TENDER CALL NOTICE

Sealed tender for supply of Medical equipments for the year 2017-18 are invited from manufacturers / Authorized distributors / Authorized dealers / Authorized agencies / Authorized representative and SSI Units having valid required registration, The Tender documents with required details can be obtained from the office of the Director ESI Scheme, Bhubaneswar, Odisha, Unit-VIII, Nayapalli, Bhubaneswar on payment of Rs. 10,000/- (Rupees ten thousand) + 5% GST only in shape of Bank Draft (Non refundable). The same can be obtained by post on payment of Rs. 10,000/- (Rupees ten thousand) + 5% GST only in shape of Bank Draft issued in favour of "Establishment Officer", Directorate of ESI Scheme, Unit-VIII, Nayapalli, Bhubaneswar payable at SBI, Bapuji Nagar, Bhubaneswar at least one week prior to last date, accompanied by the request in plane paper along with a self-addressed envelope of 9"x12" size with postage stamp of Rs. 50/- affixed on it. The same can also be downloaded from web site **www.odisha.gov.in** and from web site **labour.odisha.gov.in** (Labour & ESI Department ,Govt of Odisha). The cost of Tender document of Rs. 10,000/- + 5% GST (Non-refundable) should be attached in shape of Bank Draft.

The Tender paper complete in all respect along-with the original Money Receipt / documentary proof of cost of Tender paper and EMD should be submitted in the office of the undersigned as per the time schedule. The tender paper received after due date and time will not be opened nor considered. The office will not be responsible in any way for delay in receipt of Tender Papers sent by post.

Those technical bid of tenderer will qualify their price bid shall be opened.

The authority reserves the right to reject / cancel any or all the tender received without assigning any reasons thereof.

Any legal dispute is subject to Bhubaneswar jurisdiction only.

Time schedule for the Tender

Date of time for sale of tender documents	19.01.2018 to 02.02.02.2018 at 11 am to 4 pm
Last date & time receipt of tender (technical bid & price bid separately)	03.02.2018 at 4 pm
Date and time of pre-bid meeting	24.01.2018 at 11.30 am
Date and time of opening of Technical bid	05.02.2018 at 11.30 am
Date and time of opening of Price bid.	Will be communicated later on

Sd/-
DIRECTOR
Directorate of ESI Scheme
Odisha, Bhubaneswar

DIRECTORATE OF ESI SCHEME, ODISHA, BHUBANESWAR

Short Tender for
Medical Instruments & Equipment for the year-2017-18
(As per schedule)

Date of Commencement of sale of tender documents	:- 19.01.2018
Last date and time for sale of tender documents	:- 02.02.2018 at 4 pm
Last date and time for receipt of Tender	:- 03.02.2018 at 4pm
(Technical bid and Price bid in separate seal cover)	
Date and Time of opening of Tender (Technical bid)	:- 05.02.2018 at 11.30 am
Date and Time of opening of Tender (Price bid)	:-Will be communicated later on

Place of opening of Tender
in the chamber of Director
Directorate of ESI Scheme, Odisha
Bhubaneswar, Plot No-A/122,
Unit-VIII, Near Kalayani Mandap
Bhubaneswar-12

Sd/-
DIRECTOR
ESI Scheme, Odisha,
Bhubaneswar

GOVT OF ODISHA

Directorate of ESI scheme, Odisha, Bhubaneswar-751012

The Director of ESI Scheme, Odisha, Bhubaneswar(Here in after referred as "Director") invites sealed tenders in the prescribed forms from the manufactures/ Authorised Distributer/ Authorised Agencies/ Authorised Representatives/ Authorised Dealers/ SSI Units having valid required registration for supply of Medical Equipment as per specifications mentioned in separate sheet of schedule- Annexure-I

Tender submitted by Tenderers addressed to Director ESI Scheme, Odisha, Bhubaneswar are to furnish their relevant registration certificate along with the tender document in shape of a self attested photo copy.

SALE OF TENDER FORMS

Catalogue (Non Transferable) together with terms and conditions and tender form are obtainable from the office of the undersigned on payment of Rs 10,000/- (Ten Thousand) only +5 % GST. The same can be obtained by post on payment of Rs 10,000/-(Ten Thousand)+ 5 % GST only in shape of Bank draft issued in favour of " Establishment Officer", Directorate of ESI Scheme payable at State Bank Of India, Bapuji Nagar ,Bhubaneswar accompanied by request in a plain paper along with a self addressed envelope 9" x 12" size with postage stamp of Rs 50/- affixed on it. The cost of Tender paper is compulsory and receipt so obtained against payment should be enclosed in original along with tender paper (Technical bid).In case of down loaded tender paper the orginal money receipt not required the Demand Draft for cost of tender paper should be enclosed. In case of SSI unit and MSEs registered with NSIC the cost of Tender Paper is not applicable.The cost paid for tender paper and catalogue is non- refundable. The same can be also down loaded from web site **www.odisha.gov.in** . and from web site **labour.odisha.gov.in** (Labour & ESI Department ,Govt of Odisha).the cost of tender document along with GST is non refundable. The SSI unit registered with Directorate of EPM (O) will be entitled to get Tender paper free of cost for their registered items as per I.P.R. 2007 provided they have to submit the documentary proof for the purpose.

