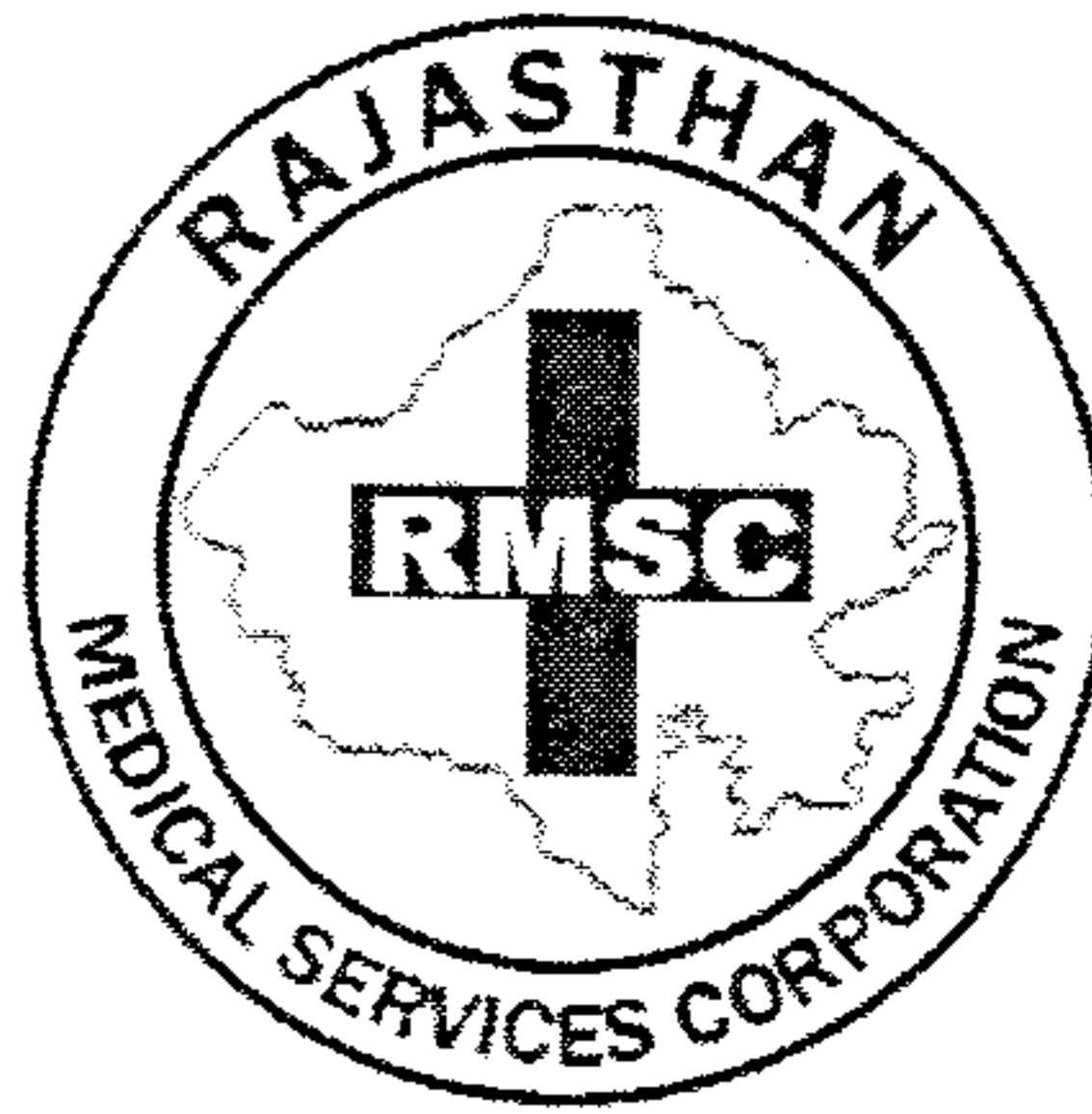


RAJASTHAN MEDICAL SERVICES CORPORATION
D- Block, Swasthya Bhawan, Tilak Marg, C-Scheme JAIPUR (Raj)

BID FORM



॥ सर्वे सन्तु निरामयाः ॥

NIB NO. 21 DATED- 28.02.2013

FOR THE RATE CONTRACT CUM SUPPLY OF
RADIOLOGY EQUIPMENTS, R.C. PERIOD 2013-2014

(Signature)

ANNEXURE-B

Rajasthan Medical Services Corporation Limited, Jaipur

TERMS & CONDITIONS OF BID AND RATE CONTRACT

N.B.:- BIDDER SHOULD READ THESE TERMS & CONDITIONS CAREFULLY AND COMPLY STRICTLY WHILE SUBMITTING THEIR TENDERS. IF A BIDDER HAS ANY DOUBT REGARDING THE TERMS & CONDITIONS AND SPECIFICATIONS MENTIONED IN THE TENDER NOTICE/CATALOGUE. HE SHOULD REFER THESE TO THE M.D., RAJASTHAN MEDICAL SERVICES CORPORATION LIMITED, RAJASTHAN, AND JAIPUR BEFORE SUBMITTING BIDS AND OBTAIN CLARIFICATIONS. THE DECISION OF THE M.D., RAJASTHAN MEDICAL SERVICES CORPORATION LIMITED, RAJASTHAN, JAIPUR SHALL BE FINAL AND BINDING ON THE BIDDER . THE CLAUSES OF TERMS & CONDITIONS ARE AS FOLLOWS:-

A. General terms & conditions:-

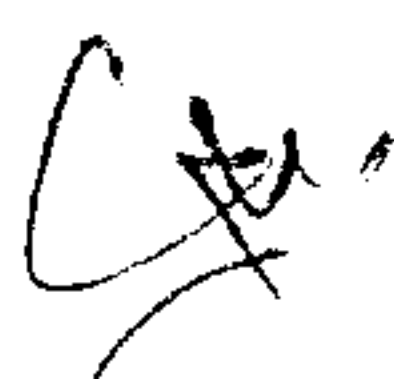
1. E-Tender shall be submitted up to **1.00 PM on dated 09.04.2013** as per schedule (col. no. 4) to the E.D. (EPM), Rajasthan Medical Services Corporation Limited, Rajasthan, Jaipur for the Rate contract Supply of Equipments & Instruments for the rate contract period 2013-14.
2. **The average annual turnover of Manufacturer/Direct Importers shall be as per Table-I for last three financial year, are eligible to participate in the bid.** Supplies shall also be effected directly by the manufacturer and not through Distributors/Agents/ Suppliers. Bidder should have permission to manufacture the item quoted as per specification given in the tender form the competent authority.
3. Bids shall be submitted to M.D., Rajasthan Medical Services Corporation, Rajasthan, Jaipur through **<https://eproc.rajasthan.gov.in>** of Govt. of Rajasthan
4. The Bidder should submit along with the bids the following certificates for the items Bids
 - (i) Earnest Money, tender fee and processing fee shall be deposited through three separate prescribed challans (format enclosed in annexure-1) in any branch of the **Punjab National Bank, Account no. 2246002100024414 throughout the country.** The bidders shall submit scanned copy of the challans in Technical Bid (Cover-A).

OR

The Tender form fee Rs. 2000.00 (Rs. 1000.00 for SSI Units of Rajasthan) downloaded from the website shall be submitted in the form of D.D./Banker cheque in favour of M.D., RMSCL payable at Jaipur. The bidders are also required to deposit processing fee of Rs. 1000.00 in the form of D.D./Banker cheque in favour of M.D., RISL payable at Jaipur. The Tender fee, processing fee and EMD shall be deposited physically at the office of M.D., RMSCL, Jaipur before the last date and time of bid submission.

- (ii) (a) Duly attested photocopy of Acknowledgement of EM-II Memorandum/IEM/ Registration of SSI unit for the products duly approved by the licensing authority for every product quoted in the tender. The license should be renewed up to date.
- (b) For the Production Capacity and the quality control measures properly installed at the production unit- a certificate from NSIC (For Micro and small Scale Industrial units only) /MSME (Micro, Small, Medium Enterprises) is essential at the time of bid/agreement.

Signature of Bidder with seal



- (iii) Firm shall submit copy of the Registration with Central Excise Department, if applicable, as per provisions of Central excise Act. The Industries situated in excise free zones will be exempted from the registration provided they produce the copy of appropriate notification.
- (iv) In case of imported Equipments and Instruments Self attested photocopy of import license & license for sales issued by concerning licensing authority(Authorization by Foreign Principal), if applicable.
The bidder Should furnish attested photocopy of the valid License for the product duly approved by the Licensing authority for each and every product quoted as per specification in the bid. The license must have been duly renewed/valid up to date and the items quoted shall be clearly highlighted in the license.
- (v) Duly attested copy of Acknowledgement of EM-II issued by District Industry Center with an Affidavit as per Annex –J, under preference to Industries of Rajasthan, Rules in respect of stores for which they are registered.
- (vi) Duly attested photocopy of BIS license renewed up to date with respective schedule for ISI Marked quoted items, if applicable.
- (vii) Duly attested photocopy of ISO Certificate, if applicable.
- (viii) Dully attested photocopy of BIS/CE/USFDA/Govt. of India Lab Certificate or Govt. of India Approved Lab Certificate for quoted items as mentioned in bid Catalogue.
- (ix) Average Annual Turnover statement for past three financial years verified by the C.A. and notary public attested.
- (x) Copies of Balance Sheet & Profit & Loss statement certified by the Auditor (F.Y. 2009-10, 2010-11 & 2011-12), if asked for.
- (xi) Duly attested copy of latest Sales Tax clearance certificate (up to 31.03.2012) from the Commercial Tax Officer of the circle concerned from where supplies will be affected, shall be submitted.
- (xii) Declaration regarding point of supply with full address in Annexure- A.
- (xiii) Undertaking/Declaration- regarding installed manufacturing capacity, quoted item model is of latest technology & have not been outdated, rates are reasonable & not sold on lower rates to anyone than charge from this institution, non black listing & non-banning, non-debarring & availability of spare parts and consumable for the quoted equipment for at least 10 years from the date of installation must be submitted jointly on Non Judicially stamp paper of Rs. 200/- in Prescribed format at **Annexure-E** (Notarized) of each quoted item in the Tender.

Bid should not be submitted for the quoted article/articles for which the Firm/Company has been blacklisted/banned/debarred either by Bid Inviting Authority or Govt. of Rajasthan or by any other State/Central Govt. and its agencies. This also applies to the firm/company for its allied/ sister firms and units.

Signature of Bidder with seal

The concern/company/firm which stands blacklisted /banned/Debarred either by Bid Inviting Authority or Govt. Of Rajasthan or by any other State/Central Government on the date of bid submission shall not be eligible to participate in the bid.

(xiv) The declaration regarding non-conviction in Annexure-

(xv) The firm/bidders should submit the list of plant and machinery, staff, factory area, etc. on non-judicial stamp paper of Rs. 50/- (Notarized) in enclosed Performa **(Annexure-H)**.

NOTE: -

- (A) All above mentioned documents duly notarized/attested by Notary public must be submitted. Un-attested/ Un-notarized copies of such document will not be considered valid.
- (B) All attested document must be submitted in Hindi or English language. If the documents are not in Hindi or English, they should be translated in Hindi or English & attested by authorized translator. Translated copy along with copy of original document must be submitted.
- (C) Other than Sales tax clearance certificate, all above mention documents should be under the name & address of premises where the quoted items are actually manufactured.
- (D) The point of supply within the state of Rajasthan or out of Rajasthan should be specified under condition no. 4 (xi)(b).
- (E) tender will be liable for outright rejection if:-
 - (i) Any rates are disclosed in cover a.
 - (ii) Any discounts/ special offers are made in cover (A).
- (F) The Bidder may submit Profit & Loss account & Balance Sheet and annual turnover statement of the previous financial years.
- (G) If the following item/certificate not submitted, the bid will not be considered responsive:-
 - (i) Bid form Fees, processing fee and Bid Security.
 - (ii) Manufacturing License/Acknowledgment of Manufacturing License/EM-II from industry department/DIC/NSIC/ Competent Authority.
 - (iii) Import License along with authorization from foreign principals for Direct Importers
 - (iv) Turnover Certificate from CA.
 - (v) BIS Certificate/License in case of ISI marked items, if applicable.
 - (vi) Either duly signed scanned copy of **Annexure-B** in acceptance of terms & conditions or **Annexure-N**.

5. Financial Bid duly filled as per **Annexure-“D”** giving the rates for Quoted items should be submitted through portal [https:// eproc.rajabsthan.gov.in](https://eproc.rajabsthan.gov.in) only **(Format (BOQ) It should not be disclosed in Technical bid.**

Signature of Bidder with seal

NOTE :-

- (A) If any item in catalogue has different sizes, lengths, strength & sub group etc., Rates of each size, length, strength and sub-group must be filled in separate format (**Annexure "D"/ BOQ**) .
- (B) **VAT or CST** should be mentioned clearly & separately.
- (C) If the **VAT or CST** is exempted it should be specified in **Annexure 'D'**.
- (D) The bidder who has quoted excise “NIL” in PRICE Schedule and item becomes excisable afterwards at the time of award of contract or later on, firm will be eligible for payment only on production of invoices drawn as per Central Excise Rules.
- (E) **RMSC will issue C-form. “Therefore, concessional CST is applicable. The concessional rate of CST should be shown separately. VAT is exempted on RMSC medical equipment purchases.**

6. **The required Documents (Bid form Fee, Bid Security & RISL Processing Fee) shall be submitted** through prescribed challan (format enclosed in Annexure-1) in any branch of the Punjab National Bank, throughout country. The bidders shall submit scanned copy of the challan in Technical Bid (Cover-A). All received tenders will be opened in the presence of Bidder who chooses to be present. Financial bid will be opened only for those Bidders who satisfy the standard criteria laid down by the corporation on the details furnished by the Bidder in Technical bid, in compliance of Bid terms & conditions.
7.
 - (i) In event of Bid being submitted by proprietary firm tender must be signed by sole proprietor. In event of a partnership firm tender must be signed on its behalf by a person holding a power of attorney authorizing him to do so; and in the case of company, the bid must be signed by authorized signatory as the manner laid in the Articles of association.
 - (ii) Any change in the Constitution of the Firm/ Company shall be notified forthwith by the contractor in writing to the M.D., RMSC Ltd., Jaipur and such change shall not relieve any former member of the Firm/ Company from the liability under the contract. No new partner / partners shall be accepted in the Firm by the contractor in respect of the contract unless he/ they agree to abide by all its terms and conditions and submit with the M.D., Rajasthan Medical Services Corporation Ltd., D-Block, Swasthya Bhawan, C-scheme, Jaipur a written agreement to this effect. The contractors receipt for acknowledgement or date of any partner subsequently accepted as above shall bind all of them and will be a sufficient discharge for any of the purposes of the contract.
- 8 Bid documents shall be filled with ink or typed. The Bidder shall sign the bid form at each page and at the end in token of acceptance of all the terms and conditions of the Bidder and then scanned copy be uploaded on e-portal except BOQ (Annexure-D).
9. **BID SECURITY:**
 - (i) Bid shall be accompanied with an earnest money of Rs. 5,00,000/-(In words Rs. Five Lac Only) for Whole Tender Catalogue. The bid security shall be paid through separate prescribed challans (format enclosed in annexure-1) in any branch of the **Punjab National Bank, Account no. 2246002100024414 throughout country.** The bidders shall submit scanned copy of the challan in Technical Bid (Cover-A). Earnest Money may also be physically submitted Deposited in the form of DD/Banker cheque before the last date & time of Bid submission. The Bids submitted without sufficient bid security will be summarily rejected.
 - (ii) Refund of bid security: - The bid security of unsuccessful Bidder shall be refunded soon after finalization of the tender. Bidder has to produce a Pre stamp receipt as per **Annexure-I** with the bid Document.

Signature of Bidder with seal

- (iii) Partial exemption from bid security:- Firms which are registered as micro and SSI Unit of Rajasthan with Commissioner of Industries Rajasthan, shall furnish the amount of earnest money in respect of items for which they are registered as such subject to their furnishing attested copy of Acknowledgment of EM-II issued by DIC with an affidavit worth Rs. 10 as per annexure-J at the rate of Rs. 1,25,000/- (Rs. One Lac Twenty Five Thousand only) (For Whole Tender Catalogue).
- (iv) The central Government and Government of Rajasthan Undertakings need not furnish any amount of bid security. However, bid securing declaration shall be submitted.
- (v) The bid security deposit lying with the Corporation in respect of other tenders awaiting approval or rejected or on account of contracts being completed will not be adjusted towards earnest money for the fresh tenders. The bid security may, however, be taken into consideration in case tenders are re-invited for the same item.

10. FORFEITURE OF BID SECURITY: -

The bid security will be forfeited in the following cases:

- (i) When Bidder withdraws or modifies the offer after opening of tender but before acceptance of tender.
- (ii) When Bidder does not execute the agreement, if any, prescribed within the specified time or extended time by competent authority on the request of the Bidder.
- (iii) When the Bidder does not deposit the security money after the supply order is given.
- (iv) When he fails to commence the supply of the items as per supply order within the time prescribed.
- (v) When he fails to submit samples of quoted item on demand or extended time by competent authority on the request of the Bidder.
- (vi) When Bidder violates the any terms & conditions of the tender document.

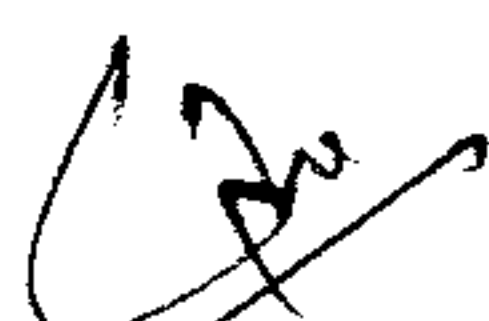
11. PREFERENTIAL TREATMENT:-

- (i) Indigenous products offered for supply by the manufacturer will get preferential treatment in the matter of approval subject to quality standards.
- (ii) ISI marked items will be preferred, if applicable.
- (iii) It may be noted that the corporation does not undertake to assist in the procurement of raw material whether imported or controlled as well as restricted and as such the Bidder must offer their rate to supply the specific items from own quota of stock by visualizing the prospect of availability of raw material needed. Any of the above points if taken, as argument for non-supply/delayed supply will not be entertained.

12. GUARANTEE CLAUSE:-

- (i) The Bidder would give guarantee that the goods/stores/articles would continue to conform to the description and quality as specified as per technical specification from the date of delivery/installation of the said goods/stores/articles to be purchased and that notwithstanding the fact that the purchaser may have inspected and/or approved the said goods/stores/articles if during the guarantee period as per technical specification, the said goods/stores/articles be discovered not to conform to the description and quality as afore said/ or have determined and the decision of the purchase officer in that behalf will be final and conclusive the purchaser will be entitle to reject the said goods/stores/articles or such portion thereof as may be discovered not to Conform to the said description and quality, on such rejection

Signature of Bidder with seal



the goods/stores/ articles will be at the sellers risk and all the provisions relating to rejection of goods, etc., Shall apply. The Bidder shall, if so called upon to do so replace the goods, etc. or such portion thereof as is rejected by the Purchase Officer, otherwise, the Bidder shall pay such damage as may arise by reason of such breach of the condition here in contained. Nothing here in contained shall prejudice any other right of the Purchase Officer in that behalf under this contract or otherwise.

- (ii) In case of machinery and equipment also guarantee will be given as mentioned in above the Bidder shall during the guarantee period replace parts if any and remove the manufacturing defect if found during the above period so as to make the machinery and equipment operative. The Bidder shall also replace machinery and equipment in case it is found defective which cannot be put to operation due to manufacturing defect etc.
- (iii) In case of machinery and equipment specified by the Purchase Officer the Bidder shall be responsible for carrying out annual maintenance and repairs on the terms & conditions as may be agreed. The Bidder shall also be responsible to ensure adequate regular supply of spare parts needed for a specific type of machinery and the equipments whether under their annual maintenance and repairs contract or otherwise. In case of change of model he will give sufficient notice to the Purchase Officer who may like to Purchase spare parts from them to maintain the machinery and equipment in perfect condition.
- (iv) Deleted.

13. MARKING

All non consumable articles (except glass or imported articles) like instruments, equipments and others accessories etc. should bear "GOVERNMENT OF RAJASTHAN" or as mentioned in supply order in English on each without which the supply will not be entertained.

In case, any item supplied by the approved firm does not conform to the required standard, the payment there of, if received by the supplier shall have to be refunded to the indenting officer/ M.D., Rajasthan Medical Services Corporation Ltd., Jaipur. The supplier will not have any rightful claim to the payment of cost for substandard supplies which are consumed either in part or whole pending receipt of laboratory test. It may be noted that supply of goods less in weight and volume than those mentioned on the label of the container is an offence and the same will be dealt with in the manner prescribed under rules.

14. RATES AND COMPARISON OF RATES:

Only net rates should be quoted. No Separate free goods or cash discounts should be offered. Rate must be valid for the entire period of the tender and must be offered conforming to the following: -

- (i) (a) Comparison of Rates: - In comparing the rates tendered by firm outside Rajasthan and those in Rajasthan but not entitled to Price Preference under the Rules, the element of Rajasthan VAT or CST shall be excluded whereas that of Central Sales Tax shall be included. The Concessional CST against 'C' form shall be applicable.
- (b) While comparing the rates in respect of firms within Rajasthan, the element of Rajasthan VAT or CST shall be excluded.
- (c) The Concessional CST is applicable and VAT is exempted on medical equipment purchases by RMSC.
- (ii) Delivery should be given as Directed by M.D., Rajasthan Medical Services Corporation Ltd., Jaipur. Situated at different place in Rajasthan and rate must be quoted accordingly, the department will pay no cartage or transportation charges.

Signature of Bidder with seal

- (iii) Rates must be offered net only against the specified packing of the items. The net rate must be inclusive of all charges by way of packing, forwarding, incidental or transit charge including transit insurance and any other levies or duties etc. charge on the product except *VAT or CST*. If rates are quoted giving any free goods quantity or cash discounts the same shall not be considered.
- (iv) Only *VAT or CST* and surcharge if applicable will be paid over net rate.
- (v) Excise duty or surcharge prevailing on the date of submission of the rate must be included in the net rate and should also be shown separately in col. 8 of the Financial Bid (**Annexure- D**). In the event of any subsequent variation (increase or decrease) in excise duty and *VAT or CST* by the government (State or central) the same will be modified accordingly.
- (vi) Other statutory increase or decrease shall be agreed upon mutually between Corporation and contractor and revised rate shall be applicable to order received by the contractor on or subsequent to the date of such increase/decrease in government duty.
- (vii) The rates should be confined as far as possible to the packing units mentioned in the catalogue and different rate for different packing should be avoided. In no case the rate should be split up showing the cost of any on the component parts of the specified item. If split price are found, the item may be treated as rejected. If the prices of item found same from two or more bidders then the equivalent bidders shall be asked to submit their financial bid again with reduced prices within given time by RMSC.
- (viii) The rates must be written both in words and figures. In case of discrepancy between the prices quoted in words and in figures, lower of the two shall be considered. There should not be errors or overwriting and corrections, if any, should be made clearly and initialled with dates. Element of the Rajasthan *VAT or CST* or Central Sales Tax should be mentioned separately.
- (xi) The Bidder will exercise all due diligence at their own level regarding applicability of taxes, duties and fees etc. for the unit of supplies as specified in the tender and accordingly include in their quote. Any additional/extra claims over and above the rates agreed pertaining to taxes, duties and fees etc. will not be entertained on account of whatever reasons may be.
- (x) (A) No paper should be detached from the tender form.
(B) The Bidder shall sign with seal on every page of the bid form and Terms & Conditions (**Annexure-B & N**) in token of his acceptance of all the Terms & Conditions of the bid and upload the same along with bid documents. He should also sign at the bottom of each page of the original bid catalogue, Non receipt of terms and conditions duly signed with the bid shall render the bid to be rejected.
- (xi) Any change or insertion of any other condition or stipulation in the above terms of supplies are not allowed and if so found, shall render the tender to the rejection without notice.
- (xii) For comparison of rates the average comprehensive annual maintenance charges per year shall be added to the net rate of equipments, if CAM (Comprehensive Annual Maintenance) is applicable.

NOTE :- Specification in Financial Bid [**Annexure-D, (BOQ)**] should not be differ from the original tender catalogue specification, otherwise bid may liable to be rejected.

