Annual Maintenance Contract (CAMC) of the complete unit (64 Slice CT Scan Machine)including spares and consumables for 5 Years (after initial On-Site Warranty Period)		After end of 5 years comprehensive warranty	5 years		
				Total Bid Price		

Note: The Price for CAMC should not be less than 15% of the total price of the Lot. In case the CAMC is less than 15%, the payment shall be adjusted without altering the total contract price

Bid Security

Bank Guarantee

[insert bank's name, and address of issuing branch or office][5]

Beneficiary: *[insert name and address of the Purchaser]*

Date: *[insert date (as day, month, and year)]*

Bid Security No.: *[insert number]*

We have been informed that *[insert name of the bidder]* (hereinafter called "the Bidder") has submitted to you its bid dated *[insert date(as day, month, and year)]* (hereinafter called "the Bid") for the execution of *[insert name of contract]* under Invitation for Bids No. *[insert IFB number]* ("the IFB").

Furthermore, we understand that, according to your conditions, bids must be supported by a bid guarantee.

At the request of the Bidder, we *[insert name of bank]* hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of *[insert amount in words][insert amount in figures]*upon receipt by us of your first demand in writing accompanied by a written statement stating that the Bidder is in breach of its obligation(s) under the bid conditions, because the Bidder

(a) has withdrawn its Bid during the period of bid validity specified by the Bidder in the Technical Bid Submission Sheet and Price Bid Submission Sheet; or

(b) does not accept the correction of errors in accordance with the Instructions to Bidders (hereinafter "the ITB"); or

(c) having been notified of the acceptance of its Bid by the Purchaser during the period of bid validity, (i) fails or refuses to execute the Contract Agreement; or (ii) fails or refuses to furnish the Performance Security, in accordance with the ITB.

This guarantee will expire: (a) if the Bidder is the successful Bidder, upon our receipt of copies of the Contract Agreement signed by the Bidder and the Performance Security issued to you upon the instruction of the Bidder; or (b) if the Bidder is not the successful Bidder, upon the earlier of (i) our receipt of a copy of your notification to the Bidder of the name of the successful Bidder, or (ii) 28 days after the expiration of the Bidder's bid.

Consequently, any demand for payment under this guarantee must be received by us at the office indicated above on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revisions, ICC Publication No. 758.[6]

[Authorized signature(s) and bank's seal (where appropriate)]

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[5] All italicized text is for use in preparing this form and shall be deleted from the final document.

[6] Orthe Purchaser may use "Uniform Rules for Demand Guarantees (URDG), ICC Publication No. 458" as appropriate.

Manufacturer's Authorization

Date: *[insert date (as day, month, and year) of bid submission]*

OCB No.: *[insert number of bidding process]*

To:*[insert complete name of the Purchaser]*

WHEREAS

We*[insert complete name of the manufacturer]*, who are official manufacturers of *[insert type of goods manufactured]*, having factories at *[insert full address of manufacturer's factories]*, do hereby authorize*[insert complete name of the bidder]* to submit a bid the purpose of which is to provide the following goods, manufactured by us *[insert name and/or brief description of the goods]*, and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with Clause 28 of the General Conditions, with respect to the goods offered by the above firm.

Signed: *[insert signature(s) of authorized representative(s) of the manufacturer]*

Name:*[insert complete name(s) of authorized representative(s) of the manufacturer]*

Title:*[insert title]*

Duly authorized to sign this Authorization on behalf of *[insert complete name of the manufacturer]*

Dated on _____ day of _____, _____*[insert date of signing]*

-- Note --

All italicized text is for use in preparing this form and shall be deleted from the final document.

The bidder shall require the manufacturer to fill out this form in accordance with the instructions indicated. This letter of authorization should be signed by a person with the proper authority to sign documents that are binding on the manufacturer. The bidder shall include it in its bid, if so indicated in the Bid Data Sheet (BDS).

AFFILIATE COMPANY GUARANTEE

Name of Contract/Contract No.: _____

Name and address of Purchaser: _____
[*together with successors and assigns*].

We have been informed that [*name of Contractor*] (hereinafter called the "Contractor") is submitting an offer for the above-referenced Contract in response to your invitation, and that the conditions of your invitation require its offer to be supported by an affiliate company guarantee.

In consideration of you, the Purchaser, awarding the Contract to the Contractor, we [*name of affiliated company*] irrevocably and unconditionally guarantee to you, as a primary obligation, that (i) throughout the duration of the Contract, we will make available to the Contractor our financial, technical capacity, expertise and resources required for the Contractor's satisfactory performance of the Contract; and (ii) we are fully committed, along with the Contractor, to ensuring a satisfactory performance of the Contract.

If the Contractor fails to so perform its obligations and liabilities and comply with the Contract, we will indemnify the Purchaser against and from all damages, losses and expenses (including legal fees and expenses) which arise from any such failure for which the Contractor is liable to the Purchaser under the Contract.

This guarantee shall come into full force and effect when the Contract comes into full force and effect. If the Contract does not come into full force and effect within a year of the date of this guarantee, or if you demonstrate that you do not intend to enter into the Contract with the Contractor, this guarantee shall be void and ineffective. This guarantee shall continue in full force and effect until all the Contractor's obligations and liabilities under the Contract have been discharged, when this guarantee shall expire and shall be returned to us, and our liability hereunder shall be discharged absolutely.

This guarantee shall apply and be supplemental to the Contract as amended or varied by the Purchaser and the Contractor from time to time. We hereby authorize them to agree on any such amendment or variation, the due performance of which and compliance with which by the Contractor are likewise guaranteed hereunder. Our obligations and liabilities under this guarantee shall not be discharged by any allowance of time or other indulgence whatsoever by the Purchaser to the Contractor, or by any variation or suspension of the works to be executed under the Contract, or by any amendments to the Contract or to the constitution of the Contractor or the Purchaser, or by any other matters, whether with or without our knowledge or consent.

This guarantee shall be governed by the law of the same country (or other jurisdiction) that governs the Contract and any dispute under this guarantee shall be finally settled under the [*Rules or Arbitration provided in the Contract*]. We confirm that the benefit of this guarantee may be assigned subject only to the provisions for assignment of the Contract.

Signed by:…… Signed by:
……
[*signature*] [*signature*]
…… ……
[*name*] [*name*]
…… ……
[*position in parent/subsidiary company*] [*position in parent/subsidiary company*]
Date:……

-- Note --

If permitted in accordance with ITB 34.2 of the BDS, the Bidder shall provide the Affiliate Company Guarantee Form filled out and signed by each subsidiary, parent entity, or affiliate that the Bidder submits for consideration of the Purchaser in determining its qualifications.

Bidders Qualification

To establish its qualifications to perform the contract in accordance with Section 3 (Evaluation and Qualification Criteria), the Bidder shall provide the following information requested in the corresponding Information Sheets.

Form ELI - 1: Bidder's Information Sheet

Bidder's Information			
		Information of the Bidder	**If the Bidder is a subsidiary or branch, information of any parent company/companies**
Names	**Full legal name(s)**		
	Full trading name(s) (if any)		
Addresses	**Registered address(es)**		
	Trading address(es)		
	Postal address(es) (if different from trading address)		
Type of organization			
Country of constitution/incorporation/registration			
Year of constitution/incorporation/ registration			
Corporate or registration number			
In case of a Joint Venture, legal name of each partner			
Bidder's authorized representative (name, address, telephone number(s), fax number(s) and e-mail address)			

Attached are copies of the following documents:

1. In case of a single entity, articles of incorporation or constitution and company incorporation/registration of the legal entity named above, in accordance with ITB 4.1 and ITB 4.2

2. Authorization to represent the firm or Joint Venture named above, in accordance with ITB 22.2

3.In case of a Joint Venture, a letter of intent to form a Joint Venture or Joint Venture agreement, in accordance with ITB 4.1

4.In case of a government-owned enterprise, any additional documents not covered under 1 above required to comply with ITB 4.5

Form ELI - 2: Joint Venture Information Sheet

Each member of the Joint Venture must fill out this form separately.

Joint Venture Information			
Bidder's legal name			
		Information of Joint Venture Partner	**If any Joint Venture Partner is a subsidiary or branch, information of any parent company/companies**
Names	**Joint VenturePartner's legal name**		
	Full trading name(s) (if any)		
Addresses	**Registered address(es)**		
	Trading address(es)		
	Postal address(es) (if different from trading address)		
Type of organization			
Country of constitution/incorporation/ registration			
Year of constitution/incorporation/ registration			
Corporate or registration number			
Joint Venture Partner's authorized representative information (name, address, telephone number(s), fax number(s) ande-mail address)			
Attached are copies of the following documents: 1.Articles of incorporation or constitution and company incorporation/registration of the legal entity named above, in accordance with ITB 4.1 and ITB 4.2 2.Authorization to represent the firm named above, in accordance with ITB 22.2 3.In the case of a government-owned enterprise, documents establishing legal and financial autonomy and compliance with commercial law, in accordance with ITB 4.5			

Form CON– 1: Historical Contract Non-performance

For Contract type B, each Bidder must fill out this form in accordance with Criteria 2.2.1 and 2.2.3of Section 3 (Evaluation and Qualification Criteria) to describe any history of nonperforming contracts and pending litigation or arbitration formally commenced against it.

In case of a Joint Venture, each Joint Venture Partner must fill outthis form separately and provide the Joint Venture Partner's name:

Joint Venture Partner: _____

Table 1: History of Nonperforming Contracts

Choose one of the following:

- ❑ No nonperforming contracts.
- ❑ Below is a description of nonperforming contracts involving the Bidder (or each Joint Venture partner if Bidder is a Joint Venture).

Year	Description	Amount of Nonperformed Portion of Contract ($ equivalent)	Total Contract Amount ($ equivalent)
[insert year]	Contract Identification: *[indicate complete contract name/ number, and any other identification]* Name of Purchaser: *[insert full name]* Address of Purchaser: *[insert street/city/country]* Reason(s) for non-performance: *[indicate main reason(s)]*	*[insert amount]*	*[insert amount]*

Table 2: Pending Litigation and Arbitration

Choose one of the following:

- ❑ No pending litigation, arbitrationor any other material events impacting the net worth and/or liquidity of the bidder.
- ❑ Below is a description of all pending litigation, arbitration involving the Bidderor any other material events impacting the net worth and/or liquidity of the bidder (or each Joint Venture partner if Bidder is a Joint Venture).

Year	Matter in Dispute	Value of Pending Claim in $ Equivalent	Value of Pending Claim as a Percentage of Net Worth
[insert year]	Contract Identification, as applicable: *[indicate complete contract name/ number, and any other identification]* Name of Purchaser, parties involved in the material events impacting the net worth and/or liquidity of the bidder: *[insert full name]* Address of Purchaser, parties involved in the material events impacting the net worth and/or liquidity of the bidder: *[insert street/city/country]* Matter of Dispute: *[indicate full description of dispute]* Party who initiated the dispute: *[indicate "Purchaser" or "Contractor"]* Status: *[indicate status of dispute]*	*[insert amount]*	*[insert amount]*

- Note -

Table 2 of this form shall only be included if Criterion 2.2.3(Contract Type B) of Section 3 (Evaluation and Qualification Criteria) is applicable.

Form EXP - 1: Contractual Experience

Fill out one (1) form per contract.each contract shall be supported by Signed Contract Agreement.

Contractual Experience			
Contract No . . . . . **of**	**Contract Identification**		
Award Date		**Completion Date**	
Role in Contract	❑ **Manufacturer**	❑ **Supplier**	❑ **Subcontractor**
Total Contract Amount	**$**		
If partner in a joint venture or subcontractor, specify participation of total contract amount	**Percent of Total**	**Amount**	
Purchaser's name **Address** **Telephone/Fax Number** **E-mail**			
Description of the Similarity in Accordance with Criteria 2.2.1 (Contract Type A)or 2.3.1 (Contract Type B) of Section 3(Evaluation and Qualification Criteria)			

- Note -

This form shall only be included if either Criterion 2.2.1(Contract Type A) or 2.3.1 (Contract Type B) of Section 3 (Evaluation and Qualification Criteria) is applicable.

Form EXP - 2: Technical Experience

Fill out one (1) form per contract. Each contract shall be supported by Signed Contract Agreement.

Technical Experience		
Name of Product		
Manufacturer:		**Address and Nationality:**
Requirements in Accordance with Criterion 2.3.2 (Contract Type B)of Section 3(Evaluation and Qualification Criteria)		
(i) Product has been in production for at least . . . . . years.		
(ii) Product (or equipment) has been sold a minimum of . . . . . units of similar type and specification over the last three (3) years.		
(iii) Product has been in operation for a minimum of . . . . . years.		

- Note -

This form shall only be included if Criterion 2.3.2 (Contract Type B) of Section 3 (Evaluation and Qualification Criteria) is applicable. Add pages as necessary. The Purchaser reserves the right to verify authenticity of Bidder submissions.

Form EXP - 3: Production Capacity

Fill out one (1) form per product and manufacturer.

Production Capacity		
Name of Product		
Manufacturer:		**Address and Nationality:**
Requirements in Accordance with Criterion 2.3.3 (Contract Type B) of Section 3(Evaluation and Qualification Criteria)		
Production facility 1 (include location):		
Production facility 2 (include location):		
Production facility 3 (include location):		

- Note -

This form shall only be included if Criterion 2.3.3 (Contract Type B) of Section 3 (Evaluation and Qualification Criteria) is applicable. The Purchaser reserves the right to verify authenticity of Bidder submissions.

Form FIN - 1: Historical Financial Performance

Each Bidder must fill out this form.

In case of a Joint Venture, each Joint Venture Partner must fill out this form separately and provide the Joint Venture Partner's name:

Joint Venture Partner: _____

Financial Data for Previous ___ Years [$ Equivalent]		
Year 1:	**Year 2:**	**Year __:**

Information from Balance Sheet

Total Assets (TA)			
Total Liabilities (TL)			
Net Worth = TA-TL			
Current Assets (CA)			
Current Liabilities (CL)			
Working Capital = CA - CL			

Most Recent Working Capital		To be obtained for most recent year and carried forward to FIN-3 Line 1; in case of Joint Ventures, to the corresponding Joint Venture Partner's FIN-3.

Information from Income Statement

Total Revenues			
Profits Before Taxes			
Profits After Taxes			

❑ Attached are copies of financial statements (balance sheets including all related notes, and income statements) for the last _____ years, as indicated above, complying with the following conditions:

1) Unless otherwise required by Section 3 of the Bidding Documents, all such documents reflect the standalone financial situation of the legal entity or entities comprising the Bidder and not the Bidder's parent companies, subsidiaries, or affiliates.

2) Historical financial statements must be audited by a certified accountant.

3) Historical financial statements must be complete, including all notes to the financial statements.

4) Historical financial statements must correspond to accounting periods already completed and audited (no statements for partial periods shall be requested or accepted).

- Note -

This form shall only be included if Criterion 2.3.1(Contract Type A) or 2.4.1 (Contract Type B) of Section 3 (Evaluation and Qualification Criteria) is applicable.

Form FIN - 2: Size of Operation (Average Annual Turnover)

Each Bidder must fill out this form.

The information supplied should be the Annual Turnover of the Bidder or each partner of a Joint Venture for the total certified payments received from the clients for contractsin progress or completed, converted to US dollars at the rate of exchange at the end of the period reported.

In case of a Joint Venture, each Joint Venture Partner must fill out this form separately and provide the Joint Venture Partner's name:

Joint Venture Partner: _____

Annual Turnover Data for the Last . . . . Years			
Year	**Amount Currency**	**Exchange Rate**	**$ Equivalent**
		Average Annual Turnover	

- Note -

This form shall only be included if Criterion 2.3.2 (Contract Type A) or 2.4.2 (Contract Type B) of Section 3 (Evaluation and Qualification Criteria) is applicable.

Form FIN - 3: Cash Flow Capacity

Specify proposed sources of financing, such as working capital, liquid assets,[7] lines of credit, and other financial resources (other than any contractual advance payments) available to meet the cashflow requirements indicated under Criterion 2.4.3 (Contract Type B)of Section 3 (Evaluation and Qualification Criteria).

Financial Resources		
No.	**Source of financing**	**Amount ($ equivalent)**
1		
2		
3		

- Note -

This form shall only be included if Criterion 2.4.3(Contract Type B) of Section 3 (Evaluation and Qualification Criteria) is applicable.

[7] Liquid assets mean cash and cash equivalents, short-term financial instruments, short-term available-for-sale-securities, marketable securities, trade receivables, short-term financing receivables, and other assets that can be converted into cash within one (1) year.

Section 5: Eligible Countries

This section contains the list of eligible countries.

1. Afghanistan
2. Armenia
3. Australia
4. Austria
5. Azerbaijan
6. Bangladesh
7. Belgium
8. Bhutan
9. Brunei Darussalam
10. Cambodia
11. Canada
12. People's Republic of China
13. Cook Islands
14. Denmark
15. Fiji
16. Finland
17. France
18. Georgia
19. Germany
20. Hong Kong, China
21. India
22. Indonesia
23. Ireland
24. Israel
25. Italy
26. Japan
27. Kazakhstan
28. Kiribati
29. Republic of Korea
30. Kyrgyz Republic
31. Lao PDR
32. Luxembourg
33. Malaysia
34. Maldives
35. Marshall Islands
36. Federated States of Micronesia
37. Mongolia
38. Myanmar
39. Nauru
40. Nepal

41. Netherlands
42. New Zealand
43. Niue
44. Norway
45. Pakistan
46. Palau
47. Papua New Guinea
48. Philippines
49. Portugal
50. Samoa
51. Singapore
52. Solomon Islands
53. Spain
54. Sri Lanka
55. Sweden
56. Switzerland
57. Taipei,China
58. Tajikistan
59. Thailand
60. Timor-Leste
61. Tonga
62. Turkey
63. Turkmenistan
64. Tuvalu
65. United Kingdom
66. United States
67. Uzbekistan
68. Vanuatu
69. Viet Nam

Section 6: Schedule of Supply

Contents

1. List of Goods and Related Services

Lot No.:1				
Lot Name: MRI 3 Tesla				
Item No.	Name of Goods	Description	Unit of Measurement	Quantity
1	MRI 3 Tesla	Supply Installation, Testing and commissioning (along with associated works, accessories and allied items as specified)	Nos	1
2	CAMC for 5 years	Comprehensive maintenance after the initial warranty of 5 years	Job	5 years

Lot No.: 2				
Lot Name: BIPLANE DSA System with Large Flat Panel Detector with inbuilt Angiography and Intervention and Stereotactic Radiotherapy				
Item No.	Name of Goods	Description	Unit of Measurement	Quantity
1	BIPLANE DSA System with Large Flat Panel Detector with inbuilt Angiography and Intervention and Stereotactic Radiotherapy	Supply Installation, Testing and commissioning (along with associated works, accessories and allied items as specified)	Nos	1
2	CAMC for 5 years	Comprehensive Annual Maintenance Contract for 5 years	Job	1

Lot No.: 3				
Lot Name: 256-Slice Dual Energy Spectral High End CT Scanner Technical Specification				
Item No.	Name of Goods	Description	Unit of Measurement	Quantity
1	256-Slice Dual Energy Spectral High End CT Scanner	Supply Installation, Testing and commissioning (along with associated works, accessories and allied items as specified)	Nos	1
2	CAMC for 5 years	Comprehensive Annual Maintenance Contract for 5 years	Job	1

Lot No.: 4				
Lot Name: 64 Slice CT Scan Machine				
Item No.	Name of Goods	Description	Unit of Measurement	Quantity
1	64 Slice CT Scan Machine	Supply Installation, Testing and commissioning (along with associated works, accessories and allied items as specified)	Nos	1
2	CAMC for 5 years	Comprehensive Annual Maintenance Contract for 5 years	Job	1

2. Delivery and Completion Schedule

The delivery period shall start as of _____.

