TAMILNADU MEDICAL SERVICES CORPORATION LIMITED
417 Pantheon Road, Egmore, Chennai - 8
Website : www.tnmsc.com
E-mail: enquiry @ tnmsc.com

BID REFERENCE: 188/MRI/MCH/TNMSC/ENGG/2017, Dt.30.08.2017

TENDER FOR FIXING RATE CONRACT FOR SUPPLY, INSTALLATION AND COMMISSIONING OF 1.5 TESLA MRI SYSTEM TO VARIOUS MEDICAL COLLEGES HOSPITALS

LAST DATE OF RECEIPT OF TENDER: 04.10.2017 at 11.00 AM

NOT TRANSFERABLE

ABSTRACT

TAMILNADU MEDICAL SERVICES CORP. LTD.,
417, PANTHEON ROAD,
EGMORE, CHENNAI 600 008.

Telephones: (044) 28191890 / 2819 0259
E-mail: enquiry@tnmsc.com; equipment@tnmsc.com; enggenquiry@tnmsc.com
Web site:www.tnmsc.com

TENDER FOR FIXING RATE CONRACT FOR SUPPLY, INSTALLATION AND COMMISSIONING OF 1.5 TESLA MRI SYSTEM TO VARIOUS MEDICAL COLLEGES HOSPITALS

BID REFERENCE	:	188/MRI/MCH/TNMSC/ENGG/ 2017, Dt.30.08.2017
DATE OF COMMENCEMENT OF SALE OF BIDDING DOCUMENT	:	31.08.2017
LAST DATE FOR SALE OF BIDDING DOCUMENT	:	03.10.2017
LAST DATE AND TIME FOR RECEIPT OF BIDS	:	04.10.2017, 11.00 AM
TIME AND DATE OF OPENING OF BIDS	:	04.10.2017, 12.00 Noon
PLACE OF OPENING OF BIDS	:	Tamilnadu Medical Services Corp. Ltd 417, pantheon road, Egmore, Chennai 600 008.
ADDRESS FOR COMMUNICATION	:	Tamilnadu Medical Services Corp. Ltd 417, pantheon road, Egmore, Chennai 600 008.

SECTION I : INVITATION FOR BIDS (IFB)

SECTION I : INVITATION FOR BIDS (IFB)

Sealed Tenders in duplicate will be received till **11.00 AM** on **04.10.2017** by the **General Manager (E), Tamilnadu Medical Services Corp. Ltd., Chennai** , **tender for fixing rate contract for Supply, installation and commissioning of 1.5 Tesla MRI System to Various Medical Colleges Hospitals.**

1. Interested eligible Bidders may obtain further information from the office of the Tamilnadu Medical Services Corp. Ltd, 417, Pantheon Road, Egmore,
Chennai 600 008. Tamilnadu. India.

2. A complete set of bidding documents may be purchased by any interested eligible bidder on submission of a written application to the above office and upon payment of a non-refundable fee as indicated below in the form of a Demand Draft in favour of **Tamilnadu Medical Services Corp. Ltd., payable at Chennai**.

3. The bidding document may be obtained from the office of **Tamilnadu Medical Services Corp. Ltd., 417, Pantheon Road, Egmore, Chennai - 600 008**, during office hours namely, from **10.00 hours** to **17.00 hours** on all working days either in person or by post.

a)	Price of bidding document (Non-refundable)	:	Rs.5,725/- (Inclusive of all taxes) (Alternatively, the tender document can be downloaded from www.tenders.tn.gov.in and TNMSC website www. tnmsc. com at free of cost)
b)	Postal charges, inland	:	Rs.200/- (extra)
c)	Date of commencement of Sale of bidding document	:	31.08.2017
d)	Pre-bid meeting	:	08.09.2017, 11.00 AM
e)	Last date for sale of Bidding Document	:	03.10.2017
f)	Last date and time for Receipt of bids	:	04.10.2017, 11.00 AM
g)	Time and date of Opening of Technical bids	:	04.10.2017, 12.00 Noon

h)	Place of opening of bids	:	Tamilnadu Medical Services Corp. Ltd., 417, Pantheon Road, Egmore, Chennai 600 008.
i)	Address for communication	:	Tamilnadu Medical Services Corp. Ltd., 417, Pantheon Road, Egmore, Chennai 600 008.

4. All bids must be accompanied by a bid security as specified in the bid document and must be delivered to the above office at the date and time indicated above.

5. Bids will be opened in the presence of Bidders' representative who choose to attend on the specified date and time.

SECTION II : INSTRUCTION TO BIDDERS

SECTION II: INSTRUCTIONS TO BIDDERS

TABLE OF CLAUSES

A. INTRODUCTION

1. Eligible Bidders

1.1 Manufacturers or their authorised representatives / direct importers are eligible to participate in this tender.

1.2 Bidders should not be associated, or have been associated in the past, directly or indirectly, with a firm or any of its affiliates which have been engaged by the Purchaser to provide consulting services for the preparation of the design, specifications, and other documents to be used for the procurement of the goods to be purchased under this Invitation of Bids.

1.2.1. The GST registered bidders are only eligible to participate in the tender.

1.3 Government-owned enterprises may participate only if they are legally and financially autonomous, if they operate under commercial law, and if they are not a dependent agency of the ***Purchaser***.

2. Cost of Bidding

2.1 The Bidder shall bear all costs associated with the preparation and submission of its bid and ***Tamilnadu Medical Services Corp. Ltd., Chennai,*** hereinafter referred to as ***"the Purchaser"***, will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

B. THE BIDDING DOCUMENTS

3. Contents of Bidding Documents

3.1 The goods required, bidding procedures and contract terms are prescribed in the Bidding documents. In addition to the Invitation for Bids, the Bidding Documents include:

a. Instruction to Bidders (ITB);
b. General Conditions of Contract (GCC);
c. Special Conditions of Contract (SCC);
d. Schedule of Requirements;
e. Technical Specifications / Qualification criteria;
f. Bid Form and Price Schedules;
g. Bid Security form
h. Contract Form;
i. Performance Security Form;
j. Performance statement
k. Manufacturer's Authorisation Form and
l. Bank Guarantee for Advance Payment Form

3.2 The Bidder is expected to examine all instructions, forms, terms and specifications in the Bidding Documents. Failure to furnish all information required by the Bidding Documents or submission of a bid not substantially responsive to the Bidding Documents in every respect will be at the Bidder's risk and may result in rejection of its bid.

4.Clarification of Bidding Documents

4.1 A prospective Bidder requiring any clarification of the Bidding Documents may notify the ***Purchaser*** in writing or by telex or cable at the ***Purchaser***'s mailing address indicated in the Invitation for Bids. The ***Purchaser*** will respond in writing to any request for clarification of the Bidding Documents which it receives not later than 7 days prior to the deadline for submission of bids prescribed by the ***Purchaser***. Written copies of the ***Purchaser's*** response (including an explanation of the query but without identifying the source of inquiry) will be sent to all prospective Bidders which have received the bidding documents.

4.2 Pre-Bid Meeting:

(a) The bidder or his official representative is invited to attend a pre-bid meeting which will take place at the office of *Tamilnadu Medical Service Corporation Limited, 417, Pantheon Road, Chennai –8, India*. on **08.09.2017 at 11.00 AM.**

(b) The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.

(c) The Bidder is requested to submit any questions in writing or by cable to reach the ***Purchaser*** not later than **3 days before the meeting**.

(d) Minutes of the meeting, including the text of the questions raised (without identifying the source of enquiry) and the responses given will be transmitted without delay to all purchasers of the bidding documents.

(e) Non-attendance at the pre-bid meeting will not be a cause for disqualification of a bidder.

5.Amendment of Bidding Documents

5.1 At any time prior to the deadline for submission of bids, the ***Purchaser*** may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the Bidding Documents by an amendment.

5.2 All prospective bidders who have received the Bidding Documents will be notified of the amendment in writing or by cable and will be binding on them.

5.3 In order to allow prospective bidders reasonable time in which to take the amendment into account in preparing their bid, the ***Purchaser*** may, at its discretion, extend the deadline for the submission of bids.

C. PREPARATION OF BIDS

6.Language of Bid

6.1 The Bid prepared by the bidder and all correspondence and documents relating to the bid exchanged by the Bidder and the ***Purchaser***, shall be written in the English language. Supporting documents and printed literature furnished by the Bidder may be written in another language provided they are accompanied by an accurate translation of the relevant passages in the English language in which case, for purposes of interpretation of the Bid, the English translation shall govern.

7. Documents Comprising the Bid

7.1 The bid prepared by the Bidder shall comprise the following components:

(a) a Bid Form and Price Schedule completed in accordance with ITB Clauses 8, 9 and 10;

(b) documentary evidence established in accordance with ITB Clause 11 that the Bidder is eligible to bid and is qualified to perform the contract if its bid is accepted;

(c) documentary evidence established in accordance with ITB Clause 12 that the goods and ancillary services to be supplied by the Bidder shall conform to the Bidding Documents; and

(d) Bid Security furnished in accordance with ITB Clause 13.

8. Bid Form

8.1 The Bidder shall complete the Bid Form and the appropriate Price Schedule furnished in the bidding documents, indicating for the goods to be supplied, a brief description of the goods, their country of origin, quantity and prices.

9. Bid Prices

9.1 The Bidder shall indicate on the Price Schedule the unit prices and total Bid prices of the goods it proposes to supply under the Contract.

9.2 Prices indicated on the Price Schedule shall be entered separately in the following manner:

(i) The price of the goods, quoted ex-factory, ex-show-room, ex-warehouse, or off-the-shelf, or delivered, as applicable, including all duties and sales and other taxes already paid or payable:

a. on components and raw material use in the manufacture or assembly of the goods quoted ex-factory; or

b. on the previously imported goods of foreign origin quoted ex-showroom, ex-warehouse or off-the-shelf.

(ii) any purchaser-country sales and other taxes which will be payable on the goods if this contract is awarded;

(iii) charges for inland transportation, insurance and other local costs incidental to delivery of the goods to their final destination; and

(iv) the cost of incidental services listed in Clause 7 of the Special Conditions of Contract.

9.3 The Bidders separation of the price components in accordance with ITB Clause 9.2 above will be solely for the purpose of facilitating the comparison of bids by the ***Purchaser*** and will not in any way limit the ***Purchaser***'s right to contract on any of the terms offered.

9.4 Fixed price: Prices quoted by the Bidder shall be fixed during the Bidder's performance of the contract and not subject to variation on any account. A bid submitted with an adjustable price quotation will be treated as non-responsive and rejected, pursuant to ITB Clause 22.

9.5 a) The bidder should furnish the CIF value of the imported component with Customs duty separately in the price bid in addition to the other breakup value for packaging & Forwarding, Inland transport, Installation and commissioning and other incidental charges as specified in SCC 7 under GCC 12

b) The bidders are advised to take in to consideration the savings available due to abolition of CVD and SAD for imports now due to GST implementation, and consider the benefits out of it as a reduction, while arriving at their bid price.

c) Similarly, the benefits that could be availed out of High Sea Sales/ Sales in course of import should also be considered as a reduction while arriving at their bid price.

10. Bid Currencies

10.1 Prices shall be quoted in Indian Rupees.

10.2 The bidders are also permitted to quote the imported component price in any foreign currency which will be converted into Indian Currency fixed by SBI on the date of opening of technical bid for evaluation of prices and the bidders should quote for the other component in Indian Rupees.

10.3 For the rate contract, the imported component prize will be frozen at the foreign currency rates for a period of three years from the date of notification of award and the payment will be made at the time of actual placement of order and at the prevailing exchange rates. The customs duty, GST etc., will be at the actual rate at the time of placement of order.

11. Documents establishing bidder's eligibility and qualifications

11.1 Pursuant to ITB Clause 7, the bidder shall furnish, as part of its bid, documents establishing the bidder's eligibility to bid and its qualifications to perform the Contract if its bid is accepted.

11.2 The documentary evidence of the Bidder's qualifications to perform the Contract if its bid is accepted, shall establish to the ***Purchaser***'s satisfactions.

(a) that, in the case of a Bidder offering to supply goods under the contract which the Bidder did not manufacture or otherwise produce, the Bidder has been duly authorised (as per authorisation form in Section XII) by the goods manufacturer or produce to supply the goods in India.

(b) that the bidder has the financial, technical and production capability necessary to perform the Contract and meets the criteria outlined in the qualification requirements specified in Section VI-A. To this end, all bids submitted shall include the following information:

(i) The legal status, place of registration and principle place of business of the company or firm or partnership, etc;

(ii) Details of experience and past performance of the bidder on equipment offered and on those of similar nature within the past five years and details of current contracts in hand and other commitments (suggested proforma given in Section XI)

11.3 The bidder should furnish the GST registration no. for supply and services and the code no. for the goods quoted.

12. Documents establishing goods conformity to bidding documents

12.1 Pursuant to ITB Clause 7, the Bidder shall furnish, as part of its bid, documents establishing the conformity to the bidding documents of all goods and services which the bidder proposes to supply under the contract.

12.2 The documentary evidence of conformity of the goods and services to the bidding documents may be in the form of literature, drawings and data and shall consist of:

(a) a detailed description of the essential technical and performance characteristics of the goods;

(b) a list giving full particulars, including available sources and current prices, of all spare parts, special tools, etc., necessary for the proper and continued functioning of the goods for a period of three years, following commencement of the goods used by the ***Purchaser***; and

(c) an item-by-item commentary on the ***Purchaser***'s Technical Specifications demonstrating substantial responsiveness of the goods and services to those

specifications or a statement of deviations and exceptions to the provisions of the Technical Specifications.

12.3 For the purpose of the commentary to be furnished pursuant to ITB Clause 12.2 (c) above, the Bidder shall note that standards for workmanship, material and equipments and references to brand names or catalogue numbers designated by the ***Purchaser*** in its Technical Specifications are intended to be descriptive only and not restrictive. The Bidder may substitute alternative standards, brand names and/or catalogue numbers in its bid, provided that it demonstrates to the ***Purchaser***'s satisfaction that the substitutes are substantially equivalent or superior to those designated in the Technical Specifications.

13. Bid Security

13.1 Pursuant to ITB Clause 7, the Bidder shall furnish, as part of its bid, bid security for the amount as indicated in Section V schedule of requirements.

13.2 The bid security is required to protect the ***Purchaser*** against risk of Bidders conduct which would warrant the security's forfeiture, pursuant to ITB Clause 13.7.

13.3 The bid security shall be in Indian Rupees and shall be in one of the following forms :

a. Deleted

b. A Banker's cheque, or demand draft obtained from any scheduled bank in favour of TamilNadu Medical Services Corporation Limited, payable at Chennai.

13.4 Any bid not secured in accordance with ITB Clauses 13.1 and 13.3 above will be rejected by the ***Purchaser*** as non-responsive, pursuant to ITB Clause 22.

13.5 Unsuccessful bidders bid security will be discharged/returned as promptly as possible but not later than 30 days after the expiration of the period of bid validity prescribed by the ***Purchaser***, pursuant to ITB Clause 14.

13.6 The successful bidder's bid security will be discharged upon the bidders signing the contract, pursuant to ITB Clause 30, and furnishing the security, pursuant to ITB Clause 31.

13.7 The bid security may be forfeited:

(a) If a bidder withdraws its bid during the period of bid validity specified by the Bidder on the Bid form;

(or)

(b) In case of a successful bidder, if the bidder fails:

(i) to sign the contract in accordance with ITB Clause 30; or

(ii) to furnish performance security in accordance with ITB Clause 31.

14. Period of Validity of Bids

14.1 Bids shall remain valid for 90 days after the date of bid opening prescribed by the ***Purchaser***, pursuant to ITB Clause 17. A bid valid for a shorter period may be rejected by the ***Purchaser*** as non-responsive.

14.2 In exceptional circumstances, the ***Purchaser*** may solicit the bidders consent to an extension of the period of validity. The request and the responses thereto shall be made in writing (or by cable or telex). The bid security provided under ITB Clause 13 shall be suitably extended. A bidder may refuse the request without forfeiting its bid security. A bidder granting the request is not required or permitted to modify its bid.

15. Format and Signing of Bid

15.1 The bidder shall prepare the bid technical bid (Cover A) and the price bid (Cover B) and placed in separately sealed covers clearly marking "Technical bid" and "Price bid" as appropriate.