Signature of Bidder with seal

15. APPLICABILITY OF TAXES:

Only one kind of the sales tax will be payable whether Rajasthan *VAT or CST* or Central Sales Tax depending on the relative station of supply as the case may be. The Concessional CST is applicable and VAT is exempted on medical equipment purchases by RMSC

16. SUBMISSION AND RETURN OF SAMPLES & DEMONSTRATIONS:

- (i) Samples must be sent of all the quoted items free of cost on demand by RMSC even though the specifications or descriptions etc. are mentioned in the bid form. No sample will be accepted after prescribed period. In the event of non submission of samples within the prescribed period on demand, the tender shall not be considered and Earnest Money shall be forfeited. However, RMSC may grant extension of time for submission of samples on the request of Bidder.
- (ii) Samples of equipments & instrument of the unsuccessful Bidder may be collected back from the E.D. (EPM), RMSC, Jaipur within the period intimated by him. The corporation will not be responsible for any damage, wear and tear or loss during the course of testing examination etc. The corporation for a period of one month would retain sample of approved items after the expiry of contract. The corporation shall not be responsible for any damage, wear & tear or loss in stipulated period. The corporation will not make any arrangement for return of samples even if the Bidder agrees to pay the cost of transportation. The uncollected samples shall stand forfeited to the corporation after the period allowed for collection and no claim for cost etc. shall be entertained.
- (iii) The tender may be asked to demonstrate the technique, procedure and utility of equipment as per specification of tender document before the technical committee of corporation at store of corporation.
- (iv) Samples should be strictly according to the item quoted in the tender form failing which these will not be considered. Such sample must be delivered free of charge to the E.D. (EPM), RMSC, Jaipur, or any authorized/designated officer by M.D. RMSCL to be conveyed while placing order. Sample must be submitted duly sealed and marked suitably either by writing on the sample or on a slip or durable paper securely fastened to the sample with the particulars as mentioned below:-
 - (A) Name and full address of the firm.
 - (B) Catalogue No. and name of item.
 - (C) Name of section.
 - (D) Name of manufacturer
 - (E) Brand
- (v) No change in marking on samples will be allowed after the submission of the sample. Samples should be submitted along with separate challan in triplicate. Samples without challan will not be accepted.

17. SECURITY DEPOSIT & AGREEMENT:

- (i) All firms whose offers are accepted will have to deposit a security of minimum Rs. 5.00 lacs for each item in favor of M.D., Rajasthan Medical Services Corporation Ltd., Jaipur at the time of agreement. The SD shall be deposited in the form of DD/Banker cheque/ BG. However the minimum amount of BG shall be 10.00 lacs with a validity period of 30 months. The security amount shall in no case be less than the earnest money.

Signature of Bidder with seal

- (ii) The firm may submit Bank Guarantee issued by any scheduled bank. The minimum validity of bank guarantee should be thirty months or up to 6 months after completion of guarantee period of item.
- (iii) The S.D. shall be 5% of the total value of stores ordered for supply. If the total value of stores supplied by the firm to various consignees as directed by M.D. RMSC Ltd., Jaipur is exceeded 100.00 lacs, the firm shall deposit an additional 5% security of value of supply orders exceeding amount to 100.00 lacs to M.D., Rajasthan Medical Services Corporation Ltd., Jaipur. Before ensuring the security deposit, the Purchase Officer will not release payment until the additional S.D. amount deposited by the suppliers. Additional S.D. shall be estimated/calculated based on the information submitted by firms in statement no. "I" and "II". Supply orders shall only be placed after appropriate deposition or adjustment of S.D. by RMSC.
- (iv) The earnest money (bid security) of successful Bidder will be adjusted toward security deposit. The bidders shall submit scanned copy of the challan/DD/Banker cheque in Technical Bid (Cover-A).
- (v) The security will be refunded after six months from the date of expiry of the contract on satisfactory completion of contract and after satisfying that there are no dues outstanding against the Bidder subject to CMA provisions.
- (vi) Firms which are registered as micro and SSI units with the Department of Industries, Rajasthan shall furnish the amount of security deposit @1% of total value of approximate quantity as per tender catalogue on furnishing attested copy of Acknowledgment of EM-II issued by DIC with an affidavit as per annexure-I. Provision of 17 (ii) also applies.
- (vii) It is to be noted that earlier years earnest money/security deposit, even if lying in this department, shall not be considered towards this contract and therefore fresh security deposit should be furnished.
- (viii) The supply orders shall only be placed after deposition of appropriate amount of S.D. and its adjustment orders by the Corporation.
- (ix) The department will pay no interest on security deposit/Earnest money deposit.
- (x) Successful Bidders will have to execute an agreement on a Non Judicial Stamp Paper Rs. (As mention in Offer letter) in the prescribed form with the M.D./ E.D.(EPM), Rajasthan Medical Services Corporation Limited, Jaipur and deposit security for the performance of the contract within **15 days** from the date on which the acceptance of the tender, under Registered post, is communicated to him. However, M.D. RMSC Ltd., Jaipur may condone the delay in execution of contract by the Bidder. The expenses of completing and stamping the agreement shall be paid by the Bidder and the department shall be furnished free of charge with one executed stamped counter part of the agreement. The validity of rate contract under this agreement shall be for a period of one year from the day of issuance of offer letter (acceptance of rate offer).
- (xi) The Bidder shall furnish the following documents at the time of execution of agreement:-
 - (i) Attested copy of Partnership Deed in case of Partnership Firms.
 - (ii) Registration Number and year of registration in case partnership firm is registered with Registrar of Firms.

Signature of Bidder with seal

- (xii) Address of residence and office, telephone numbers in case of Sole Proprietorship.
- (iv) Registration issued by Registrar of Companies in case of Company.
- (v) Comprehensive maintenance agreement, if applicable.
- (xiii) The M.D., RMSC Ltd., Rajasthan, Jaipur can extend the original rate contract, subject to original Terms and Conditions for a period deemed fit by him, but not exceeding six months, for which the Bidder will have to abide. However the extension beyond six months can be granted on mutual consent but not beyond one year. The maximum whole period limited to two years for a Rate contract. The maximum period for a rate contract limited to two years.
- (xiv) In case of breach of any terms and conditions of the contract or on unsatisfactory performance, the amount of security deposit shall be liable to forfeiture in full or part by M.D. RMSC Ltd., Jaipur and decision of M.D. RMSC Ltd., Jaipur shall be final.
- (xv) Central and Rajasthan State Government Undertakings need not to furnish amount of Security Deposit.
- (xvi) The 25% of total deposited S.D. amount shall be withheld against the security of supplementary (CMA) agreement. If there is any default in comprehensive maintenance service the department may forfeit the compensation amount described under different clauses or any other recovery from this security deposit.
- (xvii) The rate contract cum supply can be repudiated at any time by the M.D., RMSC Ltd., Rajasthan, Jaipur if the supplies are not made to his satisfaction after giving an opportunity to the Bidder of being heard and after reasons for repudiation being recorded by him in writing. However, M.D., RMSC may terminate agreement of rate contract at any time without notice/intimation to Bidder/ firm/company in public interest.

18. SUPPLY ORDERS:

- (i) All the supply orders will be placed to the approved supplier only (not Agents/ Suppliers/Distributors etc.) by M.D., RMSCL/ E.D.(EPM) RMSCL/ Any heads of medical institutions (PMO, MS, PMO, CM&HO, etc. Authorized by RMSCL) through registered post/e-mail/any communication media and the date of dispatch or any communication media date will be treated as the date of order for calculating the period of execution of goods deliveries. The supplying firms will execute all orders within 60 Days.
- (ii) In case of imported items 15 days will be given in addition to above mention period at condition No. 18 (i) above.
- (iii) The consignee for supplies shall be the M.D. RMSC and his designated officer in-charge of the any medical institution in the state of Rajasthan. The M.D. NRHM, Director (PH), (RCH)/ HA/ IEC/ Aids/ ESI/ Principal of Medical Colleges & superintendent of their attached hospitals/CM&HO/PMO's/DPC of DDW etc.
- (iv) To ensure sustained supply without any interruption, the Tender Inviting Authority have reserves the right to fix more than one approved supplier to supply the requirement among the qualified Bidders.
- (v) The supply commitment as per **Annexure-E** may be considered for placement of supply orders to firm. The ready stock position of material, if provided by the firm may also be considered by the department for the placement of supply orders in addition to commitments, taking also in view the requirement of department. Firm may submit ready stock position by the 10th of each month to the department.
- (vi) The quantity indicated in the catalogues are mere estimates and are intended to give an idea to the prospective Bidder to enable them to decide whether they will undertake to supply the article to this Corporation on most competitive rates. The figures indicated in the catalogue do not constitute any commitment on the part of corporation to purchase any of the articles in the quantities shown therein against each or in any quantity whatsoever. It is further made clear that the Corporation does not bind itself to purchase all or any quantity mentioned in the catalogue and no objection against the quantity of the indent of approved item being more or less than the approximate quantity will be entertained and shall not be acceptable as a ground for non supply on the quantity indented.

Signature of Bidder with seal

- (vii) **Price Preference:** - Price preference/ purchase preference will be given to the goods produced or manufactured by industries of Rajasthan over goods produced or manufactured by Industries outside Rajasthan as per Purchase of Stores (Preference to Industries of Rajasthan) Rules, 1995 and approved by Board. It is clarified that purchase preference only be granted to the industries of Rajasthan. Purchase preference admissible to the PSUs of the state of Rajasthan and to the SSI of the state of Rajasthan, together shall not exceed 25% (10% for PSUs and 15% of SSI units). However these units will be required to participate in tendering process and match lowest price (L-1).

19. SUBMISSION OF RETURN AND CONTRACT COMPLETION REPORT:-

(a) Submission of Return:

The firm shall furnish consolidated statement (**Annexure-K**) of supplies made, in enclosed formats to each consignee (S) in statement No.1 and to ED EPM, RMSCL by 10th of each month duly verified by the consignee(s). Every time the statement should contain details of all orders placed under the contract. Please note that if statements are not submitted in time then the payments may be withheld and the firms shall be responsible for such delay in payments. Firms will have to submit consolidated statement No.II in duplicate at the end of R/C as well as after expiry of material guarantee period (as provided in guarantee clause of the contract) to enable the Corporation to examine the case for refund of security money. The consignee will submit every month verified copy of statement No.1 (**Annexure-K-I**) along with his comment to ED EPM, RMSCL for monitoring of receipt of supplies.

(b) Submission Of Contract Completion Report: -

- (i) The consignee should submit the consolidated contract completion report in the prescribed statement no. II (**Annexure-K-II**) against each order to the ED (EPM), RMSCL within 30 days of supply/ receipt of material.
- (ii) The consignee shall maintain a register for item supplied to him and will monitor receipt of material, complaints (if any) of defective material, quantity received quality/performance and submission of completion report to ED EPM, RMSCL within one months of receipt of material.
- (iii) It shall be the responsibility of the consignee to get registered the complaint of defective material or defective performance immediately in the office of ED (EPM), RMSCL/MD, RMSCL for taking action against the contractor/supplier. Intimation to the contractor/supplier shall also be sent by the consignee immediately just after noticing such defects in material/performance in such a manner, so as to reach in the office of the firm immediately and before completion of guarantee period. Any delay in taking action shall be viewed seriously by the corporation.

20. TERMS OF PAYMENT:-

Payment shall be released after installation, demonstration of machine and required training satisfactorily. The payment shall be made provided material is received duly inspected within the stipulated delivery period at stores in perfect condition and as per specifications. In case of delayed supplies, deduction of L.D. charges as per provisions shall be made from payments. The firms shall seek time extension from authorities (M.D., RMSCL Ltd., Rajasthan, Jaipur) before dispatching the delayed material. Unless otherwise agreed between the corporation and the firm payment for the delivery of the stores will be made on submission of bills in proper form by the firm. Payment can also be made by account paying bank demand draft on request but bank commission charges or any remittance charges shall be borne by the firm. The payment may be made by M.D., RMSCL or the authorized purchasing officer by RMSCL.

Signature of Bidder with seal

1. No advance payments towards cost of items will be made to the Bidder.
2. All bills/Invoices should be raised in triplicate and in the case of excisable items, the bills should be drawn as per Central Excise Rules in the name of the authority as may be designated by M.D., RMSCL. The **Annexure-K-I** shall be attached with bills.
3. If at any time during the period of contract, the price of tendered items is reduced or brought down by any law or Act of the Central or State Government or by the Bidder himself, the Bidder shall be bound to inform M.D., RMSCL, Jaipur immediately about it. Purchasing authority empowered to unilaterally effect such reduction as is necessary in rates in case the Bidder fails to notify or fails to agree for such reduction of rates.
4. In case of nay enhancement in Excise Duty due to notification of the Government after the date of submission of tenders and during the tender period, the quantum of additional excise duty so levied will be allowed to be charged extra as a separate item without any change in the basic price structure of the items approved under the tender. For claiming the additional cost on account of the increase in Excise Duty, the Bidder should produce a letter from the concerned Excise authorities for having paid additional Excise Duty on the goods supplied to ordering authority and also must claim the same in the invoice separately. Similarly if there is any reduction in the rate of excise duty of items, as notified by the Govt., after the date of submission of tender, the quantum of the price to the extent of reduction of excise duty of items will be deducted without any change in the basic price structure of the items approved under the tender.
5. In case of successful bidder has been enjoying excise duty exemption on any criteria of Turnover etc., such bidder will not be allowed to claim excise duty at later point of time, during the tenure of contract, if the excise duty become chargeable on goods manufactured due to any reason.

21. LIQUIDATED DAMAGES:

- (i) The time specified for delivery in the tender form shall be deemed to be the essence of the contract and the successful Bidder shall arrange supplies within the period on receipt of order from the Purchasing Officers.
- (ii) In case of extension in the delivery period with liquidated damages the recovery shall be made on the basis of following percentages of value of Stores which the Bidder has failed to supply :-
 - (a) Delay up to one- fourth period of the prescribed Delivery Period - 2.5%
 - (b) Delay exceeding one fourth but not exceeding half of the Prescribed delivery period - 5%
 - (c) Delay exceeding half but not exceeding three- fourth of the Prescribed delivery period - 7.5%
 - (d) Delay exceeding three- fourth of the prescribed period -10%
- (iii) Fraction of a day in reckoning the period of delay in supplies shall be eliminated if it is less than half a day.
- (iv) The maximum amount of agreed liquidated damage shall be 10%.
- (v) If the supplier requires an extension of time in completion of contractual supply on account of occurrence of any hindrance, he shall apply in writing to M.D. RMSC Ltd., Jaipur, which has placed the supply order, for the same immediately on occurrence of the hindrance but not after the stipulated date of completion of supply. The firms shall ensure extension of delivery period for delayed supplies. The payment shall only released by purchase officer after sanction of extension in delivery period by M.D., RMSC.
- (vi) Delivery period may be extended with or without liquidated damages. If the delay in the supply of goods is on account of hindrances beyond the control of the Bidder, the extension in delivery period may be granted without Liquidated Damage.

Signature of Bidder with seal

- (vii) If the Bidder is unable to complete the supply within the specified or extended period, the purchasing officer shall be entitled to purchase the goods or any part thereof from elsewhere without notice to the Bidder on his (i.e., Bidders) account and risk only with the prior approval from M.D., RMSC Ltd., Jaipur. The Bidder shall be liable to pay any loss or damage which the purchasing officer may sustain by reasons of such failure on the part of the Bidder.

The Bidder shall not be entitled to any gain on such purchases made against default. The recovery of such loss or damage shall be made from any sums accruing to the Bidder under this or any other contract with the government. If recovery is not possible from the bill and the Bidder fails to pay the loss or damage, within one month of the demand, the recovery of such amount or sum due from the Bidder shall be made under the Rajasthan Public Demand Recovery Act 1952 or any other law for the time being in force. In case more than one supplier has been approved for any item under the approved list circulated to the purchasing officers, the risk purchases may be made at a higher rate from any other firm whose rate is duly approved. It is mandatory for the approved supplier to acknowledge receipt of orders within fifteen days from the date of dispatch of order, failing which the purchasing officers will be at liberty to initiate action to purchase the items on risk purchase system at the expiry of the prescribed supply period. After taking required approval from M.D., RMSC Ltd., Jaipur

22. MEDICAL COLLEGES AND THEIR ATTACHED HOSPITALS:-

- (i) The following medical colleges and their attached hospitals may place purchase orders only after specific authorization by the RMSCL :-
- a. S.M.S. medical college, Jaipur and attached hospitals.
 - b. Dr. S.N. Medical College, Jodhpur and attached hospitals.
 - c. Government Medical College, Kota and attached hospitals.
 - d. Jawaharlal Nehru Medical College, Ajmer and attached hospitals.
 - e. RNT Medical College, Udaipur and attached hospitals.
 - f. Sardar Patel Medical College, Bikaner and attached hospitals.
- (ii) The concerned Principals and Superintendents are required to obtain additional S.D. or obtain SD adjustment order for their demands and authorization from M.D., RMSC Jaipur, for placement of supply orders, as per their requirement.

23. RECOVERIES:-

- (i) Recoveries of liquidated damages, short supplies, breakage, rejected articles shall ordinary be made from bills. Such amount may also be recovered from any other untied dues & security deposits available with department. In case recovery is not possible, recourse will be taken under Rajasthan PDR Act or any other law in force.
- (ii) Any recovery on account of L.D. charges/risk & cost charges in respect of previous rate contracts/supply orders placed on them by the corporation can also be recovered from any sum accrued against this tender after accounting for untied sum or due payment sum lying with corporation against previous rate contracts/supply orders. Firm shall submit details of pending amount lying with corporation but decision of M.D., RMSC Ltd., Jaipur regarding authenticity of sum payable shall be final.

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24. INSPECTION:-

- (i) The material will be supplied according to specification provided at Annexure 'C' and shall be inspected by the agency/committee as mentioned in the supply order or amended thereafter by competent authority. In case of BIS Items, inspection shall be strictly as per relevant BIS specifications with latest amendments and have been made applicable by B.I.S. at the time of inspection. The inspection and testing of the material may be got done by any Inspecting agency at the works of the Manufacturer or at site of installation. The supplier shall provide all facilities for inspection/testing free of cost.
- (ii) Notwithstanding the fact that the authorized inspecting agency had inspected and/or has approved the stores/articles, the purchase officer or his duly authorized Expert/Doctor, not below the rank of Medical officer/ Accountant, shall inspect the material as soon as it is received in the stores to ensure that the material is in accordance with the specifications laid down in rate contract on the basis of physical inspection such as followings including test reports submitted by concerned supplier/inspection agency.
- (iii) In case of doubts in any specific test, same may be got conducted in any laboratory as per guide lines issued by rate contract concluding authority. If the material is found below specification or defective, he will not accept the material and shall notify the defects to the firm and inspecting agency within 15 days. He shall also simultaneously ask the firm for removal of defect/replacement or refund of its cost as the case may be. The firm shall be bound to replace the defective material after inspection or remove defects in the goods within one month of receipt of intimation from the consignees. However the date of delivery, in case of defective material, where payment has not been made shall be taken as the date on which the corporation accepts the material after replacement of defective material/removal of defects as the case may be. Wherever defective material is to be replaced it shall be Inspected by Committee/ Inspection Agency. Charges of such re-inspection shall be borne by as per agreement with inspection agency/supplier.
- (iv) If required, the consignee may refer inspection committee to match the specification with available reserved sample with the corporation which is submitted by the firm/supplier at the time of technical approval.
- (v) The firm shall ensure that only the material inspected by the Inspection Agency is dispatched to the consignee. In case any un-inspected material has been found in the material received by consignee, the firm shall be solely responsible for it and the department shall be free to take suitable necessary action as per terms and conditions of tender documents/agreement against the firm for such irregularity.

25. PACKING & INSURANCE:

- (i) The good will be delivered at the destination in perfect condition. The firm if so desires may insure valuable goods against loss by theft, destruction or damages by fire, flood, under exposure to weather or otherwise in any situation. The insurance charges will have to be borne by the supplier and the department shall not be required to pay any such charges, if incurred.

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- (ii) The firm shall be responsible for the proper packing so as to avoid damages under normal conditions of transport by Sea, Rail, Road or Air and delivery of material in good condition to the Purchase Officer's store. In the event of any loss, damage, breakage or leakage or any shortage the firm shall be liable to make good such loss and shortage found at destination after the Checking/inspection of material by the consignee. No extra cost on such account shall be admissible. The firm may keep its agent to verify any damage or loss discovered at the consignee's store, if it so likes.
- (ii) Packing, cases, containers and other allied material if any shall be supplied free, except where otherwise specified by the firm(s) and agreed by the corporation and the same shall not be returned to him.
- (iii) **PACKING SPECIFICATIONS:**
 - I. Schedule For Packaging-General Specifications**
 1. No corrugate package should weigh more than 15 kgs (ie, product + inner carton + corrugated box.)
 2. All Corrugated boxed should be of 'A' grade paper i.e., Virgin.
 3. All items should be packed only in first hand boxes only.
 4. **Flute:** The corrugated boxes should be of narrow flute.
 5. **Joint:** Every box should be preferably single joint and not more than two joints.
 6. **Stitching:** Every box should be stitched using pairs of metal pins with an interval of two inches between each pair. The boxes should be stitched and not joined using calico at the corners.
 7. **Flap:** The flaps should uniformly meet but should not over lap each other. The flap when turned by 45-60° should not crack.
 8. **Tape:** Every box should be sealed with gum tape running along the top and lower opening.
 9. **Carry Strap:** Every box should be strapped with two parallel nylon carry straps (they should intersect).
 10. **Label:** Every corrugated box should carry a large outer label at least 15cms. 10cms dimension clearly indicated that the product is for "Rajasthan Govt. Supply - Not For Sale" and it should carry the correct technical name, strength or the product, date of manufacturing, date of expiry, quantity packed and net weight of the box in bold letters as depicted in Enclosure II to Annexure-VI of this document.
 11. **Other:** No box should contain mixed products or mixed batches of the same product.
 - II. Specifications For Chemicals**

Not more than 25 kg may be packed in a single bag/carton.

26. REJECTION:

- (i) Articles not as per specification/ or not approved shall be rejected by the department and will have to be replaced by the supplier firm at its own cost within the time limit fixed by the corporation.
- (ii) All the stores supplied shall be of the best quality and conforming to the specification, trademark laid down in the schedule attached to agreement and in strict accordance with and equal to the approved, standard, samples. In case of any material of which there are no standards or approved samples, the supply shall be of the best quality to be substantiated by documents. The decision of M.D., RMSC Ltd., Jaipur as to the quality of stores be final and binding upon the Bidder. In case any of the article supplied are not found as per specification or declared sub-standard/spurious, they shall be liable to be rejected and any expenses of loss caused to the supplier as a result of rejection of supplies shall be entirely at his account.
- (iii) If, however, due to exigencies of Government work/interest such replacement either in whole or in part is not considered feasible, the prices of such articles will be reduced suitably. In cases where material has been used & some defect are noticed then the firm can be allowed to rectify/replace defects in portion of such defective material. The prices fixed by M.D., RMSC Ltd., Rajasthan Jaipur shall be final.

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- (iv) The rejected materials must be removed by the firm, within 15 days of the date of intimation of rejection. The officials concerned will take reasonable care of such material but in no case shall be responsible for any loss, damage, shortage that may occur while it is in their premises.
- (v) No payment shall be made for defective materials. However, if payment has been made, then defective material shall be allowed to be removed only after the firm replaces material as per specifications, duly inspected. If the payment has not been made, the firm may be allowed to remove the material without prior replacement (provided firm has deposited Security money as per condition no. 20) Joint inspection of defective material may be carried out as required by the corporation. However sample of ISI marked material found defective shall be kept by consignee for reference to BIS.
- (vi) In case firm wants to take back material to their works for rectification then firm has to deposit payment received against such defective supplies. In case supplier firm has not received any payment then material be returned to supplier firm for rectification, if then firm has deposited required security deposit as per contract.
- (vii) The Bidder shall be responsible for the proper packing and delivery of the material to the consignee. In the event of any loss, damage, or breakage, leakage or shortage, the Bidder shall make good the loss and shortage found at the checking of the materials by the consignee. No extra cost on such account shall be admissible.

27. CORRECTION OF ARITHMETIC ERRORS:

Provided that a financial bid is substantially responsive, the procuring Entity will correct arithmetical errors during evaluation of Financial Bids on the following basis:

- (i) If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the Procuring Entity there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected;
- (ii) If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and.
- (iii) If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to clause (a) and (b) above.

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

28. PROCURING ENTITY'S RIGHT TO VARY QUANTITY:

- (i) The quantity of equipments originally indicated in the bidding document may vary without any change in the unit prices and other terms and conditions of the bid and the conditions of contract.
- (ii) If the RMSCL procures less than the quantity indicated in the bidding documents the bidder shall not be entitled for any claim or compensation except otherwise provided in the conditions of contract.
- (iii) If the Bidder fails to supply the RMSCL shall be free to arrange/procure the items and the extra cost incurred shall be recovered from the Supplier.

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29. DIVIDING QUANTITIES AMONG MORE THAN ONE BIDDER AT (IN CASE OF PROCUREMENT OF GOODS):

As a general rule all the quantities of the subject matter of procurement shall be procured from the bidder, whose bid is accepted. However, when it is considered that the quantity of the subject matter of procurement to be procured is very large and it may not be in the capacity of the bidder, whose bid is accepted, to deliver the entire quantity or when it is considered that the subject matter of procurement to be procured is of critical and vital nature, in such cases, the quantity may be divided between the bidder, whose bid is accepted and the second lowest bidder or even more bidders in that order, in a fair, transparent and equitable manner at the rates of the bidder, whose bid is accepted.

30. PARALLEL RATE CONTRACT:

The corporation may also execute parallel rate contract to with more than one firm for each item on the lowest approved prices on the same terms & conditions, if the original lowest one each not in a position to supply material as per department's requirements.