Lot No.: 1				
Lot Name: MRI 3 Tesla				
Item No.	Description of Goods or Related Services	Delivery Schedule (Duration)	Location	Required Arrival Date of Goods or Completion Date for Related Services
1.	MRI 3 Tesla	90 days	Mahendra Mohan Choudhury Hospital, Guwahati (Assam), MG Road (Main Road), Pan Bazar, Guwahati PIN – 781001	Supply will start after 7 days of signing of Con-tract and is to be completed within **3 months** from the day of signing of Contract
2.	Comprehensive Annual Maintenance Contract for 5 years	Comprehen sive maintenanc e after the initial warranty of 5 years	Guwahati, Assam, India	Comprehensive maintenance for 5 years after the initial warranty of 5 years

Lot No.: 2				
Lot Name: BIPLANE DSA System with Large Flat Panel Detector with inbuilt Angiography and Intervention and Stereotactic Radiotherapy				
Item No.	Description of Goods or Related Services	Installation Schedule	Location	Required Arrival Date of Goods or Completion Date for Related Services
1	BIPLANE DSA System with Large Flat Panel Detector with inbuilt Angiography and Intervention and Stereotactic Radiotherapy	90 Days	Mahendra Mohan Choudhury Hospital, Guwahati (Assam), MG Road (Main Road), Pan Bazar,Guwahati PIN – 781001	Supply will start after 7 days of signing of Contract and is to be completed within **3 months** from the day of signing of Contract
2	Comprehensive Annual Maintenance Contract for 5 years	Comprehensive maintenance after the initial warranty of 5 years	Guwahati, Assam, India	Comprehensive maintenance for 5 years after the initial warranty of 5 years

Lot No.: 3				
Lot Name: 256-Slice Dual Energy Spectral High End CT Scanner				
Item No.	Description of Goods or Related Services	Installation Schedule	Location	Required Arrival Date of Goods or Completion Date for Related Services
1	256-Slice Dual Energy Spectral High End CT Scanner	90 days	Mahendra Mohan Choudhury Hospital, Guwahati (Assam), MG Road (Main Road), Pan Bazar,Guwahati PIN – 781001	Supply will start after 7 days of signing of Contract and is to be completed within **3 months** from the day of signing of Contract
2	Comprehensive Annual Maintenance Contract for 5 years	Comprehensive maintenance after the initial warranty of 5 years	Guwahati, Assam, India	Comprehensive maintenance for 5 years after the initial warranty of 5 years

Lot No.: 4				
Lot Name: 64 Slice CT Scan Machine				
Item No.	Description of Goods or Related Services	Installation Schedule	Location	Required Arrival Date of Goods or Completion Date for Related Services
1	64 Slice CT Scan Machine	90 days	Mahendra Mohan Choudhury Hospital, Guwahati (Assam), MG Road (Main Road), Pan Bazar, Guwahati PIN – 781001	Supply will start after 7 days of signing of Contract and is to be completed within **3 months** from the day of signing of Contract
2	Comprehensive Annual Maintenance Contract for 5 years	Comprehensive maintenance after the initial warranty of 5 years	Guwahati, Assam, India	Comprehensive maintenance for 5 years after the initial warranty of 5 years

Note:

1. The Delivery schedule is indicative only and may be slightly adjusted depending on working conditions/ site requirements as decided by the respective Officer in Charge.

3. Technical Specifications

SN	Technical Specification Lot-1 MRI-3T		
	Whole body 3.0 Tesla Magnetic Resonance Imaging system optimized for higher performance in cardiac and neurological examinations with short superconducting magnet, high performance gradients and digital Radio frequency system. The system should have 32 channels RF system. The system should be totally new and should not contain refurbished or having recycled items.		
1	**MAGNET**		
a	3.0T active shielded super conductive magnet with best homogeneity. Field stability over time should be < or equal to 0.2 ppm/hr		
b	Length should be short with at least 70cm bore diameter.		
c	It should have facilities of better illumination ventilation and designed to avoid patient claustrophobia.		
d	The homogeneity of the magnet should be mentioned in relation to 10, 20, 30, 40 cm DSV. Automatic shimming in phantom should be better than 3.5ppm in 40 DSV.		
e	Please specify up to what FOV gradient linearity is maintained.		
f	Magnet should be shielded from external interferences. Smaller fringe field preferred 5 Gauss and 10 Gauss Line in X, Y, Z axis specify yours Quote value for 5 gauss and 10 gauss line. The 5 Gauss line will have to be marked.		
g	Cryogen vessel to be of Helium only with appropriate super thermal shielding and refrigeration facility for minimum Helium boil-off, Specify the Helium tank capacity and boil-off rate.		
h	Helium level monitoring equipment in the magnet and facility for appropriate quick shutdown of the magnet in the event of emergency		
i	Helium refill time should not be not less than 2years. Please mention the helium refill time.		
j	Noise level inside the examination room should be minimum as possible. Specify db level		
k	Physiological signal display on Gantry		
l	Built - in 2 way Intercom facility to communicate with patient is required		
m	Emergency helium release button should be provided at least in two places [inside MR examination room and console room]		
2	**Shim system**		
a	High performance and highly stable shim system with global and localized manual and auto-shimming for high homogeneity magnetic		

	field for imaging. Specify time for shimming. Quote the number of shim coil used		
b	Off-centre shimming should be possible.		
c	Auto shim (global and voxel shim) should take minimum time to shim the magnet with patient in position.		
3	**Gradient system**		
a	Activity shielded Gradient System with strength of at least 44 mT/m with slew rate of 200T/m/sec. The rise time should not be more than 250 micro second to reach the maximum gradient strength.		
b	These true slew rates should be available in each axis independently, for overall better duty cycle performance of the gradient.		
c	The duty cycle should be 100 percent.		
d	The Gradient system should have provision for eddy current compensation. Mention level of Eddy current compensation in %		
e	Field of View should be at least 45 cm in all three axes.		
f	Minimum TE & TR in 2D/3D should be specified in relation to the sequences.		
g	Minimum Slice Thickness in 2D & 3D should be specified in relation to the sequences.		
h	Echo Train length in both Spin echo and Gradient Echo should be at least 255 or more.		
i	The measurement matrix should be from 128x128 to 1024x1024 in both 2D and 3D imaging as well.		
4	**RF system**		
a	A fully digital RF system capable of transmitting power of at least 25 KW or more , Dual RF power amplifiers. System should be capable of Multi Transmit with Multi amplifier driving / True shape for better B1 homogeneity		
b	It should also have at least minimum of 32 independent ADC hardware RF channels with each having bandwidth of 1MHz or more along with necessary hardware to support Quadrature/CP array coils.		
c	It should support Parallel acquisition techniques like ASSET/SENSE/iPAT with a factor of at least 4.		
5	**RF Coils**		

	The system body Coil integrated to the magnet must be quadrature /CP. In addition to this coil, following Coils (preferably be with equal number of elements as the channels) be quoted. RF coils in addition to main body coil (Transmit / Receive or receive coils) auto tune, array or no tune coils. Coils for the following applications should be available with the system. Circular polarized (CP) Array coils should included in the offer. Coil / RF design should support compatibility to coils manufactured by other manufacturers. Please specify the measures taken to prevent dielectric artifacts. (Quadrature design & EPI compatible) in addition to main body coil. All array coils should be compatible with parallel imaging techniques. Please specify the number of channels and elements available for each coil. Please mention the true acceleration factor for each of the array coils.		
a	32 channels or more head coil-capable of multi frequency MR spectroscopy (1H).		
b	**Deleted**		
c	Neurovascular coil of 16 channels or more		
d	Spine phased array coil 32 channels or more		
e	Body phased array coils 32 channels of more (single or in combination) at least 45 cm z-axis coverage for imaging of abdomen, with at least 32 channels acquisition for body parts.		
f	**Suitable Coil / Coil combination (Max 2) for Peripheral Angiography 32 channels or more; with coverage of 80cm or more.**		
g	Suitable Carotid coil.		
h	Breast coil 16 channel or more.		
i	**Deleted**		
j	**j. Shoulder coil:** **a. Dedicated Shoulder coil – Multi channel - 1 No** **b. flex coils – 2nos. (One large and one small)**		
k	High resolution knee coil 8 channels or more; Tx & Rx.		
l	High resolution foot/ ankle coil – 8 channels or more		
m	Endo cavitary Coil - Prostrate Study		
5.a	**Deleted**		
6	**Patient Table**		
a	The table should be fully motorized, MRI Compatible computer-controlled table movement in vertical and horizontal directions Position accuracy should be +/- 1.0 C mm or better.		
b	Should be able to take at least 140 kg load.		
c	The table should have facility for manual traction in case of emergency.		

d	Cushions and other patient comfort accessories. All parts of the table should be protected from liquid spill		
e	The table should have patient hand-held alarm system.		
f	The table should deliver the protocols for automatic bolus chasing in peripheral angio with automatic table movement.		
7	**COMPUTER SYSTEM IMAGE PROCESSOR / OPERATOR CONSOLE**		
a	Computer should be latest in the industry, fast and efficient		
b	One colour console for acquisition, all calculations, post processing etc Console must have full colour with user define protocols with programmable inter scan delay. Necessary image processor with large RAM for ultra-fast image reconstruction should be provided It should be at least 8 GB RAM.		
c	Computational Speed to match the single shot Echo Planar Imaging (EPI). Interactive angiogram, multi-planar three-dimensional (3D) reconstruction, surface rendering, dynamic Imaging, vascular Imaging/angiography. Functional imaging, DTI etc. The main host computer should have at least 18-inch or more TFT/LCD type colour monitor.		
d	The main console should have facility for music system for the patient in the magnet room.		
e	Filming and adequate storage for images and other applications.		
f	Total hard disk memory to be sufficient to store at least 250,000 images of 256 x 256 matrix data size.. Systems offering higher' storage will be preferred. The system should have CD/DVD archiving facility on the main console and work station.		
g	DVD write/CD Read/Rewrite drive for writing of images, spectra and raw data along with the necessary software for reading the Images and spectra on DVD/CD storing capabilities. Provision for archival of k-space data and raw (unprocessed) images.		
h	There should be a provision of retrieval of the reconstruction data (raw files) in an user friendly manner.		
i	DICOM interface to hook DICOM dry/laser camera capable of storing printing 1024 x 1024 matrix size images at least in 16 format without loss of digital resolution.		
j	The system should be capable to connect to PACS through RIS/HIS at no extra cost. Highest version of DICOM connectivity to be provided.		
8	**Workstation**		

1	**One server with 2 node with concurrent licenses to be supplied with the system.** **Licenses: 2 nos Concurrent license here implies the capability to process all the loaded software to be accessible and usable on all the systems simultaneously without any processing delay. The software should also include a reputed antivirus software of a perpetual type or renewed by the supplier.** **Hardware: Node: The vendor has to supply the hardware in the form of CPU and Medical grade monitor 18" or more of 2MP resolution.** **Hardware Server: The server (single/dual configuration) should have image storage capacity of at least 2.5 Tera bytes, minimum 20,000 concurrent slice processing power and at least 64GB RAM. The server hardware to be included with 21" or more TFT/LCD monitor with dual processor. DICOM 3.0 compatibility and interfacing with other modalities must be possible. The workstation shall have the resolution, software and all functionality of a stand-alone workstation**		
2	All necessary software including post-processing software for all offered applications including evaluation for fMRI, perfusion (ASL, T1 perfusion and T2* perfusion), diffusion, DTI with fibre tracking, cardiac evaluation, and other associated post processing like MIP, MPR, surface reconstruction should be provided.		
	The workstation should have the following features: **a. Cardiac perfusion analysis, quantitative T1 mapping, with colour metabolite mapping, quantification of the CSF flow data.**		
	b. Image Fusion software should be provided for Inter-modality and Intra-modality fusion.		
	c. Software for vascular properties like IAUC, KEP as standard.		
	d. DSA images should be viewable in Subtraction mode.		
	e. Necessary and adequate hardware and software for sending and receiving the patient data {text + images}. Printing of films should be possible from both main console and workstation.		
	f. Workstation should also be able to function independent of the main console. Post processing of the MRS data including for CSI with paramagnetic metabolic mapping		
	g. Capability to calculate colour display of real MTT, real CBV, and real CBF		
	h. Compatibility with data from other MRI system for post processing.		
	i. Output in the form of jpeg, avi / equivalent formats should be possible.		

	Cardiac Package:One License: The workstation should have display of Cardiac cine images in movie mode with rapid avi creation and should have comprehensive cardiac post processing software including for coronary MRA with regular free upgrades in future. Calculation of ventricular area and volume, stroke volume, ejection fraction and relative ejection fraction, Time volume diagram generation, filling rates and myocardial wall motion, Graphic display of output calculation of flow and velocity parameter with colour coded display of velocity parameters. Diffusion tensor Imaging, 3D myocardial tagging should be possible.		
9	**Data Acquisition**		
a	The system should be capable of 2D and 3D acquisitions in conventional, fast & ultra-fast spin echo and gradient echo modes so that real- time online images can be observed if needed.		
b	2D multi-slice imaging should be possible in all planes (axial, sagiltal, coronal, oblique arid double oblique).		
c	Minimum 512 x 512 matrix acquisition for all applications.		
d	Half Fourier or other techniques to reduce scan acquisition time while maintaining adequate SNR		
e	3D volume, multiple contiguous slabs, multiple interleaved and multiple overlapping slabs		
f	Slice thickness in 2D and partition in 3D to be freely selectable		
g	Dynamic acquisition (serial imaging) with capability to initiate scan sequences either from the magnet panel or from the console.		
h	Dynamic acquisition number of repeat scans with delay time either identical time interval or selectable.		
i	Auto slices positioning from the localizer images.		
j	Maximum -off centre positioning both anterior-posterior and lateral direction and should be selectable.		
k	Gating: physiological signals like ECG, pulse, respiratory, external signal triggering (interface for triggering input pulse from external source).		
l	Simultaneous acquisition, processing and display of image data in 2D multi-slice mode.		
m	Selection of voxel from oblique slices should be possible while doing spectroscopy.		
n	The application software for image smoothing and edge sharpness etc. for improvement in image resolution should be quoted.		
o	Artifact reduction/motion correction techniques/imaging enhancement/image filtering/image subtraction/addition multiplication/division techniques:		
p	Flow 1st and 2nd order flow artifact compensation.		
q	Presentation slabs: a number of relocatable saturation bands to be placed either inside or outside the region of interest.		

r	Magnetization transfer saturation: Off resonance RF pulses to suppress signals from stationary tissue in FOV phase contrast capability in 2D & 3D mode.		
s	Breath Hold Acquisition for Cardiac and Abdominal Imaging must be possible.		
t	Fat saturation techniques: frequency selective RF pulses to suppress fat signal in the measured image FO. ROI selective (regional) fat suppression should also be given.		
u	Magnetization transfer saturation; OFF-resonance RF pulses to suppress signals from stationary issue in FOV.		
v	Phase contrast capability in 2D and 3D mode.		
w	Image intensity correction.		
x	Breath hold acquisition		
10	**EPI mode**		
	a. Single and multi shot EPI imaging techniques.		
	b. Data acquisition in all three standard planes (axial, sagittal coronal) and oblique and double oblique planes		
	c. Multi-coil acquisition in order to optimize throughput increase and increased effective FOV. Individual acquisition of every coil should be mentioned.		
	d. Higher matrix acquisition capability in single shot EPI, Acquisition time, TR TE and slice thickness should be clearly mentioned and supported by data sheet reference.		
	e. BOLD, SWI, T2 Perfusion (with all post processing licenses as standard)		
	f. Complete Functional MRI of Brain package as standard. It should be a goggle basedsystem.(incl. of patient camera, goggles, headphone and all other related hardware).		
	g. Susceptibility-weighted Phase Imaging to differentiate calcification & hemorrhage.		
11	**Imaging sequences**		
	a. The system should be capable of selecting TR and TEs as per requirement in majority of the pulse sequences.		
	b. Spin echo (SE); multi-slice single echo, multislice multi- echo(B echo or more) with minimum TR and TE. SE with symmetrical and asymmetrical echo intervals: MT-SE imaging sequence.		
	c. Inversion recovery (IR) including short TI, modified IRSE, FLAIR, DIR (Double Inversion Recovery) MT and FLAIR.		
	d. Gradient echo (GE) 3D gradient echo with shortest TR and TE, free choice of flip angle selection while maintaining SNR		
	Fast sequences		

	a. Fast spin echo in 2D and 3D mode TI, T2 and PD contrast capable of acquiring maximum number of slices with a given TR a minimum TE. echo train should be at least 128 or more in fast spin echo mode.		
	b. Half Fourier acquisition capabilities should be available with/ without diffusion gradients and in combination with fast spin echo.		
	c. Fast inversion recovery with spin echo.		
	d. Fast gradient spin echo, IR multi-slice multi-echo mode with maximum turbo factor Sequences should incorporate RF focusing to acquire ultra-fast gradient spin echo.		
	e. Fast gradient echo sequence should be provided to acquire images in ultra-fast 2D and 3D mode.		
	f. Fat and water suppressed imaging sequences including the sequence which should give 4 contrasts (in phase, opposed phase. FAT and Water) images in a single acquisition to be quoted as standard. EPI optimized sequences for T1, T2, PD imaging. perfusion, regular diffusion values {5b, 3 directions), EPI-FLAIR. CPI-IR, IPI-FLAIR diffusion tensor. EP1-MT-FLAIR, tensor diffusion (5b values in minimum in six directions) for diffusion studies. Suitable artifact/fat suppression techniques to be incorporated in the sequence to have optimum image quality. There should be capability of generation of ADC map (isotropic and anisotropy from the regular diffusion and tensor data). Facility of online generation of ADC map should be there. Optimized sequence package for special applications.		
	g. MR angio; 2D/3D TOF, 2D/3D Phase contrast (with and without gating) magnetization transfer saturation, black blood angiography for cerebral, pulmonary, abdominal and peripheral vessel For peripheral angio moving table angiography should be offered so that complete limb can be examined in one go Bolus tracking software package should be offered. Sequences for breath hold angiography with contrast enchainment should also be offered.		
	h. NON Contrast Angiography like Native, Inhance, Trance for whole body applications to be quoted as standard.		
	i. Contrast bolus tracking (including single shot whole body MRA, interactive and automatic, etc.		
	J1. The system should have the Hydrogen, Single Voxel spectroscopy, Multivoxel, multislice 2D, 3D Spectroscopy and also the Chemical shift imaging in 2D/3D. The complete processing / post- processing software including colour metabolite maps should be available. J2. Full comprehensive cardiac sequences which include, (a) MR cardiology package for evaluation of heart in long and short axis with black blood cardiac imaging, (b) package for- prospective and retrospective gating, etc. Advanced Cardiac Applications: morphology, wall motion, perfusion imaging myocardial viability imaging, Myocardial tagging, Cardiac functions including EF, ED/ES volume, Cardiac output, and wall thickness. This processing can be in workstation and console.		