15.2 The original and all copies of the bid shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorised to bind the Bidder to the Contract. The letter of authorisation shall be indicated by written power-of-attorney accompanying the bid. All pages of the bid, except for unamended printed literature, shall be initialed by the person or persons signing the bid.

15.3 Any interlineations, erasures or overwriting shall be valid only if they are initialed by the person or persons signing the bid.

D. SUBMISSION OF BIDS

16. Sealing and Marking of Bids

16.1 The bidder shall seal the **"Technical bid"** and **"Price bid"** in separate inner envelopes only making the envelopes as "Technical bid" and Price bid". He shall then place these two inner envelopes in an outer envelope.

16.2 The inner envelope and outer envelopes and the cover shall be:

(a) addressed to the ***Purchaser*** at the following address:

Tamilnadu Medical Services Corp. Ltd.,
417, Pantheon Road,
Egmore,
Chennai 600 008.

(b) bear the project name, the invitation for bids (IFB) number and the words **"Do not open before 12.00 Noon on 04.10.2017.**

16.3 The inner envelopes shall indicate the name and address of the bidder to enable the bid to be returned unopened in case it is declared "late".

16.4 If the cover containing the outer envelope is not sealed and marked as required by ITB Clause 16.2, the ***Purchaser*** will assume no responsibility for the bid's misplacement or premature opening.

16.5 Telex, cable or facsimile bids will be rejected.

17. Deadline for Submission of Bids

17.1 Bids must be received by the ***Purchaser*** at the address specified under ITB Clause 16.2 not later than the time and date specified in the Invitation of Bids (Section I). In the event of the specified date for the submission of bids being declared a holiday for the ***Purchaser***, the bids will be received up to the appointed time on the next working day.

17.2 The ***Purchaser*** may, at its discretion, extend this deadline for submission of bids by amending the bid documents in accordance with ITB Clause 5, in which case all rights

and obligations of the purchasers and bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

18. Late Bids

18.1 Any bid received by the ***Purchaser*** after the deadline for submission of bids prescribed by the ***Purchaser***, pursuant to ITB Clause 17, will be rejected and/or returned unopened to the Bidder.

19. Modification and Withdrawal of Bids

19.1 The bidder may modify or withdraw its bid after the bids submission, provided that written notice of the modification or withdrawal is received by the ***Purchaser*** prior to the deadline prescribed for submission of bids.

19.2 The bidders modification or withdrawal notice shall be prepared, sealed, marked and dispatched in accordance with the provisions of ITB Clause 16. A withdrawal notice may also be sent by telex or cable but followed by a signed confirmation copy, post marked not later than the deadline for submission of bids.

19.3 No bid may be modified subsequent to the deadline for submission of bids.

19.4 No bid may be withdrawn 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 bid form. Withdrawal of a bid during this interval may result in the bidders forfeiture of its bid security, pursuant to Clause 13.7

E. BID OPENING AND EVALUATION

20. Opening of Bids by Purchaser

20.1 The ***Purchaser*** will open only all bids, in the presence of bidder's representatives who choose to attend, at **12.00 Noon on 04.10.2017** at the following location:

Tamilnadu Medical Services Corp. Ltd.,
417, Pantheon Road,
Egmore,
Chennai 600 008.

The bidder's representatives who are present shall sign a register evidencing their attendance. In the event of the specified date of bid opening being declared a holiday for the ***Purchaser***, the bids shall be opened at the appointed time and location on the next working day.

20.2 The bidders names, modifications, bid withdrawals and the presence or absence of the requisite bid security and such other details as the ***Purchaser***, at its discretion, may consider appropriate will be announced at the opening. No bid shall be rejected at bid opening, except for late bids, which shall be returned unopened to the bidder pursuant to ITB Clause 18.

20.3 The ***Purchaser*** will prepare minutes of the bid opening.

20.4 The **"Price Bid" (Cover B)** will be opened after evaluation of **"Technical bids" (Cover A)** and the date and time will be intimated to bidders whose bids are responsive and who are selected by the **Purchaser.**

21. Clarification of Bids

21.1 During evaluation of bids, the ***Purchaser*** may, at its discretion, ask the bidder for clarification of its bid. The request for clarification and the response shall be in writing. Unless the purchaser asks for change in price due to the clarifications sought the bidder is not permitted to alter the price furnished in the **"Price bid" "Cover B".** The change in price shall be submitted in a separately sealed covers with marking in the cover "**supplemental price bid"** before opening of the "**original price bid**".

22. Preliminary Examination

22.1 The ***Purchaser*** will examine the bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the bids are generally in order. Bids from Representatives, without proper authorisation from the manufacturer as per Section XII, shall be treated as non-responsive.
22.2 Arithmetical errors will be rectified on the following basis. 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. If the supplier does not accept the correction of errors, its bid will be rejected. If there is a discrepancy between words and figures, the amount in words will prevail.

22.3 The ***Purchaser*** may waive any minor informality or non-conformity or irregularity in a bid which does not constitute a material deviation, provided such a waiver does not prejudice or affect the relative ranking of any bidder.

22.4 Prior to the detailed evaluation, pursuant to Clause ITB 23, the ***Purchaser*** will determine the substantial responsiveness of each bid to the bidding documents. For purposes of these clauses a substantially responsive bid is one which conforms to all the terms and conditions of the bidding documents without material deviations. Deviations from or objections or reservations to critical provisions such as those concerning Performance Security (GCC Clause 6). Warranty (GCC Clause 14), Force Majeure (GCC Clause 24), Applicable law (GCC Clause 29) and Taxes and Duties (GCC Clause 31) will be deemed to be material deviation. The purchasers determination of a bids responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.

22.5 A bid determined as not substantially responsive will be rejected by the ***Purchaser*** and may not subsequently be made responsive by the bidder by correction of non-conformity.

23. Evaluation and Comparison of Bids

23.1 The ***Purchaser*** will evaluate and compare bids previously determined to be substantially responsive, pursuant to ITB Clause 22.

23.2 The purchasers evaluation of a bid will take into account, in addition to the bid price (ex-factory/ex-warehouse/off-the-shelf price of the goods offered from within India, such price to include all costs as well as duties and taxes paid or payable on components and raw material incorporated or to be incorporated in the goods, and excise duty on the finished goods, if payable) and price of incidental services, the following factors, in the manner and to the extent indicated in ITB Clause 23.3 and in the technical specifications:

(a) i) cost of inland transportation, insurance and other costs within India incidental to the delivery of goods to their final destination;

ii). The comprehensive annual maintenance charges for a period of 7 years subsequent to free guarantee maintenance period of 3 years.

(a) delivery schedule offered in the bid;

(b) deviations in payment schedule from that specified in the special conditions of contract

(c) the availability in India of spare parts and after-sales services for the equipment offered in the bid.

23.3 Pursuant to ITB Clause 23.2 the following evaluation methods will be applied:

(a) Evaluation and comparison of tenders will be done taking in to consideration the cost of comprehensive AMC for a period of 7 years after the free guarantee maintenance period of 3 years for the MRI.

(b) Inland transportation, ex-factory/ from port-of-entry, insurance and incidentals.

(i) Inland transportation, insurance and other incidentals, for delivery of goods to the project site as stated in ITB Clause 9.2 (iii).

The above costs will also be added to the bid price.

(c) Delivery schedule:
The ***Purchaser*** desires to have delivery of the goods covered under the invitation, at the time specified in the schedule of requirements. The estimated time of the arrival of the goods at the project site should be calculated for each bid after allowing for reasonable transportation time. Treating the bid offering the scheduled time of arrival as the base, a delivery "adjustment" will be calculated for other bids at 2% of the ex-factory price for each month of delay beyond the base and this will be added to the bid price for evaluation. No credit will be given to earlier deliveries and bids offering delivery beyond 2 months of stipulated delivery will be treated as unresponsive.

(d) Deviation in Payment Schedule:
The special conditions of contract indicate the payment schedule offered by the ***Purchaser***. If a bid deviates from the schedule and if such deviation is considered acceptable to the ***Purchaser***, the bid will be evaluated by calculating interest earned for any earlier payments involved in the terms outlined in the bid as compared to those stipulated in this invitation at a rate of 12% per annum.

(e) Spare parts and after sales service facilities in India:
The cost of the ***Purchaser*** of establishing the minimum service facilities and parts inventories, as outlined elsewhere in the bid invitation, if quoted separately, shall be added to the bid price.

(f) Annual Maintenance Contract (AMC):
i. The Purchaser desires to have **separately** comprehensive maintenance charges for a period of 7 years after the expiry of 3 years warranty and free maintenance period, clearly indicating year wise comprehensive maintenance charges, which shall be added to the bid price at a discount rate of 8% per annum. **Bids without this charges will be considered as non responsive.**

ii. Any major repair pointed out by the ***Purchaser*** shall be rectified by the Supplier from the date of intimation within a period of 3 calendar days and commission the equipment to the satisfaction of the Purchaser, failing which the purchaser has write to levy a penalty on the Supplier a sum of Rs.50,000/- per day or part thereof for each equipment until the equipments are repaired and commission to the satisfactory of the purchaser.

24. Contacting the purchaser

24.1 Subject to ITB Clause 21, no bidder shall contact the ***Purchaser*** on any matter relating to its bid, from the time of bid opening to the time the contract is awarded.

24.2 Any effort by a bidder to influence the ***Purchaser*** in the ***Purchaser***'s bid evaluation, bid comparison or contract award decisions may result in rejection of the bidders bid.

F. AWARD OF CONTRACT

25. Post Qualification

25.1 In the absence of pre-qualification, the ***Purchaser*** will determine to its satisfaction whether the bidder that is selected as having submitted the lowest evaluated responsive bid meets the criteria specified in ITB Clause 11.2 (b) and is qualified to perform the contract satisfactorily.

25.2 The determination will take into account the bidders financial, technical and production capabilities. It will be based upon an examination of the documentary evidence of the bidders qualifications submitted by the bidder, pursuant to ITB Clause 11 as well as such other information as the ***Purchaser*** deems necessary and appropriate.

25.3 An affirmative determination will be a prerequisite for award of the contract to the bidder. A negative determination will result in rejection of the bidders bid, in which event the ***Purchaser*** will proceed to the next lowest evaluated bid to make a similar determination of that bidders capabilities to perform satisfactorily.

26. Award Criteria

26.1 Subject to ITB Clause 28, the ***Purchaser*** will award the contract to the successful bidder whose bid has been determined to be substantially responsive and has been determined as the lowest evaluated bid, provided further that the bidder is determined to be qualified to perform the contract satisfactorily.

27. Purchaser's right to vary quantities at time of award

27.1 The ***Purchaser*** reserves the right at the time of award of contract to increase or decrease the quantity of goods and services originally specified in the schedule of requirements without any change in unit price or other terms and conditions.

28. Purchaser's right to accept any bid and to reject any or all bids

28.1 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 award of contract, without thereby incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders of the grounds for the purchasers action.

29. Notification of Award

29.1 Prior to the expiration of the period of bid validity, the ***Purchaser*** will notify the successful bidder in writing by registered letter or by cable or telex, to be confirmed, that its bid had been accepted.

29.2 The notification of award will constitute the formation of the contract.

29.3 Upon the successful bidders furnishing of performance security pursuant to ITB Clause 31, the ***Purchaser*** will promptly notify each unsuccessful bidder and will discharge its bid security, pursuant to ITB Clause 13.

30. Signing of Contract

30.1 At the same time as the ***Purchaser*** notifies the successful bidder that its bid has been accepted, the ***Purchaser*** will send the bidder the contract form provided in the bidding documents, incorporating all agreements between the parties.

30.2 Within 10 days of receipt of notification of award, the successful bidder shall sign the contract agreement, for the supply and installation and also for the comprehensive AMC contract as applicable after the warranty period.

31. Performance Security

31.1 Within 7 days of the receipt of notification of award from the ***Purchaser***, the successful bidder shall furnish the performance security in accordance with the conditions of contract, in the performance security form provided in the bidding documents or in another form acceptable to the ***Purchaser***.

31.2 Failure of the successful bidder to comply with the requirement of ITB Clause 30 or ITB Clause 31 shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security, in which event the ***Purchaser*** may make the award to the next lowest evaluated bidder or call for new bids.

SECTION III : GENERAL CONDITIONS OF CONTRACT

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TABLE OF CLAUSES

GENERAL CONDITIONS OF CONTRACT

1. Definitions

1.1 In this contract the following terms shall be interpreted as indicated:

(a) "The Contract" means the agreement entered into between the ***Purchaser*** and the Supplier as recorded in the Contract Form signed by the parties, including all the attachments and appendices thereto and all documents incorporated by reference therein;
(b) "The Contract Price" means the price payable to the Supplier under the Contract for the full and proper performance of its contractual obligations;
(c) "The Goods" means all the equipment, machinery, and/or other materials which the Supplier is required to supply to the ***Purchaser*** under the Contract;
(d) "Services" means services ancillary to the supply of the Goods, such as transportation and insurance, and other incidental services, such as installation, commissioning, provision of technical assistance, training and other obligations of the Supplier covered under the contract;
(e) "GCC" means the General Conditions of Contract contained in this section.
(f) "SCC" means the Special Conditions of Contract.
(g) "The ***Purchaser***" means the Organisation purchasing the Goods, as named in SCC;
(h) "The Supplier" means the individual or firm supplying the Goods under this Contract;
(i) "The Project Site", where applicable means the place or places named in SCC.
(j) "Day" means calendar day.
(k) "Delivery period" means the period applicable upto completion of supply, installation, testing and commissioning of the equipment by the supplier at the Project site and accepted by the Purchaser.

2. Application

2.1 These General Conditions shall apply to the extent that they are not superseded by provisions in other parts of the Contract.

3. Standards

3.1 The Goods supplied under this Contract shall conform to the standards mentioned in the Technical Specifications, and, when no applicable standard is mentioned, to the authoritative standard appropriate to the Goods country or origin and such standards shall be the latest issued by the concerned institution.

4. Use of Contract Documents and Information

4.1 The Supplier shall not, without the ***Purchaser***'s prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample or information furnished by or on behalf of the ***Purchaser*** in connection therewith, to any person other than a person employed by the Supplier in performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purposes of such performance.

4.2 The Supplier shall not, without the ***Purchaser***'s prior written consent, make use of any document or information enumerated in GCC Clause 4.1 except for purposes of performing the Contract.

4.3 Any document, other than the Contract itself, enumerated in GCC clause 4.1 shall remain the property of the ***Purchaser*** and shall be returned (in all copies) to the ***Purchaser*** on completion of the supplier's performance under the Contract if so required by the ***Purchaser***.

5. Patent Rights

5.1 The Supplier shall indemnify the ***Purchaser*** against all third-party claims of infringement of patent, trademark or industrial design rights arising from use of the Goods or any part thereof in India.

6 Performance Security

6.1 Within 7 days after the Supplier's receipt of notification of award of the Contract, the Supplier shall furnish performance security to the ***Purchaser*** in the amount specified in the Special Conditions of Contract.

6.2 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.

6.3 The Performance Security shall be denominated in India Rupees and shall be in one of the following forms:

(a) A Bank guarantee issued by a nationalized/ scheduled bank located in India and in the form provided in the bidding Documents or any other form acceptable to the ***Purchaser***; or

(b) A cashier's cheque, certified cheque, or demand draft.

6.4 The performance security will be discharged by the ***Purchaser*** and returned to the Supplier not later than 30 days following the date of completion of the Supplier's performance obligations, including any warranty obligations, unless specified otherwise in SCC

7. Inspection and Tests

7.1 The ***Purchaser*** or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Contract at no extra cost of the ***Purchaser***. The Special conditions of Contract and/or the Technical Specifications shall specify what inspections and tests the ***Purchaser*** requires and where they are to be conducted. The ***Purchaser*** shall notify the Supplier in writing of the identity of any representatives retained for these purposes.

7.2 The inspections and test may be conducted on the premises of the Supplier or its subcontractor(s), at point of delivery and/or at the Goods final destination. Where conducted on the premises of the Supplier or its subcontractor(s), all reasonable facilities and assistance including access to drawings and production data - shall be furnished to the inspectors at no charge to the ***Purchaser***.

7.3 Should any inspected or tested Goods fail to conform to the specifications, the ***Purchaser*** may reject them and the Supplier shall either replace the rejected Goods or make all alternations necessary to meet specification requirements free of cost to the ***Purchaser***.

7.4 The Purchasers right to inspect, test and, where necessary, reject the Goods' arrival in at site shall in no way be limited or waived by reason of the Goods having previously been inspected, tested and passed by the ***Purchaser*** or its representative prior to the Goods despatched.