The Tender document may be obtained from 11 am to 4 pm on all working days except on the last date of receipt of tender paper as per the following time schedule. The Director ESI Scheme, Odisha shall in no-way the responsible for loss of tender documents despatched by post and also any delay in delivery to the addressee.

The tender papers will be sold and dropping of tender paper in tender box in all working days only from11 am to 4 pm as per date mentioned. The tender paper will be opened as per scheduled date & time in presence of tenderers/their authorised representatives.

ELIGIBILITY CRITERIA

A. For participation in the tender

1 The tenderer should be manufacturer/authorised distributor/authorised agency/ authorised representatives/authorised dealers/SSI units having valid registration as per law.

2 The outside agency, manufacturer should have their branch having GST in State of Odisha.Or he will open the branch,depo having GST. After selection of his bid. In case if out side bidder should submit the undertaking in bid documents.

3. Documents attached to the tender shall be verified by screening officer of the Directorate along with original document who will report in details on the eligibility of tenderer for further examination in the DLPC.

4. The tenderers are required to produce the original documents for verification by the screening committee on the day following the date of opening of tender (Technical Bid). There shall be a technical committee to assist the purchase committee as regards to the quality usefulness and applicability of equipments for the use in hospitals sanctioning at different places with ISI,BIS,FDA,CE,OR UL standard. If desired by the committee the sample of the items shall be produced by the tenderer for demonstration.

5. After technical bid is opened by the tender committee the technical committee will examine the technical bid /Brochures and leaflet and recommend the items with comments for further consideration of DLPC along with price bid.

6. The participants of the tender should not have been black listed by any Govt. Offices/ Govt. Undertaking/ Organization. In case it is detected later on that the participant firm is black listed one, the tender submitted by such tender would be rejected forth with and earnest money and security deposit will be forfeited to Govt. In addition to such legal action as may be deemed fit and proper. The tenderer should submit the declaration in this regard.

7. The firm should have own registered service centre having service Tax registration No in Odisha.

B. For submission of Tender

There shall be two bids for examination of the offers by the DLPC. One is Technical and another is the Price bid.

TECHNICAL BID

1. The tenderer must have 3 years experience in supply of Medical equipment and instrument to Govt/Semi Govt organization/ P.S.U./ UNO agencies and other medical institution etc.
2. The tenderer should mention clearly the details of the manufacturing address of the equipment to satisfy the undersigned about the exact location of the manufacturer for further correspondence by the Directorate when ever required.
3. The tenderer should mention his status and status of the manufacture such as ISO 9001 to 2000/ ISI, FDA,CE,OR UL marked with annual supply turnover of Rs 25 corer for preceding last 3 years for satisfaction of DLPC.
4. The quality, durability, guarantee, warranty and AMC of the items should be specified for examination of DLPC.
5. The tenderer should also quote the details of special preference of the equipment to be quoted.
6. The tenderer should enclose the above points in format in Annex – 4

The tenderer should submit the offer of the technical bid in sealed cover separately in the tender box meant for technical bid.

The tenderer have to super scribe as Technical bid 2017-18 in bold capital letter on top of the sealed envelope.

All the documents along with the terms and conditions of this tender shall be enclosed to the technical bid by the tenderer except the price bid. Which shall be inserted in separate tender box?

The tenderer should sign on each page of the tender documents attached to the technical bid except the EMD and the tender paper cost.

PRICE BID

The tenderer should quote the price of INSTRUMENT & EQUIPMENT in a separate sealed cover in a prescribed format as the sealed cover of the price of equipment to be inserted in separate tender box. If the tenderer dose not qualify in technical bid the price bid offered will not be entertained. In case of unsuccessful bidder for technical bid price bid will be returned as received in the sealed cover without being opened. The tenderer should quote the price inclusive all taxes excluding G.S.T excluding as admissible. In case of outside dealer approved in tender shall supply the goods through their branches having G.S.T registration certificate in state of Odisha. The tenderer should submit the price bid in Annex-V.