	k. Sequence package for diffusion study including DTI (tractography) in organs like brain, kidney, muscle, heart etc if available . Unavailable techniques to be provided as and when available without any additional cost.		
	l. Perfusion study in organ systems like kidney, brain, heart etc. Evaluation package for calculating CBV, CBF, MTT, perfusion map etc. Post processing of perfusion should be available in console also.		
	m. Sequences for MRI imaging of joints with Metal implants like WARP/Maverick should be offered		
	p. Hardware and sequences post processing software for MR Elastography of abdomen.		
	q. Contrast Kinematics like TWIST / TRICKS / 4DTRAK should be offered.		
	r. Image fusion should be offered		
	s. Whole body imaging of 200 cm should be offered		
	t. Programming environment under research agreement should be offered for creating and modifying pulse sequences and working on the system.		
	u. Flow quantification in vessels and CSF, hepatobiliary system.		
	v. MRI neurofunctional imaging sequence including BOLD/ Mosaic etc.		
	w. Optimized breath hold sequences for abdominal studies including angiogram.		
	x. Sequence package for functional mapping of brain.		
	y. Internal ear imaging. 3D acquisitions like CUBE. SPACE, VISTA .		
	aa. Susceptibility Weighted imaging should be provided as essential.		
	bb. High SNR even in small FOV should be available. (Specify the details of the smallest FOV and the technique)		
	cc. Non Contrast perfusion Imaging software like 2D/3D-ASL and its post processing should be offered.		
	dd. MR Cholangiography and Pancreatogram: Both breath-hold and respiratory triggered - Specialized sequences and processing to perform MRCP.		
	ee. Pulmonary 2D/3D MRA sequence, including single breath hold sequence.		
	ff. MR ventriculography and Cisternography, Myelography.		
	gg. Parallel acquisition technique such as SENSE/SMASH/ASSET/ GRAPPA ,iPAT, ARC and other new sequences to be quoted as standard		
	hh. Specify the factor by which the acquisition time is reduced for similar acquisition with and with out parallel imaging technique. A scan time reduction factor 4 for head, body, cardiac, angio and ortho application is required		

	ii. Flow quantification packages for CSF with dynamic CSF flow imaging, aqueduct. and spinal canal In-line motion correction for uncooperative' patients/pediatric applications, that is motions/patient movement correction sequence and algorithm (not just faster scanning or parallel imaging techniques) for non-cooperative/sick patients/children should be provided.		
	jj. Post contrast free breathing radial k-Space filling sequences.		
12	**Imaging sequences**		
	a. MRS: Proton (1H) MRS- Single voxel (SV), Multi-voxel CSI -2D and 3D- in both short and long TE		
	b. Fat and iron quantification of liver: standard		
13	**POST PROCESSING AND EVALUATION**		
	a. 3DMultiplanar reconstruction (MPR) in any arbitrary plane including curved planes with freely selectable slice thickness and slice Increments.		
	b. 3D Surface reconstruction and evaluation on reconstructed images with minimum time.		
	c. MIP in 2D and 3D mode, targeted/segmented MIP in any orthogonal axis with minimum processing time and capable of displaying in cine mode.		
	d. Full cardiac evaluation Operator selective or automatic contour mapping and calculation of Cardiac parameters like wall thickness, stroke volume EF, filling rate myocardial wall motion including display of data in label, graph and in cine mode with standard cardiology reporting set in BullsEye method. Blood flow quantification, velocity mapping, pressure gradient quantification shunt quantification, regurgitation calculation, stenosis blood flow, etc. These should be usable on main or on the work station. Evaluation and display of diffusion images, fMRI reference of EPI optimized sequence.		
	e. Full Perfusion imaging with necessary post processing with time intensity graph and other statistical parameters		
	f. Flow quantification and evaluation for vascular (high and low). CSF, bladder outlet and cine display Full Fledged Advanced Functional MRI: Whole brain coverage using high temporal resolution T2* - weighted BOLD) imaging Single-shot EP1 for multi-slice imaging. Complete fMRI processing software, Automatic real-time processing of functional BOLD MR data sets into functional activation map		
	g. Full post processing for SVS, CSI, metabolic mapping with colour coding for BRAIN ,BREAST , LIVER & PROSTRATE.		
	h. Image statistics: measurement of distance, area, volume (2D and 3D), angle, SD, mean, image addition subtraction, multiplication, division, interpolation, segmental, threshold, histogram (ROC) Evaluation features like zoom, rotation, scroll, image synthesis, multi point T1 and T2 calculation (more than 8) window		

	searching, text dialogues graphics. Sorting, searching, archiving, recalling, etc.		
	The CCTV system with LCD display to observe the patient. Two-way communication should be possible with the patient from the console room		
14	**UPS**		
	The system should be provided with the suitable UPS system for the complete system (MR + accessories except Chiller) with at least 30 minutes back up.		
15	**DOCUMENTATION**		
	a. The dry imager system should have digital DICOM 3.0 dry chemistry camera with resolution of 16 bits/ 500 dpi or more. The system must have at least three online film sizes, and should be capable to print on any of the 8 x 10, 10 x 12, 14 x 17 sizes. The system should be freely configurable by the user, to use any of the above mentioned size. should be supplied with 500 films of each size.		
	b. A colour laser printer for printing colour images and protocols on plane in 1200 dpi resolution and more than 20 ppm		
16	**ACCESSORIES**		
	1. Storage cabinet for all coils		
	2. (i) MRI Compatible Dual Syringe Pressure injector : Independent dual-Syringe Pressure injector with following Features; Non-ferrous, automatic syringe size detection, performs single and dual phase contrast injections, provides Saline flush delivery and allows timed contrast delivery Must be compatible with 5, 7.5 &10ml pre-filled contrast syringes and 50 ml syringes for both saline & contrast (20 Nos of 50 ml Syringes with 100 nos. of tube connectors should be provided) Must be able to observe progress of injection and view injection result		
	3. MRI Compatible ECG electrodes (100 no.s Disposable Electrodes for MRI Image gating)		
	5. MRI Compatible Anesthesia Machine with integrated Ventilator, 2 vaporizer, circle absorber		
	a) Capable of ventilating adult, pediatric and neonates.		
	b) Software for ventilation should support Volume control, Pressure control and Pressure support modes.		
	c) Should have oxygen, nitrous oxide and air flow meters		
	d) Isoflurane and sevoflurane vaporizers		
	e) All safety alarms		
	f) All consumables required for Adult-10Set, Pediatrics-3Set, Neonates -02Set		

	6. One MRI compatible Multiparameter Vital Signs Patient Monitor of 5000 Gauss Compliance in MRI Room and One Slave monitor in console room with following modules provision to monitor the following		
	a. Heart rate		
	b. ECG		
	c. NIBP – Size of Cuffs (adult & pediatric neonatal)		
	d. Respiration (Capnograph)		
	e. Deleted		
	f. Oxygen saturation – Pulse oximeter with adult, pediatric probe, and neonatal probes - 2 sets (with the spare probes), Should have plethysmograph perfusion factor.		
	g. ETCO2 and ETAA (end tidal anesthetic agents)		
	h. Temperature (adult and pediatric)		
	i) All consumables required for Adult-10Set, Pediatrics-3Set, Neonates -02Set		
	7. MRI compatible syringe pump – 2 Nos		
	8. Arrangement of Gas lines in recovery room and magnet room – MRI compatible high pressure gas outlet for:		
	a. Oxygen		
	b. Air		
	c. Nitrous Oxide with MRI compatible indexed system.		
	d. Vacuum suction		
	9. MRI Compatible 1 set of Laryngoscope :4 sizes blades- Neonatal, pediatrics, adult, extra		
	10. MRI compatible Magill forceps: Adult &pediatric size- Two each.		
	11. Stylet for endotracheal tube: Ault, pediatric size- Three each		
	12. MRI compatible Clamps 2 Nos: Either towel clip or artery forceps.		
	13. MRI Compatible two IV stands. (If not provided already)		
	14. Two non-magnetic patient transfer trolleys should be provided		
	15. Two Anesthesia bed/trolley for recovery room		
	16. Metal detectors: **i. Hand held metal detector- 02 nos.** **ii. Walk through Metal detector with multiple sensor and multiple location LED (Zone III type) - 01 no**		
	17. Phantoms to be provided for regular QA studies.		
	18. Complete manuals and other necessary documentation‘s should be provided.		
	19.MRI compatible Suction Apparatus - 2 nos		
17	**TRAINING**		

	Qualified personnel nominated by the deptt, should be given application training by the vendor in India for 2 weeks		
18	**STANDARD AND SAFETY**		
	Should be FDA or European CE approved product.		
19	**SITE MODIFICATION WORK**		
	a. The system should be installed and handed over in working condition with all necessary electrical, air conditioning and civil work undertaken by the vendor in consultation with the user dept.		
	b. All necessary interconnecting interfaces, cable, modules, and other hardware and software to fully integrate the system for full operational status.		
	The Site-Modification Scope of Work - MRI **The scope of work includes complete Civil work, Electrical, Plumbing, Furnishing, Airconditioning, Fire fighting and miscellaneous works for the construction of MRI Scan Centre. While preparing the plan, the following aspects have to be addressed.**		
	a. The MRI should be sited in such a manner; in order to minimise the effect of fringe magnetic field on surrounding areas. The areas lying within 5 Gauss line should be clearly demarcated and cordoned off with adequate warning.		
	b. Care should be taken to provide easy negotiation of the patient stretchers/ trolleys through corridors and doors.		
	c. RF shielding for doors, walls, glass viewer etc.		
	d. Furniture like desk, chairs, shelves etc.		
	e. Patient stretcher and other furniture/ accessory to make the scan centre functional.		
	The cost of Site Modification Work for the area of 1500sq.ft and Air-conditioning of Tonnage 20 TR will be considered for Ranking / Evaluation purpose		
f)	**Environment specifications:**		
	i.Relative Humidity range: To be maintained between 60% and 80% in all areas except equipment room which shall be as per requirement of the equipment.		
	ii. Temperature ranges: 22 ± 2° C in all areas except equipment room which shall be as per requirement of the equipment.		
	iii. Air conditioning load: The heat load calculations and maintaining the desired temperature and humidity shall be the responsibility of the bidder		
g)	**Furniture:**		
	i. Revolving chairs height adjustable, medium-back with hand-rest. – 8 Nos		

	ii. Chairs for patient waiting area – Three-seater (chrome plated). - 10 Nos		
	iii. Cupboard with laminate door shutters for storage of spare parts and accessories and records as per requirement. – 3 Nos		
	iv. Drug trolleys for patient preparation area. - 1 NO.		
	v. Patient trolley with rubber foam mattress to be kept in the patient preparation room.		
	vi. Tables for Workstation nodes- 2 Nos		
	vii. Changing rooms should have change lockers and dressing table.		
	viii. Dustbins (plastic with lid): 10 nos.		
	ix. All the rooms in the complex will be signposted. Sun film & ventilation blinds / curtain will be put up in all windows.		
	All furniture items should be of standard make as mentioned in the table below.		
h)	**Miscellaneous:**		
	1 Reporting room should have LED X-ray Film viewer with adjustable brightness; capable of holding 3 films of 14”x17” size. – 2 Nos		
	2 Cabling of Network (LAN) connectivity for camera system, console system, workstation and computers etc.		
	3 Broadband connection: for REMOTE SERVICE of MRI system.		
	4 Dry chemical power type fire extinguishers of 5kgs capacity, with initial filling in brand new cylinder with power coated finish, fitted with Gun metal union, high pressure CO2 gas cartridge, discharge hose, wall mounting bracket etc. complete, confirming t IS:2171 of approved make & complete as directed by EIC.		
	LIST OF ITEMS AND SUGGESTED MANUFACTURERS.		
SL NO	**ITEMS PREFERRED MAKES**		
A	**FLOORING VITRIFIED TILES** -Somany, Kajaria , H&R Johnson, RAK india or equivalent		
B	**PAINT** - Dulux, Asian Paints ,Nerolac or equivalent		
C	**PLUMBING** - Kohler, Jaguar ,Grohe , Roca or equivalent		
D	**SANITARY ITEMS** - CERA, Hindware, Parryware or equivalent		
E	**ELECTRICAL**		
1	**CABLES** - Finolex, Havells ,V-Guard or equivalent		
2	**SWITCHES** - Legrand, L&T, Crabtree , Roma or equivalent		
3	**DISTRIBUTION BOX, MCB** - Legrand, L&T, Siemens, Havels or equivalent		
4	**LIGHT FITTINGS** - Philips / Crompton / Wipro/Syska or equivalent		
F	**AIR CONDINTIONING** - Daikin, Hitachi, Blue Star, Voltas or equivalent		

G	**FURNITURE** - Hermen Miller,Godrej,Featherlite,Geeken or equivalent		
	Item Description		
S.No	**ITEM**	**Qty**	**UOM**
1	Whole body 3.0 Tesla Magnetic Resonance Imaging system - 32 channels RF system ; as specified	1	No
2	System Body Coil - Quadrature	1	No
3	32 channels or more HEAD coil-capable of multi frequency MR spectroscopy (H1).	1	No
4	NEUROVASCULAR coil - 16 channels	1	No
5	SPINE: Phased array coil 32 channels	1	No
6	BODY: Phased array coils 32 channels (single or in combination)	1	No
7	**Suitable Coil / Coil combination (Max 2 no.s) for** Peripheral Angiography 32 channels or more	1	No
8	**BREAST coil - 16 channel or more**	1	No
9	**Shoulder coil: Dedicated Shoulder coil – Multi channel**	1	No
10	**Shoulder coil: Flex coils (Large)**	1	No
11	**Shoulder coil: Flex coils (Small)**	1	No
12	High resolution foot/ ankle coil – minimum 8 channel	1	No
13	High resolution Tx & Rx KNEE coil minimum 8 channel.	1	No
14	**Server: Thin-client server as per specification**	**1**	No
15	Concurrent licenses for Server	2	No
16	Node Hardware: CPU and Medical grade monitor	2	No
17	Antivirus software for Server / Node	2	No
18	Cardiac Package - License	1	No
	ACCESSORIES		
1	Storage box for all coils	1	No
2	Dual Syringe Pressure injector	1	No
3	Dual Syringe Pressure injector syringes	20	No
4	Dual Syringe Pressure injector syringe connector	100	No
5	**MRI Compatible ECG electrodes (disposable)**	100	No
6	MRI Compatible Anesthesia Machine with integrated Ventilator, 2 vaporizer, circle absorber	1	No
7	**MRI Compatible Multiparameter Vital Signs Patient Monitor of 5000 Gauss Compliance & Slave monitor**	1	No
8	**MRI compatible syringe pump**	**2**	No
9	MRI Compatible sets of Laryngoscope: 4 sizes blades- Neonatal, pediatrics, adult, extra large	1	No
10	MRI compatible Magill forceps: Adult size-	2	No
11	MRI compatible Magill forceps:Pediatric size-	2	No
12	Stylet for endotracheal tube: Adult size	3	No

13	Stylet for endotracheal tube:Pediatric size	3	No
14	MRI compatible Clamps: Either towel clip or artery forceps.	2	No
15	MRI Compatible IV stands	2	No
16	MRI compatible suction apparatus	2	No
17	Non-magnetic patient transfer trolleys	2	No
18	Metal detectors: Handheld	2	No
19	Metal detector: Walk-through	1	No
20	Phantoms to be provided for regular QA studies.	1	LS
21	**Endocavitary Coil - Prostrate Study**	1	No
22	**MRI Compatible Dual Syringeless Pressure injectors**	1	No
23	**Tube connectors for Syringeless Pressure injector**	100	No
24	**Walk through Metal detector with multiple sensor and multiple location LED (Zone III type)**	1	No
25	**Dry Chemistry laser camera as specified**	1	No
	Components of Site Modification Work:		
1	Civil works	1500	ft2
2	Electrical work	1500	ft2
3	Public health (plumbing and sanitary fittings).	1500	ft2
4	Air Conditioning	20	TR
	Furniture:		
1	Revolving chairs height adjustable, medium-back with hand-rest in the Control room, Radiologist room and viewing area	8	No
2	Chairs for patient waiting area – Three seater (chrome plated). -	10	No
3	Cupboard with laminate door shutters for storage of spare parts and accessories and records as per requirement.	3	No
4	Drug trolleys for patient preparation area.	1	No
5	Patient trolley with rubber foam mattress to be kept in the patient preparation room.	2	No
6	Tables for Workstation Nodes.	2	No
7	Changing rooms (with change lockers and dressing table).	1	set
8	Dustbins (plastic with lid) to be provided as required.	10	No
9	Room Signage	1	LS
10	Venetian Blinds	1	LS
	Miscellaneous:		
1	LED X-ray Film viewer with adjustable brightness; capable of holding 3 films of 14”x17” size.	2	No
2	Cabling of Network (LAN) connectivity for camera system, console system, workstation and computers etc.	1	LS
3	Dry chemical powder type fire extinguisher of 5kgs capacity	3	No

	Warranty	
	CMC for 5 Years	Warranty: 60 months from the date of satisfactory installation. The warranty shall include all spares/accessories,labour required for preventive/breakdown maintenance from the date of completion of the satisfactory installation and acceptance. Comprehensive Maintenance-Contract for next five years will be inclusive of all accessories and turnkey work.The Comprehensive Annual Maintenance Contract shall include all spares, labour and preventive maintenance from the date of completion of the warranty of 60 months.

Lot-2BIPLANE DSA System with Large Flat Panel Detector with inbuilt Angiography and Intervention and Stereotactic Radiotherapy

Sr. No.	DETAILED SPECIFICATIONS:
1	**Gantry:**
1.1	The system should have two slim design 'C' arm / G Arm gantries: one floor mounted and one ceiling suspended providing full body coverage.
1.2	Both gantry movements should be rapid, motorized & collision proof. Manual override by the operator should be possible.
1.3	It should be possible to pre-program the gantry positions, angulations & rotations for at least 50 user defined examination positions.
1.4	All movements of the gantries should be controlled from the table side on the tableside as well as from the control desk.
1.5	Both gantries should have fast speed for angulations and positioning. The frontal system should have a speed of at least 15 degree/sec. for all positions and lateral plane should have a speed of at least 8 degree/sec Frontal plane movement should be both motorized and manual for at least +/- 90 degrees.
1.6	Gantry angulations & rotations in both planes, frontal and lateral should be freely user selectable to satisfy clinical imaging needs.
1.7	It should be possible to have an automatic positioning capability as projected from relevant reference imaging including 3D images.
1.8	Head to toe coverage with any one-plane gantry should be possible.
1.9	Full configuration, positioning range & speed & weight of the c-arms with & without the tube/detector assembly should be clearly mentioned in the offer.
2	**Patient Table:**

2.1	The table should be ergonomically designed, made of radiolucent carbon fiber, contoured for all neuroradiological examinations & interventional procedures
2.2	It should have trendelenburg tilt facility of at least 15°.
2.3	It should adequately support weight up to 200 kg.
2.4	The table should have motorized longitudinal, vertical travel and floating table top for longitudinal and transverse movements with electromagnetic locking facility.
2.5	It should be possible to swivel the table in case of emergencies.
2.6	**Accessories** for the table should include: (Supply of 2 nos. each)
2.6.1	Head fixing aids: foam pad for placing beneath head with adequate straps
2.6.2	Chin support
2.6.3	Abdominal compression device
2.6.4	Carbon fiber radiolucent arm support for brachial/ radial approach
2.6.5	Body straps
2.6.6	Shoulder harness
2.6.7	Ankle restrainer
2.6.8	Easy to clean suitable soft mattress
2.6.9	Drip stands
2.6.10	Peripheral filter set, catheterization arm support
2.6.11	Sand bags for thickness compensation for the head – adult & pediatric
2.7	Fully ergonomic foot switch with both cordless and with cord option to be provided.
2.8	Gantry, collimator, table & injector operations should be possible from control room console without interrupting image review, hard copying, and archiving or image transfer functions.
2.9	Tableside controls for 3D reconstruction and C-arm positioning with respect to 3D image & selection of 3D image positioning should be provided.
3	**X-RAY Generator:**
3.1	Generator should be high frequency microprocessor controlled for constant output for radiography & fluoroscopy.
3.2	Grid pulsed fluoroscopy capability is mandatory
3.3	Output should be at least 100 kW at 100 kV or more & constant for rapid serialography over extended runs for 20 seconds or more.
3.4	Voltage range-radiography kvp range should be 40 kvp - 125 kvp or more. Fluoroscopy kvp range to be 60 -120 kvp or more. Output at 100 kvp to be 1000 mA or more.