7.5 Nothing in GCC Clause 7 shall in any way release the Supplier from any warranty or other obligations under this Contract.

8.0 Packing

8.1 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. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage. Packing case size and weights shall take into consideration, Where appropriate, the remoteness of the Goods final destination and the absence of heavy handling facilities at all points in transit.

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

9. Delivery and Documents

9.1 Delivery of the Goods shall be made by the Supplier in accordance with the terms specified by the ***Purchaser*** in the Notification of Award. The details of despatching and/or other documents to be furnished by the supplier are specified in SCC.

10. Insurance

10.1 The Goods Supplied under the Contract shall be fully insured in Indian Rupees against the loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified in the Special Conditions of Contract.

11. Transportation

11.1 Where the Supplier is required under the Contract to transport the Goods to a specified place of destination within the India defined as Project site, transport to such place of destination in India insurance, as shall be specified in the Contract, shall be arranged by the Supplier, and the related cost shall be included in the Contract Price.

12. Incidental Services

12.1 The supplier may be required to provide any or all of the following services, including additional services, if any, specified in SCC:

(a) Performance or supervision of the on-site assembly and/or start-up of the supplied Goods;

(b) furnishing of tools required for assembly and/or maintenance of the supplied Goods;

(c) furnishing of detailed operations and maintenance manual for each appropriate unit of supplied Goods.

(d) performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract; and

(e) training of the ***Purchaser***'s Personnel, at the Supplier's plant and/or on-site, in assembly, start-up, operation, maintenance and/or repair of the supplied Goods.

12.2 Prices charged by the Supplier for incidental services, if not included in the contract Price of the Goods, 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.

13. Spare Parts

13.1 As specified in the Special Conditions of Contract, the Supplier may be required to provide any or all of the following materials and notifications and information pertaining to spare parts manufactured or distributed by the Supplier:

(a) Such spare parts as the ***Purchaser*** may elect to purchase from the Supplier, providing that this election shall not relieve the Supplier of any warranty obligations under the Contract; and

(b) In the event of termination of production of the spare parts:
- (i) advance notification to the ***Purchaser*** of the pending termination, in sufficient time to permit the ***Purchaser*** to procure needed requirements; and
- (ii) following such termination, furnishing at no cost to the ***Purchaser***, the blueprints, drawings and specifications of the spare parts, if and when requested.

14. Warranty

14.1 The Supplier warrants that the Goods supplied under this Contract are new, unused, of the most recent or current models and incorporate all recent improvements in design and materials unless provided otherwise in the Contract. The supplier further warrants that the Goods supplied under this Contract shall have no defect arising from design, materials or workmanship (except when the design and/or material is required by the ***Purchaser***'s specifications) or from any act or omission of the Supplier, that may develop under normal use of the supplied Goods in conditions obtaining in the country of final destination.

14.2 This warranty shall remain valid for three years after the Goods or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the Contract.

14.3 The ***Purchaser*** shall promptly notify the supplier in writing of any claims arising under this warranty.

14.4 Upon receipt of such notice , the Supplier shall, within the period specified in SCC and with all reasonable speed, repair or replace the defective Goods or parts thereof, without cost to the ***Purchaser.***

14.5 If the Supplier, having been notified, fails to remedy the defect(s) within the period specified in SCC within a reasonable period, the ***Purchaser*** may proceed to take 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.

15. Payment

15.1 The method and conditions of payment to be made to the Supplier under the Contract shall be specified in the Special Conditions of Contract.

15.2 The Suppliers request(s) for payment shall be made to the ***Purchaser*** in writing, accompanied by an invoice describing, as appropriate, the Goods delivered and the services performed, and by documents, submitted pursuant to GCC Clause 9, and upon fulfillment of other obligations stipulated in the contract.

15.3 Payment shall be made promptly by the ***Purchaser*** but in no case later than sixty (60) days after submission of the invoice/claim by the Supplier.

15.4 Payment shall be made in Indian Rupees

16. Prices

16.1 Prices charged by the Supplier for Goods delivered and Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid, with the exception of any prices adjustments authorized in the special Conditions of Contract or in the ***Purchaser***'s request for bid validity extensions, as the case may be.

17. Change Orders

17.1 The ***Purchaser*** may at any time by written order given to the Supplier pursuant to GCC Clause 30, 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 shipping or packing

(c) the place of delivery; or

(d) the services to be provided by the Supplier.

17.2 If any such changes 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 delivery schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this clause must be asserted within thirty (30) days from the date of the Supplier's receipt of the ***Purchaser***'s change order.

18. Contract Amendments

18.1 Subject to GCC Clause 17, no variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.

19. Assignment

19.1 The Supplier shall not assign, in whole or in part, its obligations to perform under the contract, except with the ***Purchaser***'s prior written consent.

20. Subcontracts

20.1 The supplier shall notify the ***Purchaser*** in writing of all subcontracts awarded under the contract if not already specified in his bid. Such notification, in his original bid or later, shall not relieve the Supplier from any liability or obligation under the contract.

21. Delays in the Supplier's Performance

21.1 Delivery of the Goods and performance of the Services shall be made by the Supplier in accordance with the time schedule specified by the ***Purchaser*** in its Schedule of Requirements.

21.2 If at any time during the performance of the Contract, the Supplier or its subcontractor(s) should encounter conditions impending timely delivery of the goods and performance of the Services, the Supplier shall promptly notify the ***Purchaser*** in writing of the fact of the delay, its likely duration and its cause(s). 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 with or without liquidated damages, in which case the extension shall be ratified by the parties by amendment of the Contract.

21.3 Except as provided under GCC Clause 24, a delay by the Supplier in the performance of its delivery obligation shall render the supplier liable to the imposition of liquidated damages pursuant to GCC Clause 22, unless any extension of time is agreed upon pursuant to GCC clause 21.2 without the application of liquidated damages.

22. Liquidated Damages

22.1 Subject to GCC Clause 24, if the Supplier fails to deliver any or all of the Goods or to perform the Services within the period(s) specified in the Contract, the ***Purchaser*** shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in SCC of the delivered price of the delayed Goods or unperformed Services 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 consider termination of the Contract pursuant to GCC Clause 23.

23. Termination by Default

23.1 The ***Purchaser*** may, without prejudice to any other remedy for breach of contract, by written notice of default sent to the supplier, terminate the Contract in whole or part;

(a) if the Supplier fails to deliver any or all of the goods within the time period(s) specified in the Contract, or within any extension thereof granted by the ***Purchaser*** pursuant to clause 21; or

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

23.2 In the event the ***Purchaser*** terminates the Contract in whole or in part, pursuant to GCC Clause 23.1, the ***Purchaser*** may procure, upon such terms and in such manner as it deems appropriate, Goods or Services similar to those undelivered, and the Supplier shall be liable to the ***Purchaser*** for any excess costs for such similar Goods. However, the Supplier shall continue the performance of the Contract to the extent not terminated.

24. Force Majeure

24.1 Notwithstanding the provisions of GCC Clauses 21,22,23, the Supplier shall not be liable for forfeiture of its performance security, liquidation 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.

24.2 For purposes of this Clause "Force Majeure" means an event beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events may include, but are not limited to, acts of the ***Purchaser*** either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.

24.3 If a Force Majeure situation arises, the Supplier shall promptly notify the ***Purchaser*** in writing of such conditions 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.

25. Termination for Insolvency

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

26. Termination for Convenience

26.1 The ***Purchaser***, may by written 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 work under the Contract is terminated, and the date upon which such termination becomes effective.

26.2 The Goods that are complete and ready for shipment within 30days after the Supplier's receipt of notice of termination shall be purchased by the ***Purchaser*** at the Contract terms and prices. For the remaining Goods, the ***Purchaser*** may elect.

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

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

27. Resolution of Disputes

27.1 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.

27.2 If, after thirty (30) days from the commencement of such informal negotiations, the ***Purchaser*** and the Supplier have been unable to resolve amicably a Contract dispute, either party may require that the dispute be referred for resolution to the formal mechanisms specified in the Special Conditions of Contract. These mechanisms may include, but or not limited to, conciliation mediated by a third Party, adjudication in an agreed national forum, and national arbitration.

28. Governing Language

28.1 The contract shall be written in English language. Subject to Clause 29, English language version of the Contract shall govern its interpretation. All correspondence and documents pertaining to the Contract which are exchanged by the parties shall be written in the same language.

29. Applicable Law

29.1 The Contract shall be interpreted in accordance with the laws of the Union of India.

30. Notices

30.1 Any notice given by one party to the other pursuant to this Contract shall be sent to other party in writing or by cable, telex or fascimile and confirmed in writing to the other Party's address specified in Special Conditions of Contract.

30.2 A notice shall be effective when delivered or on the notice's effective date, whichever is later.

31. Taxes and Duties

31.1 Suppliers shall be entirely responsible for all taxes, duties, license fees, octroi, road permits, etc., incurred until delivery of the contracted Goods to the ***Purchaser***. However, Sales tax in respect of the transaction between the ***Purchaser*** and the Supplier shall be payable extra, if so stipulated in the Notification of Award.

SECTION IV: SPECIAL CONDITIONS OF CONTRACT

SECTION IV: SPECIAL CONDITIONS OF CONTRACT
TABLE OF CLAUSES

(The corresponding Clause number of the General Conditions is in parentheses)

SPECIAL CONDITIONS OF CONTRACT

The following Special Conditions of Contract shall supplement the General Conditions of Contract. Whenever there is a conflict, the provisions herein shall prevail over those in the General Conditions of contract. The Corresponding clause number of the General Conditions is indicated in parentheses.

1. Definitions(GCC Clause 1)

(f) The ***Purchaser*** is **Tamilnadu Medical Services Corp. Ltd., Chennai.**

(b) The Supplier is.....

(c) Project site is the place(s) mentioned in the Schedule of Requirements

2. Performance Security (GCC Clause 6)

2.1 Substitute Clause 6.1 of GCC by the following:

Within 7 days after the Supplier's receipt of Notification of Award, the Supplier shall furnish performance Security to the ***Purchaser*** for an amount of 5% of the contract value valid up to 60 days after the date of completion of Performance obligations including warranty obligations.

The performance security will be released after entering into a comprehensive maintenance contract after the warranty period and on payment of required performance security for the comprehensive annual maintenance contract. However in no case, the performance security will be returned before the date of completion of the warranty obligation.

Performance security for Maintenance contract

After successful completion of warranty period of 3 years, the supplier shall furnish performance security for 5% of the comprehensive AMC applicable for 7 years maintenance period valid for 7 years period of maintenance.

2.2 Substitute Clause 6.3 (b) of GCC by the following:

A cashier's cheque or banker's certified cheque or crossed demand draft or pay order drawn in favour of the ***Purchaser***.

2.3 Substitute Clause 6.4 of the GCC by the following:

The Performance Security will be discharged by the ***Purchaser*** and returned to the Supplier not later than 60 days following the date of completion of the Supplier's performance obligations, including the warranty obligations, under the Contract, subject to the supplier entering in CAMC agreement and furnishing performance security for CAMC.

2.4 Add Clause 6.5 to the GCC of the following:

In the event of any contract amendment, the supplier shall, within 7 days of receipt of such amendment, furnish the amendment to the Performance Security, rendering the same valid for the duration of the Contract, as amended for further period of 60 days thereafter.

3. Inspection and Tests (GCC Clause 7)

The following inspection procedures and tests are required by the ***Purchaser***;

The supplier shall get each equipment inspected in manufacturer's works and submit a test certificate and also guarantee/warranty certificate that the equipment conforms to laid down specifications.

The ***Purchaser*** or its representative shall inspect and/or test any or all the equipment to confirm their conformity to the Contract specifications, prior to despatch from the manufacturer's premises. Such inspection and clearance will not prejudice the right of the consignee to inspect and test the equipment on receipt at destination.

If the equipment fails to meet the laid down specifications the supplier shall take immediate steps to remedy the deficiency or replace the defective equipment to the satisfaction of the ***Purchaser***.

4. Packing (GCC Clause 8)

Add as Clause 8.3 of the GCC the following:

Packing Instruction: The Supplier will be required to mark separate packages for each consignee. Each package will be marked on three sides with proper paint/indelible ink, the following:

i) Project
ii) Contract No.
iii) Supplier's Name
iv) Packing list reference number

5. Delivery and Documents (GCC Clause 9)

Upon delivery of the Goods, the Supplier shall notify the ***Purchaser*** and the Insurance Company by cable or Telex or fax the full details of shipment including the Contract number, railway receipt number and date, description of Goods, quantity, names of the consignee etc.

The Supplier shall mail the following documents to the ***Purchaser***, with a copy to the Insurance Company.

(i) Three Copies of Supplier invoice showing Goods description, quantity, unit price, total amount;

(ii) Railway receipt/acknowledgment of receipt of goods from the Consignee(s)

(iii) Insurance Certificate;

(iv) Manufacturer's/ Supplier's warranty and test Certificate;

(v) Inspection Certificate issued by the nominated inspection agency, and the Supplier's factory inspection report;

The above documents shall be received by the ***Purchaser*** before arrival of Goods (except where the Goods have been delivered directly to the Consignee with all documents) and, if not received, the supplier will be responsible for any consequent expenses.

6. Insurance (GCC Clause 10)

For delivery of goods at site, the insurance shall be obtained by the Supplier in an amount equal to 110% of the value of the goods from "Warehouse to Warehouse" (Final destinations) on "All Risks" basis including War Risks and Strike.

7. Incidental Service (GCC Clause 12)

The following services covered under Clause 12 shall be furnished and the cost shall be included in the contract price:

(a) Unloading, safe storage and handling of consignment of site.
(b) On site assembly if any of the supplied goods, installation, testing and commissioning of the equipment.
(c) Furnishing of detailed operations and maintenance manual for each appropriate unit of supplied Goods;

8. Spare parts (GCC Clause 13)

Add as Clause 13.2 to the GCC the following:
Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spares for the Goods. Other main spare parts and components shall be supplied as promptly as possible but in any case within one week of placement of order.

9. Warranty (GCC Clause 14)

9.1 Substitute GCC Clause 14.2 by the following:-
This warranty shall remain valid for 3 years after goods or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the contract.

9.2 The Supplier shall, in addition, comply with the performance and/ or consumption guarantees specified under the contract. If for reasons attributable to the Supplier, these guarantees are not attained in whole or in part, the Supplier shall at its discretion either:

(a) make such changes, modifications, and/or additions to the Goods or any part thereof as may be necessary in order to attain the contractual guarantees specified in the Contract at its own cost and expense and to carry out further performance tests in accordance with SCC 3:

10. Payment (GCC Clause 15)

Payment for Goods and Services shall be made in Indian Rupees as follows:

(i) No advance payment will be made.

(ii) **100% payment will be made against successful completion of installation and commissioning of MRI equipment at the respective sites against certification from the consignee.**

a) If there is a delay in installation of the equipment due to reasons not attributable to the supplier such as non readiness of site, 60% of the supply value will be released against supply and provisional stock entry certificate from the consignee / end user.

b) If there is no situation such as non availability of site etc., and installation is taken up by the supplier immediately after supply, 60% of the supply value will be paid against supply and certificate for receipt of the item in good condition and a provisional stock entry certificate, from the consignee / end user.

c) On completion of installation, another 20% is payable against installation certificate issued by the end user.

d) The final 20% will be paid after receipt of proper stock entry certificate from the end user.

e) For items ordered in bulk quantities, the first payment will be released only after supply / installation of atleast 20% of the ordered quantity.

f) If the price includes customs duty, relevant documentary evidence for import of the equipment / goods (Bill of lading / Airwary Bill, Bill of entry and invoice copy) and proof for payment of Custom duty shall be furnished.

g) Payment will be made either by means of Cheque or through RTGS (Real Time Gross Settlement System) / Core Banking / NEFT (Net Electronic Fund Transfer).

h) The payment for the comprehensive maintenance will be made at the end of each quarter against certification from the end user for satisfactory completion of Preventive Maintenance within the quarter and attending the breakdown calls within the stipulated period of 3 days from the date of intimation.

11. Prices (GCC Clause 16)

Substitute Clause 16.1 of the GCC with the following:

Prices payable to the Supplier as stated in the Contract shall not be subject to adjustment during performance of the Contract.

12. Sub-Contract (Clause 20)

Add at the end of sub-clause 20.1 the following:

Sub-contract shall be only for bought-out items and sub-assemblies.