DEPOSIT OF EMD-The tenderer is required to deposit an amount of Rs 20,00,000/-for EMD at the time of submission of tender in the following manner.

1. Demand Draft
2. Post Office Savings Account.
3. National Savings Certificate.
4. Post Office TERM deposit Account.

The EMD is to be pledged in favour of Director, ESI Scheme, Odisha, Bhubaneswar The local MSME registered frims registered with respective DICs, Khadi, Village, Cottage and Handi craft industries, OSIC & NISIC are exempted from payment of E.M.D Any tenderer claiming exemption of depositing EMD should submit the relevant documentary evidence issued by the competent authority of the Govt. of Odisha. The tenderer shall not to be entitled any interest on the earnest money. The earnest Money deposited by the unsuccessful tenderer will be refunded as early as possible after the tenders are finalized. If the finalization of tender takes time more than 3 months the bidder should deposit the fresh draft to avoid the lapses of validity.

Earnest Money deposited by the successful tenderer shall be retained and will be returned after expiry of the approved list or completion of supply. The EMD will be forfeited if the tenderer withdraws the tender or does not accept the approved list or dose not supply the items within the stipulated time as per the terms & conditions of the tender or the product supplied is proved to be of substandard quality .

Documents must be submitted along with tender paper otherwise the tender is liable to be rejected

The following documents shall be submitted by the tenderer as MUST along with tender paper.

1. EMD (Earnest Money Deposit) and in case of claiming exemption supporting documentary evidence.
2. Original money receipt in respect of purchase of tender document.
3. Photo copy of up to date manufacturing license of the manufacturer.
4. Photo copy of up to date Income Tax return for the assessment year 2017-18.

5. Photocopy of G.S.T Registration certificate (Self attested).
6. Detail Name, Address, Telephone No, Fax No, email ID, of the firm and of the Director/Managing Partner/Proprietor of the firm.
7. Photo copy/Original authorization certificate from the manufacturer for supply of item in case of Authorized Representatives /Authorized Distributer and Authorized Agency.
8. Self declaration in respect of no dues of any Government pending against bidder.
9. Deceleration regarding not black listed by any Govt. officers/Govt. undertaking/Organizations.
10. Documentary evidence in support of supply turnover 25 crore for last 3(three) preceding each years in supply of any medical equipment and instrument to Govt. /semi Govt. organisation/UNO agencies / PSU and any Corporate medical institutions.(i) Copy of purchase order (ii) Evidance of payment receipt or performance report of the institution against purchase order.
11. In case of claiming any exemption/concession by SSI/MSME units shall submit the documentary evidence obtained from concerned competent authority.
12. Self attested copy of Solvency Certificate

No tender shall be accepted if the same is not supported with above document mentioned at Sl 1 to 12 along with Annex 1 to VI except Annex-V.

The right of acceptance of tender and award of contract rest with the Director who does not bind herself to accept the lowest tender and also reserve herself the right to reject any or all the tenders received without assigning any reason what so ever. Any dispute that may arise in future will be finalized amicably by the Director.

Legal dispute is subject to Bhubaneswar Jurisdiction only.

SECURITY DEPOSIT

1. The successful tenderer will have to furnish a security deposit 10% of the contract value of goods for which order shall be placed by the indenting officer within 7 days from the date of receipt of indent. The Security deposit is to be furnished in shape of NSC/Bank guaranty or in shape of postal savings Bank

Account clearly pledged in favor of the indenting officer. In event of failure of payment of security deposit the order is to be treated as cancelled and indent is to be placed to the next approved firm. In case there is no next firm then the item is to be purchased locally after observing all financial formalities. The differential cost shall be realized from the defaulting bidder from this EMD.The local MSME bidder ,if selected shall be require to pay 25% of the value of performance security.

2 The security money will be released and returned back after completion of supply or completion of audit. The security money shall be forfeited in case the item of supply found to be of sub standard quality or violating the clauses of contract by competent authority.

VALIDITY OF TENDER

The tender shall remain valid for a period of 12 months from the date of approve list or till finalization of next tender whichever is earlier. No extension of time shall be allowed for submission of tender under any circumstance unless otherwise specifically extended by the Director.

TENDERERS UNDERSTANDING OF TENDER DOCUMENTS

The tenderers shall carefully go through the tender documents and fully satisfy himself to all the terms and conditions contained therein before submission of the tender.

If the tenderer find any discrepancy or omission or in doubt as to their measuring relating to tender document should at once inform the Deputy Director / Insurance Medical Officer (CMS) and obtain clarification in writing prior to submission of tender. Verbal clarification or information given by the employees working under the Directorate is not acceptable.