- (i.) To ensure sustained supply without any interruption, the Tender Inviting Authority reserves the right to fix more than one supplier to supply the requirement among the qualified Bidders.
- (ii.) Orders will be placed with lowest-1 (L-1) firm. However in case of any exigency at the discretion of the Tender Inviting Authority, the orders may also be placed with the other firms, in the ascending order, L-2, L-3 and so on who have matched with the L-1 rates and executed agreement with corporation on same terms & conditions.
- (iii.) After the conclusion of Price Bid opening (cover-B) the lowest offer of the Bidder is considered for negotiations and rate arrived after negotiations is declared as L-1 rate and L-1 supplier for an item for which the tender has been invited.
- (iv.) The tender who has been declared as L-1 supplier for certain item shall execute necessary agreement for the supply of the tendered quantity of such item as specified in the tender documents on depositing the required amount performance security and on execution of the agreement such Bidder is eligible for the placement of purchase orders.
- (v.) RMSC will inform the L-1 rate to the Bidders who had qualified for Price Bid (Cover-B) opening, inviting their consent to match with the L-1 rate for the item/items quoted by them and the Bidders who agree to match L-1 rate, will be considered as Matched L-1.
- (vi.) The Bidder, who agrees to match L-1 rate shall furnish the breakup detail (Rate, CST, VAT etc.) of price (L-1 rate).
- (vii.) The supplier, on receipt of the purchase orders deems that the purchase orders exceeds the production capacity declared in the tender documents and the delay would occur in executing the order, shall inform the RMSC immediately without loss of time and the purchase orders shall be returned within 7 days from the date of issuing order, failing which the supplier would be deprived from disputing the imposition of liquidated damages, and penalty for the delayed supplies.
- (viii.) If the L-1 supplier has failed to supply/ intimated RMSC about his inability/ delay in supply as per the purchase order, the required items within the stipulated time or as the case may be, RMSC may also place purchase orders with the Matched L-1 Bidders for purchase of the items provided such matched L-1 Bidders shall execute necessary agreement indicating the production capacity as specified in the tender document on depositing the required amount . Such Bidder is eligible for the placement of purchase orders for the item quoted by them.

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- (ix) Subject to para (vii) above, while RMSC has chosen to place purchase orders with matched L-1 supplier and there are more than one such matched L-1 supplier, then the purchase orders for the requirement of items will be place with L-2 first on matched rates of L-1 and in case L-2 does not have the required capacity than L-3 would be considered on matched L-1 rates and the same order would be followed in case of L-3, L-4 etc.
 - (x) The matched L-1 supplier, on placement of purchase orders, will be deemed as L-1 rate supplier for the purpose of the tender and all provisions of the tender document applicable to L-1 rate Bidder will apply mutatis mutandis to the matched L-1 supplier.
- (x.) If the supplier fails to supply the item for the purchase orders, at any point of time, either fully or partly, within the stipulated time, RMSC is at liberty to place purchase orders with other Bidders (in ascending order, viz, L-2, L-3 and so on) at the price offered by then and in such cases the supplier is liable to indemnify RMSC, WITH OUT ANY PROTEST OR DEMUR, for the difference in cost incurred by RMSC and the RMSC is entitled to recover the difference in cost from the amount due/payable to the supplier.
- (xi.) The supplier shall supply the entire ordered quantity before the end of 45 days including installation from the date of issue of purchase order at the destinations mentioned in the purchase order, if the above day happened to be a holiday for RMSC, the supply should be completed by 5.00 p.m. on the next working day.
- (xii.) In case of imported items 15 days will be given in addition to above mention period.

31. VALIDITY OF TENDER:

Tenders shall be valid for a period of 90 days from the date of opening of financial bid and may be extended for further 90 days with mutual consent of firms.

32. PRICE ESCALATION:

Price Escalation or Price Variation shall not be applicable or considered under any circumstances for the purchases made under this tender or agreement. However, the provisions provided for tax variations are exclusive to this clause.

33. SUBLETTING OF CONTRACT:

Subletting or assigning contract to third party is prohibited. In the event of Bidder violating this condition, the M.D., Rajasthan Medical Services Corporation, Jaipur shall be at liberty to place the contract elsewhere on the Bidder's account and at his risk. The Bidder shall be liable for any loss or damage, which the Government may sustain in consequence or arising out of such replacement of the contract.

34. FALL CLAUSE:-

The prices charged for the Store supplies under the contract by successful Bidder shall in no event exceed the lowest price at which the successful Bidder sells the stores of identical description to any other persons during the period of the contract. If any time, during the period of the contract, the Bidder reduces the sales price chargeable under the contract, he shall forth with notify such reduction to the M.D., RMSCL, Jaipur and the price payable under the contract of the stores supplied after the date of coming into force of such reduction or sale shall stand correspondingly reduced.

Signature of Bidder with seal

35. COMPREHENSIVE MAINTENANCE AGREEMENT (CMA):-

If required, firm shall execute a CMA with the RMSC as described in **Annexure-L** and guarantee clause. The rates for maintenance shall be applicable as quoted in **[Annexure-D, (BOQ)]**. CMA will only be commence after the guarantee period and on a written request made by the concerned purchase officer to the firm. The firm shall abide itself by the terms & conditions of CMA.

36. GRIEVANCE REDRESSAL DURING PROCUREMENT PROCESS:

- (1) The Designation and address of the First Appellate Authority is The Secretary, Department of Medical & Health (MD, NRHM), or as decided by the Govt. of Rajasthan.
- (2) The Designation and address of the Second Appellate Authority is Principal Secretary, Medical, Health & Family Welfare, Govt. of Rajasthan and Chairman, RMSCL, or as decided by the Govt. of Rajasthan.

(i) Filing an appeal

If any Bidder or prospective bidder is aggrieved that any decision, action or omission of the Procuring Entity is in contravention to the provisions of the Act or the Rules of the Guidelines issued there under, he may file an appeal to First Appellate Authority, as specified in the Bidding Document within a period of ten days from the date of such decision or action, omission, as the case may be, clearly giving the specific ground or ground on which he feels aggrieved:

Provided that after the declaration of a Bidder as successful the appeal may be filed only by a Bidder who has participated in procurement proceedings:

Provided further that in case a Procuring Entity evaluates the Technical Bids before the opening of the Financial Bids, an appeal related to the matter of Financial Bids may be filed only by a Bidder whose Technical Bid is found to be acceptable.

- (ii) The Officer to whom an appeal is filed under Para (1) shall deal with the appeal as expeditiously as possible and shall Endeavour to dispose it of within thirty days from the date of the appeal.
- (iii) If the officer designated under Para (1) fails to dispose of the appeal filed within the period specified in Para (2), or if the Bidder or prospective bidder or the Procuring Entity is aggrieved by the order passed by the First Appellate Authority, the Bidder or prospective bidder or the Procuring Entity, as the case may be, may file a second appeal to second Appellate Authority specified in the Bidding Document in this behalf within fifteen days from the expiry of the period specified in Para (2) or of the date of receipt of the order passed by the First Appellate Authority, as the case may be.

(iv) Appeal not to lie in certain cases

No appeal shall lie against any decision of the Procuring Entity relating to the following matters, namely:-

- (a) Determination of need of procurement;
- (b) Provision limiting participation of Bidders in the Bid process;
- (c) The decision of whether or not to enter into negotiations;
- (d) Cancellation of a procurement process;
- (e) Applicability of the provisions of confidentiality.

Signature of Bidder with seal



(v) Form of Appeal

- (a) An appeal under Para (1) or (3) above shall be in the Form (Annexure-O) along with as many copies as there are respondents in the appeal.
- (b) Every appeal shall be accompanied by an order appealed against, if any, affidavit verifying the facts stated in the appeal and proof of payment of fee.
- (c) Every appeal may be presented to First Appellate Authority or Second Appellate Authority, as the case may be, in person or through registered post or authorised representative.

(vi) Fee for filling appeal

- (a) Fee for first appeal shall be rupees two thousand five hundred and for second appeal shall be rupees ten thousand, which shall be non-refundable.
- (b) The fee shall be paid in the form of bank demand draft or banker's cheque of a Scheduled Bank in India payable in the name of Appellate Authority concerned.

(vii) Procedure for disposal of appeal

- (a) The First Appellate Authority or Second Appellate Authority, as the case may be, upon filling of appeal, shall issue notice accompanied by copy of appeal, affidavit and documents, if any, to the respondents and fix date of hearing.
- (b) On the date fixed for hearing, the First Appellate Authority or Second Appellate Authority, as the case may be, shall,-
 - (i) Hear all the parties to appeal present before him; and
 - (ii) Peruse or inspect documents, relevant records or copies thereof relating to the matter.
- (c) After hearing the parties, perusal or inspection of documents and relevant records or copies thereof relating to the matter, the Appellate Authority concerned shall pass an order in writing and provide the copy of order to the parties free of cost.
- (d) The order passed under sub-clause (c) above shall be placed on the State Public procurement Portal.

37. COMPLIANCE WITH THE CODE OF INTEGRITY AND NO CONFLICT OF INTEREST:

Any person participating in a procurement process shall-

- a) Not offer any bribe, reward or gift or any material benefit either directly or indirectly in exchange for an unfair advantage in procurement process or to otherwise influence the procurement process;
- b) Not misrepresent or omit misleads or attempts to mislead so as to obtain a financial or other benefit or avoid an obligation;
- c) Not indulge in any collusion, Bid rigging or any-competitive behavior to impair the transparency, fairness and progress of the procurement process;
- d) Not misuse any information shared between the procuring Entity and the Bidders with an intent to gain unfair advantage in the procurement process;
- e) Not indulge in any coercion including impairing or harming or threatening to do the same, directly or indirectly, to any part or to its property to influence the procurement process;
- f) Not obstruct any investigation or audit of a procurement process;
- g) Disclose conflict of interest, if any; and
- h) Disclose any previous transgressions with any Entity in India or any other country during the last three years or any debarment by any other procuring entity.

Signature of Bidder with seal

Conflict of Interest:-

The Bidder participating in a bidding process must not have a Conflict of Interest.

A Conflict of interest is considered to be a situation in which a party has interests that could improperly influence that party's performance of official duties or responsibilities, contractual obligations, or compliance with applicable laws and regulations.

I. A Bidder may be considered to be in Conflict of interest with one or more parties in bidding process if, including but not limited to:

- a. Have controlling partners/shareholders in common; or
- b. Receive or have received any direct or indirect subsidy from any of them; or
- c. Have the same legal representative for purposes of the Bid; or
- d. Have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the Bid of another Bidder, or influence the decisions of the Procuring Entity regarding the bidding process; or
- e. The Bidder participates in more than one Bid in a bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all Bids in which the Bidder is involved. However, this does not limit the inclusion of the same subcontractor, not otherwise participating as a Bidder, in more than one Bid; or
- f. The Bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specification of the Goods, Works or Services that are the subject of the Bid; or
- g. Bidder or any of its affiliates has been hired (or is proposed to be hired) by the Procuring Entity as engineer-in-charge/ consultant for the contract.

38. (i) Bidder are requested to send with bid, printed descriptive literature of the quoted items.
(ii) If Bidder supplied to or have Rate contract of quoted items with any other Govt. institutions within one year, he should provide copies of purchase orders, invoices and rate contract, if asked for.
39. All correspondence in this connection should be addressed to the M.D, RMSCL/ E.D. (EPM), RMSCL, D-Block, Swasthya Bhawan, Tilak Marg, C-Scheme, Jaipur-302005, Rajasthan. Technical questions should be referred to the M.D., RMSCL, Jaipur direct by correspondence or by personal contact.
40. (i) Direct or indirect canvassing on the part of Bidders or their representative shall disqualify their tenders.
(ii) Supplier may be disqualified, banned or suspended from business during the rate contract, if :-
 - (a) fails to execute a contract or fails to execute it satisfactorily ;
 - (b) no longer has the technical staff or equipment considered necessary ;
 - (c) is declared bankrupt or insolvent or its financial position has become unsound, and in the case of a limited company, it is wound-up or taken into liquidation ;
 - (d) the firm is suspected to be doubtful loyalty to state .
 - (e) the State Bureau of Investigation or any other investigating agency recommends such a course in respect of a case under investigation .
 - (f) M.D., RMSCL, Rajasthan, Jaipur is prima- facie of the view that the firm is guilty of an offence involving moral turpitude in relation to business dealings, which if established would result in business dealing with it banned.

Signature of Bidder with seal



41. No Action on the letter head of the Bidder /firm regarding any complaints against the Corporation will be taken unless the letter head bears the signature of the Bidder or the Authority higher than the bid signatory of the firm.
42. (i) Any certificate/documents/information submitted by the Bidder found to be false/ forged/fabricated etc. than bidder shall be liable for the appropriate legal action along with disqualification, banning, suspension etc. for limited or unlimited period.
(ii) Bidders are required to submit wanted information (if any) based on the facts. If the furnished information by the firm found to misleading or not based on facts disciplinary action against the firm may be taken as to banning concerned item/items for certain or uncertain period.
43. The Corporation reserves the right to accept any tender not necessarily the lowest. Corporation may reject any tender without assigning any reasons and accept tender for all or anyone or more of the articles for which Bidder has been given or distribute items of stores to more than one firm/supplier.
44. The Purchase Committee will have the right of rejection of all or any of the quotations without giving any reason for the same. The right to conclude parallel rate contracts with another firm for the stores detailed in this catalogue is also reserved by the M.D., RMSC Ltd., Rajasthan, Jaipur.
45. Extra stipulation or any other condition contrary to the above Tender conditions are not acceptable and may render the tender liable to rejection.
46. The Bidder must sign all the pages of tender document at the below of Terms & Conditions agreeing to abide by all conditions of the tender and accept them in toto. The Signing of **Annexure-N** Shall be treated as acceptance all the terms and conditions of the Tender Document.
47. The Purchase Committee of RMSC may relax or change/ modification in terms and conditions in the exigency excluding fundamental changes. In case of such urgency the Terms & Conditions shall be got approved from Purchase committee/Board of Directors of RMSC.
48. **JURISDICTION:-** All actions, legal proceedings and suits arising from or connected to this tender shall be subject to the exclusive jurisdiction of courts in Jaipur only.
49. **APPLICABILITY OF CLAUSES:-** All the clauses from 1 to 48 and their annexures, formats & enclosures are applicable for the tendered items.



Managing Director
Rajasthan Medical Services Corporation Limited
Rajasthan, Jaipur.

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



Signature of Bidder with seal

B. Special Terms and conditions:-

- 1 Technical details, Tender form duly signed in all respect, Earnest Money and all other required Documents should be submitted in Cover "A" and Financial details (BOQ), should be submitted in Cover "B" otherwise tender will not be considered.
 - 2 Pre-requisite if any for installation, including UPS, Computer, Printer, and other items should be provided by the firm in technical bid and financial bid respectively.
 - 3 Comprehensive Guarantee period with spare parts for as mentioned in technical specification (from the date of installation/demonstration). Acceptance of Comprehensive annual maintenance Agreement as mentioned in technical specification after Expiry of Comprehensive Guarantee period should be submitted with the cover" A" and Rates in cover "B" respectively.
 - 4 Conditional tenders will not be considered.
 - 5 List of consumable items is to be provided in technical bid which is not covered under the guarantee period otherwise all the consumable will be treated as spare parts covered under the guarantee.
 - 6 Transshipment will be permitted and partial shipment not allowed.
 - 7 Payment will be released after installation, demonstration of machine& training satisfactorily.
 - 8 The bidder should quote rates in Indian rupees and payment will be made in Indian rupees. (INR) only.
 - 9 All certificates should be valid on the date of submission of tender & issuing of supply order.
 - 10 The bidder should have well equipped local service centre in India preferably in Rajasthan.
 - 11 The bidder shall be a Manufacturer/Direct Importer who must have manufactured/ Imported and supplied and installed satisfactorily quoted item in India to the extent of at least 25% in last three financial years (2009-2012) of the quantity specified in the NIB. The list of such installation of the quoted equipments may be asked from the bidder in verification of Annexure-G information and he should submitted self attested copy of purchase order, Indent and invoice (Inclusive of Quantity & Rate). **However, the condition of past performance for the quoted item is not applicable for the ISI Marked Items.**
 - 12 **In case of imported item :**The bidder will have to produce third party inspection report from NABL approved lab or ERTL or DGS&D or Govt. of India lab or Govt. of India approved lab pertaining to specification and performance of each supplied machine with the consignment. All expenses regarding third party inspection will be borne by the bidder.
 13. The name & make of articles which are offered should be mentioned against each item of the catalogue. Mere indication of English/USA/Indian will not serve the purpose.
1. In the case of supply of imported item the suppliers shall furnish a certificate along with the bill to effect that the firm has completed all the formalities in connection with the import.

I/We have read the above terms and conditions and I/We agree to abide by the same.

Signature of Bidder with seal





Rajasthan Medical Services Corporation Limited, Jaipur
D-Block, Swasthya Bhawan, C-Scheme, Jaipur - 302005

Ph. No. 0141-2223887, Fax No. 0141-2228065

E-Mail – rmssc@nic.in

edepmrmssc-ri@nic.in

No. F-8(M1/)RMSC/EPM/R.C. 13-14/NIT No.-21/2013/ 01

Dated: 02/4/2013

Corrigendum/Amendments/Clarifications

(NIB No. 21)

Subject: - Amended technical Specifications and other conditions of Bid document after Pre-Bid dated 15/03/2013, for the tender of Equipment & Instruments, under NIB No. No. F-8(M1/) RMSC/EPM/R.C. 13-14/NIB No. 21/2013/443 Dated: 28.02.2013

Reference: - Pre Bid Conference held on 15/03/2013

In Reference to above cited subject and NIB, The pre-Bid meeting of NIB no.-21 was held on dated 15.03.2013. The various representations received from the firms and issues raised by the Bidders are examined by the competent Authorities and technical committee. The following Corrigendum/Amendments/ Clarifications are issued for inclusion in Bid document & Technical Specification of items (Annexure-c) as below

1. Last Date for Sale of Bid, Date of Receipt of Bid & Date of Opening of Technical Bid is hereby extend as below:-

Existing Dates			Extended Dates		
Last Date for Sale of Bid Form	Last Date of Receipt of Bid Form	Date of Opening of Technical Bid	Last Date for Sale of Bid Form	Last Date of Receipt of Bid Form	Date of Opening of Technical Bid
1	2	3	4	5	6
08.04.2013 6.00 P.M.	09.04.2013 Up to 1.00 P.M.	09.04.2013 From 3.00 P.M.	17/04/2013 upto 6.00 P.M.	18/04/2013 Upto 1.00 P.M.	18/04/2013 From 3.00 P.M.

2. The terms and conditions of Bids and Annexure-B is amended as below.

- i. The bidder may quote prices in Dollar/Euro for items Code No. RXA 001- TESLA MRI UNIT, Code No. RXA 002 C.T. SCANNER 128 SLICE, Code No. RXA 009 DIGITAL RADIOGRAPHY FOR MULTIPLATE LOADING CR SYSTEM, Code No. RXA 015 STATE OF ART HIGH END COLOR DOPPLER SYSTEM WITH ELASTOGRAPHY, Code No. RXA 020 HIGH FREQUENCY MAMMOGRAPHY MACHINE. The exchange value of dollar/euro shall be the sale rate (as declared by RBI) in INR on the date of financial bid opening. 90% payment may be made in rupees by means of letter of credit (LC) on receipt of the stock, duly inspected at the designated place (the Consignee) and balance 10% on successful installation/commissioning and fulfillment of other obligations cost upon the Firm. Before releasing the balance 10% amount of the bill, the Firm shall be required to deposit a bank guarantee (B.G.) equivalent to 10% of the value of stock before payment. The transportation of items up to the destination i.e. consignee site shall be the responsibility of bidder. Custom duty exemption certificate (CDEC) will be issued by the deputy secretary (Medical and health) Govt. of Rajasthan to bidder on written request.
- ii. The supplying firm will execute the order within 60 days from the date of supply order. In case of imported items, 30 days will be given in addition to above mention period.
- iii. Regarding terms and conditions of past performance, at least 10% of the indicative quantity mentioned in bid document subject to minimum two

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number should have been supplied/installed/commissioned successfully in last 3 financial years (2009-2012) of the quantity specified in the NIB.

- IV. It is amended that the revised "Average annual turnover for last 3 financial years" for a particular item shall be as blow mentioned in table-1 (under point no.-5 of general instruction to bidders and condition no. 2 of General terms and condition (Annexure-B) of bid from.)

TABLE-1

List of Equipment & Instruments (NIB No. 21)

S. N.	Code No.	Name of Equipment & Instruments (Catalogues)	Indicative Quantity (In no.)	Average annual turnover for last three financial years
	RXA 001	3.0 TESLA MRI UNIT	2	20.00 crore
	RXA 002	C.T. SCANNER 128 SLICE	4	20.00 crore
	RXA 004	HIGH FREQUENCY DENTAL ORTHO PENTOGRAPH (OPG)	4	2.00 crore
	RXA 005	100 mA HIGH FREQUENCY X-RAY MACHINE	68	2.00 crore
	RXA 006	300 mA HIGH FREQUENCY X-RAY MACHINE	218	5.00 crore
	RXA 007	500mA HIGH FREQUENCY X-RAY MACHINE	123	5.00 crore
	RXA 008	HIGH FREQUENCY MOBILE X-RAY MACHINE	122	2.00 crore
	RXA 009	DIGITAL RADIOGRAPHY FOR MULTIPLATE LOADING CR SYSTEM	15	5.00 crore
	RXA 012	SONOGRAPHY COLOR DOPPLER SYSTEM	127	2.00 crore
	RXA 013	B & W ULTRASOUND SYSTEM	156	2.00 crore
	RXA 015	STATE OF ART HIGH END COLOR DOPPLER SYSTEM WITH ELASTOGRAPHY	6	5.00 crore
	RXA 017	FULLY MOTORIZED WIRELESS DIGITAL RADIOGRAPHY SYSTEM WITH TWO FLAT PANEL DITECTOR	14	5.00 crore
	RXA 018	SPECIFICATION OF WIRELESS FLAT PANEL DETECTOR	9	2.00 crore
	RXA 019	AUTOMATIC FILM PROCESSOR	301	2.00 crore
	RXA 020	HIGH FREQUENCY MAMMOGRAPHY MACHINE	10	3.00 crore

- Note:-** 1. The minimum average annual turnover of SSI Units of Rajasthan shall be 1.00 Crore for last three financial year.
2. The above estimated quantities are only indicative and may vary substantively. Quantity/Capacity commitment of the firm in ANNEXURE-E and clause-18 may be considered for placement of supply orders. The above estimated quantities are only indicative for executing rate contract for a specified period. If the procuring entity does not procure any subject matter of procurement or procures less than the quantity indicated in the bidding documents the bidder shall not be entitled for any claim or compensation. No minimum quantity is guaranteed.



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3. THE TECHNICAL SPECIFICATIONS ARE AMENDED/REVISED AS UNDER (ANNEXURE-C) AS DECIDED BY T.C.