13. Liquidated Damages (GCC Clause 22)

13.1 For delays:

Substitute GCC Clause 22.1 by the following

Subject to Clause 24, if the Supplier fails to deliver any or all of the Goods or perform of services within the time period(s) specified in the Contract, the

Purchaser shall without prejudice to its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to 0.5 percent of the delivered price of the delayed Goods or unperformed Services for each week of delay or part thereof until actual delivery or performance, up to a maximum deduction of 10 percent of the delayed Goods or Services contract price. Once the maximum is reached, the ***Purchaser*** may consider termination of the Contract.

14. Resolution of Disputes (GCC Clause 27)

Add as GCC Clauses 27.3 and 27.4 the following:

27.3 The dispute resolution mechanism to be applied pursuant to GCC Clause 27 shall be as follows:

(a) In the case of a dispute or difference arising between the ***Purchaser*** and a Supplier relating to any matter arising out of or connected with this agreement, such dispute or difference shall be settled in accordance with the Arbitration and Conciliation Act 1996 the Arbitral Tribunal shall consist of 3 Arbitrator, one each to be nominated by the ***Purchaser*** and the supplier. The third Arbitrator shall be chosen by the two Arbitrators so appointed by the parties and shall act as Presiding Arbitrator. In case of failure of the two Arbitrator appointed by the parties to reach upon a consensus with in a period of 30 days from the appointment of the Arbitrator appointed subsequently, the Presiding Arbitrator shall be appointed by the President of Institute of Engineers (India).

27.4 The venue of arbitration shall be the place from where the Contract is issued (ie.) Chennai.

15. Notices (clause 30)

For the purpose of all notices, the following shall be the address of the ***Purchaser*** and Supplier.

Purchaser: **Tamilnadu Medical Services Corp. Ltd.,**
417, Pantheon Road,
Egmore,
Chennai 600 008.

Supplier:

(To be filled in at the time of Contract signature)

16. Annual Maintenance Contract (AMC):

16.1 Any major repair pointed out by the ***Purchaser*** shall be rectified by the Supplier from the date of intimation within a period of 3 calendar days and commission the equipment to the satisfaction of the Purchaser. Failing which the Purchaser has a right to levy a penalty on the Supplier a sum of Rs.50,000/- per day or part thereof for each equipment until the equipments are repaired and commissioned to the satisfaction of the Purchaser.

16.2 The Supplier shall indicate clearly the free guarantee maintenance of the whole system supplied by the Supplier and the same should not be less than 3 years.

16.3 The Supplier shall also indicate separately post guarantee maintenance cost of the entire system for 7 years subsequent to free maintenance period and shall clearly indicate year wise maintenance cost with probable cost of spares required for each year, in addition to comprehensive maintenance charges.

16.4 The scope of comprehensive Annual Maintenance contract shall include replacement of all parts without any exclusion other than specified by the purchaser. The supplier shall undertake atleast one preventive maintenance service per quarter of the year and attend to all break down maintenances calls.

17. Enclosures to Bid:

17.1 Technical bid (Cover A):

Technical Bid shall include the duly filled up Tender documents along with

a) Bid Security.

b) Duly attested copy of License if any, approved by the concerned Licensing Authority.

c) For Importers Photocopy of License renewed upto date.

d) Documentary evidence of constitution of firm such as Memorandum of Articles, Partnership Deed, etc., with details of Name, Address, Tel. No., Fax No., E-mail Address of firm and the Managing Director / Partner / Proprietor.

e) Authorisation of senior responsible officer of the Company to transact business.

f) Annual turnover statement last for three years certified by the Auditor.

g) Copies of Balance Sheet and Profit & Loss Account for three years certified by the Auditors.

h) Sales Tax clearance Certificate as on 31.03.2017.

i) Notarized statement of the Installed manufacturing capacity of the Items quoted.

j) Qualification Criteria – Section VI-A

k) Performance Statement - Section XI

l) Manufacturer's Authorisation Form - Section XII

m) Technical literature and other documents in support of the goods / services.

n) Any deviations

o) List of items quoted (without prices)

17.2 Price Bid (Cover B):

Price bid shall include

a) Duly filled in Price Schedule - Section VII
b) Bid Form

Please note that the Bidder run the risk of his bid being rejected if the Price Schedule contains any conditions.

SECTION V : SCHEDULE OF REQUIREMENTS

SECTION – V
SCHEDULE OF REQUIREMENTS

Sch. No.	Brief Description	Unit	Tentative Qty.	Bid security (Rs.)
1.	1.5 Tesla MRI as per specification in annexure A (Option I)	No.	5	Rs. 15,00,000/-
2.	1.5 Tesla MRI as per specification in annexure B (Option II)	No.	4	Rs. 14,00,000/-
3. I	1.5 Tesla MRI as per specification in annexure C (Option III)	No.	6	Rs. 24,00,000/-
3. II	1.5 Tesla MRI as per specification in annexure C with Buy back (Option III)	No.	6	
4.	1.5 Tesla MRI as per specification in annexure D (Option IV)	No.	1	Rs. 5,00,000/-

Delivery Schedule: - 90 days from the date of handing over of site.

Place of Delivery:- As indicate in the annexure.

Note:

1) **The quantity indicated is tentative and the actual quantity may vary at the time of placement of orders. No claim on such variation will be entertained.**
2) **The bidders are permitted to quote any one or all the Schedule.**
3) **For the schedule 3.II, the bidders should quote separately the equipment value with buyback of existing 1.5 tesla MRI machine; Siemens make and model Magnetom Symphony power class with IPA.**
4) **TNMSC reserves the rights to procure any number of MRI from any of the above options based on the price differential and case loads and the relative advantage of prices with respect to higher specification. The decision of TNMSC in this aspect shall be final.**
5) **The tender will be converted as a rate contract with a validity of 3 years from the date of notification of award.**
6) **The bidders are also permitted to quote the imported component price in any foreign currency which will be converted into Indian Currency fixed by SBI on the date of opening of technical bid for evaluation of prices and the bidders should quote for the other component in Indian Rupees.**
7) **For the rate contract, the imported component prize will be frozen at the foreign currency rates for a period of three years from the date of notification of award and the payment will be made at the time of actual placement of order and at the prevailing exchange rates. The customs duty, GST etc., will be at the actual rate at the time of placement of order.**
8) **The bidder should indicate the following break up in their price bid.**
    a) **CIF value of imported component.**
    b) **Applicable customs duty on the assessable value.**

c) **Customs clearance charges.**

d) **Local transport to site.**

e) **Local accessories.**

f) **Installation and commissioning including turnkey.**

SECTION VI : TECHNICAL SPECIFICATIONS

SECTION VI : TECHNICAL SPECIFICATIONS

ANNEXURE - A

Sl. No	Specification for Installation of Whole Body 1.5Tesla Magnetic Resonance Imaging System (option – I)
1.	Supply and Installation of Whole body 1.5 Tesla Magnetic Resonance Imaging System The essential features should be verifiable from catalogue/technical brochure of equipment the offered model of the equipment and vendor must specify page, paragraph and line number in technical literature that indicates compliance. Every component of MRI should be new. It should not be ECO/ Diamond Select / Gold seal or equivalent
2.	Magnet
	a. Whole body 1.5Tesla Magnetic Resonance Imaging System optimized for higher performance in Whole Body examinations with short super conducting magnet, high performance gradients and digital Radio Frequency System.
	b. 1.5T actively shielded super conductive magnet should be short. please mention tunnel length.
	c. It should have at least 60cm or more patient bore with flared opening.
	d. Smallest foot print of the magnet is preferred with light weight.
	e. It should have short bore length and be non-claustrophobic. If flared opening is not available on both ends of the magnet please quote for bigger bore magnet to reduce claustrophobia
	f. Specify the homogeneity of the magnet
	g. The magnet should be well ventilated and illuminated with built in 2 way intercom for communication with patient.
	h. The scan range for imaging should be 130cms or more. Magnet with Higher Scan range will be preferred.
	i. It should have a built in cryo-cooler such that typical helium consumption does not exceed 0.03 lit/hour.
3.	Shim System
	a. High performance, highly stable shim system with global and localized automated shimming for high homogeneity magnetic field for imaging and spectroscopy.
	b. Auto shim should be available to shim the magnet with patient in position
	c. Time taken for shimming should be short
	d. Please specify whether second order shimming is required for better results on spectroscopy studies for the quoted model. If yes the same should offered as standard.
	e. Specify whether Off center FOV shimming is required. if yes, please specify the details.
4.	Gradient System
	a. Actively shielded Gradient System
	b. Slew rate: Capable of achieving 100 T/m/s or more

	c. Gradient Strength: 30 mt /m or more
	d. FOV: 40cm or more
	e. The system should have efficient and adequate Eddy current compensation
	f. Effective cooling system for gradient coil and power supply.
	g. Minimum TE should be less. Specify the values of 2D and 3D
	h. Minimum TR should be less. Specify the values of 2D and 3D
5.	RF System
	a. A fully digital RF system capable of transmitting power of at least 10 kw
	b. It should also have at least minimum of 8 or more independent RF receiver channels with each having bandwidth of 1.0 MHz or more along with necessary hardware to support the receiver coils.
	c. Should allow remote selection of coils and/or coil elements.
6.	Patient Table
	a. The table should be fully motorized, computer controlled table movements in vertical and horizontal directions
	b. There should be a hand held alarm for patients
	c. Table should be able to handle patient weight of 150kg or above.
7.	Measurement system
	a. The measurement matrix should be from 128x128 to 1024x1024.
	b. Minimum 2D slice thickness mm should be equal to or less than 0.5
	c. Minimum 3D slice thickness mm should be equal to or less than 0.1
8.	Coil System- Should offer multi coil connectivity with at least 3 coils can be connected together in given point of time
	Please offer coils to do high resolution head, neck, spine in one go up to 75cm coverage with parallel imaging techniques
	a. The main body coil integrated to the magnet must be Quadrature/CP. In addition to this following coils should be quoted.
	b. Multichannel Head Coils with at least 8 channels for high resolution brain imaging. The elements of the coils should not be multiplexed. If higher number of channels needed to connect to individual receiver platform should be offered accordingly.
	c. Spine Array/Matrix coils for thoracic and lumbar spine imaging .Mention no of coil elements available
	d. Body Array/Matrix coil with at least 45 cm coverage for imaging of whole abdomen with at least 15 elements.
	e. Please offer coil atleast 6 elements or more for Knee Imaging. This should be a dedicated rigid coil and not flex coil type.
	f. Please offer coil atleast 6 elements or more for shoulder imaging. This should be a dedicated rigid coil and not flex coil type.
	g. Set of large and small general purpose flexible coils – the coil elements should be atleast 2 or more with parallel imaging capability
	h. Coil storage cart

	i. The system should continuously monitor the RF coils used during scanning to detect failure modes. RF coils should not require either set up time or coil tuning. Multi coil connection for up to 3 or more coils simultaneous scanning without patient repositioning.
10.	Application Sequences
	a. The system should have basic sequences package with Spin Echo, Inversion Recovery, Turbo Spin Echo with high turbo factor. Gradient Echo with higher FLAIR.
	b. Single Slice, multiple single slice, multiple slice, multiple stacks, radial stack and 3D acquisitions for all applications
	c. Single and multi shot EPI imaging techniques with ETL factor- Specify
	d. Fat suppression for high quality images both STIR and SPIR
	e. The system should be acquire motion artifact free images in T2 studies of brain in restless patients specify the appropriate sequences.
	f. Dynamic study for pre and post contrast scans and time intensity studies
	g. MR Angio imaging : Should have 2D/3D TOF, 2D/3D PC, MTS and TONE, ceMRA to be offered
	h. Fat and water excitation package.
	i. Bolus chasing with automatic and manual triggering from fluro mode to 3D acquisition mode with moving table facility.
	j. Non contrast enhanced peripheral and renal angiography for arterial flow with native/trance/inhance/equivalent sequences.
	k. High resolutions Abdominal and liver imaging in breathhold and free breathing modes with respirator triggered volume acquisitions.
	l. The system should have basic and advanced MRCP packages including free breathing and 3D techniques
	m. The system should facility for flow quantification of CSF, Vessel flow and hepatobiliary system.
	n. The system should have the hydrogen, Single Voxel spectroscopy, multivoxel, Multislice & Multiangle 2D, 3D Spectroscopy and chemical shift imaging in 2D/3D. The complete processing/post-processing software including color metabolite maps should be available on main console.
	o. Susceptibility weighted imaging (i.e SWI) / Venous BOLD imaging/SWAN
	p. High resolution imaging for inner ear.
	q. High resolution imaging for cartilage and musculoskeletal imaging
	r. Advanced spine applications package for nerve root analysis
	s. Please quote to do high resolution 3D isotropic sequences for spine
	t. Please quote for high resolution time resolved angiography
	u. Please quote for in phase/out phase Dual echo sequences for body applications
	v. Please offer for 3D isotropic fat-suppressed gradient-echo T1W imaging of the organs

11.	Workstation
a.	A workstation from the Manufacturer with preferably the same user interface as of main console is required with the availability of all necessary software including basic post-processing software including MIP, MPR, surface reconstruction and volume rendering technique.
b.	It should have at least 19 inch LCD TFT color monitor, with hard disk of at least 120 GB for at least 250,000 image storage in 256 matrix, and 4 GB RAM capacity or more, with self playing DVD/CD archiving facility.
c.	The workstation should enable printing in laser film camera and color printers.
12.	Safety Features : The system should have following features
	a. The magnet system should include an Emergency Ramp Down unit ERDU for fast reduction of the magnetic field with Ramp Down time below 3 minutes
	b. The magnet should have quench bands that contain the fringe fields to a specified value in the event of a magnet quench
	c. Real time SAR calculation should be performed by software to ensure that RF power levels comply with regulatory guidelines and are displayed on each image
	d. The system shall have manual override of the motor drive for quick removal of the patients from the magnet bore
	e. Temperature sensor (built in) for magnet refrigeration efficiency must be provided
13.	a. DICOM compatible Dry Chemistry laser camera with integrated processor for filming from main console & workstation.
	b. Printing on films of 14”x17”, 11”x14” and 10”x8” sizes in resolution of 500 or more dpi. It should be possible to connect other imaging modalities to the printer. 5000 compatible films to be provided.
	c. A color laser printer for printing high-resolution color-coded 3D images image and protocols on plane in 1200 dpi resolution and more than 20 ppm.
14.	UPS
	a. The system should be provided with UPS system for the complete system with at least 30 minutes back up.
15.	Suitable RF Enclosure
	a. RF cabin : The system should be supplied with suitable RF cabin with RF room shielding, RF Door screen, and interiors for the same should be carried out suitably
16.	Accessories
	a. Water chiller for Cold Head/Gradients – If required
	b. Two non-magnetic patient transfer trolley.
	c. Hand held metal detectors (1 nos)
17.	Guarantee
	a. The vendor should guarantee the service and spare support for 10 years of the system including Helium and cold head and all accessories
	b. The system should be topped up at the end of 10 yr period and cold head should be in new condition
18.	Warranty

	a. The complete system, including the accessories, computer system, to be under warranty for 3 years.
	b. There after a comprehensive maintenance contract (including repair/replacement of the parts) of the entire turnkey project inclusive of the complete system all accessories, computer and printers, should be offered for 7 years.
	c. The system should have warranty for three years including helium refill and all accessories.
	d. Comprehensive Maintenance Contract (CMC) for the whole equipment including helium refill and all accessories for 7 years should be quoted after warranty.
19.	Down time
	a. Maximum acceptable down time of equipment during the warranty period not to exceed five percent, calculated separately for each year on all working days.
	b. If the down time exceeds this level, then the warranty period to be extended by twice the period of downtime exceeding 5%.
20	Installations
	a. Satisfactory service back up facility should be available
	b. Please mention the service centre available nearest to the site of installation and total no. of MRI service engineers employed in India
21	Applications Support
	a. Please specify no of applications specialists available for MRI
	b. Please provide certificates from existing installed base for proof of providing application support time to time.
22	MR Compatible Anesthesia Machine - 1No. MR Compatible Pulse Oximeter – 1No. Suction and O2 pipeline and manifold to be provided inside the RF enclosure.
	The following items should be quoted separately : 1. The offer should be accompanied by Original data sheet of the product. 2. Refurbished Units will not be accepted. Successful bidder to attach Verification Certificate for authorized reputed third part agencies. 4. Incomplete data sheets and offers which are speculative will be rejected. 5. Turnkey offer- includes total Civil works with false roofing, Electrical works, and necessary air conditioning 6.Suitable Generator for utility during power outage Product quality certificate Valid US FDA/European CE certificate of the offered model must be submitted with the offer. Operation manual service manual with circuit diagram should be provided during the supply of the equipment
19	Turnkey

	PREMISES: The Purchaser will provide one suitable room of required dimensions for installing the MRI as also adjoining rooms of required size such as Equipment room, Console room, Patient Waiting room, Change room and Reception. It is the responsibility of the Supplier to provide and finish the interiors of the rooms in all respects for successful installation and commissioning of the equipment to the satisfaction of the Purchaser/user department. This shall include everything required for successful commissioning but not limited to the following: i. **Civil Works**: Necessary Civil works like Platform, Pedestals, etc., if any, required shall be provided. Proper lead protection for console and Gantry room to be provided. ii. **Flooring**: Shall provide and lay Anti-static flooring of 2 mm thick, manufactured by reputed standard manufacturers as per BS 2050-1978. Colour as per Purchaser's requirement. iii. **False Ceiling**: Shall provide and fix false ceiling of Luxalon make (84 R) with necessary fixing arrangements as per manufacturers specifications. Colour as per Purchaser's requirement. iv. **Walls**: Walls up to ceiling shall be provided with vitrified tiles 60cm x 60cm. Colour as per Purchaser's requirement. v**. Electrical:** The purchaser will provide main incoming power at one point near the MRI Room. The supplier shall supply and install the main incoming switch fuse unit from this point, separate lighting and power distribution boards and lay distribution lines required for all items installed with the MRI and electrical lighting for the main equipment and Console room, Patient waiting room, Change room, etc. The Supplier shall also quote separately the cost / R.M. for laying Electrical cable from the main supply point of the hospital panel board to MRI incoming power point. vi. **Plumbing**: Required Plumbing work shall be provided. vii. Furniture: chair, Table, for changing room, console, radiologist's room etc.