NO CLAIM OF COMPANSASTATION FOR SUBMISSION OF TENDER

No tenderer shall be entitled to claim any cost charges expenses etc incurred by him or incidental expenses there in connection with submission of this tender even though the Director may elect to withdraw the invitation of tender without notice and without assigning any reason thereof.

RELEASE OF PAYMENT

The payment against the supply of items by selected bidders shall be considered after completion of supply and installation in destination.

The mobilization advance may be considered maximum upto 90%of the total cost after completion of supply subject to within 20 days at the discretion of Director and rest amount shall be released after installation and demonstration. The tenderer should produce the claim bill along with the document like Packing list, Manufacturer test certificate, Certificate of Insurance in original, Bill of landing /Airway bill/Rail receipt/ Lorry receipt or any other dispatch document. Mode of payment shall be through ECS / RTGS.Any disputes arises among the indenting officer and tenderer shall be settled amicably and subject to Bhubaneswar jurisdiction only.

Sd/-
DIRECTOR
Directorate of ESI Scheme
Odisha,Bhubaneswar

INSTRUCTION TO TENDERER FOR SUBMISSION OF BIDS

A. Instruction to tenderers while purchasing

1. Each set of tender document shall have serial no and each page thereof dulyauthenticated by initial signature of any officer authorized by Director with rubber stamp affixed. The tenderer should check the documents if there are any lapses the tenderer should immediately report the fact to the issuing officer for its rectification.
2. The original money receipt obtained for payment of tender paper should be carefully preserved and should be enclosed in original at the time of submission of tender paper.

B. Instruction to tenderer while submitting the tender paper.

1. All paper submitted with tender and the tender itself should bear the signature of the tenderer in every page.
2. Capital letter should be used in filling of the tender form and should be neatly typed or computerized.
3. All corrections/ Additions/ Alteration in tender document shall be authenticated by initial/signature of the tenderer and rubber stamped. Lapses on this instruction are liable for rejection.
4. The rate quoted in price bid should be written both in figures and in words and no erasing or over writing shall be entertained.
5. All information in this tender document shall be in English only.
6. Tenderer if desires may cite the brand name in addition .
7. The tenderer may quote the rates of all the items contained in the tender or a part thereof. The rate should be quoted FOR destination against each item for respective institution as per schedule .The rate should be quoted in Indian currency only.
8. One rate should be offered for one item in case there are really different quality for brand to be offered against one item and all of them confirm to standard and specification of the required item both the rates can be offered for consideration. The tenderer in all such cases shall clearly mention the Make, Brand, Model, and specification and shall furnish Literature/brochures for each item.
9. Submission of more than one tender by a particular tenderer under different names is strictly prohibited. In case it is detected later on that this condition of been violated all the tender submitted by each tender will be rejected or cancelled and earnest money and security deposit forfeited by Govt.

10. Tenders directly received from the manufacturer will be given preference subject to they have branches bearing G.S.T registration certificate in the state of Odisha. Tenders of any firm newly constituted in experience and without credibility will be rejected. Also the tenderer shall furnish a brief write up supported with adequate data and evidence explaining and establishing his prudential manufacturing capacity, quality control system, financial back ground and past performances.

11. The sealed tender both technical bid and price bid should be inserted in tender box kept in the office of the Directorate ,ESI Scheme, Odisha, Bhubaneswar as per time schedule in separate box. If the due date so mentioned above is declared as holiday by the Govt of Odisha the last date and time for submission and opening of tender shall respectively be the time are aforesaid on next working day. Sealed tenders super scribed as above may also be send by Regd. Post addressed to the above authority so as to reach by due date and time. The tenders delivered or sent otherwise as stated above will be at the risk of the tenderer. The tender received after the date and time specified above is liable to be rejected.

12. The approved tenderer will have to execute an Agreement on non judicial stamp paper of Rs 500/- only and the value of stamp paper shall be borne by tenderer.

13. Abnormal low price of an item quoted by tenderer in the tender with some malafied intention will not be accepted.

TENDERS ARE TO BE ACCOMPANIED WITH THE FOLLOWING DOCUMENTS

1. Original money receipt or documentary evidence of fees paid for purchase of tender papers.
2. EMD as prescribed in the tender notice.
3. Literature of information/ brochure indicating detail specification, procedure for use of the articles.
4. Documentary evidence in support of minimum turnover of 25 core per annum for last three preceding years supply of medical equipment and instrument .
5. Experience certificate of supply.
6. Power of Attorney /authorization to participate the tender.
7. All required registration certificates.