Sr. No.	Code No.	Amended/Revised Technical Specification after pre-bid	Quoted Item YES/NO
1	2	3	5
1.	RXA001	<p><u>3.0 TESLA MRI UNIT</u></p> <p>Latest Whole Body 3T MRI System of 70 cm or more borer for routine & advance applications.</p> <ol style="list-style-type: none"> Magnet: High homogeneity actively shielded magnet with a short length having a homogeneity of at least or better than 1.5 ppm at 40 cm. DSV. The system's should have special design to reduce acoustic noise. The magnet should have the latest technique for homogeneity B1 field distribution. Gradient: The actively shielded gradients should have at least a gradient strength of 40 mT/ m or more with a slew rate of at least 150T/m/ms independently for each axis. Patient Table: The table should be fully motorized with vertical and horizontal movements. For patient monitoring CCTV with color monitor display should be there and also on the control console. ECG triggering, peripheral triggering and respiratory triggering gating to be provided. R F System: <ol style="list-style-type: none"> Up to 32 independent Receiver channels or more. Compact solid state RF amplifier with RF Power of (30KW) or more. Digital transmit and receive signal processing for fast and flexible modulation and demodulation of the radio frequency signals. Simultaneous acquisition from four or more coils is necessary. Parallel Acquisition Techniques for reducing acquisition times with a factor of 4 or more in 2D. Computer System: Should be latest with all facilities & system should be DICOM 3.0 compatible & connected with Work stations. Measurement System: Measurement system should be complete in matrix upto 1024 X 1024. Minimum TE for Gradient Echo sequences should be less than 4 ms. The minimum slice thickness with 2D should be 0.5 mm or less and with 3D should be 0.3 mm or less. Coil System: (Specify coil tuning procedure) <ol style="list-style-type: none"> 28-32 Channel Head Coil 32 Channel Body Coil Neuro Vascular (16 Channel Coil) Bilateral Breast Coil Shoulder Coil Flexible Coil 	

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		<p>iv. Dedicated 8 Channel Knee Coil</p> <p>viii. Channel Spine Coil</p> <p>8. Application Package:</p> <p>i. Complete Clinical imaging of Neuro, Body & Peripheral. Required complete software for evaluation of the Bold,, Perfusion, Cardiac, Angiography, Flow Quantification, fMRI, Diffusion Imaging. Cardiac/Body Imaging application like Balanced Fast Field Echo or its equivalent should be offered. High resolution sequences for inner ear studies, sequences triggered with Bolus tracking and fast turbo spin echo sequence should also be offered.</p> <p>ii. Proton Spectroscopy Package :</p> <p>a. IH-MRS, single Voxel spectroscopy (Spin Echo, STEAM) (for brain, breast, prostate)</p> <p>b. Chemical Shift Imaging -1H (2D 3D)/Multi-Voxel Spectroscopy/Multi Slice.</p> <p>iii. Complete Diffusion Tensor, Imaging with Tractography/fibre tracking package with evaluation software.</p> <p>iv. Advance Techniques for Neuro & body imaging with respect to motion correction in 3D, for fast and water saturation.</p> <p>v. Arterial spin labelling technique.</p> <p>9. Two Stand-alone workstations with MP Monitors and post-processing capabilities for Tractography Bold evaluation, Functional evaluation, Complete Cardiac evaluation, Neuro Perfusion evaluation software with CBV/RBV Plots etc. and software for vessel segmentation and filming should be available.</p> <p>10. Documentation:</p> <p>i. Digital DICOM 3.0 Compatible Dry chemistry Laser camera for 14"x17"film size.</p> <p>ii. Post-script color printer for spectroscopy data.</p> <p>11. UPS:</p> <p>Suitable UPS for the complete unit to give a back-up time of 30 minutes with maintenance free batteries.</p> <p>12. Patient Transfer:</p> <p>At least two each mobile non-magnetic patient trolley & non-magnetic wheel chairs. Docable compatible table trolley.</p> <p>13. Accessories:</p> <p>i. (Non Magnetic) Automatic Pressure Injector with 100 syringes.</p> <p>ii. MR Monitor for SpO2:-</p> <p>a) Unrestricted Gauss Rating</p> <p>b) Color Touch Screen</p> <p>c) Wireless Digital SpO2</p> <p>d) Express Network Selection</p> <p>e) SpO2 Perfusion Index</p> <p>f) Heart Rate</p> <p>g) Battery Management Indicator</p> <p>h) Quick Connect Accessories</p> <p>i) Green Classification</p> <p>j) 360 Degree Alarm Light</p> <p>k) Light Weight</p>	
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		l) Infection Control Compliant with disposable sensors m) Reusable sensors reduce cost of ownership n) Neonatal through Adult applications iii. MRI compatible Anaesthesia Machine with Ventilator a least one iv. Five Spilt ACs of 2 Ton should be supplied along with complete installation (Hitachi/O-general/Dikien/Mitsubishi) 14. Machine should be European CE market/ FDA approved. 15. Recently launched model in RSNA up to 2012 but not before 2009 16. The machine should be supplied with 3 years guarantee and five years CMC.	
2.	RXA002	128 Slice CT Scanner Of 70 Cm Or More Bore For All Purpose Scanning Including coronary Angiography Requirement 1. Installation of top of a line Spiral Multi-Slice CT Scanner with capabilities of acquiring 128 slices per 360 degree in body and Cardiac Scan. 2. Mandatory Essential feature: I. Scan Tim The scan time for one gantry rotation of complete 360 degree should be or less. II. Detector a. Detector should have facility to acquire 128 slices simultaneously in one rotation b. The detector shall have at least 64 rows with each row having at least over 670 elements or specify. c. The detectors shall be large area detector with a Z axis coverage of 38.4 mm per rotation or specify. d. The detectors shall cover 38.4 mm per rotation for standard and cardiac scans or specify. III. Matrix size a. Display Matrix of 1024x1024 OR more b. Reconstruction matrix of 512x512. IV. Slice Thickness for Spiral Mode: a. 128 slice Acquisition with minimum thickness of 0.625 mm or less in axial and spiral mode. V. Gantry: a. Gantry Aperture : 70 cm or more b. Gantry Tilt: +/- 30 deg c. Scan Field of view : 50 cm or more VI. Scanning Capability:	



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- a. **True 3 – Dimensional Cone beam correction technique** shall be available in all modes of acquisition such as axial, spiral, 128 Slice mode, and also in various application studies for whole body and cardiac.
- b. The ECG gated acquisition shall have high accuracy of real time monitoring and adapting continuously Heart rate changes into the ECG trigger delay during each scan. Prospective ECG gated axial Cardiac Scanning for mode should also available as standard.
- c. The **acquisition** shall be 128 slice mode for all studies including cardiac. Step & shoot or an equivalent algorithm during cardiac scanning for dose reduction will be an essential requirement.
- d. Dose modulation shall be available for all types of studies including ECG gated tube current modulation.
- e. **Pediatric** and infant base protocols shall be available based on the infant weight.
- f. **Real time contrast monitoring acquisition with auto scan initiation protocol and with auto injector trigger**
- g. Latest iterative reconstruction technique launched by company used for low dose scanning should be offered standard.

VII. Resolution

- a. The high contrast Resolution should be at least 17 lp/.
- b. The low contrast resolution should be at least 4 mm at 3.0 MU. Dose to be less than 28 Mgy, Measurement to be based on 20 cm CATPHAN. (Specify scan time, mA, Filter for image reconstruction, scan field, slice).

Desirable Feature as detailed under:

- 3. **Pitch:** to be freely selectable in auto mode and also manual 0.15-1.5
- 4. **Patient Couch:** The table should have a metal free scan able range of at least 160 cms
- 5. **X-Ray Generator :**
 - a. The Generator should be of high frequency type and having at least 70 KW or more output with max current of 500 mA or more. Mention kV selections.
- 6. **X-Ray Tube :**
 - a. Tube of high heat storage capacity 6 Mhu or more with effective storage of 25 Mhu.
 - b. Peak Heat dissipation rate of Anode should be at least 800 Khu/min.
- 7. **Operator Console:**
 - a. It should have a large 18" or more high resolution LCD monitor with a display 1024 X 1280 matrix or more. Dual monitor console one for scanning and one processing
 - b. The System should be user friendly with all functions menu driven. It should be modern user interface.
 - c. All functions including scanning image reconstruction film documentation, archiving, transferring, MPR Angiography maximum intensity projection. Volume rendering, 3D SSD, CTAngio, vessel measurement, small



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volume quantification, Virtual endoscopy software for visualization of vessels and air filled structures and Colonography software for virtual endoscopic, colon study, Dental Planning software for panoramic views and cross-sectional cuts of mandible/ maxilla and Brain & Body Perfusion, Lung Nodule Assessment should be possible on this operating console and on the independent workstation simultaneously.

8. Computer System & image processor

- a. 64 Bit/32 Bit main CPU with at least 20GB RAM memory or better.
- b. High speed CPU using Pentium IV or better running at 3.0 GHz or better
- c. Hard disc of 250 GB Or more.
- d. Image storage of 4,00,000 or more of 512 matrix
- e. CD archive with 600 or 700 MB capacity Discs
- f. Image Processor : Operating system shall be windows based
- g. The image reconstruction time should be at least 20 images per second or better for all types of acquisition modes including Cone beam correction, Neuro Imaging studies and 512 matrix, and standard pitch

9. Workstation

- a. There should be additional and a Remote Workstation with 2 nos of 18"LCD monitors for post processing, filming
- b. It shall be independent fully and be DICOM 3.0 compliant for multi modality study review.
- c. The computer shall be the latest state of art pentium processor working on Windows base platform for ease of use
- d. It shall be a high speed CPU with a speed of 3.0 GHz or better and with an independent Hard disc storage capacity of 125 GB or more

Two more remote stations (Thin client base) for image review & post-processing facility with all post-processing function including cardiac, as in available in the main workstation and can be placed anywhere inside the hospital.

10. Spiral/Helical Technique:

- a. Scan length of at least 100 secs continuous.
- b. should have facility of Multi-spirals bi-directional spirals and back-to-back spirals.

11. Software DICOM 3.0 capability

- a. Software for cerebral perfusion study with stroke protocol
- b. MIP, Volume MIP, CT Angio software with quantitative vessel analysis, Virtual endoscopy software for visualization of vessels and air filled structures and Colonography software for virtual endoscopic , colon study, Dental Planning software for panoramic view and cross-sectional cuts of mandible/maxilla and Brain & Body



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		<p>Perfusion, Lung Nodule Assessment.</p> <ul style="list-style-type: none"> c. Volume rendering technique with axial cross reference imaging along with measurement tools on volume rendered image 3D, 3D Small volume measurement package MIP Slab viewer d. Calcium Scoring software for coronary arteries e. Complete cardiac package with ECG gated studies (Prospective and retrospective tagging) with <ul style="list-style-type: none"> i. Cardiac review with analysis functions such as Ventricular motion, short axis/long axis view, central stenosis analysis , regional wall motion studies ii. coronary angio, iii. coronary tree extraction, iv. one touch volume rendering of the whole heart, v. ECG gated dose modulation, vi. Calcium and coronary angio reporting, vii. Cardiac study reconstruction must be high speed of at least 20 image per second viii. Prospective ECG Gating cardiac scan <p>12. OTHERS</p> <ul style="list-style-type: none"> a. Software for Remote Diagnostics Service over a telephone line b. ECG Gating gadgets. c. System must be PACS interface ready without any new hardware or software. d. Fully DICOM 3.0 Compliant including: <ul style="list-style-type: none"> i. DICOM Modality work list, with automatic procedure selection ii. Capability from HIS-RIS interface. e. Does saving protocols must be available including <ul style="list-style-type: none"> i. automatic tube current selection suited for selected exam ii. dynamic on the fly tube current modulation while scanning iii. ecg gated dose modulation to reduce dose during undesired cardiac phases iv. Dose displays such as CTDI volume, DLP, Dose efficiency <p>13. Hard Copy Unit:</p> <ul style="list-style-type: none"> a. A Dry Camera with Digital Interface and control integrated with main console and workstation, Camera should print 	
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		<p>on 14"X17" film size, at 500dpi and a Colour Laser Printer for Printing Coronary Scans.</p> <p>14. Patient Accessories: All patient positioning accessories including head rest should be included</p> <p>15. Accessories:</p> <ol style="list-style-type: none"> Dual Head Pressure Injector with 500 syringes 120kVA UPS for entire CT system with 30 minutes backup. Should be of USA or European /Japan origin. Five Spilt ACs of 2 Ton should be supplied along with complete installation (Hitachi/O-general/Dikien/Mitsubishi <p>16. Miscellaneous:</p> <p><u>Country of origin of the Main Equipment: USA and or Europe/Japan</u></p> <p>European CE marked & FDA approved.</p>	
3.	RXA004	<p><u>High Frequency Dental Digital Ortho Pantograph (OPG)</u></p> <p>High Frequency Digital Ortho Pantograph sensor technology having Generator of 2.5 KW or more with output frequency 20 KHz or more, with computer and compatible software along with stabiliser.</p> <p>Control Panel should be equipped with</p> <ul style="list-style-type: none"> Soft touch Panel with LCD Display Interactive messages for easy operations Microprocessor based interlocking interlocking with all proper consents Preset anatomical selection for exposure <p>X-Ray Tube of 0.5mm x 0.5mm fine focus to be provided having Inherent Filtration of 2.7mm AL or less.</p> <p>Operation Modes :</p> <ul style="list-style-type: none"> PAN CEPH TMJ <p>Movements :</p> <ul style="list-style-type: none"> Gantry UP-DOWN: Should be Motorised Column Height: 240 cm or less. Vertical Movement motor driven with foot switch/ computerised. Anode Voltage : 55KVP or more in step or 1 KVP It should have rotating unit with scan angle 210 degree or more <p>Anode Current:</p> <ul style="list-style-type: none"> PAN-10mA (Max.) 	

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		<ul style="list-style-type: none">• CEPH-25mA (Max.) <p>Exposure Time:</p> <ul style="list-style-type: none">• PAN-15 sec or more• CEPH-0.5 sec. to 2.5 sec or more.• TMJ- 4 x 4.00 sec or more <p>Digital Film Size:</p> <ul style="list-style-type: none">• OPG & TMJ- 12 x 28 cm or more• CEPH- 22/24 x 18/30 cm or more PA/AP <p>Positioning Markers</p> <ul style="list-style-type: none">• Cross Hair Laser Light• Canine Light <p>Centering reference</p> <ul style="list-style-type: none">• Adjustable chin rest with bite wing mirror for better patient positioning <p>Standard Accessories to be provided</p> <ul style="list-style-type: none">• One Spilt ACs of 2 Ton should be supplied along with complete installation (Hitachi/O-general/Dikien/Mitsubishi)• Suitable rating servo stabilizer to provided with the machine,• Bite Rods (10 Nos.)• Set of Fuses (1 each)• Detectors compatible <table><tr><td rowspan="2">CCD active Surface</td><td>PAN</td><td rowspan="2">220 mm X 6 mm or more</td></tr><tr><td>Ceph</td></tr></table> <p>for both PAN & Ceph</p> <p>Power Supply: 230± 10%, 50Hz, 15A</p> <p>OTHER REQUIREMENTS:</p> <ul style="list-style-type: none">• The Company should be ISO and European CE/USFDA certified.• The unit should be approved by AERB.• The company should have a local Service center.• The Company should have proven track record in Govt. sector.• Three years guarantee from the date installation.• Spilt ACs of 2 Ton should be supplied along with complete installation (Hitachi/O-general/Dikien/Mitsubishi)• The system should be quoted with guarantee of 3 years & CAMC of 5 years after completion of 3 years guarantee.	CCD active Surface	PAN	220 mm X 6 mm or more	Ceph	
CCD active Surface	PAN	220 mm X 6 mm or more					
	Ceph						
4.	RXA005	<p><u>100 mA HIGH FREQUENCY X-RAY MACHINE</u></p> <p>High Frequency X-Ray machine suitable for general Radiography.</p> <p>X- RAY GENERATOR</p> <ul style="list-style-type: none">• High Frequency X-Ray generator having Frequency of 20 KHz or more suitable for Radiography Should be provided. <p>Power output of generator should be 6 KW or more</p>					

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- Radiography KV range should be 40 to 100 KV or more
- mA range (Rad.) : 100mA or more
- Exposure time (Rad.): 1ms to 3 sec. with maximum numbers of steps.
- The techniques selector switch should be provided for selecting table radiography/bucky

Control

A very compact, Soft Touch Control Panel having following functions & indications should be provided. The panel can be supplied in floor or wall mount with Spill Proof design Following features should be available on the control panel

- Machine ON/OFF switch
- Digital Display of KV & mAs.
- KV & mAs increase and decrease switches
- Tube focal spot selection switch.
- Ready and x-ray on switch with indicators.
- Bucky Selection switch.
- Self diagnostic Programme with Indicators for Earth fault error, KV error, filament error & Tube's Thermal Overload.
- Anatomical Programming Radiography should be provided in which KV and Mas are automatically selected depending upon the physique of the patient and part of the body to be X-rayed
- A dual action hand switch retractable cord should be provided of Radiation Protection of Operator

X-RAY TUBE:

- X-ray tube should be one No stationary anode of BEL/Toshiba/Imported X-ray having focal sport 2.8 mm or less.
- One pair of 6 meter H.V. Cable
- One no manual collimator with aluminium filter & for adjustment of exposure area

COLUMN STAND:

- It should have floor to ceiling stand with vertical counter balanced travel
- It should have 360 deg. Rotation
- It should be provided one chest stand with machine

Table

- Five position manual tilt table having bucky grid ratio of 6:1 with 60 lines per inches should be provided.

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		<ul style="list-style-type: none"> The bucky tray should accept cassette up to 14"x17" size <p>Other Requirements</p> <ul style="list-style-type: none"> The company should be ISO Certified and machine European CE/USFDA certified The unit should be approved by AERB The company should have a Local Service Center The company should have proven track record in Govt. Sector Three years guarantee from the date of installation The system should be quoted with guarantee of 3 years & CAMC of 7 years after completion of 3 years guarantee Demo of machine May be called if required. 	
5.	RXA006	<p><u>300 mA HIGH FREQUENCY X-RAY MACHINE</u></p> <p>High Frequency X-Ray machine suitable for general Radiography.</p> <p>X- RAY GENERATOR</p> <ul style="list-style-type: none"> High Frequency X-Ray generator having Frequency of 40 KHz or more suitable for Radiography Should be provided. Power output of generator should be 25 KW or more Radiography KV range should be 40 to 110 KV or more mA range (Rad.) : 300mA or more Exposure time (Rad.): 1 ms to 2 sec. with maximum numbers of steps. <p>Control</p> <p>A very compact, Soft Touch Control Panel having following functions & indications should be provided. The panel can be supplied in floor or wall mount with Spill Proof design Following features should be available on the control panel</p> <ul style="list-style-type: none"> Machine ON/OFF switch Digital Display of KV & mAs. KV & mAs increase and decrease switches Tube focal spot selection switch. Ready and x-ray on switch with indicators. Bucky Selection switch. 	

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		<ul style="list-style-type: none"> Self diagnostic Programme with Indicators for Earth fault error, KV error, filament error & Tube's Thermal Overload. Dust action hand switch retractable cord should be provide. <p>X-RAY TUBE:</p> <ul style="list-style-type: none"> One No Dual focus Rotating Anode BEL/Toshiba/Imported X-ray tube thermally protected having focal spot:- 1mm or less small Focus 2mm or less large Focus Anode heat storage capacity of tube should be more than 100KHU One Pair of 8 meter H. V. Cable. One no manual collimator with aluminium filter & for adjustment of exposure area <p>COLUMN STAND:</p> <ul style="list-style-type: none"> It should have floor to ceiling stand with vertical counter balanced travel It should have 360 deg. Rotation It should be provided one chest stand with machine <p>Table</p> <ul style="list-style-type: none"> Five position manual tilt table having bucky grid ratio of 5:1 with 60 lines per inches should be provided. The bucky tray should accept cassette up to 14"x17" size <p>Other Requirements</p> <ul style="list-style-type: none"> The company should be ISO Certified and machine European CE/USFDA certified The unit should be approved by AERB The company should have a Local Service Center The company should have proven track record in Govt. Sector Three years guarantee from the date of installation The system should be quoted with guarantee of 3 years & CAMC of 7 years after completion of 3 years guarantee Demo of machine May be called if required. 	
6.	RXA007	<p><u>500 mA HIGH FREQUENCY X-RAY MACHINE</u></p> <p>High frequency X-Ray Generator of 40 KHz or suitable for Radiography</p> <p><u>X- RAY GENERATOR</u></p>	

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- The X-Ray generator should be of 40 KW or more.
- The X-Ray control should have digital display of KV, Ma and mAs.
- The radiography KV should be from 40 to 110 KV or more
- Ma range up to 500Ma
- The exposure time should be from 0.01 to 5.0 seconds with maximum numbers of steps.
- The techniques selector should be provided for selecting table radiography/ bucky etc.

Control

- The voltage indicator should be provided which indicates low/normal/high voltage
- The generator should have micro processor based electronic overload system.
- The generator should have dynamic range control with which maximum mAs
- Can be achieved at specific KV and Ma.
- The X-Ray tube should be dual focus of BEL/Toshiba/Imported having rotating anode of 125/20/40 or more.
- Focal Spot 1x2mm2

HT CABLE:

- One pair of 8 meters HT Cable.

COLLIMATOR

- A Manual collimator with aluminium filter & adjustment of exposure area

COLUMN STAND:

- It should be ceiling column stand/Floor mounted with vertical counter balanced travel.
- It should have 360 deg. Rotation

Table

Type	4 way floating table top
Lock system	Electromagnetic locking system
Total sliding	4 way sliding table top approx. 430 mm longitudinal, approx. 320 mm transverse

- The motorized bucky with grid ratio of 10:1 with 60 lines per cm should be provided. The bucky tray should accept cassettes up to "14x17"size

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		<p>Vertical Bucky Stand</p> <ul style="list-style-type: none"> Vertical bucky should be provided with grid for chest radiography & tray of at least "14x17"" or more. <p>Other Requirements</p> <ul style="list-style-type: none"> The company should be ISO Certified and machine European CE/USFDA certified The unit must be certified from AERB The company should provide the registration & layout plan approval of the installation from AERB before starting the facility. The company should have a Local Service Center The company should have proven track record in Govt. Sector Three years guarantee from the date of installation Rates of CMC for Five years to be submitted Demonstration May be taken if required 	
7.	RXA008	<p><u>HIGH FREQUENCY MOBILE X-RAY MACHINE</u></p> <p><u>X-Ray Generator:</u> 100KVP & 60 mA or more, High frequency X ray generator.</p> <p><u>Output:</u> - 2.5 KW or more.</p> <p><u>mAs:-</u> 140 mAs or more</p> <p><u>KVP range:</u> 40 to 100 KVP or wider range.</p> <p><u>Control:</u></p> <ul style="list-style-type: none"> Attractive & ergonomically designed Control Panel with total soft Touch Switches for carious operations, KV increase & decrease switches mA increase & decrease switches Machine ON/OFF switch. Collimator Lamp ON Switch. Standby & exposure release switch. Self diagnostic programmed with indicators for:- <ul style="list-style-type: none"> ➤ Earth fault error ➤ KV error ➤ Filament error ➤ Tube head Thermal error X ray on indictor. Incoming voltage indictor. <p><u>Tube Head:</u> - Mono block version, stationary anode X ray Tube, Mention about focal spot.</p>	

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		<p>Accessories:-</p> <ul style="list-style-type: none">• Manual Light beam –cum –shutter diaphragm.• Hand switch with retractable cord.• Aluminium filter. <p>Stand: - spring balanced mobile stand very light in weight with tube arm for easy manoeuvre and smooth movements of tube head in vertical plane should be provided. Lead lined cassette storage box. The stand should be able to achieve tube focus on floor distance 75 inch and tube focus to tabletop distance 46 inches. The equipment should occupy minimum floor area and should be capable to be taken through elevator with ease. The Tube arm should be able to Swivel in the range of $\pm 90^0$ (Total 180^0) for taking radiography on both sides of machine without moving it.</p> <p>Power requirement:- 230 Volt AC, 50 Hz, single phase.</p> <ul style="list-style-type: none">• The unit must be able to deliver atleast 50 or more Exposures under controlled factors in case of power failure. <p>Other requirements :-</p> <ul style="list-style-type: none">• The company should be ISO Certified.• The Unit should be approved by BIS & AERB.• The company should have a local Service center.• 3 years comprehensive guarantee of complete unit including tube.• Comprehensive annual maintenance contract for 5 years after Completing the 3 years guarantee Period• Demo is to be given to if required before finalization													
8.	RXA009	<p><u>SPECIFICATION OF DIGITAL RADIOGRAPHY FOR SINGLE /MULTIPLATE LOADING CR SYSTEM</u></p> <p>The CR System should have following essential features</p> <p>1. Image recording System (Cassettes & Imaging Plated)</p> <p>The following Sizes of radiography cassettes along with image plates should supported & supplied with the unit. Image plates must be flexible/ Rigid to accommodate cassettes in case of OPG's</p> <table><thead><tr><th>Size</th><th>Quantity</th></tr></thead><tbody><tr><td>a. 14"X17"</td><td>2 Nos</td></tr><tr><td>b. 14"X14"</td><td>2 Nos</td></tr><tr><td>c. 10"X12"</td><td>2 Nos</td></tr><tr><td>d. 8"X10"</td><td>2 Nos</td></tr><tr><td>e. 10" X 4"/11"x14"</td><td>2 Nos</td></tr></tbody></table> <p>2. Image Reading (CR Reader/Digitizer)</p> <p>a. The CR Reader/Digitizer Should be able to process up to 90 imaging plates/hour or more, depending on size & application</p>	Size	Quantity	a. 14"X17"	2 Nos	b. 14"X14"	2 Nos	c. 10"X12"	2 Nos	d. 8"X10"	2 Nos	e. 10" X 4"/11"x14"	2 Nos	
Size	Quantity														
a. 14"X17"	2 Nos														
b. 14"X14"	2 Nos														
c. 10"X12"	2 Nos														
d. 8"X10"	2 Nos														
e. 10" X 4"/11"x14"	2 Nos														