ANNEXURE – B

	Specifications for 1.5T MRI (OPTION – II)
1	**MAGNET**
	Supply and Installation of Whole body 1.5 Tesla Magnetic Resonance Imaging System The essential features should be verifiable from catalogue/technical brochure of equipment the offered model of the equipment and vendor must specify page, paragraph and line number in technical literature that indicates compliance. **Every component of MRI should be new. It should not be ECO/ Diamond Select / Gold seal or equivalent**
a.	Whole Body **1.5Tesla** Magnetic Resonance Imaging System optimized for higher performance in Whole Body examinations with superconducting magnet and high performance gradients
b.	**1.5T** active shielded super conductive magnet should be short and non-claustrophobic.
c.	It should have at least 60 cm patient bore with flared opening.
d.	Magnet length (cover to cover) should be less than 200cm.
e.	Specify the homogeneity of the magnet Homogeneity of magnet should preferably be less than 2 ppm over 40 cm DSV.
f.	The magnet should be well ventilated and illumination with built in 2 way intercom for communication with patient.
g.	It should have a built in cryo-cooler such that helium consumption does not exceed 0.05 lit/ hour.
h.	Emergency rundown control at both operator console room and Gantry room is essential.
i.	Fringe field 0.5 Gauss line radius is essential.
2	**SHIM SYSTEM**
a.	High performance, highly stable shim system with global and localized automated shimming for high homogeneity magnetic field for imaging and spectroscopy.
b.	Auto shim should be available to shim the magnet with patient in position
3	**GRADIENT SYSTEM**
a.	Actively shielded Gradient system
b.	The gradient should be actively shielded with each axis having independently a Slew rate of at least 100 T/m/s and a peak amplitude of 30mT/m. (Usable over 45 cm of FOV in all directions preferably).
c.	The system should have efficient and adequate Eddy current compensation

d.	Effective cooling system for gradient coil and power supply
e.	Duty Cycle – 100% the gradient power amplifier should be water cooled. Please give details type of cooling.
4	**RF SYSTEM**
a.	A fully digital RF system capable of transmitting power of at least 10 kw.
b.	It should atleast have preferably 16 independent RF receiver channels with each having bandwidth of 1 MHz or more along with necessary hardware to support quadrature ICP array/Matrix Coils.
c.	It should support Parallel acquisition techniques with a factor of up to 2 in 2D.
d.	Should allow remote selection of coils and / or coil elements.
5	**PATIENT TABLE**
a.	The table should be fully motorized, computer controlled table movements in: vertical and horizontal directions.
b.	A CCTV system to observe the patient should be provided.
c.	There should be a hand held alarm for patients.
d.	Light localizer for patient positioning should be mandatory.
e.	Physiological signals display &ECG, Pulse, Resp. Sensors for patient monitoring are essential.
f.	Max. Patient weight (kg) should be 150kg or more.
6	**COMPUTER SYSTEM /IMAGE PROCESSOR / OPERATOR CONSOLE**
a.	The main Host computer should have a 19 inches or more high resolution LCD TFT color monitor with 1024 x 1024 matrix display
b.	The system should have image storage capacity of 100 GB for at least 2,00,000 images in 256x256 matrix.
c.	The reconstruction speed should be at least 10000 or more for full FOV 256 matrix.
d.	The main console should have facility for music system for patient in the magnet room. The system should have DVD/CD/Flash drive archiving facility.
e.	Two way intercom system for patient communication is essential.
f.	MRI system should be DICOM ready in all parameters with no additional requirement of license for connectivity to any PACS/HIS/Radiotherapy Treatment Planning system stations.
7	**MEASUREMENT SYSTEM**

a.	Largest Field of View should be at least 50 cm in atleast two axis.
b.	The measurement matrix should be from 128x128 to 1024x1024.
c.	Minimum 2D slice thickness mm should be equal to or less than 0.5
d.	Minimum 3D slice thickness mm should be equal to or less than 0.1
8	**COIL SYSTEM**
a.	The main body coil integrated to the magnet must be Quadrature/CP. In addition to this following coils should be quoted.
c.	Neuro-vascular coil with16 or morechannels or Head/Neck coil combined, capable of high resolution neuro-vascular imaging.
d.	Spine Array/Matrix coils for thoracic and lumbar spine imaging .Mention no of coil elements available**.**
e.	Body Array/Matrix coil with minimum 12 channel with at least 40cm z axis coverage for imaging of abdomen, angiograms and heart.
f.	Bilateral Breast coil with at least 4 channel with spectroscopy
g.	Dedicated Shoulder Coil (Atleast 6 channel) to be quoted as standard.
h.	Dedicated Knee Coil (atleast 6 channel)
i.	General purpose flexible coils (2 no's) with minimum 4 channel should be quoted.
k.	Most recent coil technologies available must be part of the standard configuration. Specify coil technologies
l.	Coil Storage cart.
m.	The system should continuously monitor the RF coils used during scanning to detectfailure modes. RF coils should not require either set up time or coils tuning; Multi coil connection for up to 3 or more coils for simultaneous scanning without patient repositioning should be quoted as standard. Note: Dedicated coils should not be flex coil or a multipurpose coil.
9	**APPLICATION SEQUENCES**
a.	The system should have basic sequences package with Spin Echo, Inversion Recovery, Turbo Spin Echo with high turbo factor of 256 or more, Gradient Echo, FLAIR.
b.	Single slice, multiple single slice, multiple slice, multiple stacks, radial stacks and 3D acquisitions for all applications.

c.	Single and Multi shot EPI imaging techniques with ETL factor of 255 or more
d.	Fat suppression for high quality images both STIR and SPIR.
e.	The system should acquire motion artifact free images in T2 studies of brain in restless patients. Specify the appropriate sequences.
f.	Dynamic study for pre and post contrast scans and time intensity studies
g.	MR angio Imaging: should have 2D/3D TOF, 2D/3D PC, MTS and TONE .
h.	Non contrast enhanced peripheral angiography for arterial flow with native/trance/inhance sequences
i.	Perfusion imaging of brain (including 2D ASL)
j.	Susceptibility weighted imaging (i.e SWI) / Venous BOLD imaging/SWAN/other equivalent
k.	Multi direction DWI. Prospective motion correction enables software preferred.
l.	Internal networking within the site to local computer systems to be provided
m.	Fat and water excitation package. Diffusion weighted imaging, with at least b-value of 5000 or more.
n.	Bolus chasing with automatic and manual triggering from fluro mode to 3D acquisition mode with moving table facility.
o	Whole body screening (at least 140 cm) imaging studies for metastasis with the help of Surface coils should be possible for higher resolution.
p	Whole body diffusion weighted imaging with background suppression.
q	High resolution abdominal and liver imaging in breathold and free breathing modes with respirator triggered volume acquisitions.
r	The system should have basic and advanced MRCP packages including free breathing and 3D techniques.
s	The system should have the Hydrogen, Single Voxel Spectroscopy, Multivoxel, Multislice and Multiangle 2D, 3D Spectroscopy and chemical shift imaging in 2D/3D. The complete processing/post-processing software including color metabolite maps should be available on main console. Complete prostate spectroscopy hardware and applications should be provided. .
	Cardiac Applications: morphology, wall motion, perfusion imaging, myocardial viability imaging,

	cardiac functions including EF, ED/ES volume
	The system should have facility for quantification of the CSF flow data on the main console and / or the workstation
10	**WORK STATION**
a.	A workstation from the Manufacturer with preferably the same user interface as of main console is required with the availability of all necessary software including.
i.	Basic post-processing software including MIP, MPR, surface reconstruction and volume rendering technique.
ii.	Advanced post-processing offered application including perfusion quantification advanced diffusion and DTI, including perfusion analysis, processing of 2D/3D CSI data, with color metabolite mapping, vascular analysis package.
b.	It should have at least 19 inch LCD TFT color monitor, with hard disk of at least 120 GB forat least 250,000 image storage in 256 matrix, and 4 GB RAM capacity or more, with self playing DVD/CD archiving facility.
c.	The workstation should enable printing in laser film camera and color printers.
d.	Apart from this workstation, one separate viewing station should be provided. Eg. Osirix or equivalent.
11	**SAFETY FEATURES**
	The System should have following safety features
a.	The magnet system should include an Emergency Ramp Down unit (ERDU) for fast reduction of the magnetic field with Ramp Down time below 3 minutes
b.	The magnet should have quench bands that contain the fringe fields to a specified value in the event of a magnet quench
c.	Real time SAR calculation should be performed by software to ensure that RF power levels comply with regulatory guidelines and are displayed on each image
d.	The system shall have manual override of the motor drive for quick removal of the patients from the magnet bore
e.	Temperature sensor (built in) for magnet refrigeration efficiency must be provided.
12	**DOCUMENTATION**
a.	DICOM compatible Dry Chemistry laser camera with integrated processor for filming from main

	console & workstation.
b.	Printing on films of 14”x 17 size in a resolution of 500 or more dpi. It should be possible to connect other imaging modalities including CT and Ultrasound to the printer. 2000 compatible films to be provided (to be supplied periodically as per the instructions).
13	**UPS**
a.	The system should be provided with UPS system for the complete system with at least 30minute back up.
14	**SUITABLE RF ENCLOSURE**
a.	RF Cabin: The system should be supplied with suitable **RF cabin**with RF room shielding, RF Door Screen and interiors for the same should be carried out suitably.
15	**ACCESSORIES**
a.	Hand held metal detectors – 1 No.
b.	Non-magnetic patient trolley – 2 Nos.
c.	X-ray LED View box – 4 film viewers – 2 Nos.
d.	Color Laser Jet Printer – 1 No.
e.	Branded personal computer with printer for reporting – 1 No.
f.	Compact disc – 100 Nos.
16	**GUARANTEE**
a.	The vendor should guarantee the service and spare support for 10 years of the system.
b.	Up time guarantee : Minimum 95%
17	**Warranty and CMC:**
a.	The system should have warranty for three years including helium refill and all accessories.
b.	Comprehensive Maintenance Contract (CMC) for the whole equipment including helium refill and all accessories for 7 years should be quoted after warranty.
18	**MISCELLANEOUS:**
1	Application specialist visit atleast for Four weeks to orient local technicians / Radiologists : Essential
2	**MR Compatible Anesthesia Machine – 1No.**
3	**MR Compatible Pulse Oximeter – 1No**

4	**K Suction and O2 pipeline and manifold to be provided inside the RF enclosure**
4	**The following items should be quoted separately :** 1. The offer should be accompanied by Original data sheet of the product. 2. **Refurbished Units will not be accepted. Successful bidder to attach Verification Certificate for authorized reputed third part agencies.** **3**. 4. Incomplete data sheets and offers which are speculative will be rejected. 5. Turnkey offer- includes total Civil works with false roofing, Electrical works, and necessary air conditioning 6.Suitable Generator for utility during power outage
5	**Product quality certificate:** Valid **USFDA/European CE** certificate of the offered model must be submitted with the offer. Operation manual service manual with circuit diagram should be provided during the supply of the equipment
19	**Turnkey**
	PREMISES: The Purchaser will provide one suitable room of required dimensions for installing the MRI as also adjoining rooms of required size such as Equipment room, Console room, Patient Waiting room, Change room and Reception. It is the responsibility of the Supplier to provide and finish the interiors of the rooms in all respects for successful installation and commissioning of the equipment to the satisfaction of the Purchaser/user department. This shall include everything required for successful commissioning but not limited to the following: i. **Civil Works**: Necessary Civil works like Platform, Pedestals, etc., if any, required shall be provided. Proper lead protection for console and Gantry room to be provided. ii. **Flooring**: Shall provide and lay Anti-static flooring of 2 mm thick, manufactured by reputed standard manufacturers as per BS 2050-1978. Colour as per Purchaser's requirement. iii. **False Ceiling**: Shall provide and fix false ceiling of Luxalon make (84 R) with necessary fixing arrangements as per manufacturers specifications. Colour as per Purchaser's requirement.

	iv. **Walls**: Walls up to ceiling shall be provided with vitrified tiles 60cm x 60cm. Colour as per Purchaser's requirement. v**.** **Electrical:** The purchaser will provide main incoming power at one point near the MRI Room. The supplier shall supply and install the main incoming switch fuse unit from this point, separate lighting and power distribution boards and lay distribution lines required for all items installed with the MRI and electrical lighting for the main equipment and Console room, Patient waiting room, Change room, etc. The Supplier shall also quote separately the cost / R.M. for laying Electrical cable from the main supply point of the hospital panel board to MRI incoming power point. vi. **Plumbing**: Required Plumbing work shall be provided. vii. Furniture: chair, Table, for changing room, console, radiologist's room etc.