3.5	Specify fluoroscopy pulse width at variable frame rates.
3.6	It should have automatic exposure control device for radiography, fluoroscopy and angio mode.
3.7	It should have digital display for kvp&mAs in the gantry room.
3.8	Anatomically programmed radiography should be possible.
3.9	It should have over loading protection.
3.10	Pulsed fluoroscopy at variable rates for reducing the x-ray dose to the patient during interventional procedures should be possible without image drag during pulsing intervals.
4	**X-Ray Tubes:**
4.1	Both planes should be provided with small foci, high speed rotating anode tubes with high outputs.
4.2	Large focal spots-focal spot size should be 1mm or less for the large focus.
4.3	Small focal spot-focal spot size should be of 0.5 mm or less for the small focus for both planes.
4.4	An intermediate focus may be included. The specific use of the different focal spots and specific tube rating in respective programs should be clearly indicated in the offer.
4.5	The small focal spot should provide 15KW or more & the large focal spot at least 65 KW output for extended runs.
4.6	Anode heat storage capacity should be 5.0 MHU or more with advanced cooling mechanism for optimal heat dissipation & noiseless operation.
4.7	Heat dissipation rate not less than 3 kW.
4.8	Fluoroscopy power (maximum continuous power)-tubes should provide at least 2.4kW continuous output for over 30 minutes.
4.9	Tube cooling-system should have adequate cooling facility for the X-ray tubes for uninterrupted performance**.**
4.10	Adequate filtration for clinical setting should be provided & clearly mentioned in the offer.
4.11	Leakage radiation should conform to international standards.
4.12	Filtration & leakage radiation dose should be indicated in the offer. The tube should have inbuilt grid switching facility for suppression of leakage radiation.
4.13	The lateral plane tube should be mounted on the far side (left of the patient) of the ceiling suspended C-arm to reduce scatter radiation to operator.
4.14	The system should be quoted with latest dose reduction technique like Clarity IQ or equivalent for better image quality at less dose. The Vendor should quote the best dose reduction technique available with them at the time of supply.
5	**Collimator:**
5.1	One collimator for each plane with motorized longitudinal, transverse & hexagonal leaves to be provided.
5.2	The collimator leaf should have IRIS type arrangement.
5.3	The collimator should have facility for automatic copper pre-filtration for reducing x-ray dose as per patient thickness.
5.4	Additional filters with multiple leafs should be provided & it should be possible to position these filters & collimator leafs without live fluoroscopy & independent of each

	other (clearly mention in the offer). **At least 3 copper Spectral filters should be provided.**
5.5	The collimator should have integrated dose measurement chamber in order to display skin dose on the live monitors in the lab.
5.6	Automatic rotation of the displayed live image at all positions of the C-arms relative to the table should be possible keeping the head-end of the image uppermost in the monitor.
5.7	It should also be possible to rotate the image from control consoles as per user preference.
6	Flat panel detector system with 2k imaging capability for both detectors:
6.1	**Frontal Detector:**
6.1.1	Frontal flat detector should be 38cm x 30cm or bigger with 1920 x 2480 matrix elements or more.
6.1.2	Acquisition, processing and display of data at 16 bit digitization depth or better.
6.1.3	It should have multiple input format / field with minimum of 4 field zoom sizes, the smallest being 16cm.
6.1.4	The spatial resolution should be 3.25 LP/mm or more.
6.1.5	Acquisition speed for DSA should be 0.5 frames/sec to 6 frames/sec or higher at 2048x2048 matrix or 10 frames/sec or higher at 1024x1024 matrix. The system should have of 2K imaging capabilities as an essential requirement.
6.1.6	Standard AAPM phantoms for resolution measurement to be provided
6.1.7	Detector quantum efficiency 70% or more.
6.1.8	Specify if it is possible to rotate the detector from landscape to portrait orientation & vice a versa, at least in the frontal plane.
6.1.9	Pixel size**-**should be 160 micrometer or smaller.
6.2	**Lateral Detector:**
6.2.1	Detector size should be 30 x 30cm or bigger with 1400 x 1500 pixel matrix elements or more
6.2.2	Acquisition, processing and display of data at 16 bit digitization depth or better.
6.2.3	It should have multiple input format / field with minimum of 4 field zoom sizes smallest being 16cm.
6.2.4	The spatial resolution should be at least 3**.**25 LP/mm or more.
6.2.5	Acquisition speed for DSA should be 0.5 frames/sec to 6 frames/sec or higher at 2048x2048 matrix or 10 frames/sec or higher at 1024x1024 matrix. The system should have of 1.5K or more imaging capabilities as an essential requirement.
6.2.6	Detector quantum efficiency at least 70%.

6.2.7	Pixel size**-**should be 160 micrometer or smaller.
7	**TV Monitors (Total 6):**
7.1	**Examination room**-
7.1.1	Large display monitor (ceiling suspended, 8-megapixel display matrix arranged as a 3840 x 2160 pixel array)-A 56-inch **single** color monitor with contrast ratio of 4000:1 (medical grade) using high definition LCD screen for display of multiple images in a variety of layouts (at least should allow six images for display of live, reference and subtracted image) with high-resolution flicker free display. It should support the native resolution of the large biplane flat detector using imaging chain of the high display monitor.
7.1.2	High-definition video output option must be available with the large display monitor
7.1.3	Additional two medical grade monitors (19 inches each, total 2) in examination room for each plane as a backup during failure of 56-inch monitor. **OR** single 30-inch monitor (BARCO/Eizo/NEC or equivalent, total 1)
7.1.4	Additional 19" high-resolution color LCD monitors should be provided in the examination room TV stands for 3D image viewing.
7.1.5	The TV stand should be ceiling suspended &easily maneuverable to suit the operators' viewing. Height adjustment should be possible.
7.1.6	Suitable monitoring for continuous display of parameters of the tube, radiation dose, C arm position and orientation should be provided in the examination room.
7.2	**Control room**-
7.2.1	Monitor for control room**-**Single 30" dual HD medical-grade monitor for delivery of excellent quality images over the entire screen. The vendors should offer choice of display from multiple inputs simultaneously with different screen layouts. **OR** 2 latest technology LCD/ LED color monitors, one for each plane with high-resolution image display in the control room should be provided to display patient demographics as well as fluoroscopy images. ALL monitors should be at least 24 inches and of medical grade. Monitors should permit high resolution image display & undistorted viewing from any angle (wide viewing angle) in ambient lighting.
7.2.2	3D workstation in the control room should have its' own color LCD monitor for independent viewing and post processing with large data storage capacity.
7.3	**Conference Room**
7.3.1	One radiological grade monitor (6MP BARCO coronicsfusion) with Z840 or equivalent work station with 23inch LED display (16GB or More RAM, dual processor) and one Dicom laser projector (add model). This should include the installation in the conference room. *Please provide the details of the projector, screen and work station quoted .*
7.4	All monitors in examination room, control room & conference area should have automatic power saving feature while idling.
8	**Digital Imaging System and essential software's**
8.1	Biplane digital pulsed fluoroscopy at variable pulse frequencies from 10-30 p/s should be available with real time filter & motion detection. Additional reduced pulse

	frequencies 0.5 to 10 p/s simultaneous for both planes should be available for long procedures simultaneously.
8.2	The system should be capable of dose regulation to optimally visualize thick parts, such as the L-S spine in both planes without time delay between acquisitions of image between the two planes. Algorithm used for dose regulation for each plane in biplane mode for thick parts should be specified.
8.3	High-resolution road mapping / subtracted fluoroscopy facility for long periods (30 minutes or more) in uninterrupted manner in both planes (simultaneous & random) should be available.
8.4	It should be possible to display the subtracted & the native images for both planes simultaneously alongside the reference image in the examination room.
8.5	Automatic pixel shift during road mapping should be available.
8.6	Facility to use the reference image as a roadmap by superimposition of fluoro image on the reference image should also be provided for both planes.
8.7	Facility to use 3D image as a road map by superimposition of fluoro image (after automatic positioning of the c-arm to the angulations & collimation of the 3D) on the 3D image on the live monitor of the examination room at all angles.
8.8	It should have the capability to acquire digital online subtracted images in 1024x1024 matrix, 16 bit depth, in biplane mode with standard acquisition speed of 0.5 to 6 frames or more per second.
8.9	Subtraction of unsubtracted images should be possible immediately after acquisition.
8.10	It should be possible to perform serial acquisition at prefixed frame rate or manually vary the sequence. Radiation dose per frame in for optimal online acquisition of DSA at 2K resolution should be documented.
8.11	The system should have automatic background image transfer without interruptions even during acquisition & image review.
8.12	Continuous simultaneous biplane DSA acquisitions should be extendable for 20 seconds or more for head or any part of the spine.
8.13	Digital subtraction angiography software for automatic pixel shift, enhancement for iodine and C02 contrast should be possible.
8.14	Digital rotational angiography facility at a speed of 50 degree/sec. or more with acquisition frame rate up to 30 frames/sec. in 1024 matrix with facility for dynamic display of subtracted images in 1024x1024 matrix should be available.
8.15	It should be possible to angle trigger digital rotational angiography runs to reduce the radiation dose & improve image quality.
8.16	It should be capable of digital radiography at variable rate of 0.5 to 30 images per second as well as manual single frame acquisition.
8.17	Separate workstation should be provided with large independent memory for 3D reconstruction to free the main system for continuation of procedure immediately after 3D acquisition. *Specify the storage capacity of 3D workstation.*
8.17 .1	3D reconstruction using SSD, VRT, MIP in true 512 matrix with colour display in the control room & the examination room
8.17 .2	Stereoscopic display of 3D reconstructed image on the workstation should be available.

8.17.3	Retrieve & review any image / any series from the system disc independent to the ongoing work on the main system
8.17.4	Acquisition speed for DSA should be 0.5 frames/sec to 6 frames/sec or higher.
8.17.5	Retrieve & review of any image / any series from the PACS independent of the ongoing work on the main system.
8.17.6	All post-processing functions for images including fusion of CT, MR and angio images with 3D display & 3D volume measurement.
8.17.7	Immediate background transfer of all images as soon as they are acquired, to the PACS.
8.17.8	Compose & hardcopy images independent of the ongoing work on the main system. Split screen function to be provided to facilitate comparison of different sets of images.
8.17.9	Feed live & retrieved images to additional slave monitors to be installed in the conference room &faculty rooms (2). It should be possible to view 3D images in these remote locations.
8.18	The 3D reconstruction should be fast & the 3D projections should be displayed both in the control room as well as the examination room.
8.19	It should be possible to recall & view images acquired in the rotational mode (subtracted &unsubtracted) alongside the 3D images in both the rooms.
8.20	Review of all images should be fast, interactive & user friendly in both the rooms.
8.21	All options related to 3D (MIP, SSD, VRT, slicing, measurement tool, volumetry etc.) should be available.
8.22	Post processing software facilities with real time edge enhancement, re-masking, peak opacification, image inversion, anatomical background display, windowing, electronic shuttering, roaming, zooming and magnifying with text and annotation functions should be provided.
8.23	It should be possible to generate an in-room report of the examination/ procedure using free text & graphics preferably in Window environment. A suitable printer for the report should be provided.
8.24	All essential post processing functions should be possible from the control room and tableside consoles.
8.25	Access to all series / images should be fast & possible from the control room as well as the examination room.
8.26	The digital system should have facility to acquire & store physiological signals along with the images.
8.27	All images should register & display the date, time, and acquisition rate & image number in the series including the hardcopy photo file.
8.28	The digital system should be able to display images on the monitor from existing CT & MR. Necessary cabling etc. should be done by the supplier.
8.29	It should have minimum image storage capacity of at least 100,000 uncompressed images in 10242matrix or 25, 000 images in 2kx2k matrix at a minimum of 10-bit/ pixel.
8.30	User selected fluoroscopy loops from both the planes should be possible to store in the disc. These loops should be retrievable instantly for review from both rooms.

8.31	The complete digital system along with workstation should be networked and connected to a DICOM 3.0 compatible laser camera and it should be possible to hardcopy from the main system as well as the 3D workstation. The system should be DICOM 3.0 ready with all functionalities including but not limited to DICOM send, retrieve, DMWL, MPPS etc.
8.32	All image & photo file transfers from the main system & the workstation should be instantaneous permitting rapid review & hardcopy.
8.33	The digital system should have software for vascular analysis and quantification including stenosis quantification, auto-calibration (to the catheter ID), automatic contour recognition, slicing, and measurement tools for distance, angle, surface area, and circumference& volume assessment.
8.34	All quantification functions should be possible from tableside as well as from the control room.
8.35	Auto DVD writer with auto labeling of DVD disc should be provided (Epson Disc Production -PP -100NS or equivalent). It should have 100 CD/DVD disk capacity; 2 CD/DVD recorder, fully automatic disc publishing solution; five or more Ink Cartridges, network connected (10/100/1000), Registered safety/Security standard ISO 15408, lockable front door, LCD front Door, Publishing Speed- Up to 15 DVDs/hr; Low-ink sensor for cartridge and software access controls.
8.36	One x-ray film digitizer and workstation hardware - auto film feeder up to 25 images; batch film scanning; modality work list support from RIS; DICOM IHE/PDI option to import CD achieve.
8.37	Heavy-duty dehumidifiers (industrial use) in examination room, control room and server rooms separately. *Mention the make and model number and provide specifications*.
8.38	Archiving on a DVD should be provided from main system and other workstations.
8.39	DMWL and MPPS licenses should be provided.
8.40	The system should be networked & fully integrated with the existing PACS system of the NI & INR department.
8.41	All necessary protocols for instantaneous background transfer of images onto the existing web server/archive server of the PACS should be provided for instantaneous transmission to the Gamma-knife & X-knife & all other viewing & review stations of the PACS.
8.42	**Bolus chase technique**-system should have Peripheral Digital Angiography with stepping with subtraction display in the examination room with a single contrast injection, while chasing contrast medium bolus. Mention the frame rate and acquisition speed.
8.43	Reconstructive zooming technique, Spine View, Calci View, Automated vessel analysis, Computer assisted Aneurysm Analysis (flow dynamics), Virtual Stenting, Catheter tip shape simulation & Automatic Voxel shift should be available.
8.44	All future software upgrades to be supplied free of charge for all modules of the system during the warranty period
8.45	Should allow enhanced clarity of the reference image, fluoroscopy image during live flouro without an increase in the radiation dose.
8.46	Should have motion detection algorithm to separate moving from non-moving structures in real time.

8.47	Advanced roadmap to allow separate windowing for vessel and device contrast.
8.48	Should allow selection of 2 different DSA images as reference images for roadmap. This will allow visualization of glue injection or coil placement with the vessel map from the initial roadmap.
8.49	Acquisitions and display using 1k imaging for improved resolution.
8.50	Advanced applications for assessing hemodynamic parameters in the stroke patients for guiding revascularization strategies.
8.51	It also provides a comparison between pre, peri, and post-procedural tissue perfusion levels.
8.52	Enable visualization of a complete DSA run in a full color single image.
8.53	Fusion of 2D or 3D images with data sets from CT, MR or PET.
8.54	Advanced applications to allow differentiation between contrast filled vessel, bones, stents and coils.
8.55	Differentiation of anatomic structure of tumors along with its blood supply.
8.56	Permit visualization of calcification from contrast filled vessels.
9	**Integrated CT facility**
9.1	Should be supplied with a facility for acquiring cross sectional images resembling CT images using the same detector array with facility for calculating attenuation on the basis of 'the HU scale'. Superb image quality and fewer breathing and motion artifacts through very fast imaging protocols Reduced metal artifacts from clips, coils & contrast-filled catheters.
9.2	CT acquisition for soft tissue viewing should be fast, at least 30f/s at 1k matrix or more.
9.3	The system should be capable of 50 frames/sec acquisitions for CT reconstruction with 500 or more projections. This should be enabled as soon as possible. Specify the acquisition and reconstruction speed.
9.4	Image reconstruction should be fast & automatic. Typical image reconstruction & display time to be specified.
9.5	It should be possible to post process CT images (set slice thickness, window width/window level, distance, angle & volume measurement etc.) both in the control room & the examination room.
9.6	It should be possible to fuse the 3D CT data with 3D angio to combine high-resolution vessel. It should be possible to display these in the examination
9.7	Low contrast resolution of the 2D images on CT acquisition should be at least 10HU for 10mm slice measured on a 16cm CATPHAN phantom. Specify the HU for the soft tissue acquisition. Lowest will be preferred
9.8	It should be possible for high-density structures such as bone, contrast filled vessels, stents, clips & coils to be displayed separately in real time.
9.9	Integrated laser guided biopsy guidance system
9.10	**Perfusion imaging for stroke evaluation:** It should be possible to generate multiplanar CT like images from the 3D rotational data and also use the data for perfusion imaging.
9.11	Perfusion software should be provided.
9.12	The system should visualize blood flow patterns in the parent vessel and aneurysm sac and quantify blood flow rates in the parent vessel.

	Quantify the change in aneurysm flow immediately after flow diverter deployment.
9.13	Calculates the change in Mean Aneurysm Flow Amplitude (MAFA value) before and after procedure, representing change in blood flow in aneurysm and/or 4D CT agiography
9.14	The System should have facility that enhances visualization of endovascular devices (stents, flow diverters etc.) and vessel morphology down to perforator level It should allow visualization beyond the clot with peri-procedural imaging of the distal vessel aspects in ischemic stroke
10	**Accessories:**
	The following essential accessories to be provided with the unit--
10.1	UPS
10.1.1	On line UPS, rugged & modular in design with back-to-back alignment to compensate for electronic faults, for the complete system including the x-ray system for both planes with 30 min.
10.1.2	Battery backup using maintenance free batteries should be quoted.
10.1.3	There should be voltmeter, ammeter & frequency meter integrated to the whole assembly for monitoring incoming & output power characteristics.
10.1.4	Alarm system to indicate interruption or low battery power should be included.
10.1.5	All couplings & connectors should be adequately sealed & corrosion proof.
10.1.6	The entire assembly should have complete warranty for the period of warranty of the main system.
10.2	**Pr**essure injectors (1) with 95% uptime warranty.
10.2.1	Two (2) pressure injectors compatible with the system from branded company, one ceiling suspended, and one pedestal mounted, single barrel, along with 500 disposable syringes along with 200 cm tubingseach . *Please mention cost of spare disposable syringes and 200 cm tubing*
10.2.2	The injectors should have complete warranty for the period of warranty of the main system.
10.2.3	Deleted
10.2.4	Flow rate of at least 1 ml/sec up to 40ml/sec.
10.2.5	Double barrel pressure injector
10.3	The main system should be integrated with all the DICOM Camera in the department.
10.4	Lead glass 100x 150 cm or bigger with lead equivalent as prescribed by ICRP or BARC/AERB recommendations (for control room window) to be fixed between console room and gantry room for radiation protection.
10.5	Ceiling suspended radiation protection system and tableside protection system for the operator.

10.6	Lead glass shield mounted on a movable stand one on each side of the angiography table to protect the angiographer from the radiation source to be provided preferably from an international branded company. Height of lead glass must be at least 5x3 feet and should be height adjustable **OR** Ceiling suspended and remote-control driven lead glass shield, should be quoted from the branded company. *Specify the lead thickness.*
10.7	Focused ceiling mounted light with a handle for positioning the light. There should be an option to alter the brightness/illumination manually with the switch provided with it.
10.8	Electronic arterial pressure infusion pump with alarm and all accessories for intra-arterial catheter irrigation (n– 6)
10.9	Table side holders with stands, two each, for IBP catheters / transducers, trays for contrast / saline, infusions etc.
10.9.1	Modular height adjustable table top radiolucent IR platform for keeping catheters and other devices with separate drainage channel.
10.10	Portable US for enabling access in difficult cases with 2 probes: 1-microconvex & 1 linear. Mention the make and model.
10.11	Light weight lead free aprons for radiation protection and as per the following specifications: 12 Nos.
10.11.1	It should have lead equivalent of 0.25 mm.
10.11.2	It should be double-sided type lead apron.
10.11.3	It should be two-piece designs.
	Note: Lead aprons should be of standard state of the art make, lightweight, should be double sided. 10 of which should be two-piece and remaining 10 should be single piece. Design should be wrap around.
10.12	Thyroid Guard - 12 in number, It should have lead equivalent of 0.5 mm
10.13	Lead spectacles –lighted weighted and fog free, 6 Nos. Specify the make and special features
10.14	Film-viewer, using LED lamps, 14”x17”x4 in the examination room, conference room & faculty rooms x 2 (total 6). The film viewer should have light intensity control.
10.15	Syringe pumps – 10 nos. to be supplied for controlled infusion of medication
10.16	Sterile, disposable, transparent covers for covering the table side operating module and Flat detectors for unhindered operations during the interventional procedures (n-2000- staggered supply)
	TERMS AND CONDITIONS
11	**Complete list of sites where the offered system is installed for clinical use / test should be provided with full reference of the user at these sites. The entire system & all its’ functions should be approved by licensing agencies such as the FDA, USA. The complete system with all software functions should be**

	deliverable on site within three months of issuance of supply order & it should be so documented in the technical bid.
12	**A separate & complete list of hardware & software (quantity & specification of items) included in the offer should be provided.**
13	**Authentic technical brochure from the principals should be provided for all technical features offered in the tender. All queries arising out of non-availability of authentic data sheet should be replied to by the principals in writing immediately. Non-compliance will subject the offer to be rejected. No arbitration in this regard will be entertained.**
14	**Buyback offer for the old angiography system should be offered as a part of the financial bid. The vendor can visit the site with prior appointment, to inspect the old system before filing the tender response.**
15	**Yearly comprehensive maintenance contract for the entire installation including vaccumatic items & accessories to be offered for uninterrupted functioning of the unit after expiry of warranty till at least ten years after installation. Comprehensive maintenance contract should include hardware upgrades for the workstation, and other PCs along with free upgrades in software.6-10th year CMC cost will be considered for Final price evaluation.**
15.1	**Copies of all third party contracts must be submitted to the department at the time of technical bid evaluation**
16	**Turnkey site preparation** Comprehensive turnkey site preparation suitable to the existing site & ambient conditions at the center to be offered. Power, air conditioning and space requirements to be provided to the engineering department of the Institute for coordinated planning & execution of the work. Turnkey would include dismantling & disposal of redundant fixtures & execution of all necessary civil, electrical & air conditioning work at site. Site preparation should be time bound & completed before shipment of the equipment. Essential site preparation requirements include the following:
16.1	Civil work – 16.1.1. Dismantling / Brick Works- 16.1.2. Dismantling of walls floor (if any), dismantle all electrical& furniture fittings 16.1.3. Disposal of all debris from the site. 16.1.4. Door/window work-P/F Aluminum or wooden door with frame & lead lining as per the AERB requirements 16.1.5. Wall/ceiling repair work-repairing the cement plaster. Leakage site to be identified first and fixed permanently with proper water proofing
16.2	Redesigning the site for housing the system, controls, electronics etc. The fixtures should be from branded company and best. Optimally all fixtures should be wall mounted.
16.3	Floor, walls, roof & false ceiling should be aesthetically designed &prepared for use for the life of the equipment & easily maintainable. Flooring work providing and fixing highest quality vitrified tiles.