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		<ul style="list-style-type: none"> b. It should have a resolution of 5 pixels/mm (Minimum) for standard resolution cassette and 10 pixel for high resolution cassettes reading. c. The system Should have option of having high resolution cassette/reading for all cassette size including 14"X17"& 14"X14" d. It should have input/ output buffer or cassette slots for 4 cassettes or more at one time (for multiplate loading CR System). e. It should have a mammography reading resolution of 20 pixel/mm or more. <p>3. Processing Server/CR Workstation with 19" LCD Paned</p> <ul style="list-style-type: none"> a. PC based unified server/ workstation for centralized patient identification & management of image/ studies b. Process of identification should be ready for interface with existing Hospital information system (HIS) or Radiology Information system (RIS) in DICOM protocols c. This server must provide display of acquired images with a greater detail of demographics, like patient/ study listing for easy access. d. This server must provide full amount of post processing features like Geometric Corrections, Window/Level, Algorithms, Annotations such as markers, Predefined text, Drawing Lines and geometrical shapes, Multi scale image contrast amplification, Measuring Distance & Angles and determining leg length differences, shuttering, histograms, Zoom, Gray scale reversal, Edge enhancement, Noise Reduction, Indicate gray Scale saturation level, Latitude Reduction, e. This terminal must provide a full fledge DICOM printing, should be able to print multiple format (More then four) of patient study, print a true size f. Should be able to sent DICOM images to DICOM viewing station. g. Should be equipped with DICOM CD writer for allowing examination of a patient to be written a CD in DICOM format for referral purposes. <p>4. Dry Laser Imager (For Film Printing)</p> <ul style="list-style-type: none"> a. The system must be a Dry laser imager camera. b. The system must be DICOM 3.0 Print service class provider, allowing minimum of 10 associations at a time c. The system must be able to process up to 100 films/ hour (minimum) depending on the size d. The system must deliver its first film within 100 second or less from requested e. The system must have spatial resolution of 500PPI/DPI (minimum) for all size printed. f. The system must have contrast resolution of 12bits/pixel or more. g. The system must have at two or more online film sizes and should be capable to print of any of the 8"X10", 10"X12", 10"x14"/11"X14", 14"X14", 14"X17" sizes all input trays should be freely configrable at user level for all mentioned film sizes. 	
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		<p>h. The system must be not involve any wet process and must give a dry film in single stage (without any user intervention) functionality</p> <p>i. The system must have a standard film sorter at the output for storing the film based on modality connected</p> <p>j. It should have single step direct digital printing.</p> <p>k. Please quote the price complete cassettes with imaging plates of different sizes in option</p> <p>5. Interconnectivity</p> <p>a. Interconnectivity between various CR module should be Ethernet/TCP IP based i.e. RJ 45 Connection (10/100 Base T/LAN)</p> <p>6. Connectivity to PACS</p> <p>The System must be ready to integrate itself in PACS environment</p> <p>7. Software</p> <p>a. Application Relate Software like Paediatric, black border/ black masking should be available.</p> <p>b. The system should have software & hardware to perform full leg-Fem spine/Long body imaging/image switching.</p> <p>8. U.P.S.</p> <p>The Company should provide UPS for the whole system with minimum 30 minutes backup</p> <p>9. Installation List</p> <p>Firm should attach installation list in India of the model quoted out of which at least two installations should be government hospital of govt. medical college.</p> <p>10. Guarantee</p> <p>3 years comprehensive guarantee of complete system.</p> <p>11. Comprehensive annual maintenance contract for 5 years after completing the 3 years guarantee period.</p> <p>12. Two Split AC 2 Ton each should be supplied with installation (preferably Hitachi/O-general/Dikien/Mitsubishi)</p>	
9.	RXA012	<p><u>SONOGRAPHY COLOR DOPPLER SYSTEM</u></p> <p>The system should be state art with full Digital Technology & should be capable of whole body sonography & other application for adult & paedrics (infants & neonates) which including Abdominal, Obs/ Gyn, Endovascular, Peripheral vascular, Transcrainal, transvaginal, transrectal & small parts.</p> <p>1. The system should incorporate facility for high resolution 2D, 3D, M Mode, PW color flow imaging, Power Doppler Angio Imaging Modes.</p> <p>2. The equipment should have more than 20000 Digital Channels & on the site to higher numbers of channels, Higher number of channels is Preferred.</p>	



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	<ol style="list-style-type: none"> 3. The system should have 256 Grey shed or more. 4. All Transducer have Broad Bandwidth for extreme High resolution 2D imaging. Frequency range of transducer should be 2 to 12 MHz or more. 5. System should have advance image processing algorithms to analyse between targets & artefacts so as to sharpen target anatomy, reduce the sparkle & artefacts for improve image quality. 6. The system should have a high Dynamic range of 170 DB or more. Higher dynamic range will be preferred. Scanning depth 30 cm or more. 7. The system should have a very high frame rate of 700 frames per second or more. Please specify frame rate in triplex mode. 8. The system should have Harmonic imaging for tissue for hard to image patients. The system shall support Tissue Harmonic imaging capability on phased, linear,, 3D and curved array transducers. 9. The system shall offer Harmonic imaging in Power Doppler imaging mode for improved sensitivity & specificity in differentiating blood/Agent from Tissue. 10. 11. The system should have a full alphanumeric key Board with illuminated keys & status Display. 12. The System should be able to support at least three Transducers with universal ports allowing any transducers to be connected to any Port. 13. The system should have high Regulation fully articulating non interlaced full flat TFT/LCD Display of 17 inch or more, with Tilt & swivel facility. 14. The system should have facility for Zoom (Real-Time & Frozen image) & manipulation of image through pre processing & post processing with cine loop viewing image of all modes. 15. System should have disc of at least 150 GB or more. 16. The system should have facility of digital storage & retrieval of B/W & color image data (Both frozen & cine loops) on built in as well as ramble media (CD,DVD) USB Port. 17. The system should have automatic real time quantification of Doppler parameter like velocity, frequency, time heart rate slop, flow volume, plasticity index, resistivity index, peak velocity, average value, point value, area & diameter flow volume etc. 18. The system should have capability of triplex display in real time with all probes. 19. The system should have extensive calculation software packages for general measurement, Obs/Gyn, Vascular, Paediatric 20. Machine should be supplied with following transducers:- <ol style="list-style-type: none"> I. Board band convex array Transducer with multi frequency range of 2 to 5 MHz or wider range-1 no. II. Broad band transvaginal/ transrectal Probe with multi frequency range between 5 to 8 MHz or wider range-1no. III. Linear probe Transducer 5 to 12 Mhz or more.-1 no. 21. The System should have the following documentation devices <ol style="list-style-type: none"> a) Laser color printer for color image printing b) B/W Thermal printer of latest model c) Glazed thermal paper Rolls 50 no. & 5 rim of Glossy paper sheet. 23. All information in the tender document must be supported with product date sheet. Companies should quote the latest model. 22. UPS of appropriate rating for 30 minutes should be provided with the system 	
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		<p>23. One split A/C of 1.5 tone of reputed make.</p> <p>24. Comprehensive guarantee of complete unit including probes & A/C for 3 years</p> <p>25. Comprehensive CMC of complete unit including probes for 5 years</p> <p>26. The unit should be approved by US FDA /European CE to other international accreditation.</p> <p>27. The company should have a local service center</p> <p>28. The company should have proven track record in Govt. sector list of previous installation to be submitted.</p>	
10.	 RXA013	<p><u>SPECIFICATION OF B&W ULTRASOUND SYSTEM</u></p> <p>Real time high resolution, ultrasound complete unit best for abdomen, obs/gynae, General use, small parts & peripheral vessels. Capable of high quality image, complying best and latest technology and should be future clinical needs.</p> <p>1. Technical specification: Ultrasound scanner with integrated trolley with probe, soft touch alphanumeric key board with track ball (size to be mentioned)</p> <ul style="list-style-type: none"> • With panel switches & control's easily operable • Integrated High Resplution Monitor (15") • Probes & Gel holder-conviniently placed • Standard accessories, manual, catalogue of quoted model. <p>Following Transducers are to be supplied:</p> <ul style="list-style-type: none"> • A- 2.0-5.0 Mhz. Multi Frequency Convex Transducer. - One • B- 5.0-12.0 Mhz. Multi Frequency Linear Transducer. - One • C- 5.0-8.0 Mhz or more Endo Cavity Probe - one. <p>2. Technical Data:</p> <ul style="list-style-type: none"> • All probes should be electronic transducers and multi frequency preferably three frequencies and should give Aperture & depths of scanning. • Controls for Depth, gain compensation, body markers with transducers position. • Real time Continuous dynamic focus. • Auto Annotation facility anywhere on image. • Image display in B,B/M&M Model (2B&2D) • Zoom facility minimum five times or more. • Shades for grey 256 • Inbuilt cine memory. • Unite should be capable of measuring BPD, CRL, FL & AC and other GA parameters. • Facility for image magnification, inversion, changing, scan, direction, freeze facility. • 8 Step STC/TGC should be available. • Frame rate minimum 50 FPS. • Minimum 200 patient memories. • Caliper with trackball for the measurement of distances circumferences, area volume etc. should be possible to make different measurement on single image. 	

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		<ul style="list-style-type: none"> • Alphanumeric key board. • Panel Switches & foot controls. • Patient reports for Obs/ Gynae including fetal growth trend, including Histogram facility for tissue Texture & Trend graph for IUGR cases, Urology, and ortho pedics. • Give the gain adjustable/ Range & its steps. • Calculations needed; Velocity, Heart rate, Volume addl. Modes. <p>3. The system should have the following Accessories:</p> <ul style="list-style-type: none"> • Sony/fuji make B&W thermal printer with 50 rolls • One KVA Online suitable UPS. <p>4. OTHER TERMS;</p> <ul style="list-style-type: none"> • There years complete guarantee for the entire system, probes and accessories, which should include service as well as parts. • Guarantee will commence after complete and successful instalation of the main equipment and all the supplied accessories. • Comprehensive annual maintenance (Labour) for all supplied items to be quoted for next 5 years after expiry of 3 years guarantee period. • An uptime of 98% is to be ensured during guarantee and and CMC period. • Unit must be USFDA/European CE approved. • 1.5 Ton split AC should be supplied with machine with complete installation (Hitachi/O-general/Dikien/Mitsubishi) 	
11.	RXA015	<p><u>STATE OF ART HIGH COLOR DOPPLER SYSTEM WITH ELASTOGRAPHY</u></p> <p>The system should be state art with full Digital Technology & should be capable of whole body elastography & other application for adult & paedtrics (Infants & neonates) which including Abdominal, Obs/ Gyn, Endovascular, Peripheral vascular, Transcrainal, transvaginal, transrectal & small parts.</p> <ol style="list-style-type: none"> 1. The system should incorporate facility for high resolution 2D, 3D, M Mode, PW color flow imagine, Power Doppler Angio Imaging Modes. 2. The equipment should have more than 60000 Digital Channels & should be up gradable on the site to higher numbers of channels, Higher number of channels is Preferred. 3. The system should have 256 Grey shed or more. 4. All Transducer have Broad Bandwidth for extreme High resolution 2D imaging. Frequency range of transducer should be 2 to 16 MHz or more. The system should be able to capture all frequencies in a single probe without the need for user selection. 5. System should have advance imaging - To evaluate relative tissue stiffness for liver, breast, prostate & other small part application on a variety of transducer like convex, liniar & endocavity transducer. System should have elastic quantification. Liver & small parts imaging should be both non compressible & compressible based & it should be validated & reproducible. Tissue depth should be at least 8cm. or more.. 6. The system should have advance image processing algorithms to analyse between targets & artifats so as to sharpen target anatomy, reduce the sparkle & artefacts for improve image quality 	

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		<p>7. The system should have a high Dynamic range of 180 DB or more. Higher dynamic range will be preferred. Scanning depth 30 cm or more.</p> <p>8. The system should have a very high frame rate of 700 frames per second or more. Please specify frame rate in triplex mode.</p> <p>9. The system should have Harmonic imaging for tissue for hard to image patients. The system shall support Tissue Harmonic imaging capability on phased, linear, 3D and curved array transducers.</p> <p>10. The system shall offer Harmonic imaging in Power Doppler imaging mode for improved sensitivity & specificity in differentiating blood/ Agent from Tissue.</p> <p>11. The system should have a full Panoramic imaging to have an extended field of view of structures.</p> <p>12. The system should have a full alphanumeric key Board with illuminated keys & status Display</p> <p>13. The System should be able to support at least three Transducers with universal ports allowing any transducers to be connected to any Port.</p> <p>14. The system should have high Regulation fully articulating non interlaced full flat TFT/LCD Display of 19" or more, with Tilt & swivel facility.</p> <p>15. The system should have facility for Zoom (Real-Time & Frozen image) & manipulation of image through pre processing & post processing with cine loop viewing image of all modes.</p> <p>16. System should have disc of at least 500 GB or more.</p> <p>17. The system should have facility of digital storage & retrieval of B/W & color image data (Both frozen & cine loops) on built in as well as ramble media (CD,DVD & USB Port)</p> <p>18. The system should have automatic real time quantification of Doppler parameter like velocity, frequency, time, heart rate slop, flow volume, plasticity index, resistivity index, peak velocity, average value, point value, area & diameter flow volume etc.</p> <p>19. The system should have capability of triplex display in real time with all probes.</p> <p>20. The system should have extensive calculation software packages for general measurement, Obs/Gyn, Vascular, Paediatric</p> <p>21. Machine should be supplied with electronic facility with following transducers:-</p> <ul style="list-style-type: none"> • Board band convex array Transducer with multi frequency range of 2 to 5 MHz or wider range-1 no. • Broad band transvaginal/ transrectal Probe with multi frequency range between 5 to 9 MHz or wider range-1no. • Linear probe Transducer 5 to 14 Mhz or more.-1 no. <p>22. The System should have the following documentation devices</p> <ul style="list-style-type: none"> • Laser color printer for color image printing • B/W Thermal printer of latest model • Glazed thermal paper Rolls 50 no. & 5 rim of Glossy paper sheet. <p>23. All information in the tender document must be supported with product data sheet. Companies should quote the latest model.</p> <p>24. UPS of appropriate rating for 30 minutes should be provided with the system</p> <p>25. One split A/C of 1.5 tone of reputed make.</p> <p>26. Comprehensive guarantee of complete unit including probes & A/C for 3 years</p> <p>27. Comprehensive AMC of complete unit including probes for 7 years</p> <p>28. The unit should be approved by US FDA /CE to other international accreditation.</p>	
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		<p>29. The company should have a local service center</p> <p>30. The company should have proven track record in Govt. sector list of previous installation to be submitted.</p>	
12.	RXA017	<p><u>FULLY MOTORIZED WIRELESS DIGITAL RADIOGRAPHY SYSTEM WITH TWO FLAT PANEL DETECTOR</u></p> <p>Flat Panel digital Radiography system for all possible Radiography application</p> <p>A fully digital radiography system capable of detector exposure in vertical, horizontal and oblique position to perform all skeletal body and chest radiography. The unit should be completed (integrated generator and image acquisition) and comprise the following along with quality control features incorporated.</p> <p>Generator:</p> <ul style="list-style-type: none"> • Generator should be micro processor controlled high frequency / inverter technology with output 65KW or more. • KVP range 40 KV - 150 KV or more. • Output should be 650 MA or more. • It should have digital display or KVP and mAs with automatic exposure control device <p>X-ray tube and Collimator</p> <ul style="list-style-type: none"> • The X-ray tube should be rotating anode high speed with dual focus having focal spot of the following sizes: <ul style="list-style-type: none"> ➤ Large focus: 1.2mm or less ➤ Small focus: 0.6mm or less • The X-ray tube should be of BEL/Toshiba/Imported • Tube heat capacity should be 300 KHU or more. <p>Celing suspended 3D Colum Stand</p> <ul style="list-style-type: none"> • It should be Celing suspended 3D Colum Stand having 3 direction motorized movement supported by electromagnetic for safety. <p>X-ray Table</p> <p>Horizontal Table with floating table top with motorized elevated facility</p> <ul style="list-style-type: none"> • It should have in flat panel detector system of 35X43mm size or more/square detector • Table Detector & overhead tube can setup with automatic tracking along the length of table Vertical Bucky stand • Vertical Bucky should be provided with grid for chest radiography with tilting facility i.e. + 20 degree should have flat panel detector of atleast 35X43cms or more. • Detector movement should be synchronised with movement of X-ray tube 	

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		<ul style="list-style-type: none"> • Detector if needed can be shifted to another X-ray machine with its integration with same workstation station with compatibility. <p>Digital flat panel detector</p> <ul style="list-style-type: none"> • The detector to have mechanical dimension of standard 35X43cms or more • It should have amorphous cesium iodide matrix as receptor. • Detector should have pixel size of 175 micron or less per pixel, a image matrix should be greater than or equal to 1900 X 2400 pixels • The image acquisition time should be 5 sec. or less at console. • System should be wireless P with Wi-Fi capability • Detector should have in-built battery /removable battery capable of minimum of 150 exposures per charge • The battery should capable of external charging & two additional batteries to be supplied with the system. in case of in-built battery life of battery should be at least 5 years • The batteries must be replaced free of cost during the guarantee period and during the CMC period. • DQE should be 65% or more. • Both detector and software should be manufactured by the same bidder/ quoted company. • Detector should capable of being used with 0other x-ray system. • Bidder must provide sole authorizati0on letter from the manufacturing company that detector can be supplied whenever capable of being during machine life. • Operating consol • Workstation should have high resolution TFT/LCD monitor of size 19 inch or more with minimum 1024 X 1024 or more & anti refractive front screen. • Should have latest high speed processor of 32 bit or more • It should have image storage disk 400GB or more. • Should be equipped with DICOM CD writer • System should be able to send or receive DICOM image to DICOM viewing station/ PACS & necessary software to take print out of JPEG images on medical films. • Must be provided for image processing image display post processing function and networking with matrix. <p>Image acquisition and image processing based on body part and viewing position</p>	
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		<ul style="list-style-type: none"> • Retrieval of patient list and examination data from Hospital/Radiology information systems (HIS/RIS) SHOULD BE POSSIBLE. • The system should have ready Dicom Interface and networking capability with RIS/HIS/PACS • Post processing function must be available <p>Essential Accessories</p> <ul style="list-style-type: none"> • Voltage stabilizer should be quoted separately along with the unit of required capacity. The capacity and make of the voltage stabilizer should be specified • On line UPS with 30 minutes back up for console/computer system <p>Dry Laser printer</p> <ul style="list-style-type: none"> • The system must be Laser with automatic image quality adjustment & single step printing • The system should accept multiple modality with DICOM input & output and can be connected any DICOM Modality. • The system should be capable of different layout format on single film • The system must deliver its first film within 70 seconds or less from requested • The system must deliver have spatial resolution of 500 DPI or more & contrast resolution of 12 bits/pixel or more for all size film printed. • The system must have three online film sizes and should be capable to print of any of the 8"X10", 10"X12", 11"X14", /10"X14", 14"X14", 14"X17" sizes. <p>OTHER REQUIREMENTS:</p> <ul style="list-style-type: none"> • Three years guarantee including all accessories from the date of installation. • CAMC rate after expiry of guarantee period should be submitted for next seven years. • The detector should be approved by US FDA/European CE & x-ray machine should be AERB approved. The company should have a local Service center • The company should have provide the registration & layout plan approval of the installation from AERB before starting the facility. • The company should have proven track record in Govt. sector list of previous installation to be submitted. • AC of 2 ton 4 in number for flat panel detector & processing work station & printer • Company should connect all workstations with existing printers for image printing at signal site • On 3 KV online UPS 	
13.	RXA018	<u>SPECIFICATION OF WIRELESS FLAT PANEL DETECTOR</u>	

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Flat panel Detectors System two in number to convert the existing analog x-ray system into digital radiography (DR) with a cassette sized wireless DR Detector that fits with existing equipment without any Bucky modification for department of Radiodiagnosis, SMS Hospital, Jaipur

Above system should have following specification

(A) **Digital flat panel detector**

- Can be fitted in to vertical chest stand/vertical Bucky/horizontal Bucky or work in existing machine
- The detector to have mechanical dimension of standard 35X43 cms or more
- It should have amorphous cesium iodide matrix as receptor.
- Detector should have Pixel size of 175 micron or less per pixel, a image matrix should be greater than or equal to 1900X2400 pixels
- The Image acquisition time should be 5 sec. or less at consol
- Weight should be wireless with Wi-Fi capability.
- Detector should have built in/removable battery capable of minimum of 170 exposures per charge.
- The batteries should be capable of external charging & two additional batteries to be supplied with the system/ In-built battery life should be minimum 5 years.

(B) **Processing work station**

- P.C based work station, must be medical grade monitor with 5 mega pixel resolution with full amount or post processing software.
- Terminal must be provide with full flagged DICOM printing which having facility of multiple format (Minimum Four), It must be able to print a true size image.
- System should be able to send or receive DICOM image to DICOM viewing station/PACS & necessary software to take print out of JPEG image on medical films.
- Should be equipped with DICOM CD writer.
- Should have compatibility & connectivity with existing printer available in the department for image printing
- Should be able to connect minimum of three detectors per system.
- Monitor resolution should be at 1024X1024.
- Hard disc storage should be 600 GB or more
- Company should provide necessary software & intrigrate the PC of Registration Counter with Processing work station to transfer the patient demographics with registration

(C) **Dry Laser printer**

- The system must be Laser with automatic image quality adjustment & single step printing.
- The system should accept multiple modality with DICOM input & output and can be connected any DICOM Modality.
- The system must be able to process up to 180 films/hour or more of mixed film sizes including 14"X17" film size.
- The system should be capable of different layout format on single film.
- The system must deliver its first film within 70 seconds or less from requested.
- The system must have spatial resolution of 500 DPI or more & contrast resolution of 12 bits/pixel or more for all size film printed.

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		<ul style="list-style-type: none"> The system must have three online film sizes and should be capable to print of any of the 8"X10", 10"X12", 10"X14"/ 11"X14", 14"X14", 14"X17" sizes. <p>(D) OTHER REQUIREMENTS:</p> <ul style="list-style-type: none"> Three years guarantee including all accessories from the date of installation. CAMC rate expiry of warranty period should be submitted for next five years The unit should be approved by US FDA/European CE accreditation. The company should have a local Service centre. The company should have proven track record in Govt. sector list of previous installation to be submitted. Down Time penalty 2500/- per day after 24 hours. Four A.C. of 2 ton each should be supplied with machine with complete installation (Hitachi/O-general/Dikien/Mitsubishi) Company should connect all workstations with existing printers for image printing at signal site. One 3 KV online UPS. 	
14.	RXA019	<p><u>AUTOMATIC FILM PROCESSOR</u></p> <ol style="list-style-type: none"> Should be compatible for sheet type X-ray films. The assembly should be made up of material which is non corrosive and of latest technology, specify the material used. Should be suitable for film sizes from 8x10 inches to 14x17 inches. Should have continuous film roller transport and auto start and stop facility. Should have a variable processing time from 90 to 180 seconds. Should have a developer and fixer tank of minimum 5 liters capacity. The container assembly should be made of non-corrosive material. The main drive should automatically change to standby mode during idle time to prevent wear and tear. Should have sufficient sensors for film detection and level sensors for overflow protection. Should have variable developer and fixer temperature from 30 to 35°C or better. The replenishment containers should have capacity of at least 25 liters and the replenishment should be automatic. Should have film driver facility and the temperature should be adjustable. Should have individual setting for processing time, temperature and replenishment rate. Should have a digital display for processing time and temperature. Should be table top model and should be supplied with mounting stand. Should be supplied with suitable automatic servo stabilizer. Should supply all the accessories necessary for commissioning including 20 liters of developer and fixer. Should work with input 200 to 240Vac 50 Hz supply <p><u>OTHER REQUIREMENTS:</u></p> <ul style="list-style-type: none"> Three years guarantee including all accessories from the date of installation. CAMC rate expiry of warranty period should be submitted for next five years The unit should be approved by US FDA/European CE accreditation. 1.5 Ton split AC should be supplied with machine with complete installation (Hitachi/O-general/Dikien/Mitsubishi) 	

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15.	RXA020	<p><u>HIGH FREQUENCY MAMMOGRAPHY MACHINE</u></p> <p>A) X-RAY GENERATOR</p> <ul style="list-style-type: none"> • High frequency 20 KHz or more X-Ray Generator should be provided. • Power of generator should be more than 3.5 KW or more • Maximum mA output should be more than 100 mA or more • K V Range should be 23 to 32 KV in steps of increment of 1 KV each/ or more. • mAs Range for large filament should be form 4 mAs to 500 mAs or more. • 1 No. High Voltage Cable should be provided. <p>B) X-RAY TUBE</p> <ul style="list-style-type: none"> • Rotating Anode X-Ray Tube of BEL/Toshiba/Imported having dual focus, dual angle should be provided. • Focal Spots: Small Focus= 0.1 mm² Large Focus=0.3 mm² • Anode Heat Storage Capacity should be more than 150 KHU or more • Tube Assembly Heat capacity should be at least 1.25 MHU <p>C) <u>CONTROL PANEL</u></p> <ul style="list-style-type: none"> • Micro Processor controlled Feather Touch Control Panel with LED display should be provided. • Technique selection: Manual Two Point Technique (i.e. KV, mAs) should be possible. • Anatomic Program for small, medium & Large breasts should be provided. • More than 2 Step Film Density Control be provided. • Automatic Exposure Control device should be provided • Automatic selection of filter as per the KV selected (Molybdenum Filter and Rhodium) should be provided. • Following Digital display should be provided: <ul style="list-style-type: none"> ➤ Large format LED display on the stand – compression force in Kg. compressed breast thickness and Gantry angle should be provided. <p>Breast Release mechanism in case of power failure:</p> <ul style="list-style-type: none"> • Facility to manually release the breast or push to OFF type emergency switches should be available on both sides of gantry to release breast in case of power failure. <p>Below Safety feature should be provided:</p> <ul style="list-style-type: none"> • Microcontroller based embedded platform to ensure accurate delivery of exposure parameters. • Automatic compression locking after maximum compression of compression paddle. • Electro Magnetic/Earthing interlock is provided in the machine for safety of user. • Fast Compression release mechanism in case if patient is uncomfortable with compression. • Automatic breast release after X-Ray exposure is completed. <p>D) <u>STAND ASSEMBLY</u></p>	
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		<ul style="list-style-type: none"> • A compact Stand having Iso-Centric movement on which C-Arm containing X-Ray Tube & Bucky Assembly is mounted should be provided. • Vertical Movement (Motor operated) should be 600mm or more. • Source to image distance (SID) should be 600mm or more. • Breast Compression: Automatic compression with digital display of compression force should be provided. Adjustable compression force should be available. Automatic Compression release after Exposure completion should be available. • Compression Paddles for Normal & Magnification Mode (Spot Compression) should be provided. • Magnification Device: 1.5X or 1.8X should be provided. • 18 X 24 cm Bucky & collimation plate with Motor operated Oscillating Grid 5:1, 30 lines/cm should be provided. • Molybdenum Filter & Rhodium Filter Changer. • Light Beam collimator with Halogen Lamp with Auto shut off facility should be provided. • Cone for Localization & Radiation protection should be provided. • Switches for up/down movement of gantry, placed conveniently on both sides of gantry should be provided. <p>Separate foot control for gantry movements should also be available for hands free operation.</p> <ul style="list-style-type: none"> • Hand Switch with Retractable cord for initiation of exposure should be provided. • Film marking device & Alpha Number identification system should be provided. • Free standing fully Transparent Lead Glass Screen for operator protection should be provided. <p>E) <u>POWER SUPPLY REQUIREMENT</u></p> <ul style="list-style-type: none"> • Single Phase, 230 Volts \pm 10%, AC, 50 Hz, 15 Amps with Independent earthing on the wall socket. <p>F) <u>Accessories :</u></p> <ul style="list-style-type: none"> • 24 X 30 cm Bucky with Grid & collimation plate (Motor operated). • Breast equivalent phantom <p>G) <u>Other Requirements :</u></p> <ul style="list-style-type: none"> • The company should be ISO certified and machine and USFDA/European CE Certified • The unit should be approved by AERB • The company should have a local Service centre. • The company should have proven track record in Govt. sector. • Three year warranty from the date of installation • The system should be quoted with guarantee of 3 year & CAMC of 5 year after completion of 3 years guarantee. • 1.5 Ton split AC should be supplied with machine with complete installation (Hitachi/O-general/Dikien/Mitsubishi) 	
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3. It is clarified that the information required in bidding document should be submitted only in enclosed annexure (A to P-1) without any change or modification in its formats. Bids submitted with changed or modified annexure/ formats may be rejected.