ANNEXURE -C

	Specifications for 1.5T MRI (OPTION – III)
1	**MAGNET**
	Supply and Installation of Whole body 1.5 Tesla Magnetic Resonance Imaging System The essential features should be verifiable from catalogue/technical brochure of equipment the offered model of the equipment and vendor must specify page, paragraph and line number in technical literature that indicates compliance. **Every component of MRI should be new. It should not be ECO/ Diamond Select / Gold seal or equivalent**
a.	Whole Body **1.5Tesla** Magnetic Resonance Imaging System optimized for higher performance in Whole Body examinations with superconducting magnet and high performance gradients
b.	**1.5T** active shielded super conductive magnet should be short and non-claustrophobic.
c.	It should have at least 60 cm patient bore with flared opening.
d.	Magnet length (cover to cover) should be less than 200cm.
e.	Specify the homogeneity of the magnet.
f.	The magnet should be well ventilated and illumination with built in 2 way intercom for communication with patient.
g.	It should have a built in cryo-cooler such that helium consumption does not exceed 0.05 lit/ hour.
h.	Emergency rundown control at both operator console room and Gantry room is essential.
i.	Fringe field 0.5 Gauss line radius is essential.
2	**SHIM SYSTEM**
a.	High performance, highly stable shim system with global and localized automated shimming for high homogeneity magnetic field for imaging and spectroscopy.
b.	Auto shim should be available to shim the magnet with patient in position
3	**GRADIENT SYSTEM**
a.	Actively shielded Gradient system
b.	The gradient should be actively shielded with each axis having independently a Slew rate of at least 120 T/m/s and a peak amplitude of 30mT/m. (Usable over 45 cm of FOV in all directions preferably).
c.	The system should have efficient and adequate Eddy current compensation

d.	Effective cooling system for gradient coil and power supply
e.	Duty Cycle – 100% the gradient power amplifier should be water cooled. Please give details type of cooling.
4	**RF SYSTEM**
a.	A fully digital RF system capable of transmitting power of at least 15kw.
b.	It should atleast have preferably 16 independent RF receiver channels with each having bandwidth of 1 MHz or more along with necessary hardware to support quadrature ICP array/Matrix Coils.
c.	It should support Parallel acquisition techniques with a factor of up to 2 in 2D.
d.	Should allow remote selection of coils and / or coil elements.
5	**PATIENT TABLE**
a.	The table should be fully motorized, computer controlled table movements in: vertical and horizontal directions.
b.	A CCTV system to observe the patient should be provided.
c.	There should be a hand held alarm for patients.
d.	Light localizer for patient positioning should be mandatory.
e.	Physiological signals display &ECG, Pulse, Resp. Sensors for patient monitoring are essential.
f.	Max. Patient weight (kg) should be 150kg or more.
6	**COMPUTER SYSTEM /IMAGE PROCESSOR / OPERATOR CONSOLE**
a.	The main Host computer should have a 19 inches or more high resolution LCD TFT color monitor with 1024 x 1024 matrix display
b.	The system should have image storage capacity of 100 GB for at least 2,00,000 images in 256x256 matrix.
c.	The reconstruction speed should be at least 10000 or more for full FOV 256 matrix.
d.	The main console should have facility for music system for patient in the magnet room. The system should have DVD/CD/Flash drive archiving facility.
e.	Two way intercom system for patient communication is essential.
f.	MRI system should be DICOM ready in all parameters with no additional requirement of license for connectivity to any PACS/HIS/Radiotherapy Treatment Planning system stations.
7	**MEASUREMENT SYSTEM**

a.	Largest Field of View should be at least 50 cm in atleast two axis.
b.	The measurement matrix should be from 128x128 to 1024x1024.
c.	Minimum 2D slice thickness mm should be equal to or less than 0.5
d.	Minimum 3D slice thickness mm should be equal to or less than 0.1
8	**COIL SYSTEM**
a.	The main body coil integrated to the magnet must be Quadrature/CP. In addition to this following coils should be quoted.
c.	Neuro-vascular coil with16 or morechannels or Head/Neck coil combined, capable of high resolution neuro-vascular imaging.
d.	Spine Array/Matrix coils for thoracic and lumbar spine imaging .Mention no of coil elements available.
e.	Body Array/Matrix coil with minimum 12 channel with at least 40cm z axis coverage for imaging of abdomen, angiograms and heart.
f.	Bilateral Breast coil with at least 4 channel with spectroscopy
g.	Dedicated Shoulder Coil (Atleast 6 channel) to be quoted as standard.
h.	Dedicated Knee Coil(atleast 6 channel) to be quoted as standard
i.	General purpose flexible coils (2 no's)with minimum 4 channel should be quoted.
k.	Most recent coil technologies available must be part of the standard configuration. Specify coil technologies
l.	Coil Storage cart.
m.	The system should continuously monitor the RF coils used during scanning to detectfailure modes. RF coils should not require either set up time or coils tuning; Multi coil connection for up to 3 or more coils simultaneous scanning without patient repositioning should be quoted as standard. Note: Dedicated coils should not be flex coil or a multipurpose coil.
9	**APPLICATION SEQUENCES**
a.	The system should have basic sequences package with Spin Echo, Inversion Recovery, Turbo Spin Echo with high turbo factor of 256 or more, Gradient Echo, FLAIR.
b.	Single slice, multiple single slice, multiple slice, multiple stacks, radial stacks and 3D acquisitions for all applications.

c.	Single and Multi shot EPI imaging techniques with ETL factor of 255 or more
d.	Fat suppression for high quality images both STIR and SPIR.
e.	The system should acquire motion artifact free images in T2 studies of brain in restless patients specify the appropriate sequences
f.	Dynamic study for pre and post contrast scans and time intensity studies
g.	MR angio Imaging: should have 2D/3D TOF, 2D/3D PC, MTS and TONE .
h.	Non contrast enhanced peripheral angiography for arterial flow with native/trance/inhance sequences
i.	Perfusion imaging of brain (including 2D ASL)
j.	Susceptibility weighted imaging (i.e SWI) / Venous BOLD imaging/SWAN/other equivalents
k.	Multi direction DWI. Prospective motion correction enables software preferred.
l.	Internal networking within the site to local computer systems to be provided . ceMRA, facilities for accelerated time resolved vascular imaging . specify the appropriate sequences.
m.	Fat and water excitation package. Diffusion weighted imaging, with at least b-value of 5000 or more.
n.	Bolus chasing with automatic and manual triggering from fluro mode to 3D acquisition mode with moving table facility.
o	Whole body screening (at least 140 cm) imaging studies for metastasis with the help of Surface coils should be possible for higher resolution.
p	Whole body diffusion weighted imaging with background suppression.
q	High resolution abdominal and liver imaging in breathold and free breathing modes with respirator triggered volume acquisitions.
r	The system should have basic and advanced MRCP packages including free breathing and 3D techniques.
s	The system should have the Hydrogen, Single Voxel Spectroscopy, Multivoxel, Multislice and Multiangle 2D, 3D Spectroscopy and chemical shift imaging in 2D/3D. The complete processing/post-processing software including color metabolite maps should be available on main console. Complete prostate spectroscopy hardware and applications should be provided.

	.
T	The system should have facility for quantification of the CSF flow data on the main console and / or the workstation
U	Cardiac applications: morphology, wall motion, myocardial viability imaging, cardiac functions including EF, ED/ES volume
10	**WORK STATION**
a.	A workstation from the Manufacturer with preferably the same user interface as of main console is required with the availability of all necessary software including.
i.	Basic post-processing software including MIP, MPR, surface reconstruction and volume rendering technique.
ii.	Advanced post-processing offered application including perfusion quantification advanced diffusion and DTI, including perfusion analysis, processing of 2D/3D CSI data, with color metabolite mapping, vascular analysis package.
b.	It should have at least 19 inch LCD TFT color monitor, with hard disk of at least 120 GB for at least 250,000 image storage in 256 matrix, and 4 GB RAM capacity or more, with self playing DVD/CD archiving facility.
c.	The workstation should enable printing in laser film camera and color printers.
d.	Apart from this workstation, one separate viewing station should be provided. Eg. Osirix or equivalent.
11	**SAFETY FEATURES**
	The System should have following safety features
a.	The magnet system should include an Emergency Ramp Down unit (ERDU) for fast reduction of the magnetic field with Ramp Down time below 3 minutes
b.	The magnet should have quench bands that contain the fringe fields to a specified value in the event of a magnet quench
c.	Real time SAR calculation should be performed by software to ensure that RF power levels comply with regulatory guidelines and are displayed on each image
d.	The system shall have manual override of the motor drive for quick removal of the patients from the magnet bore
e.	Temperature sensor (built in) for magnet refrigeration efficiency must be provided.

12	**DOCUMENTATION**
a.	DICOM compatible Dry Chemistry laser camera with integrated processor for filming from main console & workstation.
b.	Printing on films of 14"x 17 size in a resolution of 500 or more dpi. It should be possible to connect other imaging modalities including CT and Ultrasound to the printer. 2000 compatible films to be provided (to be supplied periodically as per the instructions).
13	**UPS**
a.	The system should be provided with UPS system for the complete system with at least 30minute back up.
14	**SUITABLE RF ENCLOSURE**
a.	RF Cabin: The system should be supplied with suitable **RF cabin**with RF room shielding, RF Door Screen and interiors for the same should be carried out suitably.
15	**ACCESSORIES**
a.	Hand held metal detectors – 1 No.
b.	Non-magnetic patient trolley – 2 Nos.
c.	X-ray LED View box – 4 film viewers – 2 Nos.
d.	Color Laser Jet Printer – 1 No.
e.	Branded personal computer with printer for reporting – 1 No.
f.	Compact disc – 100 Nos.
16	**GUARANTEE**
a.	The vendor should guarantee the service and spare support for 10 years of the system.
b.	Up time guarantee : Minimum 95%
17	**Warranty and CMC:**
a.	The system should have warranty for three years including helium refill and all accessories.
b.	Comprehensive Maintenance Contract (CMC) for the whole equipment including helium refill and all accessories for 7 years should be quoted after warranty.
18	**MISCELLANEOUS:**
1	Application specialist visit atleast for Four weeks to orient local technicians / Radiologists : Essential

2	**MR Compatible Anesthesia Machine – 1No.**
3	**MR Compatible Pulse Oximeter – 1No**
4	**K Suction and O2 pipeline and manifold to be provided inside the RF enclosure**
4	**The following items should be quoted separately :** 1. The offer should be accompanied by Original data sheet of the product. 2. **Refurbished Units will not be accepted. Successful bidder to attach Verification Certificate for authorized reputed third part agencies.** 3. Incomplete data sheets and offers which are speculative will be rejected. 4. Turnkey offer- includes total Civil works with false roofing, Electrical works, and necessary air conditioning 5.Suitable Generator for utility during power outage
5	**Product quality certificate:** Valid **US FDA/European CE** certificate of the offered model must be submitted with the offer. Operation manual service manual with circuit diagram should be provided during the supply of the equipment
19	**Turnkey**
	PREMISES: The Purchaser will provide one suitable room of required dimensions for installing the MRI as also adjoining rooms of required size such as Equipment room, Console room, Patient Waiting room, Change room and Reception. It is the responsibility of the Supplier to provide and finish the interiors of the rooms in all respects for successful installation and commissioning of the equipment to the satisfaction of the Purchaser/user department. This shall include everything required for successful commissioning but not limited to the following: i. **Civil Works**: Necessary Civil works like Platform, Pedestals, etc., if any, required shall be provided. Proper lead protection for console and Gantry room to be provided. ii. **Flooring**: Shall provide and lay Anti-static flooring of 2 mm thick, manufactured by reputed standard manufacturers as per BS 2050-1978. Colour as per Purchaser's

	requirement. iii. **False Ceiling**: Shall provide and fix false ceiling of Luxalon make (84 R) with necessary fixing arrangements as per manufacturers specifications. Colour as per Purchaser's requirement. iv. **Walls**: Walls up to ceiling shall be provided with vitrified tiles 60cm x 60cm. Colour as per Purchaser's requirement. v**.** **Electrical:** The purchaser will provide main incoming power at one point near the MRI Room. The supplier shall supply and install the main incoming switch fuse unit from this point, separate lighting and power distribution boards and lay distribution lines required for all items installed with the MRI and electrical lighting for the main equipment and Console room, Patient waiting room, Change room, etc. The Supplier shall also quote separately the cost / R.M. for laying Electrical cable from the main supply point of the hospital panel board to MRI incoming power point. vi. **Plumbing**: Required Plumbing work shall be provided. vii. Furniture: chair, Table, for changing room, console, radiologist’s room etc.

ANNEXURE – D

Specification for 1.5 Tesla Magnetic Resonance Imaging Systems (OPTION-IV)

1. Competitive bids are invited for installation of 1.5 Tesla MRI System with state of the art latest features commercially available at the time of supply European CE/US FDA approved). The system should be cost effective, with user friendly platform, reliable and capable of providing excellent performance for clinical imaging and research. The detailed specification that follows shall be understood to be minimum requirement.
2. Magnet
    a. Whole Body 1.5 Tesla Magnetic Resonance Imaging System optimized for higher performance in Whole Body and Vascular examinations with superconducting magnet, high performance gradients and digital Radio Frequency System.
    b. 1.5T active shielded super conductive magnet should be short and non-claustrophobic.
    c. It should have atleast 70cm patient bore with flared opening.
    d. Magnet length should be less than 200cm.

       Note : The bidder shall quote the difference in price between 200 cm or less and 196 cm or less as optional
    e. Homogeneity of magnet should be less than 4ppm over 45cm DSV.
    f. Details on number of plane plots used for measurement as well as number of measurement point per plane should be clearly specified. The space should be minimum (small ppm the better). Homogeneity should be measured in atleast 20 planes and 20 point in each plane inside a spherical volume in ppm.
    g. The magnet should be well ventilated and illuminated with built in 2 way intercom for communication with patient.
    h. It should have a built in cryo-cooler such that helium consumption does not exceed 0.03 lit/hr.
    i. Magnet Weight : 4500 Kg approximately
    j. Fringe field 0/5 Gauss line radius : Essential

k. Dedicated Helium exhaust system into atmosphere : Essential

l. Should be Zero boil-off

m. Helium refill per year not more than : once a year

3. SHIM System
    a. High performance, highly stable shim system with global and localized automated shimming for high homogeneity magnetic field for imaging and spectroscopy.
    b. Auto shim should be available to shim the magnet with patient in position.
4. Gradient System
    a. Actively shielded Gradient system.
    b. The gradient should be actively shielded with each axis having independently a slew rate of atleast 200 T/m/s and a peak amplitude of 44m T/m. The rise time should not be more than 250 microsec, to reach the maximum gradient strength.
    c. The system should have efficient and adequate Eddy current compensation.
    d. Effective cooling system for gradient coil and power supply. **(Specify type of cooling)**
    e. Duty Cycle- 100% the gradient power amplifier should be water cooled. Please give details type of cooling : Essential
    f. Acquisition Matrix Minimum range : Specify details.
    g. Gradient / Acoustic noise suppression : Specify
5. RF System **(fully Digital)**
    a. RF transmitter power to be adequate for high resolution imaging with acceptable power deposition (SAR check) in term of KW-18KW or more, either as single or combination of amplifiers. IS the RF transmission by optical cable – Please specify.

    Note :-The bidder shall quote the difference in price between 25 KW Digital RF power output machine and 18 or more Digital RF power output machine as optional

b. It should also have atleast 32 independent RF receiver channels with each having bandwidth of 1 MHz or more along with necessary hardware to support Quadrature ICP array / Matrix coils.

c. It should support Parallel acquisition techniques with a factory of upto 8 in 2D.

d. Should allow remote selection of coils and / or coil elements.

e. RF system should support connecting atleast 16 coil elements at a time : Essential

f. RF Safety Protocols : Essential - Give details

6. A. Patient Table

a. The table should be fully motorized, computer controlled table movements in vertical and horizontal directions.

b. A CCTV system with color LCD display to observe the patient should be provided.

c. Moving table angiography should be possible.

d. There should be a hand held alarm for patients.

B. **Patient handling System**

a. Max. Patient Weight (kg) : Not less than 150 kg.

b. Light localizer for patient positioning : Essential

c. Physiological signals display : Essential

d. ECG, Pulse, Resp. Sensors for patient monitoring : Essential points no.3 and 4 should be available inside the examination room as well as in the console through a slave monitor

e. Patient Musical System : Essential

f. Patient Accessories : Essential –Specify details

g. Rack in Gantry Room for keeping coils and accessories (2 Nos) : Essential

7. Computer System / Image Processor / Operator Console.

a. The main Host computer should have a 19 inches or more high resolution LCD TFT color monitor with 1024 x 1024 matrix display.

b. The system should have image storage capacity of 100GB for atleast 2,00,000 images in 256x256 matrix.

Note: The bidder shall quote the difference in price between 100 GB for 2,00,000 images and 250 GB for 5,00,000 as optional.

c. The reconstruction speed should be atleast 1300 or more for full FOV 256 matrix.

d. The main console should have facility for music system for patient in the magnet room. The system should have DVD / CD / flash drive archiving facility. Supply 5000 DVD along with the system. The system should be provided with auto DVD writer.

e. Two way intercom system for patient communication.

f. MRI system should be enabled to be networked to RIS/HIS.

g. Host Computer : Specify

h. Minimum clock speed specify : Specify

i. MIPS (million instructions per sec)/Equivalent : specify

j. RAM memory capacity at least : 4 GB (Specify the RAM memory capacity)

k. DVD : Re writeable

l. Image Processor-RAM memory -minimum of : 4 GB (Specify the Image Processor-RAM memory).

8. Measurement System

a. Largest Field of View should be atleast 45cm in x, y & z axis.

b. The measurement matrix should be from 128x128 to 1024x1024.

c. Minimum 2D slice thickness mm should be equal to or less than 0.5.

d. Minimum 3D slice thickness mm should be equal to or less than 0.1.

9. Coil System

a. The main body coil integrated to the magnet must be Quadrature / CP. In addition to this following coil should be quoted (total 12 including body coil inside the magnet).

b. Multichannel Head coils with atleast 12 channel for high resolution brain imaging.