	False ceiling-providing and fixing perforated Al ceiling
16.4	Construction of walls as per AERB Requirements
16.5	**Examination room-**wall paneling-glass wall paneling on the wall from 5' height above floor till ceiling height. Ceramic tiles on walls up to 5'height from the floor up to the glass panel. Titles should be at least 4'x2' or more in dimensions and of highest quality (grade 5).
16.6	**Console room-**Redesigning the site for the controls, monitors, electronics etc. Walls-to be covered with highest quality tiles in its entire height. Flooring work-provide and fix highest quality vitrified tiles (at least 4'x2' or better, grade 5).
16.7	Appropriate designing of the examination room to provide for safe operation & parking of the C-arms, TV stand, patient trolley, instrument trolley (modular design, high quality) & anesthesia work station, patient monitoring system, infusion pumps, syringe pumps to be done.
16.8	Modular design wall cabinets (highest quality) preferably of metal for safe keeping & storage of drugs, catheters, interventional items, manuals, procedure sets, linen, trays etc. under lock and key. Specify the material, brand and area to be covered.
16.9	**Wall mounted Hangars** for suspending lead aprons, film viewer (n-2, flat panel design) for display of images & billboard for memos should be provided.
16.10	**Instrument trolleys, height adjustable operator chairs, patient foot step, ergonomically designed chairs with wheels for control room personnel, wall counters for medications, consumables, anesthesia equipment & emergency drugs to be provided.**
16.11	Fire detection system to be installed and kept functional all the time. Wall mounted clocks & room thermometers (wet & dry), pest repellent devices & fire extinguishers to be provided in all the rooms. The area should be properly designed to keep particularly the operating area & the electronic cabinets dust free and leakage free. As far as possible the floor should be free from encumbrances for ease of cleaning.
16.12	Drainage for water from A/C condensate should be provided & the whole area should be free of flooding. Special care should be taken to reinforce the roof, joints & all potential points of water leakage during monsoon or accidental water logging on the roof. Full facility for piped medical grade gas & vacuum supply to multiple points in the angio suite should be provided. This facility should conform to existing fire / explosion safety standards.
16.13	Electrical & Air-conditioning work – 16.13.1. Appropriate UPS with 30-minute battery backup for the entire system including all accessories using maintenance free dry batteries should be provided with 95% uptime warranty. 16.13.2. Split A/C units of highest rating (5*, Daikin or Hitachi or equivalent) for efficient ambient air management for the control room & electronics room to be provided. Cassette split ACs, ceiling fitted (of highest quality and efficiency) will be preferred for the examination room. 16.13.3. UPS, Split A/C units- Quote the high-end units which are energy efficient and easy to maintain post sale. Specify make and model of the unit, the rating & number of units/capacity required for effective cooling of the examination, console

	room and electronics room and quote the prices of each in the financial bid separately. 16.13.4. Both should be of reputed make (or from best company) & should last the entire life of the system & be easily maintainable. 16.13.5. All electrical panels, switches, distribution boards, cables should be of the highest quality for safe &trouble free operation. Adequate number of voltmeters, ammeters & frequency meters as well as circuit breakers, fire extinguishers, alarm systems & low battery indicators to be provided. All points of entry & exit of cables, ducts etc. to the site should be sealed to prevent entry of pests & rodents. All entry & exit points of the examination room should have lead lined doors & 'X-Ray On' light with 'Radiation area' ( ) symbol. All cable channels & conduits to be properly covered &sealed to protect from rodents & be easy to access for maintenance. Air-conditioning blowers / diffusers should be located appropriately & be provided with effective regulators to control the environment in the examination room to meet the requirements of the patient including infants & neonates. 16.13.6. The ducting for the central AC in the DSA lab and the console room is the responsibility of the vendor
16.14	Furniture- 16.14.1. Workstation (MODULAR) table-2 (GODREJ or equivalent) 16.14.2. Executive chairs-6 (height adjustable, high quality or equivalent) 16.14.3. Table top storage 15'x 2'6"x2' preferably of metal modular design & highest quality for the examination room. 16.14.4. Storage cabinet (modular design) in nurses' room, examination room and console room if possible. Redesigning the area in front of the lab for usage as changing room or housing the sterilizer equipment.
17	
18	**Preventive maintenance: Schedule to be provided. International application expert to give final round of application support for at least 5 working days once the system is installed and made fully functional for optimizing the IQ (image quality) and ultimate performance of the system.**
19	**The vendor should clearly outline the scope of work to be carried out and if possible can also mention the covered area and rates per square ft. or meter to eliminate any ambiguity arising out of price differences in the financial bid as result of turnkey site preparation.**
20	**Patient monitoring system** Patient monitor system should be US FDA approved. It should be modular for adult, pediatric and neonate with all hemodynamic & electrophysiological (ECG, heart rate, respiratory rate, ETCO2, pO2, EEG module / entropy etc.) recording including invasive recordings (both adults and children) should be provided. Additional ports with transducers to be provided for at least two invasive monitoring catheters. Two sets of accessories for invasive & non-invasive monitoring to be provided along with spares. Strip chart recorder / printer for documentation of the recordings/ reports should be supplied. Acquisition of patient data should be automatic & should be displayed in the examination room as well as the control room using separate TFT

	monitors in graphic & tabular form. It should be possible to include important monitoring data in the in-room patient report to be prepared on completion of a procedure or following review of the case afterwards. Specifications for monitoring system:
20.1	**17"** or larger color TFT display monitor mounted on the anesthesia care station & one in control room for simultaneous display
20.2	Minimum 8 channel input display
20.3	Modular in design, from branded company
20.4	Should have following modules for measuring.
20.4.1.	Five **lead ECG** with electrocautery filter, Multilead ST Segment analysis, Lethal Arrhythmia alarms with 5 lead ECG cable set.
20.4.2.	Spo2 measurement with plethysmograph – adult and infant Spo2 sensors
20.4.3.	NIBP measurement with adult, child and infant cuffs
20.4.4.	Respiration measurement by impedance method with spirometry
20.4.5.	Provision for two invasive pressure simultaneously with 10 disposable IBP transducers and 2 reusable IBP cables
20.4.6.	Twin temperature measurement with skin and rectal probes.
20.4.7.	It should have provision for automatic identification and measurement of anaesthetic agents, CO2, O2 and N2O.Facility to measure MAC value.
20.4.8.	Depth of anesthesia monitoring –BIS module with 50 sensors with each monitor.
20.4.9.	Neuromuscular transmission (NMT) monitoring complete with sensor
20.5.	24 hrs. of graphical and numerical trending
20.6	Facility to store snapshots during critical events for waveform review at a later date
20.7	Audio visual and graded alarming system
20.8	User configurable modes
20.9	Printing facility for monitor recordings
21	**Anaesthesia workstation with ventilator& infusion pumps for biplane D.S.A. system with CT for neuroangiography& intervention** The anaesthesia workstation, ventilators & syringe pumps should be suitable for use in adult, pediatric& neonates. The anaesthesia workstation should be connected to central station in Neuro OT.
	Warranty

	CMC for 5 Years	Warranty: 60 months from the date of satisfactory installation. The warranty shall include all spares/accessories, labour required for preventive/breakdown maintenance from the date of completion of the satisfactory installation and acceptance. Comprehensive Maintenance-Contract for next five years will be inclusive of all accessories and turnkey work. The Comprehensive Annual Maintenance Contract shall include all spares, labour and preventive maintenance from the date of completion of the warranty of 60 months.

Lot-3 256-Slice Dual Energy Spectral High End CT Scanner Technical Specification)

S. No.	Tender Specification	Tender Specification
1	**Gantry**	
1.1	Aperture	70 cm or better
1.2	Scan field	>=50cm
1.3	Integrated display panel	Gantry front showing current patient details, ECG etc.
1.4	Laser Lights	The gantry should have 3D positioning Laser lights
1.5	Gantry control panel	Both side integrated tablet for flawless patient handling in gantry room
2	**X-Ray Generator**	
2.1	Output capacity (actual and not effective)	>=100 kW or better
2.2	mA range	20-1300mA or better
2.3	kV	70- 140 kVp min range
3	**Tube Assembly**	
3.1	Tube Voltage	70-140 kV or better
3.2	Tube current range	Min 20-1300 mA range or better
3.3	Focal spot	Specify the focal spot size as per latest lEC standard.
3.4	Tube Heat Storage Capacity	X-ray tube with minimum heat storage capacity (actual and not equivalent)of7MHU or more.

3.5	Tube Cooling Rate	Minimum cooling rate of 1.7 MHU / min or better
4	**Patient Table**	
4.1	Maximum load capacity	>=200kg
4.2	Scannable range	>=2000mm
4.3	Table Positioning	Reproducibility of table positioning (mm) should be +/- 0.25 mm
4.4	Table Up & Down, In & Out Movement Must Be Possible	Two or more pairs of foot pedals should be supplied with the system
4.5	Table Dimensions	Specify the width and length of the table, distance betweengantry front and table base (minimum and maximum should be specified)
5	**Scanning Modes**	
5.1	**Spiral/Helical Scanning:**	
5.1.1	Spiral/Helical Continuous Exposure Time	At least 100 sec or more
5.1.2	Scan time for full 360-degree rotation	≤0.33 second or betterfor all acquisition modes
5.1.3	Bolus triggered/ bolus chase spiral acquisition	The system should be integrated withinjector forauto trigger (care contrast/extreme enhanced/ equivalent)
5.1.4	Spiral/Helical length	Spiral/Helical scan length 180 cm or more
5.1.5	Pitch	Pitch should be freely selectable between 0.5-1.5 or better
5.1.6	Slice Thickness (Spiral/Helical Scan Mode)	≤0.625 - 5 mm or more variable
5.1.7	High Speed Spiral Acquisition	>350mm/s
5.2	**Cardiac Scanning**	
5.2.1	Slice Thickness	≤0.625 - 5 mm or more variable
5.2.2	Cardiac imaging	Native Temporal resolution of 120msec or better for mono-segment reconstruction by using latest technology
6	**Dual Energy**	
6.1.1	Dual Energy	The system must have dual non contrast and contrast Dual energy capabilities and wide range of applications should be available.

		Technology should be specified (Dual Source Dual Energy / Fast kV Switching / Dual Layer Detector / Slow kV Switching)
6.2	**Dual Energy Applications**	
6.2.1	Liver VNC	Virtual non-contrast CTof theLiver, andalso Liver Fat evaluation using dual energy method.
6.2.2	Monoenergetic Plus imaging	Monoenergetic Imaging for beam hardening artifact elimination, Contrast augmentation and tissue visualization with Monoenergetic images
6.2.3	Contrast VS Blood differentiation	Differentiation of brain hemorrhage from contrast enhancement.
6.2.4	Virtual NCCT head	Virtual non-contrast CT scan Brain using dual energy method.
6.2.5	Direct Neuro CTA	Neuro CTAwith accuratebone removalin complexbody regionsusing dual energy method.
6.2.6	Direct Body CTA	Whole Body CTA with accurate bone removal in complex body regions using dual energy method.
6.2.7	Vascular Plaque characterization	Vascular Plaque characterization using dual energy method,
6.2.8	Lung Perfusion	Assessment of lung perfusion using dual energy
6.2.9	Gout Imaging	Color coded visualization of deposited uric acid crystals in peripheral extremities.
6.2.10	Calculi Characterization	Visualization of the chemical composition of kidney stones.
6.2.11	Pulmonary Embolism	Detection of filling defects and lesion zoom view.
6.2.12	Dual energyvirtual non calcium image	for evaluation of bone marrow pathology
6.2.13	Metal Artifact reduction	Using Dual Energy Monoenergetic imaging
8	**Data Acquisition System- Latest Detector Configuration**	
8.1	Number of acquired slices per rotation	Minimum 256-slices or more acquisition/generation/reconstruction by using minimum 128-physical independent detector rows
8.2	Number of detectors rows	Number of physically independent detector rows must be 128 or more
9	**CT Fluoroscopy**	

9.1	Live Needle Tracking/Planning	Near to real time needle path tracking/Path Planningor equivalent CT fluoroscopy Interventional system).
9.2	TFT Monitor	>=18 inch in size, suspended from ceiling/Cart
9.3	Frame rate	>=6 per sec
9.4	Biopsy Mode	Foot-paddle controlled in room scanning
10	**Patient Communication**	
10.1	Integrated patient intercom	There should be integrated patient intercom
10.2	Automatic Patient Instruction	A standard set of commands for patient communication before, during. and after scanning should be available in the English and Hindi language.
11	**Patient Registration**	
11.1	Pre-registration	It should be possible to do pre-registration of patient at any time prior to scans.
11.2	Emergency registration	Special emergency registration should be possible.
11.3	HIS & RIS integration	It musttransfer patientinformation fromdepartmental existing HIS & RIS via DICOM Get Worklist.
11.4	PACS/HIS/RIS	it must transfer examination Information fromscanner into departmental existing HIS & RIS via MPPS.
12	**Operator Console with Table**	
	Computer System & Image processor	
12.1	CPU Processor	Minimum quad core processor, 1TB harddisc, 64GB RAM. The best available option to be quoted by the vendor.
12.2	Display	Two large minimum 19" high resolution LCD/LCD/LED monitors with a display on 1024 x 1024 or more.
12.3	Software's	Should perform the functions like scanning image reconstruction, film documentation, MPR, CT angiography, MIP, 3D VRT, 3D SSD.
12.4	CT Angiography	Protocols to do CT angiography of anybody region.
12.5	Brain Perfusion	Minimum 8 cm or more of coverage or better
12.6	Dynamic 4D Imaging	Dynamic-CTA with a coverage of 16 cm or more
12.7	Body Perfusion	Minimum coverage of 16 cm or more
13	**Cardiac Applications and Reconstruction·**	

13.1	ECG Gating	Prospective ECG trigged facility
13.2	ECG Gating	Retrospective ECG gated facility
13.3	ECG Editing	Facility for ECG editing for removing irregular or ectopic beat
13.4		Specify heartbeat/min requiring use of beta-blocker and solution available with the system for optimization of scan with irregular heart rate.
13.5	Single segment reconstruction	Native temporal resolution should be 120msec or better
13.6	Automatic Best Phase	The system should offer automatic identification of best systolic / diastole phase on console.
14	**Image Post Processing**	
14.1	Architecture	An OEM Client Server Architecture based solution
14.2	Minimum number of slices/ users for concurrent processing	Minimum 40,000slice rendering capabilities
14.3	Integration	Imaging processing server/ workstations must be integrated with existing RIS- PACS in the department.
14.1	**Server Hardware**	
14.1.1	**Hardware**	Dell/HP/IBM DualCPU; Windowserver 2008/2012 with 192 bit or better OS/Linux server with 64 bit or better OS, RAM-192 GB minimum; Data Disc: RAID level 5; Graphical processing unit: 2xNVIDIA GPU or equivalent; Internal image storage must be minimum 10 TB.
14.2	**Client hardware (2 Clients) specifications for each client station, with a separate price quote for each additional unit If required**	
14,2.1	Monitors	Two monitors of Minimum 2.0 Megapixel or better Radiological Grade Monitor with each 3-client hardware, 2 KVA online APC UPS. Total 4monitors &2 x 2 KVA UPS.
14.2.2	CPU unit	Client CPU unit with single six core processor, minimum 16 RAM, 1TB SSD hard drive and 1GB NVIDIA or equivalent Gigabit network card. Total 2 Clients CPU.
14.3	**Server Software**	
14.3 (a)	**Basic Capabilities (Minimum2Concurrent Users for All Below Applications)**	

14.3.1	MPR	Real-time multi-planar reconstruction (MPR) of secondary views, with viewing perspectives in all planes including curved & orthogonal MPR
14.3.2	ROI evaluation	Parallel evaluation of multiple ROI in circle, irregular and polygonal forms.
14.3.3	Statistical Evaluation	Area/ volume, Standard deviation, Mean value, Image annotation and labelling, Angle measurement, Distance measurement
14.3.4	2D	2-D, including image zoom and pan, image manipulations, including averaging, reversal of grey-scale values, and mirroring;
14.3.5	3D	MIP, Min IP, SSD, VRT and other advanced 3D applications and color coding for different tissues
14.3.6	Comparison	Automatic comparison of CT Lung studies from two different time points and visual highlights of changes
14.3.7	Advanced VRT	High resolution, photorealistic rendered 3D views based on physically accurate simulation of how light interacts with matter along with direct 3D printing capability from CT Console or Server Client.
14.4 (b)	**Advanced Application (1 Concurrent Users for All Below Application).**	
14.4.1	CT Angio	Automatic tableand bonesubtraction inCT angiography,Single click bone removal, manual and automatic vessel tracking, Carotid Stenosis measurement.
14.4.2	Neuro CT Perfusion	Whole brainNeuro perfusionSoftware foradvanced cerebral perfusion study with CBV, CBF, TTP, Calculation of the ASPECT Score (Alberta Stroke program early CT score) based on a 10-point quantitative topographic CT scan along with CT Neuro Perfusion Software
14.4.3	Body CT Perfusion	Whole-organ functional assessment. Parametric maps, based on the contrast flow through an organ, provide additional information to aid clinical decision-making should be offered
14.4.4	Lung Nodule & Functional Lung Analysis	Lung nodule quantification, characterization, growth rate and emphysema calculation. Lung Analysis for clinical assessment of lung diseases like Chronic Obstructive Pulmonary Disease (COPD) and associated lung

		emphysema. Automated evaluation and 3D quantification of the left and right lung, lung lobes, and automated segmentation and measurements of the trachea and associated bronchi.
14.4.5	Colonography	CT Virtual Colonoscopy with detail quantification and polyp measurements in 3D endo-luminal view should be offered.
14.4.6	Segmentation	Automatic segmentation of solid and subsolid lung nodules, liver and general lesions
14.4.7	Coronary Analysis	Automatic coronary tracking and labelling, Coronary Plaque composition analysis, Single click stenosis measurement and coronary vessel tracing, It should be able to perform complete automated 3D processing of the coronary arteries
14.4.8	TAVI	Complete TAVI analysis along with summary details.
14.4.9	Coronary Plaque Analysis	Calcium Scoring for coronary plaque quantification & characterization
14.4.10	Cardiac Analysis	Cardiac Functional analysis including ejection fraction, quantitative/qualitative myocardial perfusion
14.4.11	Auto Spine Reading/Labeling	Diagnostic bone assessment in radiological CT datasets. The spine should be displayed in one plane with auto labeling to enable quick reporting turnaround
14.4.12	Spectral Liver Volumetric	Complete Auto liver segmentation, Semi-automatic quantification and volumetric with tumor burden calculation
14.4.13	Multi-Modality DICOM Image Fusion	Fusion of DICOM data obtained from CT, MRI, PETCT etc. should be offered
15	**Image Reconstruction**	
15.1	Recon Speed	Minimum 60 images/sec
15.2	Recon Matrix	512 X512
15.3	Real Time Display	Real-time display (512 x 512) during spiral acquisition
16	**Image Quality**	
16.1	High Contrast Spatial Resolution for entire width of the detector	It should be not less than 15 lines pair per cm or better maximum at 2 % or0% MTF XY
16.2	Low-Contrast Resolution	The low contrast resolution for CATPHAN should be at least 5mm at 3 HU with 10 mm slice on 20 cm Catphan phantom.