Note:- Please note that above all Amendments/corrigendum in technical Specifications/bid conditions, is the integral part of Annexure-C and bid document. This corrigendum shall be signed and annexed with tender/ bid document.



Managing Director
Rajasthan Medical Services
MC Corporation Ltd.,
Jaipur

No. F-8(MI/)RMSC/EPM/R.C. 13-14/NT No.-21/2013/ 61

Dated: 02/04/2013

Copy forwarded for necessary action to:-

1. AGM (IT) to upload on RMSC Website


Executive Director
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MC Corporation Ltd.,
Jaipur

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No. F-8(M1/)RMSC/EPM/R.C. 13-14/NTT No.-21/2013/ 59

Dated: 22/4/13

**Corrigendum/Amendments/Clarifications
(NIB No. 21)**

Subject: - Amended technical Specifications for the tender of Equipment & Instruments, under NIB No. No. F-8(M1/) RMSC/ EPM/ R.C. 13-14/NIB No. 21/2013/443 Dated: 28.02.2013 Corrigendum No. F-8(M1/) RMSC/ EPM/ R.C. 13-14/NIB No. 21/2013/01 Dated: 02.04.2013 and 40 Dated: 15.04.2013

In Reference to above sited subject and NIB No. 21, the Competent Authorities/technical committee amended following technical specifications:-

S.N.	Code No.	Amended Specification
1	RXA001	<p><u>3.0 TESLA MRI UNIT</u></p> <p>Latest Whole Body 3T MRI System of 70 cm or more borer for routine & advance applications.</p> <p>1. Magnet: High homogeneity actively shielded magnet with a short length having a homogeneity of at least or better than 1.5 ppm at 40 cm. DSV. The system's should have special design to reduce acoustic noise. The magnet should have the latest technique for homogeneity B1 field distribution.</p> <p>2. Gradient: The actively shielded gradients should have at least a gradient strength of 40 mT/ m or more with a slew rate of at least 150T/m/ms independently for each axis.</p> <p>3. Patient Table: The table should be fully motorized, Dock able table top with vertical and horizontal movements. For patient monitoring CCTV with color monitor display should be there and also on the control console. ECG triggering, peripheral triggering and respiratory triggering gating to be provided.</p> <p>4. R F System:</p> <ol style="list-style-type: none"> Up to 32 independent Receiver channels or more. Compact solid state RF amplifier with RF Power of (30KW) or more. Digital transmit and receive signal processing for fast and flexible modulation and demodulation of the radio frequency signals.



S.N.	Code No.	Amended Specification
		<div><div><div>iv. Simultaneous acquisition from four or more coils is necessary.</div><div>v. Parallel Acquisition Techniques for reducing acquisition times with a factor of 4 or more in 2D.</div></div><div>5. Computer System: Should be latest with all facilities & system should be DICOM 3.0 compatible & connected with Work stations.</div><div>6. Measurement System: Measurement system should be complete in matrix upto 1024 X 1024. Minimum TE for Gradient Echo sequences should be less than 4 ms. The minimum slice thickness with 2D should be 0.5 mm or less and with 3D should be 0.3 mm or less.</div><div>7. Coil System: (Specify coil tuning procedure)<div><div><div>i. 28-32 Channel Head Coil</div><div>ii. 32 Channel Body Coil</div><div>iii. Neuro Vascular (16 Channel Coil)</div><div>iv. Dedicated 8 Channel Knee Coil</div></div><div><div>v. Bilateral Breast Coil</div><div>vi. Shoulder Coil</div><div>vii. Flexible Coil</div><div>viii. Channel Spine Coil</div></div></div></div><div>8. Application Package:<div><div><div>i. Complete Clinical imaging of Neuro, Body & Peripheral. Required complete software for evaluation of the Bold,, Perfusion, Cardiac, Angiography, Flow Quantification, fMRI, Diffusion Imaging. Cardiac/Body Imaging application like Balanced Fast Field Echo or its equivalent should be offered. High resolution sequences for inner ear studies, sequences triggered with Bolus tracking and fast turbo spin echo sequence should also be offered.</div><div>ii. Proton Spectroscopy Package :<div><div>a. IH-MRS, single Voxel spectroscopy (Spin Echo, STEAM) (for brain, breast, prostate)</div><div>b. Chemical Shift Imaging -1H (2D 3D)/Multi-Voxel Spectroscopy/Multi Slice.</div></div></div><div>iii. Complete Diffusion Tensor, Imaging with Tractography/fibre tracking package with evaluation software.</div><div>iv. Advance Techniques for Neuro & body imaging with respect to motion correction in 3D, for fast and wate saturation.</div><div>v. Arterial spin labelling technique.</div></div></div><div>9. Test Stand- alone workstations with MP Monitors and post-processing capabilities for Tractography Bold evaluation, Functional evaluation, Complete Cardiac evaluation, Neuro Perfusion evaluation software with CBV/RBV Plots etc. and software for vessel segmentation and filming should be available.</div><div>10. Documentation:<div><div>i. Digital DICOM 3.0 Compatible Dry chemistry Laser camera for 14"x17"film size.</div></div></div></div></div>

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S.N.	Code No.	Amended Specification
		<p>ii. Post-script color printer for spectroscopy data.</p> <p>11. UPS: Suitable UPS for the complete unit to give a backup time of 30 minutes with maintenance free batteries.</p> <p>12. Patient Transfer: At least two each mobile non-magnetic patient trolley & non-magnetic wheel chairs. Docable compatible table trolley.</p> <p>13. Accessories:</p> <ul style="list-style-type: none"> i. (Non Magnetic) Automatic Pressure Injector with 100 syringes. ii. MR Monitor for SpO2:- <ul style="list-style-type: none"> a) Unrestricted Gauss Rating b) Color Touch Screen c) Wireless Digital SpO2 d) Express Network Selection e) SpO2 Perfusion Index f) Heart Rate g) Battery Management Indicator h) Quick Connect Accessories i) Green Classification j) 360 Degree Alarm Light k) Light Weight l) Infection Control Compliant with disposable sensors m) Reusable sensors reduce cost of ownership n) Neonatal through Adult applications iii. MRI compatible Anaesthesia Machine with Ventilator a least one iv. Five Split ACs of 2 Ton should be supplied along with complete installation (Hitachi/O-general/Daikin/Mitsubishi) <p>14. Machine should be European CE market/ FDA approved.</p> <p>15. Recently launched model in RSNA up to 2012 but not before 2009</p> <p>16. The machine should be supplied with 3 years guarantee and seven years CMC.</p>

S.N.	Code No.	Amended Specification
2	RXA002	<u>128 Slice CT Scanner Of 70 Cm Or More Bore For All Purpose Scanning Including coronary Angiography</u>

S.N.	Code No.	Amended Specification
		<p>Requirement</p> <ol style="list-style-type: none"> 1. Installation of top of a line Spiral Multi-Slice CT Scanner with capabilities of acquiring 128 slices per 360 degree in body and Cardiac Scan 2. Mandatory Essential feature: <ol style="list-style-type: none"> I. Scan Tim <p>The scan time for one gantry rotation of complete 360 degree should be 0.4 sec or less.</p> II. Detector <ol style="list-style-type: none"> a. Detector should have facility to acquire 128 slices simultaneously in one rotation b. The detector shall have at least 64 rows with each row having at least over 670 elements or specify. c. The detectors shall be large area detector with a Z axis coverage of 38.4 mm per rotation or specify. d. The detectors shall cover 38.4 mm per rotation for standard and cardiac scans or specify. III. Matrix size <ol style="list-style-type: none"> a. Display Matrix of 1024x1024 or more b. Reconstruction matrix of 512x512. IV. Slice Thickness for Spiral Mode: <ol style="list-style-type: none"> a. 128 slice Acquisition with minimum thickness of 0.625 mm or less in axial and spiral mode V. Gantry: <ol style="list-style-type: none"> a. Gantry Aperture : 70 cm or more b. Gantry Tilt: +/- 30 deg c. Scan Field of view : 50 cm or more VI. Scanning Capability: <ol style="list-style-type: none"> a. True 3 – Dimensional Cone beam correction technique shall be available in all modes of acquisition such as axial, spiral, 128 Slice mode, and also in various application studies for whole body and cardiac. b. The ECG gated acquisition shall have high accuracy of real time monitoring and adapting continuously Heart rate changes into the ECG

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S.N.	Code No.	Amended Specification
		<p>trigger delay during each scan. Prospective ECG gated axial Cardiac Scanning for mode should also available as standard.</p> <p>c. The acquisition shall be 128 slice mode for all studies including cardiac. Step & shoot or an equivalent algorithm during cardiac scanning for dose reduction will be an essential requirement.</p> <p>d. Dose modulation shall be available for all types of studies including ECG gated tube current modulation.</p> <p>e. Pediatric and infant base protocols shall be available based on the infant weight.</p> <p>f. <u>Real time contrast monitoring acquisition with auto scan initiation protocol and with auto injector trigger</u></p> <p>g. Latest iterative reconstruction technique launched by company used for low dose scanning should be offered standard.</p> <p>VII. Resolution</p> <p>a. The high contrast Resolution should be at least 17 lp/.</p> <p>b. The low contrast resolution should be at least 4 mm at 3.0 HU. Dose to be less than 28 Mgy, Measurement to be based on 20 cm CATPHAN. (Specify scan time, mA, Filter for image reconstruction, scan field size).</p> <p>Desirable Feature as detailed under:</p> <p>3. Pitch: to be freely selectable in auto mode and also manual 0.15-1.5</p> <p>4. Patient Couch: The table should have a metal free scan able range of at least 160 cms</p> <p>5. X-Ray Generator :</p> <p>a. The Generator should be of high frequency type and having at least 72KW or more output with max current of 500 mA or more. Mention kV selections.</p> <p>6. X-Ray Tube :</p> <p>a. Tube of high heat storage capacity 7.5 MHu or more with effective storage of 25 Mhu.</p> <p>b. Peak Heat dissipation rate of Anode should be at least 800 Khu/min.</p> <p>7. Operator Console:</p> <p>a. It should have a large 18" or more high resolution LCD monitor with a display 1024 X 1280 matrix or more. Dual monitor console one for scanning and one processing</p> <p>b. The System should be user friendly with all functions menu driven. It should be modern user interface.</p>



S.N.	Code No.	Amended Specification
		<p>c. All functions including scanning image reconstruction film documentation, archiving, transferring, MPR Angiography maximum intensity projection. Volume rendering, 3D SSD, CTAngio, vessel measurement, small volume quantification, Virtual endoscopy software for visualization of vessels and air filled structures and Colonography software for virtual endoscopic, colon study, Dental Planning software for panoramic views and cross-sectional cuts of mandible/ maxilla and Brain & Body Perfusion, Lung Nodule Assessment should be possible on this operating console and on the independent workstation simultaneously.</p> <p>8. Computer System & image processor</p> <p>a. 64 Bit/32 Bit main CPU with at least 20GB RAM memory or better.</p> <p>b. High speed CPU using Pentium IV or better running at 3.0 GHz or better</p> <p>c. Hard disc of 250 GB Or more.</p> <p>d. Image storage of 4,00,000 or more of 512 matrix</p> <p>e. CD archive with 600 or 700 MB capacity Discs</p> <p>f. Image Processor : Operating system shall be windows based</p> <p>g. <u>The image reconstruction time should be at least 20 images /per second or better for all types of acquisition modes including Cone beam correction, Neuro Imaging studies and 512 matrix, and standard pitch</u></p> <p>9. Workstation</p> <p>a. There should be additional and a Remote Workstation with 2 nos of 18"LCD monitors for post processing, filming</p> <p>b. It shall be independent fully and be DICOM 3.0 compliant for multi modality study review.</p> <p>c. The computer shall be the latest state of art Pentium processor working on Windows base platform for ease of use</p> <p>d. It shall be a high speed CPU with a speed of 3.0 GHz or better and with an independent Hard disc storage capacity of 125 GB or more</p> <p>Two more remote stations (Thin client base) for image review & post-processing facility with all post-processing function including cardiac, as in available in the main workstation and can be placed anywhere inside the hospital.</p> <p>10. Spiral/Helical Technique:</p> <p>a. Scan length of at least 100 secs continuous.</p> <p>b. Should have facility of Multi-spirals bi-directional spirals and back-to-back spirals.</p>

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S.N.	Code No.	Amended Specification
		<p>11. Software DICOM 3.0 capability</p> <ul style="list-style-type: none"> a. Software for cerebral perfusion study with stroke protocol b. MIP, Volume MIP, CT Angio software with quantitative vessel analysis, Virtual endoscopy software for visualization of vessels and air filled structures and Colonography software for virtual endoscopic , colon study, Dental Planning software for panoramic view and cross-sectional cuts of mandible/maxilla and Brain & Body Perfusion, Lung Nodule Assessment. c. Volume rendering technique with axial cross reference imaging along with measurement tools on volume rendered image 3D, 3D Small volume measurement package MIP Slab viewer d. Calcium Scoring software for coronary arteries e. Complete cardiac package with ECG gated studies (Prospective and retrospective tagging) with <ul style="list-style-type: none"> i. Cardiac review with analysis functions such as Ventricular motion, short axis/long axis view, central stenosis analysis , regional wall motion studies ii. coronary angio, iii. coronary tree extraction, iv. one touch volume rendering of the whole heart, v. ECG gated dose modulation, vi. Calcium and coronary angio reporting, vii. Cardiac study reconstruction must be high speed of at least 20 image per second viii. Prospective ECG Gating cardiac scan <p>12. OTHERS</p> <ul style="list-style-type: none"> a. Software for Remote Diagnostics Service over a telephone line b. ECG Gating gadgets. c. System must be PACS interface ready without any new hardware or software. d. Fully DICOM 3.0 Compliant including: <ul style="list-style-type: none"> i. DICOM Modality work list, with automatic procedure selection



S.N.	Code No.	Amended Specification
		<ul style="list-style-type: none"> ii. Capability from HIS-RIS interface. e. Does saving protocols must be available including <ul style="list-style-type: none"> i. automatic tube current selection suited for selected exam ii. r dynamic on the fly tube current modulation while scanning iii. ECG gated dose modulation to reduce dose during undesired cardiac phases iv. Dose displays such as CTDI volume, DLP, Dose efficiency 13. Hard Copy Unit: <ul style="list-style-type: none"> a. A Dry Camera with Digital Interface and control integrated with main console and workstation, Camera should print on 14"X17" film size, at 500dpi and a Colour Laser Printer for Printing Coronary Scans. 14. Patient Accessories: All patient positioning accessories including head rest should be included 15. Accessories: <ul style="list-style-type: none"> a. Dual Head Pressure Injector with 500 syringes b. 120kVA UPS for entire CT system with 30 minutes backup. Should be of USA or European /Japan origin. c. Five Spilt ACs of 2 Ton should be supplied along with complete installation (Hitachi/O-general/Daikin/Mitsubishi) 16. Miscellaneous: <p><u>Country of origin of the Main Equipment: USA and or Europe/Japan</u></p> <p>European CE marked & FDA approved.</p> 17. The machine should be supplied 3 years guarantee and seven years CMC.

S.N.	Code No.	Amended Specification
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S.N.	Code No.	Amended Specification
3	RXA004	<p><u>High Frequency Dental Digital Ortho Pantograph (OPG)</u></p> <p>Digital Ortho pantograph CCD/ Cemos sensor technology having high frequency DC generator of operating frequency 35 KHz or more.</p> <p>Control Panel</p> <ul style="list-style-type: none"> • Should have easy to use control panel imaging program selection, exposure value selection, fast and high quality panoramic program. Same selection available in the graphical user interface of the computer and all of the required settings should be visible. • Optimized imaging geometry on the control panel for easy operation should be able to expand the focal trough by narrow the width of collimator while imaging the anterior teeth. • Interlocking/ closing temple support and forehead support with all proper consents. • Automatic Collimator Selection (ACS) and Automatic Exposure setting (AES), the machine should recommend the KV- value according to size of the patient's Head. <p>X-Ray Tube of 0.5mm focal spot size and 2.7mm AL or less total filtration.</p> <p>Operation Modes: Should be provided with imaging programme for Adult and child panoramic images, sectional panoramic images, TMJ images or sinus images for orthodontic examinations, with lateral and PA/AP projections.</p> <p>Movements :</p> <ul style="list-style-type: none"> • Should have positioning controls and accessories located close to the operator for improved workflow. • Vertical Movement motor driven with foot switch/Touch switch/ computerized. <p>Anode Current:</p> <ul style="list-style-type: none"> • PAN-10mA (Max.) • CEPH-10mA (Max.) <p>Exposure Time:</p> <ul style="list-style-type: none"> • PAN-15 sec or less for high quality image, 11 sec or less for fast panoramic image • CEPH-15 to 20 sec or less. <p>Digital Film Size:</p> <ul style="list-style-type: none"> • OPG & TMJ- 145x 5 mm or more (CCD /Cemos active sensor surface) • CEPH- Full size 22x26 cm/ Reduce size 22x18 cm, PA & AP projection 22x20 cm • Sectional image – 5 different sections to choose the region of interest – 18 or more combinations 3 positioning light, Mid Sagittal Plane.

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S.N.	Code No.	Amended Specification
		<p>Positioning Markers</p> <ul style="list-style-type: none"> • Three positioning light, Mid sagital Plane • Frankfort plane • Focal Trough - Motorised by moving the rotating unit in Y Direction <p>Centering reference Hinged/ Swivel mirror, 4- point head support for patient stability and open design for accessibility for accurate patient positioning.</p> <p>Standard Accessories to be provided</p> <ul style="list-style-type: none"> • One Spilt ACs of 2 Ton should be supplied along with complete installation (Hitachi/O-general/Daikin/Mitsubishi) • Suitable rating UPS to provided with the machine • Bite Rods (10 Nos.) • Set of Fuses (1 each) <p>Power Supply: 230± 10%, 50Hz, 15A</p> <p>OTHER REQUIREMENTS:</p> <ul style="list-style-type: none"> • The Company should be ISO and European CE/USFDA certified. • The unit should be approved by AERB. • The company should have a local Service center. • Three years guarantee from the date installation. • Spilt ACs of 2 Ton should be supplied along with complete installation (Hitachi/O-general/Daikin/Mitsubishi) • The system should be quoted with guarantee of 3 years & CAMC of 7 years after completion of 3 years guarantee.

S.N.	Code No.	Amended Specification
4	RXA005	<p><u>100 mA HIGH FREQUENCY X-RAY MACHINE</u></p> <p>High Frequency X-Ray machine suitable for general Radiography.</p> <p>X- RAY GENERATOR</p> <ul style="list-style-type: none"> • High Frequency X-Ray generator having Frequency of 20 KHz or more suitable for Radiography Should be provided.

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S.N.	Code No.	Amended Specification
		<ul style="list-style-type: none"> Power output of generator should be 6 KW or more Radiography KV range should be 40 to 100 KV or more mA range (Rad.) : 100mA or more Exposure time (Rad.): 1ms to 3 sec. with maximum numbers of steps. The techniques selector switch should be provided for selecting table radiography/bucky <p>Control</p> <p>A very compact, Soft Touch Control Panel having following functions & indications should be provided. The panel can be supplied in floor or wall mount with Spill Proof design Following features should be available on the control panel</p> <ul style="list-style-type: none"> Machine ON/OFF switch Digital Display of KV & mAs. KV & mAs increase and decrease switches Tube focal spot selection switch. Ready and x-ray on switch with indicators. Bucky Selection switch. Self diagnostic Programme with Indicators for Earth fault error, KV error, filament error & Tube's Thermal Overload. Anatomical Programming Radiography should be provided in which KV and Mas are automatically selected depending upon the physique of the patient and part of the body to be X-rayed A dual action hand switch retractable cord should be provided of Radiation Protection of Operator <p>X-RAY TUBE:</p> <ul style="list-style-type: none"> X-ray tube should be one No stationary anode of BEL/Toshiba/Imported X-ray having focal sport 2.8 mm or less. One pair of 6 meter H.V. Cable One no manual collimator with aluminium filter & for adjustment of exposure area <p>COLUMN STAND:</p>



S.N.	Code No.	Amended Specification
		<ul style="list-style-type: none"> It should have floor to ceiling stand with vertical counter balanced travel It should have 360 deg. Rotation It should be provided one chest stand with machine <p>Table</p> <ul style="list-style-type: none"> Five position manual tilt table having bucky grid ratio of 6:1 with 60 lines per inches should be provided. The bucky tray should accept cassette up to 14"x17" size <p>Other Requirements</p> <ul style="list-style-type: none"> The company should be ISO Certified and machine European CE/USFDA certified The unit should be approved by AERB The company should have a Local Service Center The company should have proven track record in Govt. Sector Three years guarantee from the date of installation Rates of CMC including X-Ray Tube for seven years to be submitted. Demo of machine May be called if required. The Company should provide layout plan and QE test report for registration from AERB.

S.N.	Code No.	Amended Specification
	RXA006	<p><u>300 mA HIGH FREQUENCY X-RAY MACHINE</u></p> <p>High Frequency X-Ray machine suitable for general Radiography.</p> <p>X- RAY GENERATOR</p> <ul style="list-style-type: none"> High Frequency X-Ray generator having Frequency of 40 KHz or more suitable for Radiography Should be provided.

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S.N.	Code No.	Amended Specification
		<ul style="list-style-type: none"> • Power output of generator should be 25 KW or more • Radiography KV range should be 40 to 110 KV or more • mA range (Rad.) : 300mA or more • Exposure time (Rad.): 1 ms to 2 sec. with maximum numbers of steps. <p>Control</p> <p>A very compact, Soft Touch Control Panel having following functions & indications should be provided. The panel can be supplied in floor or wall mount with Spill Proof design Following features should be available on the control panel</p> <ul style="list-style-type: none"> • Machine ON/OFF switch • Digital Display of KV & mAs. • KV & mAs increase and decrease switches • Tube focal spot selection switch. • Ready and x-ray on switch with indicators. • Bucky Selection switch. • Self diagnostic Programme with Indicators for Earth fault error, KV error, filament error & Tube's Thermal Overload. Dual action hand switch retractable cord should be provide. <p>X-RAY TUBE:</p> <ul style="list-style-type: none"> • One No Dual focus Rotating Anode BEL/Toshiba/Imported X-ray tube thermally protected having focal spot:- 1mm or less small Focus 2mm or less large Focus • Anode heat storage capacity of tube should be more than 100KHU • One Pair of 8 meter H. V. Cable. • One no manual collimator with aluminium filter & for adjustment of exposure area <p>COLUMN STAND:</p>

S.N.	Code No.	Amended Specification
		<ul style="list-style-type: none"> It should have floor to ceiling stand with vertical counter balanced travel It should have 360 deg. Rotation It should be provided one chest stand with machine <p>Table</p> <ul style="list-style-type: none"> Five position manual tilt table having bucky grid ratio of 6:1 with 60 lines per inches should be provided. The bucky tray should accept cassette up to 14"x17" size <p>Other Requirements</p> <ul style="list-style-type: none"> The company should be ISO Certified and machine European CE/USFDA certified The unit should be approved by AERB The company should have a Local Service Center The company should have proven track record in Govt. Sector Three years guarantee from the date of installation The machine should be supplied with working compatibility on three phase supply Rates of CMC including X-Ray Tube for seven years to be submitted. Demo of machine May be called if required. The Company should provide layout plan and QE test report for registration from AERB.