Note :-The bidder shall quote the difference in price between12 channel and 16 channel as optional.

c. Neuro-vascular coil with 20 or more channels or Head / Neck Coil combined, capable of high resolution neuro-vascular imaging.
d. Spine Array / Matrix Coils for thoracic and lumbar spine imaging.
e. Body Array/Matrix coil with atleast 32 channel (single coil or combination of coils) to cover not more than 45cm FOV to be quoted as standard.
f. Suitable coil or combination of coils for peripheral angiography examination with a coverage of atleast 75cm should be quoted as standard.
g. Bilateral Breast coil with atleast 15 channel should be quoted as standard.
h. Dedicated Shoulder coil with atleast 15 channels would be quoted. (Dedicated coil should not be a flex coil).
i. Dedicated Knee coil with atleast 15 channels would be quoted. (Dedicated coil should not be a flex coil).
j. Flex coil Large and small to be quoted and they should be ASSET/SENSE/IPAT compatible.
k. Loop Flex Coil.
l. Coil Storage Cart.
m. The system should continuously monitor the RF coils used during scanning to detect failure modes. RF coils should not require either set up time or coil tuning; Multi coil connection for upto 4 or more coils simultaneous scanning without patient repositioning should be quoted as standard.
n. Tuning of coil (automatic) : Essential
o. Built in RF Pre Amplifiers : Essential
p. Following coils to be quoted as optional
1. Cardiac array/equivalent coil should be PAT compatible. : Essential
2. Optional :- CNS imaging surface coil if the combination of head, neck and spine coil should be PAT compatible seamless CNS imaging, please quote the Head to Sacrum imaging surface coil. : Essential

3. **T.M.J coil should be PAT compatible : optional**
4. **Pediatric Coil**

10. Application Sequences

a. The system should have basic sequences package with Spin Echo, Inversion Recovery, Turbo Spin Echo with high turbo factor of 256 or more, Gradient Echo with ETL of 255 or more, FLAIR.

b. Fast sequences

1. Fast spin Echo

- min TE : Specify

- min TR : Specify

- Turbo Factor / Echo Train length minimum : Specify

- IR.TSE : Essential

- Resolution Matrix 512 x 512 : Essential

2. Fast Gradient Echo

- min TE : Specify

- min TR : Specify

c. Ultrafast Sequences

- Type of EPI – Single Shot, Multi shot

- EPI Factor minimum : 256

- EPI Acquisition Matrix

- 64 x 64 : Specify

- 128 x 128 : Specify

- 256 x 256 : Specify

d. These sequences should also include (but not restricted to)

1. **Cardiac imaging**
2. **Abdominal imaging including MRCP and noncontras angiogram NATIVE & equivalent.**
3. **MR Spectroscopy**

e. Single slice, multiple single slice, multiple slice, multiple stacks, radial stacks 3D volume, 3D multiple stack, Cine acquisition and 3D acquisitions for all applications.

f. Imaging Specification

1. Off centre FOV : Essential –specify

- **Lateral**
- **AP**

2. Slice orientations- specify sagittal, coronal ,single/ double angulations Oblique etc. : Essential

3. Display of no. of slices at the console : Essential

4. Display of SNR of a chosen sequence at the console : Essential

5. Maximum intensity projection (MIP) : Essential

6 Minimum Intensity Projection (Block Blood) in MRA : Essential

7. Multi planar Reconstruction (MPR) : Essential

- Oblique : Essential

- Orthogonal : Essential

- Curved MPR : Essential

8. Specify Pre-configured Protocols : Essential

9. 3D surface rendering software : Essential

10. Software for CNS imaging with surface coils to scan from head to sacrum. It should be possible to have imaging pasting/composing on the main console and workstation with the output image in DICOM format : Essential

11 Software for peripheral angiography with surface coils from renal arteries to the lower limbs upto the feet : Essential

12. Specify various image viewing parameter in the system : Essential

13. Specify various image analysis parameters : Essential.

g. Single and Multi shot EPI imaging techniques with ETL factor of 255 or more.

h. Fat suppression for high quality images both STIR and SPIR.

i. The system should acquire motion artifact free images in T2 studies of brain in restless patients (Propeller 3.0, Multivane, Blade etc.,).

j. Dynamic study for pre and post contrast scans and time intensity studies.

k. MR angio Imaging: Should have 2D/3D TOF, 2D/3D PC, MTS and TONE, ceMRA, Facilities for Accelerated time resolved vascular imaging with applications like Treats/Tracks/Tricks sequences. The real time FIESTA/Balanced FFE/true FISP should be standard. Non contrast angiography technique for renal and Peripheral angio [Inhance, Native, trance etc]. : Essential

l. Advanced Angiography package

Phase contrast angio

- 2D PC : Essential

- 3D PC : Essential

- MTC : Essential

- Contrast Enhanced Angio :

Specify

-The system should be quoted with time resolved technique for peripheral vessels, aorta, thorax etc

m. MR cardiac Package

- ECG Triggered Heart imaging

Advanced cardiac applications: Morphology/ wall motion: 2D/3D IR prepared sequences for myocardial evaluation : Cardiac function including EF, ED/ES volume cardiac output, wall thickening and wall thickness;

-2D/3D steady state sequences for high resolution morphology, real time spiral imaging techniques for coronary artery imaging free breathing sequences/navigators; interactive real time

sequences for on the fly change in parameters; all these cardiac related application should be quoted as standard of the main console/workstation : essential

n. **Functional imaging brain with EPI bold with color coding and on line calculation of Z score on the main console/workstation: optional. Also give the details about the hardware**
o. **MR Fluoroscopy – Essential**
p. **Fat and water excitation package. Diffusion Weighted Imaging, with atleast b value of 10000 or more with automatic calculation of tensor trace images and ADC maps .The system should be available to perform multi direction diffusion weighted imaging and diffusion tensor imaging and the same should be possible on the main console and workstation. It should be for neuro, muscular and cardiac applications: Essential**
q. Bolus chasing with automatic and manual triggering from flouro mode to 3D acquisition mode with moving table facility.
r. Non contrast enhanced peripheral angiography for arterial flow with Native / Trance / Inhance sequences.
s. Whole body screening imaging studies for metastasis with high SNR surface coils.
t. **3D volume acquisition sequences/ packages for High resolution Abdominal and Liver imaging in breathold and free breathing mode with respirator triggered volume acquisitions.**
u. The system should have basic and advanced MRCP packages including free breathing and 3D techniques.
v. The system should have facility for flow quantification of CSF, vessel flow and hepatobiliary system.
w. The system should have the hydrogen, single voxel spectroscopy, Multivoxel, Multislice & Multiangle 2D, 3D Spectrosopy and Chemical shift imaging in 2D/3D. The complete processing / post – processing software

including color metabolite maps should be available on main console. Complete prostate spectroscopy hardware and applications should be provided.

x. **The advanced spectroscopy post processing software should allow to process Display, manipulate, analyze and print the spectroscopy data on the main console/workstation. It should be possible to have prostrate spectroscopy in conjunction with the surface coil include any other interface, or hardware and software required for this application**

y. Perfusion imaging of brain (including ASL).

z. The system quoted should have the software for Whole Body Diffusion weighted imaging.

aa. SWI including phase information (SWI/eSWAN 2.0/SWIp) to be quoted as standard.

bb. Multi Direction DWI and DTI with minimum of 32 directions (Complete package including quantification and tractography software). Prospective motion correction enable software preferred.

cc. High resolution imaging for inner ear.

dd. 3D motion Correction should be available for motion correction during BOLD imaging. Should be able to Corrects 6 degrees of freedom (3x translation, 3x rotation).

ee. Dixon Fat-Water separation should be quoted as standard. Please specify if 2-point and 3-point Dixon method is available.

ff. System should have software to reduce metal artifacts to image patients with MRI compatible metal implants.

11. Work Station

a. A workstation with preferably the same user interface as of main console is required with the availability of all necessary software including.

    i. Basic post-processing software including MIR, MPR, surface reconstruction and volume rendering technique.

    ii. Advanced post processing offered applications.

1. Perfusion quantification.
2. Advanced diffusion and DTI with evaluation.
3. Processing of 2D/3D CSI data, with color metabolite mapping.
4. Quantification of CSF flow data.
5. Vascular analysis package.

b. It should have atleast 19 inch LCD TFT color monitor, with hard disk of atleast 120 GB for atleast 2,50,000 image storage in 256 matrix, and 8 GB RAM capacity or more, with self playing OVO/CO archiving facility.

c. The workstation should display cardiac cine images in movie mode with rapid avi creation.

d. The workstation should enable printing in laser film camera and color printers.

12. Safety Features

The system should have following safety features :-

a. The magnet system should include an Emergency Ramp Down unit (ERDU) for fast reduction of the magnetic field with Ramp Down time below 3 minutes.

b. The magnet should have quench bands that contain the fringe fields to a specified value in the event of a magnet quench.

c. Real time SAR calculation should be performed by software to ensure that RF power levels comply with regulatory guidelines and are displayed on each image.

d. The system shall have manual override of the motor drive for quick removal of the patients from the magnet bore.

e. Temperature sensor (built in) for magnet refrigeration efficiency must be provided.

13. Documentation

a. DICOM compatible Dry Chemistry laser camera with integrated processor for filming from main console & workstation.

b. Printing on films of 14”x17”, 11”x14” and 10”x8” sizes in a resolution of 500 or more dpi. It should be possible to connect other imaging modalities to the printer, 5000 compatible films to be provided.

c. DVD with covers – 100 Nos : Essential

14. UPS

a. The system should be provided with UPS system for the complete system with atleast 30 minutes back up.

15. Suitable RF Enclosure

a. RF Cabin: The system should be supplied with the imported and modular RF cabin with RF room shielding, RF Door screen, and interiors for the same should be carried out suitably.

16. Accessories:-

a. Dual Head MRI Compatible Pressure Injector with 100 sets of syringes.
b. Water Chiller for Cold Head I Gradients.
c. One Non-ferromagnetic patient transfer trolley of international make should be provided.
d. Fire fighting system Detectors and 6 Fire Extinguishers.
e. Hand held metal detectors and two metal detector doors to be installed at the entrance point as will be intimated.
f. Closed circuit CCD Camera.
g. Phantoms for image quality audits.
h. MRI compatible Anaesthesia machine – 1.
i. MRI Compatible Pulse Oximeter- 1 no.
j. Suction and O2 pipeline and manifold to be provided inside the RF enclosure.

k. Stereotactic Frame System -1 no (optional)

Specification of Stereotactic Frame System
· The main components of the stereotactic system should have a Cartesian frame and a semi circular arc, suitable for both adult and pediatric stereotaxy (for children over 2 years of age and compatible with 3T MRI and its gantry).

· The semicircular arc should incorporate a sliding instrument carrier for use with stereotactic needles, electrodes and other micro surgical instruments.
· Sterilization trays for both the frames and are compatible for gas sterilization (ETO), steam sterilization (autoclaving) and gas plasma sterilization.
· The stereotactic system should be arc centered with a 190mm radius, and based on Cartesian coordinate system conforming to the X, Y and Z nomenclature used in MR scanning.
· Numeric coordinate values (in millimeters) should be engraved on the frame and arc on both sides to ensure maximal accuracy.
· The posterior post should have three options of lengths – long, medium and short.
· The guide and stop inserts should be separate to enable effective cleaning.
· The instrument carrier should have separate adjustable instrument guide and stop to ensure accuracy.
· MR adapter along with base unit should be included in the system to secure and support the patient's head and should be adjustable to ensure a parallel scan plan without having to manipulate the gantry of the scanner.
· The total accuracy of the frame should be minimum 0.7mm and shall be certified (attach the certificate) by the Manufacturer.
· The system should allow for transoral or transnasal intubation at any time during the procedure. It should also allow for an approach inferior to the frame to enable posterior fossa and transphenoidal procedures.
· It should have ear pins for utilization as positioned and stabilizers for frame placement on the patient.
· It should allow for arc fixation to the frame in both the lateral and sagittal orientation with provision for three point fixation.
· The stereotactic system should have dedicated adapter for MRI and indicator box. These should however not limit how low the frame may be mounted.

· The stereotactic system should have an option for testing its accuracy of the complete frame and arc with the target stimulator.
· The company should provide a tool to test the straightness of the needles. The stereotactic system should provide tools for intra-operative image verification of the placement of clinical probes in relation the target.
· The Stereotactic frame should offer a rigid and accurate fixation to the operation table headrest with three point fixation and should have a curved front piece which provides access to the patient's airways and it can be fitted with the curve both the inferior or superior orientation.
· The coordinate frame should have an insertion cannula and hematoma evacuator designed to obtain safe guidance of implants/catheters using stereotactic technique and hematoma evacuation using single burr hole.
· Spiral Biopsy needle with 10mm spring – 3 No's.
· Twist drill for twist burr bole through stereotactic arc of varying diameter from 2-3mm : 3 nos.
· Needle with stop and guide of 2.5mm & 2.1mm respectively.
· Simulation dummy to be provided.
· Localization plates to provided for fitting on the Cartesian frame.
· The stereotactic system should provide instrument designed for the injection, diagnostic and therapeutic punctures, aspirations and evacuation and instruments for puncturing of intracranial cavities with insertion needle of diameter 2mm of more with accommodating catheters of more than 1.4mm diameters.
· The system should have integrated software to perform based on MRI image.
· Should be FDA approved/European CE certified.
· Future up gradation to use DBS shall be possible.
MR compatible Multipara monitor with slave monitor in console room

17. Turn Key

PREMISES:

The Purchaser will provide one suitable room of required dimensions for installing the MRI as also adjoining rooms of required size such as Equipment room, Console room, Patient Waiting room, Change room and Reception. It is the responsibility of the Supplier to provide and finish the interiors of the rooms in all respects for successful installation and commissioning of the equipment to the satisfaction of the Purchaser/user department. This shall include everything required for successful commissioning but not limited to the following:

i. **Civil Works**: Necessary Civil works like Platform, Pedestals, etc., if any, required shall be provided. Proper lead protection for console and Gantry room to be provided.

ii. **Flooring**: Shall provide and lay Anti-static flooring of 2 mm thick, manufactured by reputed standard manufacturers as per BS 2050-1978. Colour as per Purchaser's requirement.

iii. **False Ceiling**: Shall provide and fix false ceiling of Luxalon make (84 R) with necessary fixing arrangements as per manufacturers specifications. Colour as per Purchaser's requirement.

iv. **Walls**: Walls up to ceiling shall be provided with vitrified tiles 60cm x 60cm. Colour as per Purchaser's requirement.

v**. Electrical:** The purchaser will provide main incoming power at one point near the MRI Room. The supplier shall supply and install the main incoming switch fuse unit from this point, separate lighting and power distribution boards and lay distribution lines required for all items installed with the MRI and electrical lighting for the main equipment and Console room, Patient waiting room, Change room, etc.

The Supplier shall also quote separately the cost / R.M. for laying Electrical cable from the main supply point of the hospital panel board to MRI incoming power point.

vi. **Plumbing**: Required Plumbing work shall be provided.

vii. Furniture: chair, Table, for changing room, console, radiologist’s room etc.

18. Guarantee
    a. The vendor should guarantee the service and spare support for 10 Years of the system including Helium and cold head and all accessories after 5 years of warranty.

b. Application training to be provided onsite for total of FOUR weeks.
c. Remote service facility should be provided with atleast one nodal point in India for faster resolution of service issues.
d. Two Radiologists to be provided training at premier govt. teaching institute within country for two weeks.

19. Warranty and CMC :-

a. The system should have warranty for three years including helium refill, all accessories and turnkey work.
b. Comprehensive Maintenance Contract (CMC) for the whole equipment including helium refill and all accessories including turnkey for seven years should be quoted after warranty.

   The following items should be quoted separately:

   i. The offer should be accompanied by Original data sheet of the product.
   ii. Refurbished Units will not be accepted. Successful bidder to attach Verification Certificate for authorized reputed third part agencies.
   iii. Incomplete data sheets and offers which are speculative will be rejected.
   iv. Turnkey offer – includes total Civil works with false roofing, Electrical work and necessary air conditioning.
   v. Suitable Generator for utility during power outage.
   vi. Product quality certificates: Valid US FDA/ European CE certificate of the offered model must be submitted with the offer. Operation manual service manual with circuit diagram should be provided during the supply of the equipment.

Note: Bidders shall furnish technical compliance statement for the model quoted , details of manufacturer including deviations if any. Technical catalogue /data sheet shall also be furnished in support of technical compliance statement with out fail.