17	**Dose Reduction Techniques**	
17.1	Radiation Dose	There shouldbe radiationdose calculationand display during the procedure; DICOM structured dose report, dose notification, dose alert.
17.2	Pre-Patient Collimation	There shouldbe pre-patient collimationto reduceunnecessary dose to the patient.
17.3	Advanced Iterative Reconstruction	Model-based Iterative reconstruction technology for all imaging protocols including brain (ADMIRE/IMR/ASIR-V / True Fidelity) or DeepLearning neural based equivalent technology whichreduces dosewhile simultaneouslyimproving low contrast detectability & spatial resolution and reduces image noise.
17.4	Cardiac Scanning	Step and shoot technique during cardiac scanning for dose reduction, or a similar alternative technology should be available
17.5	3D Dose Modulation	Provision for tube current modulation along Z-axis for different patient size and organs.
18	**Networking**	
18.1	DICOM	DICOM Storage (Send/Receive)
18.2	DICOM	DICOM Modality Work List User
18.3	DICOM	Modality Performed Procedure Step (MPPS)
18.4	DICOM	DICOM Print User
18.5	DICOM	Query/Retrieve User and Provider
18.6	DICOM	DICOM 3 Compliance
18.7	Integration With Department RIS And HIS	Integration with departmental RIS and HIS must be done. Any licenses or software needed for the same is to be provided.
19	**Archiving**	
19.1		Fully DICOM 3.0 compliant including capability from HIS- RIS interface
19.2		Service Class User & Provider (CT, MR, NM, Secondary Capture)
19.3		Storage Commitment User
19.4		Removable Media
19.5		DVD-RAM Archive
19.6		DICOM CD Writer
20	**Dual Head Pressure Injector**	
20.1		Dual Head Pressure Injector Ceiling Mounted

20.2		1000 Syringe Set With 500 Nos. Patient Tubing's To Be Supplied One Time.
20.3		Interface Between Contrast Injectors And CT Scanner Should Be There
20.4	ECG Electrodes	500 ECG Electrodes Must Be Provided.
21	**Dry Laser Camera**	
21.1	Resolution	Preferably 32 bits/ 500 dpi
21.2	Port	Min3
21.3	Number of film trays	Minimum3
21.4	Support film sizes	17 x 14, 10 x 12 And Others
22	**Warranty**	
	CMC for 5 Years	Warranty: 60 months from the date of satisfactory installation. The warranty shall include all spares/accessories, labour required for preventive/breakdown maintenance from the date of completion of the satisfactory installation and acceptance. Comprehensive Maintenance-Contract for next five years will be inclusive of all accessories and turnkey work. The Comprehensive Annual Maintenance Contract shall include all spares, labour and preventive maintenance from the date of completion of the warranty of 60 months.
	Software Updates and Upgrades	All future software updates compatible with supplied hardware shall be free of cost during warranty and CMC period. The CTcomputing softwaresystem shouldoffer built-in securitycontrols toprotect thesystem fromvulnerabilities thatcan resultin cyberattacks or inappropriate access to patient data. The built-in security should comply with the latest international standardsof datasecurity andencryption, as well as with existing regulations to protect personal and protected health information (e.g. GDPR, HIPAA, any local regulation), during the complete life of the system
		In addition*to* aboveclause, MandatoryHW andSW upgradeof the post processing server and post processing computer systemat the end of every 5 years from the date of installation.

	On-site Training	In house training should be provided for technical staff and radiologists from an application expert trained from the principal manufacturer for a minimum period of 4 weeks.
	Manuals	Operators & technical manuals of main and subsystems, Cooling chart curve of the x-ray tube and all other relevant material, if any, like concept guide/books; notable published work must be supplied .
23	**PRE-INSTALLATION SITE REQUIREMENT (TURNKEY WORK)**	
i	Recommended room size-As per AERB Guideline	
ii	Pre-installation requirements including map should be provided by seller after inspecting the proposed site for installation	
iii	Preparation of CT Scan Room, console Room, Technical room, one wash room etc. to be done by the seller in the area of approx.. 800 sq feet	
iv	Tile based false ceiling and floor tiling and wall tiling till false ceiling in rooms to be done by the seller	
v	Necessary modification civil work, electrical, plumbing, furnishing, air conditioning and Fire in the given area to be done by the seller	
vi	Doors other than main CT room to be of good quality Aluminium doors and should be done by the seller	
vii	Site should be AERB Compliant	
viii	Power up to site should be provided by the user	
ix	Any other necessary work for system functioning like earthing, proper LED lighting power points etc. to be done by the seller	
x	Room shielding to be done by the seller-As per AERB guideline.	
24	**INSTALLATION & TRAINING**	
i	The system should be installed and handed over in working condition by the seller to the buyer	
ii	Training of users in machine operation, troubleshooting aspects and basic maintenance shall be provided	
iii	Availability of toll free facility for technical support maintained by OEM or authorized agencies	
iv	Contact details of manufacturer, supplier and local service agent to be provided	
v	Service Support- Support within 48 hours of breakdown call	

vi	Number of installations of the CT in Central /State/PSU Govt. Hospitals (Note: Seller should supply a performance certificate of the device to the buyer)-3nos
vi	The Principal Manufacturer must have direct Presence/approved service center In India
vii	Seller shall ensure uninterrupted availability of all spares for 10 years
viii	Uptime during warranty and CMC Period-95%
ix	**Silent DG of Suitable rating with AMF -1nos**
25	Quality Standard and Bidders Qualifications
i	Valid US – FDA / EU – CU Certificate of the offered model must be submitted.
ii	IEC 60601-1-1 and IEC 60601-2-33 certificates for the model must be submitted.
iii	ISO Certificate must be submitted.
iv	The Bidder / Manufacturer should have supplied and maintained same quality and brand MRI Machine any Government Hospital / Private Hospital. Certificate in this regard is to be submitted along with offer.
v	.

Lot-4 64 Slice CT Scan

1.	**Manufacturer:**
2.	**The offered system must be based on a model launched on or after January 1, 2018, with latest- generation hardware and software platform. The bidder shall provide documentary evidence (suchasmanufacturer'sproductlaunchdetailsorregulatoryapprovalcertificate)confirmingthe Launch date of the offered model."**
3.	**CountryofOrigin:**
	The Model offered should be the latest High end &model under current production with **Artificial Intelligence&Camerabasedworkflow**.Systemmustbe2021FDAapprovedorlatestiterative Dosereductiontechniqueshouldbethereinthesystem.

	The offered CT Scanner system shall be of the latest state-of-the-art technology with independent 64 rows of detectors, capable of directly acquiring/generating a minimum of 64 slices per rotation. The system must support seamless integration with any PACS/HIS system and be fully DICOM- compliant. Itshouldenabletrue isotropic volume acquisitionwith sub-millimeterspatialresolution. ThequotedmodelmustbecertifiedbybothUSFDAandEuropeanCE,ensuringcomplianc ewithInternationalsafetyandperformancestandards
A	**Gantry:**
i	Aperture:70 cm or more
ii	FOV:50 cm or more
B	**X-RayGenerator:**
i	HighFrequencytype.
ii	Power output:55kW or more
iii	MA Range:20-625 mA
iv	KV Range:70-140 kv or more
C	**X-RayTube(essentiallydualfocus):**
i	TubeVoltage:70-140 kV or more
ii	Tubefocalspots:KindlySpecifySmallFocalSpotandLargeFocalSpot
iii	Anode Heat Storage Capacity of at least 7 or more MHU or direct cooling tube
iv	X-raytubecoolingrateminimum1000 KHU perminute.
D	**PatientTable: -**
i	Loadcarryingcapacityatleastof180Kgwithpositionalaccuracyof+/-0.25mmorless
ii	Metalfreescan-ablerangeof150cmormore
iii	Tabletopwithfootpedal/handcontrolforpositioning.
E	**SpiralAcquisition:**
i	Scan Time should be 0.50 sec or less for full 360-degreerotation
ii	Minimum slice thickness should be 0.625mm or less.
iii	PitchFactor(volumepitch): freelyselectableinautomodeandmanuallyvariablebetween0.5to 1.5ormore.Specifyallpossiblepitchselections.
iii	Bolus Triggered or bolus chase spiral acquisition should be available
iv	Real time x-ray dose reduction which combinesboth Z axis and angular tube current modulation to adjust the dose to the size and shape of individual.
F	**ImageResolution:**
Sl. No	**CT SCAN MACHINE**
i	High contrast resolution should be at least 15 lp/cm for axial and spiral scan at 0%–5% MTF with full FOV.
ii	Lowcontrastresolution–resolutiontobespecified
G	**DataAcquisitionSystem:**
i	Detector-Capableofacquiring/generating64 slicesper360degreesofrotation.
ii	Thescannershouldbecapableofcapturing20mmormorecoverageinonegantryrotation, along

	The Z-axis, using independent detector elements.
iii	Solid state or rare earth detectors of latest technology free from repeated calibration.
iv	System should offer spiral capability of at least 100 second and above.
H	**ImageReconstruction:**
i	High-speed real time reconstruction with display matrix of 1024 x 1024 or more.
ii	Reconstructed slice thickness should be sub-millimeter to 10 mm freely selectable.
iii	Operator Console: Archiving options: CD-R, DV r D, should be available. 100 DVDs should be provided
I	**OperatorConsole:**
i	High resolution medical grade LCD/LED color monitors of 19 inch or more.
ii	Should perform Registration, scheduling, protocol selection, Volume rendering, volume measurements, Multi-planar Reconstruction, and standard evaluation application and all available post processing functions without the help of the satellite workstation.
iii	Raw Data storage with at least 500 GB Hard disc having image storing capacity of 4,50,000 or more in 512 x 512 format.
iv	Auto-voice capability with custom designed keyboard and mouse.
v	Archiving options: CD-R, DVD,should be available.100 DVDs should be provided
J	**Workstation client server architecture: 1 in numbers**
i	It should be a high speed with RAM of 64GB or more (minimum post-processing frame rate of 16 frames/sec) CPU with a speed of 3.0 GHz or better and with an independent Hard disc storage capacity of 512 GB or more, with 19 inches or more high-resolution medical grade colour LCD/LED monitors capable of simultaneously viewingand performing all post processing functions and filming independently without the help of mainconsole.
ii	The post processing workstation must be of same manufacturer.
iii	Memory of the workstation should be independent of the console.
iv	Two-way data transfer between the operator console & the satellite workstationshould beAutomatic and standard.
1	Post Processing Soft-wares
i	CT Angio, VRT, MIP, MPR,3-DShaded Surface display, Image Fusion, Vessel segmentation,luminal view.
ii	Virtual Endoscopy with facility for virtual dissection and computer aided detection of polyps.
iii	Automatic bone Removal facility.
iv	Lung nodule evaluation software.
2	Interactive & Automatic Cine display should be available.
3	Image Evaluation Tools:

Sl. No	CT SCAN MACHINE
i	Parallel evaluation of multiple ROI in circle, irregular and Polygonal forms,
ii	Statistical Evaluation for area/volume, S.D, Mean/Maxand Histograms.
iii	Distance & angle measurement, freely selectable, positioning of co-ordinate system, grid and image annotation.
K	**Patient communication system:**
i	An integrated intercom and Automated Patient Instruction System (API) should be provided.
ii	Two closed circuit TV for patient monitoring.
M	**System Configuration Accessories, spares and consumables:**
i	Lead Glass 100 cm x 150 cm of 2 mm Lead equivalence as per the requirement of the equipment. As per AERB recommendations
ii	Online UPS of suitable rating should be supplied for the complete system including Gantry, computer system, with at least 30 minutes back up.
iii	Single Head pressure injector with 100 syringes with connector
iv	Lead Apron - 5 nos with Hanger to be provided. .
v	Gonard and thyroid Shield-5no's
vi	Color Printer
vii	Head Holder
viii	X-ray Film viewer
ix	DG of Suitable rating-1nos
x	System must be PACS, HIS/RIS interface ready without any new hardware or software.
xi	Warranty: 60 months from the date of satisfactory installation. The warranty shall cover all the accessories, turnkey work including CT tube and all consumables.
N	**Instructions to the vendors/suppliers:** All companies must give product data sheets confirming the specifications along with the tender. The compliance statement must be filled strictly under the heading given in the tender. Each specification corroborated in the compliance statement must give the page number where itis listed in the product data sheet. Incompletely filled information will Not be considered.
i	Vendors are requested to see the site for installation of the CT.
ii	**As there is continuous development of technology latest model available with the manufacturer shall be offered in the tender.**
O	AERB site approval: Vendors shall be responsible for getting AERB Site Plan approval prior to installation.
P	**Number of Certified Engineers & Service Engineers IN ASSAM must be available to attend any breakdown call within 48 hours of call logged**
Q	**PRE-INSTALLATIONSITEREQUIREMENT(TURNKEYWORK)**

i	Recommended room size - As per AERB Guideline
ii	Pre-installation requirements including map should be provided by seller after inspecting the proposed site for installation
iii	Preparation of CT Scan Room, console Room, Technical room, one washroom etc. to be done by the seller in the area of approx. 800 sq feet
iv	Tile based false ceiling and floor tiling and wall tiling till false ceiling in rooms to be done by the
Sl. No	**CT SCAN MACHINE**
	seller
v	Necessary modification civil work, electrical, plumbing, furnishing, air conditioning and Fire in the given area to be done by the seller
vi	Doors other than main CT room to be of good quality Aluminum doors and should be done by the seller
vii	Site should be AERB Compliant
viii	Power up to site should be provided by the user
ix	Any other necessary work for system functioning like earthing, proper LED lighting power points etc. to be done by the seller
x	Room shielding to be done by the seller - As per AERB guideline.
R	**INSTALLATION & TRAINING**
i	The system should be installed and handed over in working condition by the seller to the buyer
ii	Training of users in machine operation, troubleshooting aspects and basic maintenance shall be provided
iii	Availability of toll-free facility for technical support maintained by OEM or authorized agencies
iv	Contact details of manufacturer, supplier and local service agent to be provided
v	Service Support - Support within 48 hours of breakdown call
vi	Number of installations of the CT in Central/State/PSU Govt Hospitals (Note: Sellers should supply a performance certificate of the device to the buyer) - 3 no's
vi	The Principal Manufacturer must have direct Presence/approved service center In India
vii	Seller shall ensure uninterrupted availability of all spares for 10 years
viii	Uptime during warranty and CMC Period - 95%
S	**Quality Standard and Bidders Qualifications**
i	Valid US–FDA and EU–CE Certificate of the offered model must be submitted.
ii	IEC 60601-1-1 and IEC 60601-2-33 certificates for the model must be submitted.
iii	ISO Certificate must be submitted.
iv	Deleted
v	The bidder/ Manufacturer should have supplied and maintained same quality and brand CT Scan Machine any Government Hospital/ Private Hospital. Certificate in this regard is to be submitted Along with offer.

	Warranty	
	CMC for 5 Years	Warranty: 60 months from the date of satisfactory installation. The warranty shall include all spares/accessories, labour required for preventive/breakdown maintenance from the date of completion of the satisfactory installation and acceptance. Comprehensive Maintenance-Contract for next five years will be inclusive of all accessories and turnkey work. The Comprehensive Annual Maintenance Contract shall include all spares, labour and preventive maintenance from the date of completion of the warranty of 60 months.

Other Conditions:

1. On-Site Service Support:

The OEM shall have service centers in Assam to provide onsite service support and spare part availability for at least 5 years after the warranty period. The bidder should confirm the same in their bid.

2. Centralized Call Centre

The OEM shall have a centralized customer service call centre for service call log-ging and tracking to ensure efficient support and complaint resolution.

3. Local Office in Consignee State

The OEM shall have a registered office in the state of the consignee to ensure timely support and coordination.
(Supporting Document Required: GST Registration Certificate or Government issued address proof

4. Compliance to Technical Specifications:

The bidder must submit a duly signed and stamped compliance sheet, indicating compliance with each point in the Technical Specification Document by marking "Yes" against each specification. Non-compliance or deviations must be clearly high-lighted and justified.

5. Acceptance Testing:

Before final acceptance, the system will undergo thorough functional and performance testing as per the agreed-upon specifications and requirements. The system will only be accepted if it meets all specified benchmarks.

6. Documents to be supplied by the Supplier

   All brochures, catalogues, Warranty Cards are to be submitted to the Employer or his/her representative. The bidder has to provide the complete installation re-port duly signed by the representative of both the parties

Section 7: General Conditions of Contract

Table of Clauses

1. Definitions

48.2 The following words and expressions shall have the meanings hereby assigned to them:

(a) "Contract" means the Agreement entered into between the Purchaser and the Supplier, together with the Contract Documents referred to therein, including all attachments, appendixes, and all documents incorporated by reference therein.

(b) "Contract Documents" means the documents listed in the Agreement, including any amendments thereto.

(c) "Contract Price" means the price payable to the Supplier as specified in the Agreement, subject to such additions and adjustments thereto or deductions therefrom, as may be made pursuant to the Contract.

(d) "Day" means calendar day.

(e) "Delivery" means the transfer of the Goods from the Supplier to the Purchaser in accordance with the terms and conditions set forth in the Contract.

(f) "Completion" means the fulfillment of the Related Services by the Supplier in accordance with the terms and conditions set forth in the Contract.

(g) "Eligible Countries" means the countries and territories eligible as listed in Section 5.

(h) "GCC" means the General Conditions of Contract.

(i) "Goods" means all of the commodities, raw material, machinery and equipment, and/or other materials that the Supplier is required to supply to the Purchaser under the Contract.

(j) "Purchaser's Country" is the country specified in the Special Conditions of Contract (SCC).

(k) "Purchaser" means the entity purchasing the Goods and Related Services, as specified in the SCC.

(l) "Related Services" means the services incidental to the supply of the goods, such as insurance, installation, training and initial maintenance and other similar obligations of the Supplier under the Contract.

(m) "SCC" means the Special Conditions of Contract.

(n) "Subcontractor" means any natural person, private or government entity, or a combination of the above, including its legal successors or permitted assigns, to whom any part of the Goods to be supplied or execution of any part of the Related Services is subcontracted by the Supplier.

(o) "Supplier" means the natural person, private or government entity, or a combination of the above, whose bid to perform the Contract has been accepted by the Purchaser and is named as such in the

Agreement, and includes the legal successors or permitted assigns of the Supplier.

(p) "ADB" is the Asian Development Bank.

(q) "The Site," where applicable, means the place named in the SCC.

2. Contract Documents

2.1 Subject to the order of precedence set forth in the Agreement, all documents forming the Contract (and all parts thereof) are intended to be correlative, complementary, and mutually explanatory.

3. Fraud and Corruption

3.1 If the Purchaser determines, based on reasonable evidence, that the Supplier has engaged in corrupt, fraudulent, collusive or coercive practices, or other integrity violations, including the failure to disclose any required information which constitutes a fraudulent practice, in competing for or in executing the Contract, then the Purchaser may, after giving 14 days' notice to the Supplier, terminate the Contract and expel him from the Site, and the provisions of Clause 35 shall apply as if such termination had been made under Sub-Clause 35.1(a) (iii) [Termination].