S.N.	Code No.	Amended Specification
	RXA007	<p><u>500 mA HIGH FREQUENCY X-RAY MACHINE</u></p> <p>High Frequency X-Ray Generator of 40 KHz or suitable for Radiography</p> <p>X- RAY GENERATOR</p>

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S.N.	Code No.	Amended Specification
		<ul style="list-style-type: none"> The X-Ray generator should be of 40 KW or more. The X-Ray control should have digital display of KV, Ma and mAs. The radiography KV should be from 40 to 110 KV or more Ma range up to 500Ma The exposure time should be from 0.01 to 5.0 seconds with maximum numbers of steps. The techniques selector should be provided for selecting table radiography/ bucky etc. <p>Control</p> <ul style="list-style-type: none"> The voltage indicator should be provided which indicates low/normal/high voltage The generator should have micro processor based electronic overload system. The generator should have dynamic range control with which maximum mAs. Can be achieved at specific KV and Ma. The X-Ray tube should be dual focus of BEL/Toshiba/Imported having rotating anode of 125/20/40 or more. Focal Spot 1x2mm2 <p>HT CABLE:</p> <ul style="list-style-type: none"> One pair of 8 meters HT Cable. <p>COLLIMATOR</p> <ul style="list-style-type: none"> A Manual collimator with aluminium filter & adjustment of exposure area. <p>COLUMN STAND:</p> <ul style="list-style-type: none"> It should be ceiling column stand/Floor mounted with vertical counter balanced travel. It should have 360 deg. Rotation <p>Table</p>

S.N.	Code No.	Amended Specification
		<p>Type 4 way floating table top</p> <p>Lock system Electromagnetic locking system</p> <p>Tot table sliding 4 way sliding table top approx. 430 mm longitudinal, approx. 320 mm transverse</p> <ul style="list-style-type: none"> The motorized bucky with grid ratio of 10:1 with 60 lines per cm should be provided. The bucky tray should accept cassette up to "14x17" size <p>Vertical Bucky Stand</p> <ul style="list-style-type: none"> Vertical bucky should be provided with grid for chest radiography & tray of at least "14x17" or more. <p>Other Requirements</p> <ul style="list-style-type: none"> The company should be ISO Certified and machine European CE/USFDA certified. The unit must be certified from AERB The company should provide the registration & layout plan approval of the installation from AERB before starting the facility. The company should have a Local Service Center The company should have proven track record in Govt. Sector The machine should be supplied with working compatibility on three phase supply Three years guarantee from the date of installation Rates of CMC including X-Ray Tube for seven years to be submitted Demonstration May be taken if required The Company should provide layout plan and QE test report for registration from AERB.

S.N.	Code No.	Amended Specification
	RXA008	<p><u>HIGH FREQUENCY MOBILE X-RAY MACHINE</u></p> <p><u>X-Ray Generator:</u> 100KVP & 60 mA or more, High frequency X ray generator.</p> <p>Output: - 2.5 KW or more.</p> <p>mAs:- 140 mAs or more</p>

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S.N.	Code No.	Amended Specification
		<p>KVP range: 40 to 100 KVP or wider range.</p> <p>Control:</p> <ul style="list-style-type: none"> • Attractive & ergonomically designed Control Panel with total soft Touch Switches for carious operations, • KV increase & decrease switches • mA increase & decrease switches • Machine ON/OFF switch. • Collimator Lamp ON Switch. • Standby & exposure release switch. • Self diagnostic programmed with indicators for:- <ul style="list-style-type: none"> ➤ Earth fault error ➤ KV error ➤ Filament error ➤ Tube head Thermal error • X ray on indictor. • Incoming voltage indictor. <p>Tube Head: - Mono block version, stationary anode X ray Tube, Mention about focal spot.</p> <p>Accessories:-</p> <ul style="list-style-type: none"> • Manual Light beam –cum –shutter diaphragm. • Hand switch with retractable cord • Aluminium filter. <p>Stand: - spring balanced mobile stand very light in weight with tube arm for easy manoeuvre and smooth movements of tube head in vertical plane should be provided. Lead lined cassette storage box. The stand should be able to achieve tube focus on floor distance 75 inch and tube focus to tabletop distance 46 inches. The equipment should occupy minimum floor area and should be capable to be taken through elevator with ease. The Tube arm should be able to Swivel in the range of $\pm 90^\circ$ (Total 180°) for taking radiography on both sides of machine without moving it.</p> <p>Power requirement:- 230 Volt AC, 50 Hz, single phase.</p> <ul style="list-style-type: none"> • The unit must be able to deliver atleast 50 or more Exposures under controlled factors in case of power failure. <p>Other requirements :-</p> <ul style="list-style-type: none"> • The company should be ISO and BIS Certified.



S.N.	Code No.	Amended Specification
		<ul style="list-style-type: none"> • The Unit should be approved by AERB. • The company should have a local Service center. • 3 years comprehensive guarantee of complete unit including tube. • Comprehensive annual maintenance contract for 7 years after Completing the 3 years guarantee Period. • Demo is to be given to if required before finalization • The Company should provide layout plan and QE test report for registration from AERB.

S.N.	Code No.	Amended Specification												
	RXA009	<p><u>SPECIFICATION OF DIGITAL RADIOGRAPHY FOR MULTIPLATE LOADING CR SYSTEM</u></p> <p>The CR System should have following essential features</p> <p>1. Image recording System (Cassettes & Imaging Plated)</p> <p>The following Sizes of radiography cassettes along with image plates should supported & supplied with the unit. Image plates must be flexible/ Rigid to accommodate cassettes in case of OPG's</p> <table><thead><tr><th>Size</th><th>Quantity</th></tr></thead><tbody><tr><td>a. 14"X17"</td><td>2 Nos</td></tr><tr><td>b. 14"X14"</td><td>2 Nos</td></tr><tr><td>c. 10"X12"</td><td>2 Nos</td></tr><tr><td>d. 8"X10"</td><td>2 Nos</td></tr><tr><td>e. 10" X14"/11"x14"</td><td>(only plate size)</td></tr></tbody></table> <p>2. Image Reading (CR Reader/Digitizer)</p> <p>a. The CR Reader/Digitizer Should be able to process up to 90 imaging plates/hour or more, depending on size & application</p> <p>b. It should have a resolution of 5 pixels/mm (Minimum) for standard resolution cassette and 10 pixel for high resolution cassettes reading.</p> <p>c. The system Should have option of having high resolution cassette/reading for all cassette size including 14"X17"& 14"X14"</p> <p>d. It should have input/ output buffer or cassette slots for 4 cassettes or more at one time (for multiplate loading CR System).</p>	Size	Quantity	a. 14"X17"	2 Nos	b. 14"X14"	2 Nos	c. 10"X12"	2 Nos	d. 8"X10"	2 Nos	e. 10" X14"/11"x14"	(only plate size)
Size	Quantity													
a. 14"X17"	2 Nos													
b. 14"X14"	2 Nos													
c. 10"X12"	2 Nos													
d. 8"X10"	2 Nos													
e. 10" X14"/11"x14"	(only plate size)													

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S.N.	Code No.	Amended Specification
		<p>e. It should have a mammography reading resolution of 20 pixel/mm or more.</p> <p>3. Processing Server/CR Workstation with 19" LCD Paned</p> <p>a. PC based unified server/ workstation for centralized patient identification & management of image/ studies</p> <p>b. Process of identification should be ready for interface with existing Hospital information system (HIS) or Radiology Information system (RIS) in DICOM protocols</p> <p>c. This server must provide display of acquired images with a greater detail of demographics, like patient/ study listing for easy access.</p> <p>d. This server must provide full amount of post processing features like Geometric Corrections, Window/Level, Algorithms, Annotations such as markers, Predefined text, Drawing Lines and geometrical shapes, Multi scale image contrast amplification, Measuring Distance & Angles and determining leg length differences, shuttering, histograms, Zoom, Gray scale reversal, Edge enhancement, Noise Reduction, Indicate gray Scale saturation level, Latitude Reduction,</p> <p>e. This terminal must provide a full fledge DICOM printing, should be able to print multiple format (More then four) of patient study, print a true size</p> <p>f. Should be able to sent DICOM images to DICOM viewing station.</p> <p>g. Should be equipped with DICOM CD writer for allowing examination of a patient to be written a CD in DICOM format for referral purposes.</p> <p>4. Dry Laser Imager (For Film Printing)</p> <p>a. The system must be a Dry laser imager camera.</p> <p>b. The system must be DICOM 3.0 Print service class provider, allowing minimum of 10 associations at a time</p> <p>c. The system must be able to process up to 100 films/ hour (minimum) depending on the size</p> <p>d. The system must deliver its first film within 100 second or less from requested</p> <p>e. The system must have spatial resolution of 500PPI/DPI (minimum) for all size printed.</p> <p>f. The system must have contrast resolution of 12bits/pixel or more.</p> <p>g. The system must have at two or more online film sizes and should be capable to print of any of the 8"X10", 10"X12", 10"x14"/11"X14", 14"X14", 14"X17" sizes all input trays should be freely configurable at user level for all mentioned film sizes.</p> <p>h. The system must be not involve any wet process and must give a dry film in single stage (without any user intervention) functionality.</p>



S.N.	Code No.	Amended Specification
		<p>i. The system must have a standard film sorter at the output for storing the film based on modality connected</p> <p>j. It should have single step direct digital printing.</p> <p>k. Please quote the price complete cassettes with imaging plates of different sizes in option</p> <p>5. Interconnectivity</p> <p>a. Interconnectivity between various CR module should be Ethernet/TCP IP based i.e. RJ 45 Connection (10/100 Base T/LAN)</p> <p>6. Connectivity to PACS</p> <p>The System must be ready to integrate itself in PACS environment</p> <p>7. Software</p> <p>a. Application Relate Software like Paediatric, black border/ black marking should be available.</p> <p>b. The system should have software & hardware to perform full leg-Full spine/Long body imaging/image switching.</p> <p>8. U.P.S.</p> <p>The Company should provide UPS for the whole system with minimum 30 minutes backup</p> <p>9. Installation List</p> <p>Firm should attach installation list in India of the model quoted out of which at least two installations should be government hospital of govt. medical college.</p> <p>10. Guarantee</p> <p>3 years comprehensive guarantee of complete system.</p> <p>11. Comprehensive annual maintenance contract for 7 years after completing the 3 years guarantee period.</p> <p>12. Two Split AC 2 Ton each should be supplied with installation (preferably Hitachi/O-general/Daikin/Mitsubishi)</p> <p>13. The Company should provide layout plan and QE test report for registration from AERB.</p>

S.N.	Code No.	Amended Specification
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S.N.	Code No.	Amended Specification
	RXA012	<p><u>SONOGRAPHY COLOR DOPPLER SYSTEM</u></p> <p>The system should be state art with full Digital Technology & should be capable of whole body sonography & other application for adult & paedrics (Infants & neonates) which including Abdominal, Obs/ Gyn, Endovascular, Peripheral vascular, Transcrainal, transvaginal, transrectal & small parts.</p> <ol style="list-style-type: none"> 1. The system should incorporate facility for high resolution 2D, 3D, M Mode, PW color flow imaging, Power Doppler Angio Imaging Modes. 2. The equipment should have more than 20000 Digital Channels & on the site to higher numbers of channels, Higher number of channels is Preferred. 3. The system should have 256 Grey shed or more. 4. All Transducer have Broad Bandwidth for extreme High resolution 2D imaging. Frequency range of transducer should be 2 to 12 MHz or more. 5. System should have advance image processing algorithms to analyse between targets & artefacts so as to sharpen target anatomy, reduce the sparkle & artefacts for improve image quality. 6. The system should have a high Dynamic range of 170 DB or more. Higher dynamic range will be preferred. Scanning depth 30 cm or more. 7. The system should have a very high frame rate of 700 frames per second or more. Please specify frame rate in triplex mode. 8. The system should have Harmonic imaging for tissue for hard to image patients. The system shall support Tissue Harmonic imaging capability on phased, linear,, 3D and curved array transducers. 9. The system shall offer Harmonic imaging in Power Doppler imaging mode for improved sensitivity & specificity in differentiating blood/Agent from Tissue. 10. 11. The system should have a full alphanumeric key Board with illuminated keys & status Display. 12. The System should be able to support at least three Transducers with universal ports allowing any transducers to be connected to any Port. 13. The system should have high Regulation fully articulating non interlaced full flat TFT/LCD Display of 17 inch or more, with Tilt & swivel facility. 14. The system should have facility for Zoom (Real-Time & Frozen image) & manipulation of image through pre processing & post processing with cine loop viewing image of all modes. 15. System should have disc of at least 150 GB or more. 16. The system should have facility of digital storage & retrieval of B/W & color image data (Both frozen & cine loops) on built in as well as ramble media (CD,DVD) USB Port. 17. The system should have automatic real time quantification of Doppler parameter like velocity, frequency, time heart rate slop, flow volume, plasticity index, resistivity index, peak velocity, average value, point value, area & diameter flow volume etc. 18. The system should have capability of triplex display in real time with all probes. 19. The system should have extensive calculation software packages for general measurement, Obs/Gyn, Vascular, Paediatric 20. Machine should be supplied with following transducers:- <ol style="list-style-type: none"> I. Board band convex array Transducer with multi frequency range of 2 to 5 MHz or wider range-1 no.

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S.N.	Code No.	Amended Specification
		<p>II. Broad band transvaginal/ transrectal Probe with multi frequency range between 5 to 8 MHz or wider range-1no.</p> <p>III. Linear probe Transducer 5 to 12 Mhz or more.-1 no.</p> <p>21. The System should have the following documentation devices</p> <p>a) Laser color printer for color image printing</p> <p>b) B/W Thermal printer of latest model</p> <p>c) Glazed thermal paper Rolls 50 no. & 5 rim of Glossy paper sheet.</p> <p>23. All information in the tender document must be supported with product data sheet. Companies should quote the latest model.</p> <p>22. UPS of appropriate rating for 30 minutes should be provided with the system</p> <p>23. One split A/C of 1.5 tone of reputed make.</p> <p>24. Comprehensive guarantee of complete unit including probes & A/C for 3 years</p> <p>25. Comprehensive CMC of complete unit including probes for 7 years</p> <p>26. The unit should be approved by US FDA /European CE to other international accreditation.</p> <p>27. The company should have a local service center</p> <p>28. The company should have proven track record in Govt. sector list of previous installation to be submitted.</p>

S.N.	Code No.	Amended Specification
	RXA0013	<p><u>SPECIFICATION OF B&W ULTRASOUND SYSTEM</u></p> <p>Real time high resolution, ultrasound complete unit best for abdomen, obs/gynae, General use, small parts & peripheral vessels. Capable of high quality image, complying best and latest technology and should be future clinical needs.</p> <p>1. Technical specification:</p> <p>Ultrasound scanner with integrated trolley with probe, soft touch alphanumeric key board with track ball (size to be mentioned)</p> <ul style="list-style-type: none"> • With panel switches & control's easily operable • Integrated High Resplution Monitor (15") • Probes & Gel holder-conviniently placed • Standard accessories, manual, catalogue of quoted model. <p>Following Transducers are to be supplied:</p>

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S.N.	Code No.	Amended Specification
		<ul style="list-style-type: none"> • A- 2.0-5.0 Mhz. Multi Frequency Convex Transducer. - One • B- 5.0-12.0 Mhz. Multi Frequency Linear Transducer. - One • C- 5.0-8.0 Mhz or more Endo Cavity Probe - one. <p>2. Technical Data:</p> <ul style="list-style-type: none"> • All probes should be electronic transducers and multi frequency preferably three frequencies and should give Aperture & depths of scanning. • Controls for Depth, gain compensation, body markers with transducers position. • Real time Continuous dynamic focus. • Auto Annotation facility anywhere on image. • Image display in B,B/M&M Model (2B&2D) • Zoom facility minimum five times or more. • Shades for grey 256 • Inbuilt cine memory. • Unite should be capable of measuring BPD, CRL, FL & AC and other GA parameters. • Facility for image magnification, inversion, changing, scan, direction, freeze facility. • 8 Step STC/TGC should be available. • Frame rate minimum 50 FPS. • Minimum 200 patient memories. • Caliper with trackball for the measurement of distances, circumferences, area volume etc. should be possible to make different measurement on single image. • Alphanumeric key board. • Panel Switches & foot controls. • Patient reports for Obs/ Gynae including fetal growth trend, including Histogram facility for tissue Texture & Trend graph for IUGR cases, Urology, and ortho pedics. • Give the gain adjustable/ Range & its steps. • Calculations needed, Velocity, Heart rate, Volume addl. Modes. <p>3. The system should have the following Accessories:</p> <ul style="list-style-type: none"> • Sony/any make B&W thermal printer with 50 rolls • One KVA Online suitable UPS. <p>4. OTHER TERMS;</p> <ul style="list-style-type: none"> • There years complete guarantee for the entire system, probes and accessories, which should include service as well as parts. • Guarantee will commence after complete and successful installation of the main equipment and all the supplied accessories. • Comprehensive annual maintenance (Labour) for all supplied items to be quoted for next 7 years after expiry of 3 years guarantee period. • An uptime of 98% is to be ensured during guarantee and CMC period.

S.N.	Code No.	Amended Specification
		<ul style="list-style-type: none"> Unit must be USFDA/European CE approved. 1.5 Ton split AC should be supplied with machine with complete installation (Hitachi/O-general/Daikin/Mitsubishi)

S.N.	Code No.	Amended Specification
	RXA015	<p><u>STATE OF ART HIGH COLOR DOPPLER SYSTEM WITH ELASTOGRAPHY</u></p> <p>The system should be state art with full Digital Technology & should be capable of whole body elastography & other application for adult & paedrics (Infants & neonates) which including Abdominal, Obs/ Gyn, Endovascular, Peripheral vascular, Transanal, transvaginal, transrectal & small parts.</p> <ol style="list-style-type: none"> The system should incorporate facility for high resolution 2D, 3D, M Mode, PW color flow imagine, Power Doppler Angio Imaging Modes. The equipment should have more than 60000 Digital Channels & should be up gradable on the site to higher numbers of channels, Higher number of channels is Preferred. The system should have 256 Grey shed or more. All Transducer have Broad Bandwidth for extreme High resolution 2D imaging. Frequency range of transducer should be 2 to 16 MHz or more. The system should be able to capture all frequencies in a single probe without the need for user selection. System should have advance imaging - To evaluate relative tissue stiffness for liver, breast, prostate & other small part application on a variety of transducer like convex, liniar & endocavity transducer. System should have elastic quantification. Liver & small parts imaging should be both non compressible & compressible based & it should be validated & reproducible. Tissue depth should be at least 8cm. or more.. The system should have advance image processing algorithms to analyse between targets & artifats so as to sharpen target anatomy, reduce the sparkle & artefacts for improve image quality The system should have high Dynamic range of 180 DB or more. Higher dynamic range will be preferred. Scanning depth 30 cm or more. The system should have a very high frame rate of 500 frames per second or more. Please specify frame rate in triplex mode. The system should have Harmonic imaging for tissue for hard to image patients. The system shall support Tissue Harmonic imaging capability on phased, linear, 3D and curved array transducers. The system shall offer Harmonic imaging in Power Doppler imaging mode for improved sensitivity & specificity in differentiating blood/ Agent from Tissue. The system should have a full Panoramic imaging to have an extended field of view of structures. The system should have a full alphanumeric key Board with illuminated keys & status Display. The System should be able to support at least three Transducers with universal ports allowing any transducers to be connected to any Port. The system should have high Regulation fully articulating non interlaced full flat TFT/LCD Display of 19" or more, with Tilt & swivel facility.

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S.N.	Code No.	Amended Specification
		<p>15. The system should have facility for Zoom (Real-Time & Frozen image) & manipulation of image through pre processing & post processing with cine loop viewing image of all modes.</p> <p>16. System should have disc of at least 500 GB or more.</p> <p>17. The system should have facility of digital storage & retrieval of B/W & color image data (Both frozen & cine loops) or built in as well as ramble media (CD,DVD & USB Port)</p> <p>18. The system should have automatic real time quantification of Doppler parameter like velocity, frequency, time, heart rate slop, flow volume, plasticity index, resistivity index, peak velocity, average value, point value, area & diameter flow volume etc.</p> <p>19. The system should have capability of triplex display in real time with all probes.</p> <p>20. The system should have extensive calculation software packages for general measurements, Obs/Gyn, Vascular, Paediatric</p> <p>21. Machine should be supplied with electrographic facility with following transducers:</p> <ul style="list-style-type: none"> • Board band convex array Transducer with multi frequency range of 2 to 9 MHz or wider range-1 no. • Broad band transvaginal/ transrectal Probe with multi frequency range between 5 to 9 MHz or wider range-1no. • Linear probe Transducer 9 to 14 Mhz or more.-1 no. <p>22. The System should have the following documentation devices</p> <ul style="list-style-type: none"> • Laser color printer for color image printing • B/W Thermal printer of latest model • Glazed thermal paper Rolls 50 no. & 5 rim of Glossy paper sheet. <p>23. All information in the tender document must be supported with product data sheet. Companies should quote the latest model.</p> <p>24. UPS of appropriate rating for 30 minutes should be provided with the system</p> <p>25. One split A/C of 1.5 tone of reputed make.</p> <p>26. Comprehensive guarantee of complete unit including probes & A/C for 3 years</p> <p>27. Comprehensive AMC of complete unit including probes for 7 years</p> <p>28. The unit should be approved by US FDA /CE to other international accreditation.</p> <p>29. The company should have a local service center.</p> <p>30. The company should have proven track record in Govt. sector list of previous installation to be submitted.</p> <p>31. Demonstration of quoted item is mandatory.</p>

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S.N.	Code No.	Amended Specification
	RXA017	<p><u>FULLY MOTORIZED WIRELESS DIGITAL RADIOGRAPHY SYSTEM WITH TWO FLAT PANEL DETECTOR</u></p> <p>Flat Panel digital Radiography system for all possible Radiography application</p> <p>A fully digital radiography system capable of detector exposure in vertical, horizontal and oblique position to perform all skeletal body and chest radiography. The unit should be completed (integrated generator and image acquisition) and comprise the following along with quality control features incorporated.</p> <p>Generator:</p> <ul style="list-style-type: none"> • Generator should be micro processor controlled high frequency / inverter technology with output 65KW or more. • KVP range 40 KV - 150 KV or more. • Output should be 650 MA or more. • It should have digital display of KVP and mAs with automatic exposure control device <p>X-ray tube and Collimator</p> <ul style="list-style-type: none"> • The X-ray tube should be rotating anode high speed with dual focus having focal spot of the following sizes: <ul style="list-style-type: none"> ➤ Large focus: 1.2mm or less ➤ Small focus: 0.6mm or less • The X-ray tube should be of BEL/Toshiba imported • Tube heat capacity should be 300 KHU or more. <p>Celing suspended 3D Colum Stand</p> <ul style="list-style-type: none"> • It should be Celing suspended 3D Colum Stand having 3 direction motorized movement supported by electromagnetic for safety. <p>X-ray Table</p> <p>Horizontal Table with floating table top with motorized elevated facility</p> <p>It should have in flat panel detector system of 35X43mm size or more/square detector</p> <ul style="list-style-type: none"> • Table Detector & overhead tube can setup with automatic tracking along the length of table Vertical Bucky stand • Vertical Bucky should be provided with grid for chest radiography with tilting facility i.e. + 20 degree should have flat panel detector of atleast

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S.N.	Code No.	Amended Specification
		<p>35X43cms or more.</p> <ul style="list-style-type: none"> • Detector movement should be synchronised with movement of X-ray tube • Dectector if needed can be shifted to another X-ray machine with its integration with same workstation station with compatibility. <p>Digital flat panel detector</p> <ul style="list-style-type: none"> • The detector to have mechanical dimension of standard 35X43cms or more • It should have amorphous cesium iodide matrix as receptor. • Detector should have pixel size of 175 micron or less per pixel, a image matrix should be greater than or equal to 1900 X 2400 pixels • The image acquisition time should be 5 sec. or less at console. • System should be wireless P with Wi-Fi capability • Detector should have in-built battery /removable battery capable of minimum of 150 exposures per charge • The battery should capable of external charging & two additional batteries to be supplied with the system. • The batteries must be replaced free of cost during the guarantee period and during the CMC period. • DQE should be 65% or more. • Both detector and software should be manufactured by the same bidder/ quoted company. • Detector should capable of being used with other x-ray system. • Bidder must provide some authorization letter from the manufacturing company that detector can be supplied whenever capable of being during machine life. • Operating consol • Workstation should have high resolution TFT/LCD monitor of size 19 inch or more with minimum 1024 X 1024 or more & anti refractive front screen. • Should have latest high speed processor of 32 bit or more • It should have image storage disk 400GB or more.

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S.N.	Code No.	Amended Specification
		<ul style="list-style-type: none"> • Should be equipped with DICOM CD writer • System should be able to send or receive DICOM image to DICOM viewing station/ PACS & necessary software to take print out of JPEG images on medical films. • Must be provided for image processing image display post processing function and networking with matrix. • Image acquisition and image processing based on body part and viewing position. • Retrieval of patient list and examination data from Hospital/Radiology information systems (HIS/RIS) SHOULD BE POSSIBLE. • The system should have ready Dicom Interface and networking capability with RIS/HIS/PACS • Post processing function must be available <p>Essential Accessories</p> <ul style="list-style-type: none"> • Voltage stabilizer should be quoted separately along with the unit of required capacity. The capacity and make of the voltage stabilizer should be specified • On line UPS with 30 minutes back up for console/computer system <p>Dry Laser printer</p> <ul style="list-style-type: none"> • The system must be Laser with automatic image quality adjustment & single step printing • The system should accept multiple modality with DICOM input & output and can be connected any DICOM Modality. • The system should be capable of different layout format on single film • The system must deliver its first film within 70 seconds or less from requested • The system must deliver have spatial resolution of 500 DPI or more & contrast resolution of 12 bits/pixel or more for all size film printed. • The system must have three online film sizes and should be capable to print of any of the 8"X10", 10"X12", 11"X14", /10"X14", 14"X14", 14"X17" sizes. <p>OTHER REQUIREMENTS:</p> <ul style="list-style-type: none"> • Three years guarantee including all accessories from the date of installation. • CAMC rate after expiry of guarantee period should be submitted for next seven years.