SECTION VI-A : QUALIFICATION CRITERIA

(Referred to in Clause 11.2 of ITB)

For determining the lowest-evaluated bid, the Purchaser shall carry out the post qualification of the Bidder in accordance with ITB Clause 11.2, using only the requirements specified. Requirements not included in the text below shall not be used in the evaluation of the Bidder's qualifications

The Bidder shall furnish documentary evidence to demonstrate that it meets the following experience requirement(s):

1. Manufacturer Bidders

(i) The bidder must have manufactured and supplied satisfactorily the similar model ***quoted*** *in each schedule of the Schedule of Requirements either directly or through of any other authorized dealer to the extent of at least 1 No. for Sl. No.1 to 4 under "Section – V, Schedule of Requirements" in any one of the last five years* ***of which minimum 1 No. for Sl. No.1 to 4 should have been supplied to Indian Institution*** *and should be in use satisfactorily with no adverse report for at least one year preceding the date of bid opening.*

(ii) The Bidder should furnish a brief write-up, backed with adequate data, explaining his available capacity and experience (both technical and commercial) for the manufacture and supply of the required equipment within the specified time of completion after meeting all their current commitments.

(iii) The bidder should clearly confirm that all the facilities exist in his factory for inspection and testing and these will be made available to the purchaser or his representative for inspection.

2. Non- Manufacturer Bidders

In the case of a Bidder offering to supply Goods under the Contract that the Bidder does not manufacture or otherwise produce, ***the Bidder should be duly authorized by the manufacturer of the Goods who meets the criteria under (1) above*** *(all supporting documents/information as asked above for manufacturer shall be submitted with the bid) and*

a) The manufacturer furnishes a legally enforceable authorization in the prescribed Form [Section XII] assuring full guarantee and warranty obligations as per GCC and SCC for the goods offered; and
b) The bidder, as authorized by the manufacturer, must have supplied and provided after sales service to the extent of at least 1 No. for Sl. No.1 to 4 of the quantity of ***similar model*** *in the Schedule of Requirements in any one of the last five (5) years* ***to Indian Institution****, which must be in satisfactory operation at least for one year on the date of bid opening.*

3. <u>Common to Both Manufacturer and Bidder</u>

(i) The information on past supplies and satisfactory performance should be given in the Proforma given under Section-XI.

(ii) Documentary evidence (end users certificate) in support of the satisfactory operation of the goods as specified above shall invariably furnished.

(iii) Data to support that the manufacturer has the financial and production capacity to perform the contract and complete the supplies within the stipulated delivery period shall be furnished. for the non-manufacturer bidder data to support that he has the financial capacity to perform the contract and complete the supplies within the stipulated delivery period shall be furnished. Reports on financial standing shall be in the form of profit and loss statements, balance sheets and auditors report for the past three years, bankers certificate, etc.,

a) *The bidder should have a manufacturing capacity of atleast 30 Nos. for Sl. No.1, 23 Nos. for Sl. No.2, 36 Nos. for Sl. No.3(I) & 3 (II) and 6 Nos. for Sl. No.4 of similar capacity machines per annum certified by licensing authority/ chartered accountant.*
b) *The annual sales turnover for the bidder should be atleast Rs.15.00 Crores for Sl. No.1, Rs.14.00 Crores for Sl. No.2, Rs.24.00 Crores for Sl. No.3(I) & 3(II) and Rs.5.00 Crores for Sl. No.4 in any one of the last three years (2014-2015 to 2016-2017), and it should be certified by the chartered accountants.*
c) *The bidder should have a cash/ credit limit of atleast Rs.3.75 Crores for Sl. No.1, Rs.3.50 Crores for Sl. No.2, Rs.6.00 Crores for Sl. No.3(I) & 3(II) and Rs.1.25 Crores for Sl. No.4 with their bankers exclusively for this contract and a certificate for the above shall be furnished by the bankers.*

(iv) Further, the manufacturer should be in continuous business of manufacturing / supplying and after sale services of products similar to that specified in the 'Schedule of requirement' during the last 5 years prior to bid opening. In case of non-manufacturer bidders, this condition should be satisfied by the manufacturer of the product.

(v) The legal status, place of registration and principal place of business of the company or firm or partnership, etc.;

Notwithstanding anything stated above, the purchaser reserves the right to assess the bidder's capabilities and capacity to execute the contract satisfactorily before deciding on award

Even though the bidders meet the above qualifying criteria, they are subject to be disqualified if they have made misleading or false representations in the forms, statements and attachments submitted in proof of the qualification requirements; and/or record of poor performance such as, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc.

Note:

1) The above post qualification requirements are to be met by the bidder (in case of manufacturer bidders) and the bidder and the manufacturer respectively (in case of non manufacturer bidders) and qualification of group/sister/parent companies will not be considered for meeting the above requirement.

2) For the purpose of furnishing documentary evidence to meet the post qualification criteria, the bidder should furnish the following:

a. *The supply made to public sector/Government units in India/private sector, the bidder should submit an affidavit confirming that the performance statement given is correct along with copy of purchase order, copy of invoices, proof of payment received from Purchasers, documentary evidence (end user certificate) in support of satisfactory completion of orders and function as stated above."*
b. *The foreign manufacturer is permitted to submit an affidavit in their letter head duly signed by the authorized signatory of the manufacturer confirming that the performance statement given is correct.*

SECTION VII : BID FORM AND PRICE SCHEDULES

Date:.....200
Contract No.....

To:

Gentlemen,

Having examined the Bidding Documents including Addenda Nos....., the receipt of which is hereby duly acknowledged, we, the undersigned, offer to supply and deliver.....
(Description of Goods and Services) in conformity with the said Bidding Documents for the sum of..... (Total Bid amount in Words and Figures) or such other sums as may be ascertained in accordance with the Schedule of Prices attached herewith and made part of this bid.

We undertake, if our bid is accepted, to deliver the goods in accordance with the delivery schedule specified in the Schedule of Requirements.

If our bid is accepted we will obtain the guarantee of a bank in a sum equivalent to 5% of the Contract Price for the due performance of the Contract, in the form prescribed by the ***Purchaser***.

We agree to abide by this bid for a period of .....(Number) days from the date fixed for bid opening under Clause 20 of the Instruction to Bidders and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

Until a formal contract is prepared and executed, this bid, together with your written acceptance thereof and your notification of award, shall constitute a binding Contract between us.

We understand that you are not bound to accept the lowest or any bid you may receive.

Dated this..... day of ..... 200..

Signature : .....
(in the Capacity of) : .....

Duly authorised to sign bid for and on behalf of
.....

PRICE SCHEDULE

1	2	3	4	5					6	7	8
				PRICE FOR EACH UNIT							
Sch No.	Item Description	Country of origin	Quantity & Unit	Ex-factory Ex-warehouse Ex-showroom off-the shelf for CIF (a)	Packing & forwarding (b)	Inland transport, Insurance and Incidental costs incidental to delivery (c)	Incidental services as listed in clause 7 of SCC (d)	Customs duty (e)	Unit price a+b+c+d+e	Total price per schedule for delivery at final destination (4 x 6)	GST – IGST/CGST/ SGST payable if contract is awarded
1	1.5 Tesla MRI as per specification in annexure A (Option I)		5 nos.								
	Optional										
1a	Suitable Generator		1 no.								
2	1.5 Tesla MRI as per specification in annexure B (Option II)		4 nos.								
	Optional										
2a	Suitable Generator		1 no.								
3.I	1.5 Tesla MRI as per specification in annexure C (Option III)		6 nos.								
3.II	1.5 Tesla MRI as per specification in annexure C with Buy back (Option III)		6 nos.								
	Optional										
3a	Suitable Generator		1 no.								
4	1.5 Tesla MRI as per specification in annexure D (Option IV)		1								
	Optionals										
4a	Difference in price between 200 cm or less and 196 cm or less magnet length		1 no.								

4b	Difference in price between 25 KW Digital RF power output machine and 18 or more Digital RF power output machine		1 no.								
4c	Difference in price between 100 GB for 2,00,000 images and 250 GB for 5,00,000		1 no.								
4d	Difference in price between12 channel and 16 channel head coil		1 no.								
4e	Cardiac array/equivalent coil PAT compatible		1 no.								
4f	T.M.J coil e PAT compatible		1 no.								
4g	Pediatric Coil		1 no.								
4h	Stereotactic Frame System		1 no.								
4i	Suitable Generator		1 no.								

i. Unit price in (6) (Rs in words)

1. 1.5 Tesla MRI as per specification in annexure A (Option I)_____

2. 1.5 Tesla MRI as per specification in annexure B (Option II)_____

3. I. 1.5 Tesla MRI as per specification in annexure C (Option III)_____

II.1.5 Tesla MRI as per specification in annexure C with buy back (Option III)_____

4. 1.5 Tesla MRI as per specification in annexure D (Option IV)_____

ii. Annual Maintenance Charges (labour only) per year /per unit for 7 years after 3 years free warranty maintenance period

1. 1.5 Tesla MRI as per specification in annexure A (Option I)_____

2. 1.5 Tesla MRI as per specification in annexure B (Option II)_____

3. I. 1.5 Tesla MRI as per specification in annexure C (Option III)_____

3. II.1.5 Tesla MRI as per specification in annexure C with buy back (Option III)_____

4. 1.5 Tesla MRI as per specification in annexure D (Option IV)_____

iii. Comprehensive Annual Maintenance Charges for 7 years / per year (after 3 years warranty period)

1. 1.5 Tesla MRI as per specification in annexure A (Option I)_____

2. 1.5 Tesla MRI as per specification in annexure B (Option II)_____

3. I. 1.5 Tesla MRI as per specification in annexure C (Option III)_____

3. II.1.5 Tesla MRI as per specification in annexure C with buy back (Option III)_____

4. 1.5 Tesla MRI as per specification in annexure D (Option IV)_____

iv. Cost per running meter of the supply and laying main electrical power cable from main supply point of the hospital panel board to MRI incoming power point(cable size to be indicated by the bidder)……..……

Note:

(a) In case of discrepancy between unit price and total price, the unit price shall prevail.

(b) This price schedule should be placed in separate sealed cover "Cover B"

(C) GST applicable for Annual Maintenance Charges shall be indicated separately.

(d) The bidder should indicate the HSN code of the equipment/ service and applicable GST rates.

(e) The bidder should quote for the prices separately from column 5(a) to 5(e) and should not state "as inclusive".

(f) The bidder should indicate the prices for all optional items separately in the price schedule without including the same to the main price. But the prices of the optional items will not be taken into account for price evaluation. However, the purchaser reserves their rights to finalize these items at their sole discretion

(g) For the schedule 3. II, the bidders should also quote separately the equipment value with buyback of 1.5 tesla MRI machine; Siemens make and model Magnetom Symphony power class with IPA.

Place :

Date :

Signature of Bidder.....……

Name ……

Business Address ……..……

SECTION VIII: CONTRACT FORM

SECTION VIII: CONTRACT FORM

THIS AGREEMENT made the ..... day of ....., 20..... between ..... (Name and Address of ***Purchaser***) represented by the Managing Director ..... (hereinafter "the ***Purchaser***") of one part and .....(Name and Address of Supplier) ..... (hereinafter "the Supplier") represented by …… (Name of the Authorized Signatory and Designation), Aged …..... years, residing at …… (Full Residential Address of the Signatory) of the other part:

WHEREAS the ***Purchaser*** is desirous that certain Goods and ancillary services should be provided by the Supplier, viz., ... (Brief Description of Goods and Services) and ..... has accepted a bid by the Supplier for the supply of those goods and services in the sum 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 Conditions of Contract referred to.

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

   (a) the Bid Form and Price Schedule submitted by the Bidder;

   (b) the Schedule of Requirements;

   (c) the Technical Specifications;

   (d) the General Conditions of Contract;

   (e) the Special Conditions of Contract; and

   (f) the ***Purchaser***'s Notification of Award

3. In consideration of the payments to be made by the ***Purchaser*** to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the ***Purchaser*** to provide the Goods and 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 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.

BRIEF PARTICULARS OF THE GOODS AND SERVICES WHICH SHALL BE SUPPORTED / PROVIDED BY THE SUPPLIER ARE:

S.No.	Brief Description of goods	Quantity to be Supplied	Unit Price	Total Amount (3 x 4)	Sales Tax & other Taxes Payable
1	2	3	4	5	6

Total Value: 5 + 6

Delivery Schedule:

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with their respective laws the day and year first above written.

Signed, Sealed and Delivered by the

said ..... (For the ***Purchaser***)

in the presence of .....

Signed, Sealed and Delivered by the

said .....(For the Supplier) (Signature, Name, Designation and Address with Office seal)

in the presence of .....

1) (Signature, Name and Address of witness)

2) (Signature, Name and Address of witness)

SECTION IX : PERFORMANCE SECURITY FORM

SECTION IX: PERFORMANCE SECURITY FORM

To : _____ (Name of ***Purchaser***)

WHEREAS ..... (Name of the Supplier) herein called "the Supplier" has undertaken, in pursuance of Contract No..... dated, ... to supply ..... (Description of Goods and Services) hereinafter called "the Contract".

AND WHEREAS it has been stipulated by you in the said Contract that the Supplier shall furnish you with a Bank Guarantee by a recognised bank for the sum specified therein as security for compliance with the Supplier's performance obligations in accordance with the Contract.

AND WHEREAS we have agreed to give the Supplier a Guarantee

THEREFORE WE hereby affirm that we are Guarantors and responsible to you, on behalf of the Supplier, upto a total of..... (Amount of the Guarantee in Words and Figures) and we undertake to pay you, upon your first written demand declaring the Supplier to be in default under the Contract and without cavil or argument, any sum or sums within the limit of ..... (Amount of Guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This guarantee is valid until the..... day of ..... 200.

Signature and Seal of Guarantors

.....

.....

.....

Date ..... 20 .....

Address .....

.....

.....

SECTION X: PERFORMANCE STATEMENT

(Please see Clause 11.2(b)
(ii) of Instructions to Bidders)

SECTION X

Proforma for Performance Statement (for a period of last five years)

Bid No.

Name of the Firm

Order placed by (Full Address of Purchaser) (1)	Order No. and Dated (2)	Description and Quantity of ordered equipment	Value of order	Date of Completion of delivery	Remarks indicating reasons for late delivery, if any	Has the equipment been satisfactorily functioning? (Attach a certificate from the Purchaser/Consignee)
				As per Actual Contract		

Signature and Seal of the Bidder .....

.....

SECTION XI

(Please see Clause 11.2(a) of Instructions to Bidders)

MANUFACTURER'S AUTHORISATION FORM

No..... dated .....

To

.....
.....
.....

Dear Sir,

IFB No._____

We _____ who are established and reputable manufacturers of _____ having factories at _____ and _____ do hereby authorise M/s._____ (Name and address of Representative) to submit a bid, and subsequently negotiate and sign the contract with you against the above IFB NO.

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

We hereby extend our full guarantee and warranty as per Clause 14 of the General Conditions of Contract for the goods offered for supply against this invitation for bid by the above firm.

Yours faithfully,

(Name)
for and on behalf of M/s._____
(Name of manufacturers)

Note: This letter of authority should be on the letterhead of the manufacturing concern and should be signed by a person competent and having the power of attorney to bind the manufacturer.

SECTION - XII

AFFIDAVIT

(In Rs.10 NJ Stamp Paper)

1) I _____ S/o. _____ residing at No._____ proprietor / partner / Managing Director of _____ (Proprietary concern / Partnership firm / Company) carrying on business at No._____ do hereby solemnly affirm and sincerely state as follows:-
2) I state that our concern / company participated in the tender Ref. for the_____ supply of _____ with Tamilnadu Medical Services Corporation ltd.,
3) Our concern / company had supplied _____ nos. of similar equipment for the hospitals detailed below and the same is considered by us to meet the post qualification criteria prescribed in the tender above.

Sl.no	**Date of Invoice**	**Name of the Item and model**	**Name and address of Hospital / Institution supplied**	**Date of Installation ***	**Date of end user performance certificate ***

4) I satisfy that the equipment supplied to the above hospitals are working well and being maintained by us. The complaints received from the hospitals are attended to on time as per the Annual Maintenance Contract entered between us.
5) The performance certificate, invoice copy and payment proof are attached for the above supply

Solemnly affirm at Signed before me

Chennai on this _____

Day 2009 and singed in

my presents (Notary Public)

***** *The period between the date of installation and date of end user performance certificate (Not installation certificate) should be more than one year on the date of bid opening.*