3.2 ADBrequires Borrowers (including beneficiaries of ADB-financed activity) and their personnel, as well as firms and individuals participating in an ADB-financed activity, including but not limited to, Bidders, Suppliers, and Contractors, agents, subcontractors, subconsultants, service providers, subsuppliers, manufacturers (including their respective officers, directors, employees and personnel) under ADB-financed contracts to observe the highest standard of ethics during the procurement and execution of such contractsin accordance with ADB's Anticorruption Policy (1998, as amended from time to time). In pursuance of this policy, ADB

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

(viii) "corrupt practice" means the offering, giving, receiving, or soliciting, directly or indirectly, anything of value to influence improperly the actions of another party;

(ix) "fraudulent practice" means any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;

(x) "coercive practice" means impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;

(xi) "collusive practice" means an arrangement between two or more parties designed to achieve an improper purpose, including influencing improperly the actions of another party;

(xii) "abuse" means theft, waste, or improper use of assets related to ADB-related activity, either committed intentionally or through reckless disregard;

(xiii) "conflict of interest" means any situation in which a party has interests that could improperly influence that party's performance of official duties or responsibilities, contractual obligations, or compliance with applicable laws and regulations; and

(xiv) "integrity violation" is any act, as defined under ADB's Integrity Principles and Guidelines (2015, as amended from time to time), which violates ADB's Anticorruption Policy, including (i) to (vi) above and the following: obstructive practice, violations of ADB sanctions, retaliation against whistleblowers or witnesses, and other violations of ADB's Anticorruption Policy, including failure to adhere to the highest ethical standard.

(b) will reject a proposal for award if it determines that the Bidder recommended for award or any of its officers, directors, employees, personnel, subconsultants, subcontractors, service providers, suppliers or manufacturers has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations in competing for the Contract;

(c) will cancel the portion of the financing allocated to a contract if it determines at any time that representatives of the Borrower or of a beneficiary of ADB-financing engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations during the procurement or the execution of that contract, without the Borrower having taken timely and appropriate action satisfactory to ADB to remedy the situation,including by failing to inform ADB in a timely manner at the time they knew of the integrity violations;

(d) will impose remedial actions on a firm or an individual, at any time, in accordance with ADB's Anticorruption Policy and Integrity Principles and Guidelines, including declaring ineligible, either indefinitely or for a stated period of time, to participate[8] in ADB-financed,-administered, or -supported activities or to benefit from an ADB-financed,-administered,or-supported contract, financially or otherwise, if it at any time determines that the firm or individual has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations; and

(e) will have the right to require that a provision be included in bidding documents and in contracts financed, administered, or supported by ADB, requiring Bidders, suppliers and contractors, consultants, manufacturers, service providers and other third parties engaged or involved in ADB-related activities, and their respective officers, directors, employees and personnel, to permit ADB or its representative to inspect the site and their assets, accounts and records and other documents relating to the bid submission and contract performance and to have them audited by auditors appointed by ADB.

[8] WhetherasaContractor,Subcontractor,Consultant,ManufacturerorSupplier,orServiceProvider;orinanyothercapacity (differentnamesareuseddependingontheparticularBiddingDocument).

3.3 All Bidders, consultants, contractors, suppliers, manufacturers, service providers, and other third parties engaged or involved in ADB-related activities and their respective officers, directors, employees and personnel, are obliged to cooperate fully in any investigation when requested by ADB to do so. As determined on a case by case basis by ADB, such cooperation includes, but is not limited to, the following:

(a) being available to be interviewed and replying fully and truthfully to all questions asked;

(b) providing ADB with any items requested that are within the party's control including, but not limited to, documents and other physical objects;

(c) upon written request by ADB, authorizing other related entities to release directly to ADB such information that is specifically and materially related, directly or indirectly, to the said entities or issues which are the subject of the investigation;

(d) cooperating with all reasonable requests to search or physically inspect their person and/or work areas, including files, electronic databases, and personal property used on ADB activities, or that utilizes ADB's Information and Communication Technology (ICT) resources or systems (including mobile phones, personal electronic devices, and electronic storage devices such as external disk drives);

(e) cooperating in any testing requested by ADB, including but not limited to, fingerprint identification, handwriting analysis, and physical examination and analysis; and

(f) preserving and protecting confidentiality of all information discussed with, and as required by, ADB.

3.4 All Bidders, consultants, contractors and suppliers shall require their officers, directors, employees, personnel, agents to ensure that, in its contracts with its subconsultants, Subcontractors and other third parties engaged or involved in ADB-related activities, such subconsultants, Subcontractors and other third parties similarly are obliged to cooperate fully in any investigation when requested by ADB to do so.

3.5 The Supplier shall permit ADB or its representative to inspect the Supplier's site, assets, accounts and records and other documents relating to the bid submission and contract performance of the Supplier and to have them audited by auditors appointed by ADB, if so required by ADB.

3.6 The Supplier undertakes that no fees, gratuities, rebates, gifts, commissions or other payments, other than those shown in the bid, have been given or received in connection with the procurement process or in the contract execution.[9]

[9]The undertaking also applies during the period of performance of the contract.

4. Interpretation

4.1 If the context so requires it, singular means plural and vice versa.

4.2 Incoterms

(a) The meaning of any trade term and the rights and obligations of parties there under shall be as prescribed by Incoterms.

(b) EXW, CIF, CIP, and other similar terms, shall be governed by the rules prescribed in the current edition of Incoterms, published by the International Chamber of Commerce at the date of the Invitation for Bids or as specified in the SCC.

4.3 Entire Agreement

The Contract constitutes the entire agreement between the Purchaser and the Supplier and supersedes all communications, negotiations, and agreements (whether written or oral) of parties with respect thereto made prior to the date of Contract.

4.4 Amendment

No amendment or other variation of the Contract shall be valid unless it is in writing, is dated, expressly refers to the Contract, and is signed by a duly authorized representative of each party thereto.

4.5 Nonwaiver

(a) Subject to GCC Subclause 4.5(b) below, no relaxation, forbearance, delay, or indulgence by either party in enforcing any of the terms and conditions of the Contract or the granting of time by either party to the other shall prejudice, affect, or restrict the rights of that party under the Contract, neither shall any waiver by either party of any breach of Contract operate as waiver of any subsequent or continuing breach of Contract.

(b) Any waiver of a party's rights, powers, or remedies under the Contract must be in writing, dated, and signed by an authorized representative of the party granting such waiver, and must specify the right and the extent to which it is being waived.

4.6 Severability

If any provision or condition of the Contract is prohibited or rendered invalid or unenforceable, such prohibition, invalidity, or unenforceability shall not affect the validity or enforceability of any other provisions and conditions of the Contract.

5. Language

5.1 The Contract as well as all correspondence and documents relating to the Contract exchanged by the Supplier and the Purchaser, shall be written in the language specified in the SCC. Supporting documents and printed literature that are part of the Contract may be in another language provided they are accompanied by an accurate translation of the relevant passages in the language specified in the SCC, in

which case, for purposes of interpretation of the Contract, this translation shall govern.

5.2 The Supplier shall bear all costs of translation to the governing language and all risks of the accuracy of such translation.

6. Joint Venture

6.1 If the Supplier is a Joint Venture all of the parties shall be jointly and severally liable to the Purchaser for the fulfillment of the provisions of the Contract and shall designate one party to act as a leader with authority to bind the Joint Venture. The composition or the constitution of the Joint Venture shall not be altered without the prior consent of the Purchaser.

7. Eligibility

7.1 The Supplier and its Subcontractors shall have the nationality of an eligible country. A Supplier or Subcontractor shall be deemed to have the nationality of a country if it is a citizen or constituted, incorporated, or registered, and operates in conformity with the provisions of the laws of that country.

7.2 All Goods and Related Services to be supplied under the Contract and financed by ADB shall have their origin in Eligible Countries. For the purpose of this clause, “country of origin” means the country where the goods have been grown, mined, cultivated, produced, manufactured, or processed; or through manufacture, processing, or assembly, another commercially recognized article results that differs substantially in its basic characteristics from its imported components.

8. Notices

8.1 Any Notice given by one party to the other pursuant to the Contract shall be in writing to the address specified in the SCC. The term “in writing” means communicated in written form with proof of receipt.

8.2 A Notice shall be effective when delivered or on the Notice’s effective date, whichever is later.

9. Governing Law

9.1 The Contract shall be governed by and interpreted in accordance with the laws of the Purchaser’s country, unless otherwise specified in the SCC.

10. Settlement of Disputes

10.1 The Purchaser and the Supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.

10.2 If the parties fail to resolve such a dispute or difference by mutual consultation within 28 days from the commencement of such consultation, either party may require that the dispute be referred for resolution to the formal mechanisms specified in the SCC.

11. Scope of Supply

11.1 Subject to the SCC, the Goods and Related Services to be supplied shall be as specified in Section 6(Schedule of Supply).

11.2 Unless otherwise stipulated in the Contract, the Scope of Supply shall include all such items not specifically mentioned in the Contract but that can be reasonably inferred from the Contract as being required

for attaining Delivery and Completion of the Goods and Related Services as if such items were expressly mentioned in the Contract.

12. Delivery

12.1 Subject to GCC Subclause 33.1, the Delivery of the Goods and Completion of the Related Services shall be in accordance with the Delivery and Completion Schedule specified in the Section 6(Schedule of Supply). The details of shipping and other documents to be furnished by the Supplier are specified in the SCC.

13. Supplier's Responsibilities

13.1 The Supplier shall supply all the Goods and Related Services included in the Scope of Supply in accordance with GCC Clause 11, and the Delivery and Completion Schedule, as per GCC Clause 12.

14. Purchaser's Responsibilities

14.1 Whenever the supply of Goods and Related Services requires that the Supplier obtain permits, approvals, and import and other licenses from local public authorities, the Purchaser shall, if so required by the Supplier, make its best effort to assist the Supplier in complying with such requirements in a timely and expeditious manner.

14.2 The Purchaser shall pay all costs involved in the performance of its responsibilities, in accordance with GCC Subclause 14.1.

15. Contract Price

15.1 The Contract Price shall be as specified in the Agreement subject to any additions and adjustments thereto, or deductions therefrom, as may be made pursuant to the Contract.

15.2 Prices charged by the Supplier for the Goods delivered and the Related Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid, with the exception of any price adjustments authorized in the SCC.

16. Terms of Payment

16.1 The Contract Price shall be paid as specified in the SCC.

16.2 The Supplier's request for payment shall be made to the Purchaser in writing, accompanied by invoices describing, as appropriate, the Goods delivered and Related Services performed, and by the documents submitted pursuant to GCC Clause 12 and upon fulfillment of all the obligations stipulated in the Contract.

16.3 Payments shall be made promptly by the Purchaser, no later than 60 days after submission of an invoice or request for payment by the Supplier, and the Purchaser has accepted it.

16.4 The currency or currencies in which payments shall be made to the Supplier under this Contract shall be specified in the SCC.

17. Taxes and Duties

17.1 For goods supplied from outside the Purchaser's country, the Supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the Purchaser's country.

17.2 For goods supplied from within the Purchaser's country, the Supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted Goods to the Purchaser.

17.3 If any tax exemptions, reductions, allowances or privileges may be available to the Supplier in the Purchaser's Country, the Purchaser

shall use its best efforts to enable the Supplier to benefit from any such tax savings to the maximum allowable extent.

18. Performance Security

18.1 The Supplier shall, within 28 days of the notification of Contract award, provide a Performance Security for the due performance of the Contract in the amounts and currencies specified in the SCC.

18.2 The proceeds of the Performance Security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.

18.3 The Performance Security shall be denominated in the currencies of the Contract, or in a freely convertible currency acceptable to the Purchaser, and shall be in one of the forms stipulated by the Purchaser in the SCC, or in another form acceptable to the Purchaser.

18.4 The Performance Security shall be discharged by the Purchaser and returned to the Supplier not later than 28 days following the date of completion of the Supplier's performance obligations under the Contract, including any warranty obligations, unless specified otherwise in the SCC.

19. Copyright

19.1 The copyright in all drawings, documents, and other materials containing data and information furnished to the Purchaser by the Supplier herein shall remain vested in the Supplier, or, if they are furnished to the Purchaser directly or through the Supplier by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such third party.

20. Confidential Information

20.1 The Purchaser and the Supplier shall keep confidential and shall not, without the written consent of the other party hereto, divulge to any third party any documents, data, or other information furnished directly or indirectly by the other party hereto in connection with the Contract, whether such information has been furnished prior to, during or following completion or termination of the Contract. Notwithstanding the above, the Supplier may furnish to its Subcontractor such documents, data, and other information it receives from the Purchaser to the extent required for the Subcontractor to perform its work under the Contract, in which event the Supplier shall obtain from such Subcontractor an undertaking of confidentiality similar to that imposed on the Supplier under GCC Clause 20.

20.2 The Purchaser shall not use such documents, data, and other information received from the Supplier for any purposes unrelated to the Contract. Similarly, the Supplier shall not use such documents, data, and other information received from the Purchaser for any purpose other than the design, procurement, or other work and services required for the performance of the Contract.

20.3 The obligation of a party under GCC Subclauses 20.1 and 20.2 above, however, shall not apply to information that

(a) the Purchaser or Supplier needs to share with ADB or other institutions participating in the financing of the Contract;

(b) now or hereafter enters the public domain through no fault of that party;

(c) can be proven to have been possessed by that party at the time of disclosure and which was not previously obtained, directly or indirectly, from the other party; or

(d) otherwise lawfully becomes available to that party from a third party that has no obligation of confidentiality.

20.4 The above provisions of GCC Clause 20 shall not in any way modify any undertaking of confidentiality given by either of the parties hereto prior to the date of the Contract in respect of the Supply or any part thereof.

20.5 The provisions of GCC Clause 20 shall survive completion or termination, for whatever reason, of the Contract.

21. Subcontracting

21.1 The Supplier shall notify the Purchaser in writing of all subcontracts awarded under the Contract if not already specified in the Bid. Subcontracting shall in no event relieve the Supplier from any of its obligations, duties, responsibilities, or liability under the Contract.

21.2 Subcontracts shall comply with the provisions of GCC Clauses 3 and 7.

22. Specifications and Standards

22.1 Technical Specifications and Drawings

(a) The Supplier shall ensure that the Goods and Related Services comply with the technical specifications and other provisions of the Contract.

(b) The Supplier shall be entitled to disclaim responsibility for any design, data, drawing, specification or other document, or any modification thereof provided or designed by or on behalf of the Purchaser, by giving a notice of such disclaimer to the Purchaser.

(c) The Goods and Related Services supplied under this Contract shall conform to the standards mentioned in Section 6(Schedule of Supply) and, when no applicable standard is mentioned, the standard shall be equivalent or superior to the official standards whose application is appropriate to the country of origin of the Goods.

22.2 Wherever references are made in the Contract to codes and standards in accordance with which it shall be executed, the edition or the revised version of such codes and standards shall be those specified in the Section 6(Schedule of Supply). During Contract execution, any changes in any such codes and standards shall be

applied only after approval by the Purchaser and shall be treated in accordance with GCC Clause 33.

23. Packing and Documents

23.1 The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the Contract. During transit, the packing shall be sufficient to withstand, without limitation, rough handling and exposure to extreme temperatures, salt and precipitation, and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the final destination of the Goods and the absence of heavy handling facilities at all points in transit.

23.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, specified in the SCC, and in any other instructions ordered by the Purchaser.

24. Insurance

24.1 Unless otherwise specified in the SCC, the Goods supplied under the Contract shall be fully insured, in a freely convertible currency from an eligible country, against loss or damage incidental to manufacture or acquisition, transportation, storage, and delivery, in accordance with the applicable Incoterms or in the manner specified in the SCC.

25. Transportation

25.1 Unless otherwise specified in the SCC, obligations for transportation of the Goods shall be in accordance with the Incoterms specified in Section 6(Schedule of Supply).

26. Inspections and Tests

26.1 The Supplier shall at its own expense and at no cost to the Purchaser carry out all such tests and/or inspections of the Goods and Related Services as are specified in Section 6(Schedule of Supply).

26.2 The inspections and tests may be conducted on the premises of the Supplier or its Subcontractor, at point of delivery, and/or at the final destination of the Goods, or in another place in the Purchaser's country as specified in the SCC. Subject to GCC Subclause 26.3, if conducted on the premises of the Supplier or its Subcontractor, all reasonable facilities and assistance, including access to drawings and production data, shall be furnished to the inspectors at no charge to the Purchaser.

26.3 The Purchaser or its designated representative shall be entitled to attend the tests and/or inspections referred to in GCC Subclause 26.2, provided that the Purchaser bear all of its own costs and expenses incurred in connection with such attendance including, but not limited to, all traveling and board and lodging expenses.

26.4 Whenever the Supplier is ready to carry out any such test and inspection, it shall give a reasonable advance notice, including the place and time, to the Purchaser. The Supplier shall obtain from any relevant third party or manufacturer any necessary permission or consent to enable the Purchaser or its designated representative to attend the test and/or inspection.

26.5 The Purchaser may require the Supplier to carry out any test and/or inspection not required by the Contract but deemed necessary to verify that the characteristics and performance of the Goods comply with the technical specifications, codes, and standards under the Contract, provided that the Supplier's reasonable costs and expenses incurred in the carrying out of such test and/or inspection shall be added to the Contract Price. Further, if such test and/or inspection impedes the progress of manufacturing and/or the Supplier's performance of its other obligations under the Contract, due allowance will be made in respect of the Delivery Dates and Completion Dates and the other obligations so affected.

26.6 The Supplier shall provide the Purchaser with a report of the results of any such test and/or inspection.

26.7 The Purchaser may reject any Goods or any part thereof that fail to pass any test and/or inspection or do not conform to the specifications. The Supplier shall either rectify or replace such rejected Goods or parts thereof or make alterations necessary to meet the specifications at no cost to the Purchaser, and shall repeat the test and/or inspection, at no cost to the Purchaser, upon giving a notice pursuant to GCC Subclause 26.4.

26.8 The Supplier agrees that neither the execution of a test and/or inspection of the Goods or any part thereof, nor the attendance by the Purchaser or its representative, nor the issue of any report pursuant to GCC Subclause 26.6, shall release the Supplier from any warranties or other obligations under the Contract.

27. Liquidated Damages

27.1 Except as provided under GCC Clause 32, if the Supplier fails to deliver any or all of the Goods or perform the Related Services within the period specified in the Contract, the Purchaser may without prejudice to all its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in the SCC of the Contract Price for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the percentage specified in the SCC. Once the maximum is reached, the Purchaser may terminate the Contract pursuant to GCC Clause 35.

28. Warranty

28.1 The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.

28.2 Subject to GCC Subclause 22.1, the Supplier further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in the country of final destination.

28.3 Unless otherwise specified in the SCC, the warranty shall remain valid for 12 months after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destinationindicated in the SCC, or for 18 months after the date of

shipment or loading in the country of origin, whichever period concludes earlier.

28.4 The Purchaser shall give Notice to the Supplier, stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof. The Purchaser shall afford all reasonable opportunity for the Supplier to inspect such defects.

28.5 Upon receipt of such Notice, the Supplier shall, within the period specified in the SCC, expeditiously repair or replace the defective Goods or parts thereof, at no cost to the Purchaser.

28.6 If having been notified, the Supplier fails to remedy the defect within the period specified in the SCC, the Purchaser may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.

29. Patent Indemnity

29.1 The Supplier shall, subject to the Purchaser's compliance with GCC Subclause 29.2, indemnify and hold harmless the Purchaser and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Purchaser may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract by reason of

(a) the installation of the Goods by the Supplier or the use of the Goods in the country where the Site is located; and

(b) the sale in any country of the products produced by the Goods.

Such indemnity shall not cover any use of the Goods or any part thereof other than for the purpose indicated by or to be reasonably inferred from the Contract, neither any infringement resulting from the use of the Goods or any part thereof, or any products produced thereby in association or combination with any other equipment, plant, or materials not supplied by the Supplier, pursuant to the Contract.

29.2 If any proceedings are brought or any claim is made against the Purchaser arising out of the matters referred to in GCC Subclause 29.1, the Purchaser shall promptly give the Supplier a notice thereof, and the Supplier may at its own expense and in the Purchaser's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim.

29.3 If the Supplier fails to notify the Purchaser within 28 days after receipt of such notice that it intends to conduct any such proceedings or claim, then the Purchaser shall be free to conduct the same on its own behalf.

29.4 The Purchaser shall, at the Supplier's request, afford all available assistance to the Supplier in conducting such proceedings or claim, and shall be reimbursed by the Supplier for all reasonable expenses incurred in so doing.

29.5 The Purchaser shall indemnify and hold harmless the Supplier and its employees, officers, and Subcontractors from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Supplier may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract arising out of or in connection with any design, data, drawing, specification, or other documents or materials provided or designed by or on behalf of the Purchaser.