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S.N.	Code No.	Amended Specification
		<ul style="list-style-type: none"> The detector should be approved by US FDA/European CE & x-ray machine should be AERB approved. The company should have a local service center. The company should have provide the registration & layout plan approval of the installation from AERB before starting the facility. The company should have proven track record in Govt. sector list of previous installation to be submitted. AC of 2 ton 5 in number for flat panel detector & processing work station & printer Company should connect all workstations with existing printers for image printing at signal site On 3 KV online UPS

S.N.	Code No.	Amended Specification
	RXA018	<p><u>SPECIFICATION OF WIRELESS FLAT PANEL DETECTOR</u></p> <p>Flat panel Detectors System two in number to convert the existing analog x-ray system into digital radiography (DR) with a cassette sized wireless DR Detector that fits with existing equipment without any Bucky modification for department of Radiodiagnosis, SMS Hospital, Jaipur</p> <p>Above system should have following specification</p> <p>(A) <u>Digital flat panel detector</u></p> <ul style="list-style-type: none"> Can be fitted in to vertical chest stand/vertical Bucky/horizontal Bucky or work in existing machine The detector to have mechanical dimension of standard 35X43 cms or more It should have amorphous cesium iodide matrix as receptor. Detector should have Pixel size of 175 micron or less per pixel, a image matrix should be greater than or equal to 1900X2400 pixels The Image acquisition time should be 5 sec. or less at consol Weight should be wireless with Wi-Fi capability. Detector should have built in/removable battery capable of minimum of 170 exposures per charge. The batteries should be capable of external charging & two additional batteries to be supplied with the system.

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S.N.	Code No.	Amended Specification
		<p>(B) <u>Processing work station</u></p> <ul style="list-style-type: none"> • P.C based work station, must be medical grade monitor with 5 mega pixel resolution with full amount or post processing software. • Terminal must be provide with full flagged DICOM printing which having facility of multiple format (Minimum Four), It must be able to print a true size image. • System should be able to send or receive DICOM image to DICOM viewing station/PACS & necessary software to take print out of JPEG image on medical films. • Should be equipped with DICOM CD writer. • Should have compatibility & connectivity with existing printer available in the department for image printing • Should be able to connect minimum of three detectors per system. • Monitor resolution should be at 1024X1024. • Hard disc storage should be 600 GB or more • Company should provide necessary software & intrigrate the PC of Registration Counter with Processing work station to transfer the patient demographics with registration <p>(C) <u>Dry Laser printer</u></p> <ul style="list-style-type: none"> • The system must be Laser with automatic image quality adjustment & single step printing. • The system should accept multiple modality with DICOM input & output and can be connected any DICOM Modality. • The system must be able to process up to 180 films/hour or more of mixed film sizes including 14"X17" film size. • The system should be capable of different layout format on single film. • The system must deliver its first film within 70 seconds or less from requested. • The system must have spatial resolution of 500 DPI or more & contrast resolution of 12 bits/pixel or more for all size film printed. • The system must have three online film sizes and should be capable to print of any of the 8"X10", 10"X12", 10"X14"/ 11"X14", 14"X14", 14"X17" sizes. <p>(D) <u>OTHER REQUIREMENTS:</u></p> <ul style="list-style-type: none"> • Three years guarantee including all accessories from the date of installation. • CAMC rate expiry of warranty period should be submitted for next seven years. • The unit should be approved by US FDA/European CE accreditation. • The company should have a local Service centre. • The company should have proven track record in Govt. sector list of previous installation to be submitted. • Down Time penalty 2500/- per day after 24 hours. • Four A.C. of 2 ton each should be supplied with machine with complete installation (Hitachi/O-general/Daikin/Mitsubishi) • Company should connect all workstations with existing printers for image printing at signal site.

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S.N.	Code No.	Amended Specification
		<ul style="list-style-type: none"> One 3 KV online UPS.

S.N.	Code No.	Amended Specification
	RXA019	<p><u>AUTOMATIC FILM PROCESSOR</u></p> <ol style="list-style-type: none"> Should be compatible for sheet type X-ray films. The assembly should be made up of material which is non corrosive and of latest technology, specify the material used. Should be suitable for film sizes from 8x10 inches to 14x17 inches. Should have continuous film roller transport and auto start and stop facility. Should have a variable processing time from 90 to 180 seconds. Should have a developer and fixer tank of minimum 5 liters capacity. The container assembly should be made of non-corrosive material. The main drive should automatically change to standby mode during idle time to prevent wear and tear. Should have sufficient sensors for film detection and level sensors for overflow protection. Should have variable developer and fixer temperature from 30 to 35°C or better. The replenishment containers should have capacity of at least 25 liters and the replenishment should be automatic. Should have film driver facility and the temperature should be adjustable. Should have individual setting for processing time, temperature and replenishment rate. Should have a digital display for processing time and temperature. Should be table top model and should be supplied with mounting stand. Should be supplied with suitable automatic servo stabilizer. Should supply all the accessories necessary for commissioning including 20 liters of developer and fixer. Should work with input 200 to 240Vac 50 Hz supply <p><u>OTHER REQUIREMENTS:</u></p> <ul style="list-style-type: none"> Three years guarantee including all accessories from the date of installation. CAMC rate expiry of warranty period should be submitted for next seven years The unit should be approved by US FDA/European CE accreditation. 1.5 Ton split AC should be supplied with machine with complete installation (Hitachi/O-general/Daikin/Mitsubishi)

S.N.	Code No.	Amended Specification
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S.N.	Code No.	Amended Specification
	RXA020	<p><u>HIGH FREQUENCY MAMMOGRAPHY MACHINE</u></p> <p>A) X-RAY GENERATOR</p> <ul style="list-style-type: none"> • High frequency 20 KHz or more X-Ray Generator should be provided. • Power of generator should be more than 3.5 KW or more • Maximum mA output should be more than 100 mA or more • K V Range should be 23 to 32 KV in steps of increment of 1 KV each/ or more. • mAs Range for large filament should be form 4 mAs to 500 mAs or more. • 1 No. High Voltage Cable should be provided. <p>B) X-RAY TUBE</p> <ul style="list-style-type: none"> • Rotating Anode X-Ray Tube of BEL/Toshiba/Imported having dual focus, dual angle should be provided. • Focal Spots: Small Focus= 0.1 mm² Large Focus=0.3 mm² • Anode Heat Storage Capacity should be more than 150 KHU or more • Tube Assembly Heat capacity should be at least 1.25 MHU <p>C) <u>CONTROL PANEL</u></p> <ul style="list-style-type: none"> • Micro Processor controlled Feather Touch Control Panel with LED display should be provided. • Technique selection: Manual Two Point Technique (i.e. KV, mAs) should be possible. • Anatomic Program for small, medium & Large breasts should be provided. • More than 2 Step Film Density Control be provided. • Automatic Exposure Control device should be provided • Automatic selection of filter as per the KV selected (Molybdenum Filter and Rhodium) should be provided. • Following Digital display should be provided: Large format LED display on the stand – compression force in Kg. compressed breast thickness and Gantry angle should be provided. <p>Breast Release mechanism in case of power failure:</p> <ul style="list-style-type: none"> • Facility to manually release the breast or push to OFF type emergency switches should be available on both sides of gantry to release breast in case of power failure. <p>Below Safety feature should be provided:</p>

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S.N.	Code No.	Amended Specification
		<ul style="list-style-type: none"> • Microcontroller based embedded platform to ensure accurate delivery of exposure parameters. • Automatic compression locking after maximum compression of compression paddle. • Electro Magnetic/Earthing interlock is provided in the machine for safety of user. • Fast Compression release mechanism in case if patient is uncomfortable with compression. • Automatic breast release after X-Ray exposure is completed. <p>D) <u>STAND ASSEMBLY</u></p> <ul style="list-style-type: none"> • A compact Stand having Iso-Centric movement on which C-Arm containing X-Ray Tube & Bucky Assembly is mounted should be provided. • Vertical Movement (Motor operated) should be 600mm or more. • Source to image distance (SID) should be 600mm or more. • Breast Compression: Automatic compression with digital display of compression force should be provided. Adjustable compression force should be available. Automatic Compression release after Exposure completion should be available. • Compression Paddles for Normal & Magnification Mode (Spot Compression) should be provided. • Magnification Device: 1.5X or 1.8X should be provided. • 18 X 24 cm Bucky & collimation plate with Motor operated Oscillating Grid 5:1, 30 lines/cm should be provided. • Molybdenum Filter & Rhodium Filter Changer. • Light Beam collimator with Halogen Lamp with Auto shut off facility should be provided. • Cone for Localization & Radiation protection should be provided. • Switches for up/down movement of gantry, placed conveniently on both sides of gantry should be provided. <p>Separate foot control for gantry movements should also be available for hands free operation.</p> <ul style="list-style-type: none"> • Hand Switch with Retractable cord for initiation of exposure should be provided. • Film marking device & Alpha Number identification system should be provided. • Free standing fully Transparent Lead Glass Screen for operator protection should be provided. <p>E) <u>POWER SUPPLY REQUIREMENT</u></p> <ul style="list-style-type: none"> • Single Phase, 230 Volts \pm 10%, AC, 50 Hz, 15 Amps with Independent earthing on the wall socket. <p>F) <u>Accessories :</u></p> <ul style="list-style-type: none"> • 24 X 30 cm Bucky with Grid & collimation plate (Motor operated). • Breast equivalent phantom <p>G) <u>Other Requirements :</u></p> <ul style="list-style-type: none"> • The company should be ISO certified and machine and USFDA/European CE Certified

S.N.	Code No.	Amended Specification
		<ul style="list-style-type: none"> The unit should be approved by AERB The company should have a local Service centre. The company should have proven track record in Govt. sector. Three year warranty from the date of installation The system should be quoted with guarantee of 3 year & CAMC of 7 year after completion of 3 years guarantee. 1.5 Ton split AC should be supplied with machine with complete installation (Hitachi/O-general/Daikin/Mitsubishi)

Note-1:- Where ever A.C. is required along with machine, it should be read as with brand name or equivalent with five star rating.

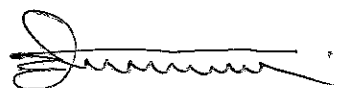
Note-2 :- Please note that above all Amendments/corrigendum in technical Specifications/bid conditions, is the integral part of Annexure-C and bid document. This corrigendum shall be signed and annexed with tender/ bid document.


Managing Director
Rajasthan Medical Services Corporation Ltd.,
Jaipur

No. F-8(M1/)RMSC/EPM/R.C. 13-14/NIT No.-21/2013/ 59
Copy forwarded for necessary action to:-

Dated: 22/4/13

1. AGM (IT) to upload on RMSC Website


Executive Director
Rajasthan Medical Services Corporation Ltd.,
Jaipur



B&W Ultrasound
RC-No. 126, NIB-21

महाराष्ट्र MAHARASHTRA

(एल.एस.सी. नं. ६७४५)

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प्रधान मुद्रांक कार्यालय, मुंबई
प. म. सिस्टेमा क्र. ९५
22 NOV 2013
सक्षम अधिकारी

आनंद भुवन, २/१५, सी. बी. मार्ग,
चिंचपोकली (E), मुंबई - ४०००१२
फोन नं. - २२६२३९८७

MEDION HEALT HCARE PVT. LTD.

201, Shiv Ind. Estate, K. B. B. Marg,
Chinchpokli (E), Mumbai - 12.
Ph. No: 022-23771737/39

श्री. विनोद नंदुरकर

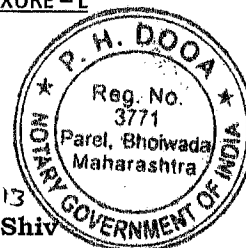
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ANNEXURE - L

Rajasthan Medical Services Corporation Limited, Jaipur

Comprehensive Maintenance Agreement (C. M. A)

(on a non judicial stamp paper of 500/-)



This comprehensive Maintenance Agreement ("Agreement") is made on 13/12/13
01.12.2013 at Jaipur by and between : **Medion Healthcare Pvt Ltd** 201, Shiv
industrial Estate, K B B Marg, Chinchpokali (E), Mumbai - 400012 through
(hereinafter referred to as **Medion Healthcare** which expression shall unless
repugnant to the context or meaning thereof be deemed to mean and include its
successor and assigns)

AND

Managing Director, Rajasthan Medical Services corporation Limited, Jaipur or his
designated officers (hereinafter referred to as the "Purchase Officer" (means user of
equipments / consignee / incharge officer of medical institution) which expression
shall unless repugnant to the context or meaning thereof be deemed to mean and
include its successor and assigns:

Executive Director (EPM)
RMSC, Jaipur

(12)

WHEREAS:

A. **Medion Healthcare** is inter alia, engaged in the business of marketing of equipments and apparatus / instruments manufactured by **Sonoscape Co Ltd** in India and it also provides Maintenance service for Equipments & Instruments in India;

B. The Consignee has asked to provide service and maintenance of equipments installed in its premises and **Medion Healthcare** has agreed to provide the services (as defined in clause 3 below), subject to terms as contained in this agreement.

NOW THEREFORE, IN CONSIDERATION OF MUTUAL PROMISES AND CONVENANTS AND FOR OTHER GOOD AND VALUABLE CONSIDERATION, THE RECEIPT, ADEQUACY AND LEGAL SUFFICIENCY OF WHICH ARE HEREBY ACKNOWLEDGED AND AGREED TO BY THE PARTIES, THE PARTIES EXECUTIVE THIS AGREEMENTS AS FOLLOWS:

COMMENCEMENT :-CMA will only be commence after the completion of guarantee period and a written request by concerned RMSC / purchase officer or his authorized officer to the firm. The RMSC concerned consignee shall ensure the availability of funds and shall also examine the CMA necessity for a particular equipments / instruments.

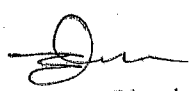
2. TERM, EXTENSION AND TERMINATION OF THIS AGREEMENT :


- i) This C.M.A is the supplementary part of original Agreement (Rate Contract) No. CXXVI of this equipment or instrument.
- ii) The validity period of this C.M.A. is for as specified in bid documents (7 Years) which starts from the next day of completion of Guarantee period of rate Contract referred in clause first above. The C.M.A. starts from After completion of guarantee period day of 2010 and shall end on the dated As per CMA. However, CMA may be extended for further two years by mutual consent subject to the same terms & conditions.
- iii) The security deposited shall be refunded as per clause 12 of original agreement R/C No. CXXVI Subject to that :-
- a) The 25% of total deposited S.D. amount shall be withheld against the security of this supplementary (CMA) agreement.
- b) If there is any default in comprehensive maintenance service the department may forfeit the penalty amount described under clause - 8 or any other recovery from security deposit.

The consignee / Purchase officer may terminate this agreement during the term of this Agreement, at any time as he considers appropriate in the interest of department. No compensation shall be paid to said firm for termination.

3. Scope of this Agreement And services to be rendered under this Agreement by **Medion Healthcare** :

- a) Onsite & service centre labor for carrying out preventive maintenance and repairs.


Executive Director (EPM)
RMSC, Jaipur



- b) All parts require replacement shall be supplied to the consignee by the **Medion Healthcare** under this agreement at no additional cost, During CMA period.
- c) Safety and software updates for features that were originally purchased and forming part of the Equipment during commencement of this agreement.
- d) Routine cleaning, lubrication, replacement of O'rings gaskets etc. for all mechanical instruments.
- e) Routine cleaning & calibration of electronic equipments.
- f) Spare parts are included in the CMA offer and will not be charged extra.

Firms offering Conditions :-

- | | |
|---|--------------------------------|
| • Response time | < 48 hours after first contact |
| • Service hours | Mon – Fri (09.30-18.00) |
| • Preventive Maintenance (PM)** | Any Number |
| • Parts of preventive maintenance | All, as per requirement |
| • Up time | 95% (346 Days) |
| • Breakdown | All |
| • Technical & Application Support session | As required |
| • Demonstrations & Trainings | As & when required |

Note : PM includes Quality Assurance, safety checks and calibration .

- h) Contact details of service providing firm:

Full Address: **Medion Healthcare Pvt. Ltd., 201 Shiv Industrial Estate, Near K.B.B. Marg, Chinchpokli (East), Mumbai 400 012. Ph: 022-23771739**

E mail ID: **sales@medion.co.in**

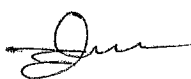
Hotline : **N.A.**

Service Portal : **N.A.**

Toll free Number: **N.A.**

ii) Exclusion of Service under this Agreement:

- a) Damages caused by or arising out of aggravated by fire caused by sources external to the equipment covered under this agreement, theft, flood, earthquake, war, invasion, act of foreign enemy, hostilities or war like operations, (whether war be declared or not), civil war, revolution, insurrection, mutiny, labor unrest, lockout, confiscation, commandeering by a group of malicious persons or persons acting on behalf of on in connection with any political organization, requisition or destruction or damage by order of any govt. de jure or de facto or any public, municipal or local authority.
- b) Any work external to the equipment covered under this agreement.
- c) This agreement does not cover hardware upgrade of any kind
- d) All consumables as per Bid documents as per clause -5


Executive Director (EPM)
RMSC, Jaipur



- e) Any No. of Preventive maintenance visits and any number of breakdown emergency calls will be provided by the firm during guarantee and CMA agreement period.
- f) Training for the quoted equipment / machine, if required, will be provided by the firm without any additional charges.

iii) Limitation of services under this agreement:

- Maintenance and updates will be provided based on originally purchased software options. Additional features, hardware or software, that are not part of the equipments on commencement of this Agreement are not included in this Agreement but can be included on mutually agreed terms & conditions, reduced in writing.
 - Parts will be replaced at the sole discretion of **Medion Healthcare**
 - Whenever a breakdown call is attended, then during such visit, preventive maintenance can also be carried out. Hence, such a visit may be treated as a preventive maintenance visit also.
- required and permitted, the transportation of equipment from purchase officer to service centre of firm back to purchase officer site, is sole responsibility of the service providing firm company.

4. CARE FOR THE EQUIPMENT:

The consignee shall take proper care and diligence in using the equipment so as to ensure that the equipment is protected against damage resulting from accidents, neglect or misuse, pests and insects, etc. the consignee shall also maintain the optimum temperature and other environmental conditions to safeguard the equipment against damages as per the specification given in the instruction manual.

5. PRICE:

- i) In consideration of M/s Medion Healthcare Pvt Ltd Providing the services (As set out in clause 2 above), the M.D., RMSC / E.D. (EPM), RMSC / Purchase officer / consignee shall pay to M/s Medion Healthcare Pvt Ltd Maintenance contract charges (hereinafter the CMA charges) for the equipment set out in Annexure-M, annexed to this agreement
- j) The CMA Charges specified above is inclusive of all taxes, levies, imposition, cess etc. as may be applicable on the services rendered by **Medion Healthcare** to the consignee, if any fresh taxes, levies impositions, cess is levied and changed by the appropriate governmental authority during the terms of this Agreement: the variation shall be borne by the purchase officer.
- k) All the defective parts / items shall become the property of **Medion Healthcare** on replacement of parts and have to be returned to Medion Healthcare by the purchase officer / consignee only if same are replaced without charges.
- l) No price escalation will be applicable.


Executive Director (EPM)
RMSC, Jaipur



6. LIST AND RATES OF REAGENTS, CONSUMABLES & SPARES:

The _____ has the following requirement of reagents, consumables & spares without which this equipment cannot be made operational / functional:-

Sr No	Name of Reagent / Consumable / Spares	Packaging Unit	Price Rs. Per Unit	Remark
1				
2				
3				
So On				

A committee of three members comprising of Hospital in charge, Specialist and the senior most accounts person of that institution will decide the reasonability of rates of Reagents, Consumables & Spares by Negotiation with the Firm.

7. Payment Terms:

The RMSC / Purchase officer / Consignee shall make 50% advance payment of annual maintenance charges after completion of each six month of satisfactory service by way of Demand Draft / Account payee cheque in favor of service providing firm. The remittance charges shall be born by firm. The consignee shall ensure that maintenance and repair are satisfactory during last half yearly period before further advancing CAM charges to firm.

8. Liquidate Damages :

- The Supplier / Service providing firm shall be liable to pay a penalty of rupees Five Hundred per day (varies from equipment to equipment) if the firm didn't response after 48 hours from the time of receiving first complain. The complaint may be sent to firm by way of telephone / fax / letter or e mail. The amount of L.C. will be directly deducted from the S.D. of the firm at the time of refund or before by way of any adjustment order.
- During Breakdown of equipments / machine firm will depute the engineer for immediate rectification of defect within 48 hours positively otherwise equipment may be got repaired on the risk & cost of firm.

9. Assistance For Providing Service :

The purchase officer shall give Medion Healthcare full access to the equipment to enable ~~Medion Healthcare~~ to provide service, make available to the representative of Medion Healthcare appropriate Purchase Officer staff who are familiar with the Purchase Officer work and provide suitable working space and facilities.

10. LOCATION & LOCATION CHANGE :

The Location & Place of installation shall be decided by the appropriate authority of corporation. The consignee may transport / shift any equipment or part thereof without the express consent of ~~Medion Healthcare~~ and asked for maintenance of equipment without any additional cost.


Executive Director (EPM)
RMSC, Jaipur



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11. INDEMNIFICATION:

Each party hereto (the "indemnifying Party") shall indemnify and keep the other party hereto (the "indemnified party") indemnified and hold free from any harm, against all losses, expenditure, damages, costs & claims incurred or suffered by or made against the indemnified party by reason of any breach by the indemnifying party of any of its obligations covenants, representations and warranties.

Each party hereto shall abide by all laws, Bye-laws, rules and regulations of the government and any other authority or local body and shall observe and perform their part of the covenants and conditions and shall attend to answer, and be responsible for all violations of any of the conditions or rules of Bye-laws. Each party hereto shall always keep and hold the other party hereto, harmless and indemnified in this regard.

12. DISPUTE RESOLUTION COMMITTEE:

If both the parties fail to resolve any issue bilaterally then the specific point may be placed before the Dispute Resolution Committee consisting M. D, RMSC / E.D. (EPM), RMSC and concerned purchase officer. The service providing firm shall participate in proceedings through his authorized signatory of rate contract holding firm only.

JURISDICTION :

All actions, Proceedings and suits arising from or connected to this Agreement shall be subject to the exclusive jurisdiction of courts in Jaipur.

IN WITNESS WHEREOF the parties hereto have signed this Agreement on the day and year first hereinabove written:

13/12/13

SIGNED ON BEHALF OF THE.....

SIGNED _____

(AUTHORIZED SIGNATORY)

NAME- MR. NIKUNJ GADA

DESIGNATION : DIRECTOR

RUBBER STAMP

Witness No .1

Witness No .2

Minal Jambale Bhoite
124/3, Sita Jodan,
DL Marg, Kalichowli
MUMBAI-33

SIGNED ON BEHALF OF THE.....

SIGNED _____

(AUTHORIZED SIGNATORY) (EPM)

NAME _____

DESIGNATION : _____

RUBBER STAMP :

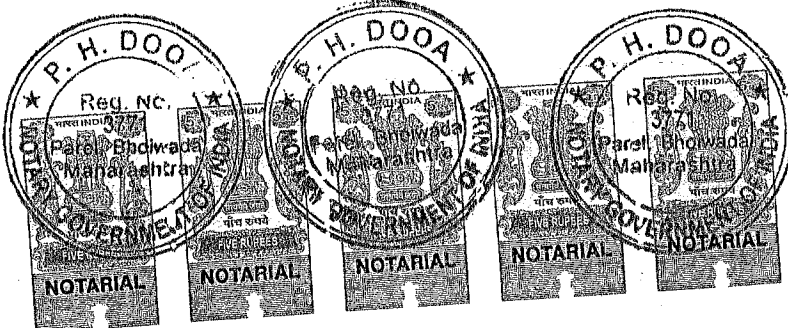
Witness No .1

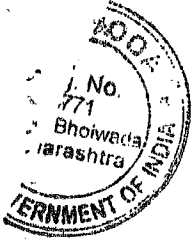
Witness No .2

Assistant Manager (EPM)
RMSC Jaipur

Attested by me

PRANAGH H. DOOA
B.A.L.L.B.
Advocate High Court,
Notary Government of India,
S, Kondey Bldg. No. 3,
Behind Tata Hospital, Parel,
Mumbai - 400 012.





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ANNEXURE-M

Rajasthan Medical Services Corporation Limited, Jaipur

Maintenance Contract Charges/Rates

(Rates From Annexure-D/BOQ)

Item - Code No. RXA 013 B&W ULTRASOUND SYSTEM

Name of Firm- M/s Medion Healthcare Pvt. Ltd., Mumbai

Sr. No.	Years (After completion of three year comprehensive guarantee period)	Prices excluding taxes and other all kind of charges	
		In Figures (In -Rs.)	Rs. In Words
1	Ist Year	10000.00	Ten Thousand
2	IInd Year	10000.00	Ten Thousand
3	IIIrd Year	10000.00	Ten Thousand
4	IVth Year	10000.00	Ten Thousand
5	Vth Year	10000.00	Ten Thousand
6	VIth Year	10000.00	Ten Thousand
7	VIIth Year	10000.00	Ten Thousand

Signature with seal
MUMBAI
Authorized Signatory

Signature with seal

Authorized Signatory of RMSC