30. Limitation of Liability

30.1 Except in cases of gross negligence or willful misconduct,

(a) neither party shall be liable to the other party for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Supplier to pay liquidated damages to the Purchaser; and

(b) the aggregate liability of the Supplier to the Purchaser, whether under the Contract, in tort, or otherwise, shall not exceed the amount specified in the SCC, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment, or to any obligation of the Supplier to indemnify the Purchaser with respect to patent infringement.

31. Change in Laws and Regulations

31.1 Unless otherwise specified in the Contract, if after the date of the Invitation for Bids, any law, regulation, ordinance, order or bylaw having the force of law is enacted, promulgated, abrogated, or changed in the place of the Purchaser's country where the Site is located (which shall be deemed to include any change in interpretation or application by the competent authorities) that subsequently affects the Delivery Date and/or the Contract Price, then such Delivery Date and/or Contract Price shall be correspondingly increased or decreased, to the extent that the Supplier has thereby been affected in the performance of any of its obligations under the Contract. Notwithstanding the foregoing, such additional or reduced cost shall not be separately paid or credited if the same has already been accounted for in the price adjustment provisions where applicable, in accordance with GCC Clause 15.

32. Force Majeure

32.1 The Supplier shall not be liable for forfeiture of its Performance Security, liquidated damages, or termination for default if and to the extent that its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

32.2 For purposes of this clause, "Force Majeure" means an event or situation beyond the control of the Supplier that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Supplier. Such events may include, but not be limited to, acts of the Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.

32.3 If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

33. Change Orders and Contract Amendments

33.1 The Purchaser may at any time order the Supplier through Notice in accordance GCC Clause 8, to make changes within the general scope of the Contract in any one or more of the following:

(a) drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Purchaser;

(b) the method of shipment or packing;

(c) the place of delivery; and

(d) the Related Services to be provided by the Supplier.

33.2 If any such change causes an increase or decrease in the cost of, or the time required for, the Supplier's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or in the Delivery and Completion Schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this Clause must be asserted within 28 days from the date of the Supplier's receipt of the Purchaser's change order.

33.3 Prices to be charged by the Supplier for any Related Services that might be needed but which were not included in the Contract shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.

34. Extensions of Time

34.1 If at any time during performance of the Contract, the Supplier or its Subcontractors should encounter conditions impeding timely delivery of the Goods or completion of Related Services pursuant to GCC Clause 12, the Supplier shall promptly notify the Purchaser in writing of the delay, its likely duration, and its cause. As soon as practicable after receipt of the Supplier's notice, the Purchaser shall evaluate the situation and may at its discretion extend the Supplier's time for performance, in which case the extension shall be ratified by the parties by amendment of the Contract.

34.2 Except in case of Force Majeure, as provided under GCC Clause 32, a delay by the Supplier in the performance of its Delivery and Completion obligations shall render the Supplier liable to the imposition of liquidated damages pursuant to GCC Clause 27, unless an extension of time is agreed upon, pursuant to GCC Subclause 34.1.

35. Termination

35.1 Termination for Default

(a) The Purchaser, without prejudice to any other remedy for breach of Contract, by Notice of default sent to the Supplier, may terminate the Contract in whole or in part,

(i) if the Supplier fails to deliver any or all of the Goods within the period specified in the Contract, or within any extension thereof granted by the Purchaser pursuant to GCC Clause 34; or

(ii) if the Supplier fails to perform any other obligation under the Contract.

(iii) if the Supplier, in the judgment of the Purchaser has engaged in integrity violations, as defined in GCC Clause 3, in competing for or in executing the Contract.

(b) In the event the Purchaser terminates the Contract in whole or in part, pursuant to GCC Clause 35.1(a), the Purchaser may procure, upon such terms and in such manner as it deems appropriate, Goods or Related Services similar to those undelivered or not performed, and the Supplier shall be liable to the Purchaser for any additional costs for such similar Goods or Related Services. However, the Supplier shall continue performance of the Contract to the extent not terminated.

35.2 Termination for Insolvency

The Purchaser may at any time terminate the Contract by giving Notice to the Supplier if the Supplier becomes bankrupt or otherwise insolvent. In such event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to the Purchaser.

35.3 Termination for Convenience

(a) The Purchaser, by Notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its convenience. The Notice of termination shall specify that termination is for the Purchaser's convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.

(b) The Goods that are complete and ready for shipment within 28 days after the Supplier's receipt of the Notice of termination shall

be accepted by the Purchaser at the Contract terms and prices. For the remaining Goods, the Purchaser may elect

(i) to have any portion completed and delivered at the Contract terms and prices; and/or

(ii) to cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and Related Services and for materials and parts previously procured by the Supplier.

36. Assignment

36.1 Neither the Purchaser nor the Supplier shall assign, in whole or in part, their obligations under this Contract, except with prior written consent of the other party.

37. Respectful Work Environment

37.1 The Contractor shall ensure that its employees and Subcontractors observe the highest ethical standards and refrain from any form of bullying, discrimination, misconduct and harassment, including sexual harassment and shall, at all times, behave in a manner that creates an environment free of unethical behavior, bullying, misconduct and harassment, including sexual harassment. The Contractor shall take appropriate action against any employees or Subcontractors, including suspension or termination of employment or sub-contract, if any form of unethical or inappropriate behavior is identified.

37.2 The Contractor shall conduct training programs for its employees and Subcontractors to raise awareness on and prevent any form of bullying, discrimination, misconduct, and harassment including sexual harassment, and to promote a respectful work environment. The Contractor shall keep an up to date record of its employees and subcontractors who have attended and completed such training programs and provide such records to the Purchaser at their first written request.

Section 8: Special Conditions of Contract

The following Special Conditions of Contract (SCC) shall supplement the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

GCC 1.1(j)	The Purchaser's country is: India
GCC 1.1(k)	The Purchaser is: Directorate of Medical Education (DME), Assam on behalf Assam Health Infrastructure Development & Management Society (AHIDMS)
GCC 1.1 (q)	The Site is: Mahendra Mohan Choudhury Hospital, Guwahati, MG Road (Main Road), Pan Bazar, Guwahati, Assam, PIN– 781001
GCC 4.2 (b)	The version of Incoterms shall be: Year 2020
GCC 5.1	The language shall be: English The language for translation of supporting documents and printed literature is: English
GCC 8.1	For notices, the Purchaser's address shall be: Attention: Director of Medical Education (DME) Street address: G.S. Road, Six-mile, Khanapara Floor/ Room number: 4thfloor City: Guwahati ZIP code: 781022 Country: India Telephone: 0361-2366236 Fax: 0361-2366236 E-mail: dmeassam@gmail.com
GCC 9.1	The governing law shall be: India
GCC 10.2	The formal mechanism for the resolution of disputes shall be: For a contract with a Foreign Supplier: In the case of a dispute between the Purchaser and the Supplier, the dispute shall be settled by international arbitration conducted in accordance with the Arbitration Rules of the Singapore International Arbitration Centre (SIAC). The arbitration procedure shall be administered by the Singapore International Arbitration Centre (SIAC). Place of arbitration: The place of arbitration shall be: the place of the institution administering the arbitration.

	For a contract with a Local Supplier:In the case of a dispute between the Purchaser and the Supplier, the dispute shall be settled by arbitration in accordance with the provisions of the local arbitration procedures in the Purchaser's country. Place of arbitration: Guwahati
GCC 11.1	The Scope of Supply shall be defined in:Section 6 (Schedule of Supply)
GCC 12.1	Details of Shipping and other Documents to be furnished by the Supplier are 1. A negotiable bill of lading 2. A non-negotiable sea way bill, 3. A road/Rail consignment note 4. Insurance certificate, 5.Manufacturer's warranty certificate, 6. Inspection certificate issued by Manufactures, 7.Supplier's factory shipping details etc. 8. Parts Catalogue 9. Exploded drawing of each component. 10. User and Service manual; trouble shooting manual. 11. Periodic Maintenance Schedule. 12. Training manual for use. 13. All other documents mentioned in the Technical Specification The above documents shall be received by the Purchaser before arrival of the Goods and, if not received, the Supplier will be responsible for any consequent expenses.
GCC 15.2	The price adjustment shall be: Not applicable

GCC 16.1	Payments for Supplies, Installation, Testing& commissioning and CAMC Charges shall be governed as follows: **1. For Supply, Installation, Testing&Commissioning: -** (a) Advance Payment: **10%** of the Contract Price excluding CAMC value within 28 days of signing of the Contract. Payment shall be made provided the Supplier presents a request for payment accompanied by an Advance Payment Security in the form of a bank guarantee for an amount equal to the amount of the payment, and that shall be valid until the Goods are delivered. The security shall be in the form as specified in Section 9 (Contract Forms). In case supplier request for advance payment is not received by purchaser, same will be added to the next payment milestone. (b) On Completion of Delivery, Installation, Commissioning and Successful completion of 1st training on site after commissioning: The Purchaser shall pay the Supplier **80**% of the Contract Price excluding CAMC upon submission of documents specified in SCC Clause 12.1. (c) 10 **%** of the Contract Price excluding CAMC received shall be paid after completion of the warranty periodof5 years.*Purchaser may consider release of this payment milestone before due date provided supplier submit equivalent bank guarantee valid up to required period.* **2. For CAMC: -** The payment of CAMC will be made on six monthly basis on pro-rata basis after satisfactory completion of said period, duly certified by the end user.
GCC 16.4	The currencies for payments shall be: same as currencyofthebid.
GCC 18.1	The Supplier shall provide a Performance Security in two stages as mentioned below: 1) Five percent (5%) of the Contract Price excluding CAMC value valid for 28 days following the supplier performance obligation including warranty of five years 2) Ten percent (10%) of cost ofCAMC to be submitted before the expiry/discharge of above performance security, valid for 28 days following the supplier performance obligation including CAMC of five years The Performance Security shall be denominated in the following amounts and currencies:Indian Rupees
GCC 18.3	The forms of acceptable Performance Security are: bank guarantee issued by a reputable bank located in the Purchaser's country or abroad, acceptable to the Purchaser, in the format included in Section 9 (Contract Forms)

GCC 18.4	Discharge of the Performance Security shall take place: in accordance with GCC Subclause 18.4;
GCC 23.2	The packing, marking, and documentation within and outside the packages shall be: **Packing:** (1) The supplied Goods shall be packed by standard protectivemeasures. Such packing shall be suitable for long distance transportationandwellprotected againstdampness,moisture,shock,rustand roughhandling so as to ensure that the Goods will safely arrive at the designatedsitewithoutanydamagedue totheabove-mentioned reasons,and (2) In each package, there shall be one copy each of the detailed packing listandthequalitycertificate. **Marking**:(1) The Supplier shall mark the following on the four adjacent sidesofeachpackagewithindeliblepaintinconspicuousEnglishprintedwords: A. CONSIGNEE B. CONTRACTNO. C. SHIPPINGMARK D. CONSIGNEECODE E. DESTINATION F. NAMEOFGOODSANDITEMNO., CASENO. G. GROSS/NETWEIGHT(Kg) H. MEASUREMENT(LENGTHxWIDTHxHEIGHTINCM) (2) If any package weighs two (2) tons or more, the Supplier shall mark ontwo sides of each package in English and with appropriate transportationmarks to show the "center of gravity" and "points of slinging" in order tofacilitate loading, discharging and handling.According to the characteristicsoftheGoodsandthedifferentrequirementsintransportation,packages shallbemarkedlegiblybytheSupplierwithwords"HandlewithCare","RightSide Up", "Keep Dry", etc., and with other appropriate marks.
GCC 24.1	The insurance coverage shall be in accordance with:Pursuant to GCC, Subclause 24.1, the Supplier must insure the Goods in an amount equal to 110% of the CIF, CIP or EXW price of the Goods from “Warehouse” to “Warehouse” on “All Risks” basis, including War Risks and Strikes.
GCC 25.1	Obligations for transportation of the Goods shall be in accordance with: In accordance with Incoterms
GCC 26.2	The inspections and tests shall be conducted at: Final destination at the place indicated in Place of Delivery at Section VI Schedule of Requirements.

GCC 27.1	The applicable rate for liquidated damages for delay shall be: 0.5 % per week or part thereof
GCC 27.1	The maximum amount of liquidated damages shall be: 5% of the contract price
GCC 28.3	The period of validity of the Warranty shall be: 5 years The place of final destination shall be:Mahendra Mohan Choudhury Hospital, Guwahati
GCC 28.5	The Supplier shall correct any defects covered by the Warranty within 5 working days of being notified by the Purchaser of the occurrence of such defects.
GCC 30.1 (b)	The amount of aggregate liability shall be: 100% of the Contract price
GCC 33.1	Add following after (d) : (e) the increase or decrease in the quantity of Goods and Related Services by 25% percentages.

Section 9: Contract Forms

Table of Forms

Notice of Intention for Award of Contract

[*on letterhead paper of the Purchaser*]

[*date of notification*]

To: [*name of the Bidder*]
Attention: [*insert name of the Bidder's authorized representative*]
Address: [*insert address of the Bidder's authorized representative*]
Telephone/Fax numbers: [*insert telephone/fax numbers of the Bidder's authorized representative*]
E-mail Address: [*insert e-mail address of the Bidder's authorized representative*]

This is to notify you of our intention to award the contract [*insert name of the contract and identification number, as given in the Bid Data Sheet*]. You have [*insert number of days as specified in ITB 42.1 of the BDS*] days from the date of this notification to (i) request for a debriefing in relation to the evaluation of your Bid; and/or (ii) submit a bidding-related complaint in relation to the intention for award of contract, in accordance with the procedures specified in ITB 48.1.

The summary of the evaluation are as follows:

1. List of Bidders

Name of Bidder	Bid Price as Read Out at Opening	Evaluated Bid Price

2. Reason/s Why Your Bid Was Unsuccessful

……
……
……
……

3. The Successful Bidder

Name of Bidder:	
Address:	
Contract Price:	
Duration of Contract:	
Scope of the Contract Awarded:	
Amount Performance Security Required:	

Authorized Signature: ……

Name and Title of Signatory: ……

Name of Agency: ……

Notification of Award

[*on letterhead of the Purchaser*]

Letter of Acceptance

[*date*]

To: [*name and address of the supplier*]

Subject: Contract No. [*please specify*]

This is to notify you that your Bid dated [*date*] for execution of the [*name of the contract and identification number, as given in the Bid Data Sheet*] for the Accepted Contract Amount of the equivalent of [*amount in words and figures and name of currency*], as corrected and modified in accordance with the Instructions to Bidders is hereby accepted by our Agency.

You are requested to furnish the Performance Security within 28 days in accordance with the Conditions of Contract and any additional security required as a result of the evaluation of your bid, using for that purpose the Performance Security Form included in Section 9 (Contract Forms) of the Bidding Document.

Authorized Signature: ……..

Name and Title of Signatory: ……..

Name of Agency: …….

Attachment: Contract Agreement

Contract Agreement

THIS AGREEMENT made on the *[insert date]*day of *[insert month]*, *[insert year]*, between *[insert complete name of the purchaser]*of *[insert complete address of the Purchaser]* (hereinafter "the Purchaser"), of the one part, and *[insert complete name of the supplier]* of *[insert complete address of the supplier]*(hereinafter "the Supplier"), of the other part:

WHEREAS the Purchaser invited Bids for certain Goods and Related Services, viz., *[insert brief description of the goods and related services]* and has accepted a Bid by the Supplier for the supply of those Goods and Related Services in the sum of *[insert currency or currencies and amount of contract price in words and figures]* (hereinafter "the Contract Price").

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Contract referred to.

2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz.:

   (a) Letter of Acceptance;
   (b) Bid Submission Sheet and the Price Schedules submitted by the Supplier;
   (c) Addenda Nos. [*insert addenda numbers if any*][10]
   (d) Special Conditions of Contract;
   (e) List of Eligible Countries that was specified in Section 5 of the Bidding Document;
   (f) General Conditions of Contract;
   (g) Schedule of Supply; and
   (h) any other documents shall be added here.

   This Contract shall prevail over all other Contract documents. In the event of any discrepancy or inconsistency within the Contract documents, then the documents shall prevail in the order listed above.

3. In consideration of the payments to be made by the Purchaser to the Supplier as indicated in this Agreement, the Supplier hereby covenants with the Purchaser to provide the Goods and Related Services and to remedy defects therein in conformity in all respects with the provisions of the Contract.

4. The Purchaser hereby covenants to pay the Supplier in consideration of the provision of the Goods and Related Services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

[10]Information contained in the addenda and or addendum should preferably be included in the contract documents to avoid potential ambiguities during contract implementation. If however, unavoidable priority should be decided depending on the nature of information provided in the addenda/addendum.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of *[indicated name of country]* on the day, month, and year indicated above.

Signed by *[insert authorized signature for the Purchaser]*(for the Purchaser)

Signed by *[insert authorized signature for the supplier]* (for the Supplier)

Performance Security

[*Bank's name, and address of issuing branch or office*]

Beneficiary: ……[*Name and address of the Purchaser*] ……

Date:……[*Insert date (as day, month, and year)*] **……**

Performance Guarantee No.: ……

We have been informed that [*name of the supplier*](hereinafter called "the Supplier") has entered into Contract No. [*reference number of the contract*]dated[*date*] with you, for the execution of [*name of contract and brief description of goods and related services*](hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.

At the request of the Supplier, we [*name of the bank*]hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of [*name of the currency and amount in words*][1][*amount in figures*] such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by us of your first demand in writing accompanied by a written statement stating that the Supplier is in breach of its obligation(s) under the Contract, without your needing to prove or to show grounds for your demand or the sum specified therein.

This guarantee shall expire, no later than the [*date*] dayof [*month*], [*year*],[2] and any demand for payment under it must be received by us at this office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revisions, ICC Publication No. 758, except that the supporting statement under Article 15(a) is hereby excluded.[3]

. . . . . .

[*Signature(s) and seal of bank (where appropriate)*]

-- Note to Bidder --

If the bank issuing performance security is located outside the Purchaser's country, it shall be counter-guaranteed or encashable by a bank in the Purchaser's country.

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1 The guarantor shall insert an amount representing the percentage of the contract price specified in the contract and denominated either in the currency(ies) of the contract or in any freely convertible currency acceptable to the Purchaser.

2 Insert the date 28 days after the expected completion date. The Purchaser should note that in the event of an extension of the time for completion of the contract, the Purchaser would need to request an extension of this guarantee from the guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Purchaser might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months][one year], in response to the Purchaser's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."

3 Or the purchaser may use "Uniform Rules for Demand Guarantees (URDG), ICC Publication No. 458except that subparagraph (ii) of Sub-article 20(a) is hereby excluded" as appropriate.

Advance Payment Security

[*insert complete name and number of contract*]

To: [*insert complete name of the Purchaser*]

In accordance with the payment provision included in the Contract, in relation to advance payments, [*insert complete name of the supplier*] (hereinafter called "the Supplier") shall deposit with the Purchaser a security consisting of [*indicate type of security*], to guarantee its proper and faithful performance of the obligations imposed by said Clause of the Contract, in the amount of [*insert currency and amount of guarantee in words and figures*].

We, the undersigned [*insert complete name of the guarantor*], legally domiciled in [*insert full address of the guarantor*] (hereinafter "the Guarantor"), as instructed by the Supplier, agree unconditionally and irrevocably to guarantee as primary obligor and not as surety merely, the payment to the Purchaser on its first demand without whatsoever right of objection on our part and without its first claim to the Supplier, in the amount not exceeding [*insert currency and amount of guarantee in words and figures*].

This security shall remain valid and in full effect from the date of the advance payment being received by the Supplier under the Contract until [*insert date (as day, month, year)*].

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revisions, ICC Publication No. 758,except that the supporting statement under Article 15(a) is hereby excluded.[1]

Name: [*insert complete name of person signing the Security*]

In the capacity of [*insert legal capacity of person signing the Security*]

Signed: [*insert signature of person whose name and capacity are shown above*]

Duly authorized to sign the security for and on behalf of [*insert seal (where appropriate) and complete name of the guarantor*]

Date: [*insert date of signing*]

-- Note to Bidder --

If the bank issuing advance payment security is located outside the Purchaser's country, it shall be counter-guaranteed or encashable by a bank in the Purchaser's country.

[1] Or the purchaser may use "Uniform Rules for Demand Guarantees (URDG), ICC Publication No. 458, except that subparagraph (ii) of Sub-article 20(a) is hereby excluded" as appropriate.