8. Balance sheet certified by CA, Income Tax return and PAN card for last year.

9. Copy of G.S.T Registration Certificate.

10. In case of bidder from outside state shall furnish an under taking that he has no business in the state of Odisha.

11. In case of tenderer exempted from any Tax or he enjoy the benefit of deferments, he must submit documentary evidence to this effect.

12. Self declaration of not been black listed by any organization.

13. Covering letter in the letter head of the tender listing out all the document submitted in tender.

Sd/-
DIRECTOR
Directorate of ESI Scheme
Odisha,Bhubaneswar

SCHEDULED

SL NO	NAME OF THE ITEM	QUANTITY	INSTALLATION POINT	SPECIFICATION
1	3T MRI HIGH END MACHINE	1 NO	ESI HOSPITAL, BHUBANESWAR	Copy Attached
2	CT SCAN 128 SLICE MACHINE	1 NO	ESI HOSPITAL, BHUBANESWAR	Copy Attached

SPECIFICATION FOR MULTIDETECTOR CT SCANNER OF MINIMUM PHYSICAL DETECTORS OF 64 ROWS OR MORE AND IS ABLE TO GENERATE 128 SLICE OR MORE PER ROTATION

The Multi slice Spiral CT Scanner designed for the whole body and cardiac scanning.

System should be able to Generate 128 Slice or more per Rotation using suitable Technology as Standard…..Rotational Speed 0.35 Sec or Less / 360 Deg Rotation in all Modes

The system consisting of Gantry, Couch, Operating console with preview station, MultiModality post-processing workstation, filming with DICOM compatible Dry Laser Imager, Color Laser Printer, Dual Head Injector.

An online UPS & Stabilizer for the complete system for backup power in case of mains failure and fluctuation…Image Storage in system HD and image transfer through CD Writer

The system must have DICOM (latest version) on line data/image transfer capability

Rotating anode type X-ray tube and Solid State /Ceramic detector Automatic injector synchronized with the system.System should be Brand New and from current production . It should be equipped with the Ultra-Low Dose Reduction facility such as SAFFIRE / I Dose 4 / Equivalent Technology

Technical Parameters: Gantry & Scan Section :

Aperture : 75 cm or more.

Scan field : 50 cm or more
Rotation Time : 0.35 Sec or Less / 360 Deg Rotation
Recon Slice Thickness : Adjustable from 0.5 to 8 mm
Recon Time : 24 images/sec or faster

X-ray Generator:

X-ray generator : 70 KW or more in Built in the Gantry or (140 KW equivalent in dose Reduction Mode (AIDR).
X-ray generator type : High frequency Inverter type
X-Ray Exposure : Continuous

X-Ray Tube:

Computer controlled monitoring of Anode temperature & Air Cooled Gantry
X-Ray Tube Voltage : Adjustable from 80 to 135 KV or more
X-Ray Tube Current : 10-600 mA or 1200MA max equivalent in dose reduction Mode (AIDR)
Anode heat storage capacity : 7.5 MHU or more or of Equivalent with Electron Collector Technology and 14MHU equivalent in dose reduction mode(AIDR).
Cooling Rate : 1300 KHU/min or more.

X-ray Detection

Detector Type : Solid State / Ceramic Detector
Detector Element/Channels per Row : 850 Element/Channel or higher
Number of slices/rotation : 128 or higher
Number of Detector Row : 64 or higher
Coverage per Rotation : 40 mm or higher @ 1.2 Pitch or less.

Patient Table:

1. Remote control of the couch from console
2. The table move vertically and the table top moves longitudinally;
3. Motor driven couch top movement
4. Load capacity 200 Kg or more
5. Scan able range 1800 mm
6. Couch to wide at least 47 cm

Scanning & Image Processing console :

ONE stand-alone console for scanning and Imaging processing having keyboard , Monitor and mouse.

Processor : 64 bit processor
Monitor : TFT/LCD 19", with 1280 x 1024 resolutions
RAM : 3 GB
HDD : 720GB for Raw Data (36000 rotation &
365 GB for Store 500,000 images
CD writer : CD & DVD
DICOM Viewer : automatically included in every CD for viewing in PC

Softwares:

3D Color Image Processing
3D Surface Rendering
3D Volume Rendering including CT Angiography
MPR (Multi Planer Reconstruction),
Fly Through Software
ECG Gated Scan & Reconstruction with Step & Shoot System
Injector Synchronization System
4D Imaging

Advanced Multi-Modality & Cardiac Post-Processing Workstation – Two N o :s
High performance computer with advanced multi-modality post-processing facility.

Processor : 2 x Xeon 2.6 GHz
Monitor : TFT/LCD 19", with 1280 x 1024
RAM : 6 GB
HDD : 250 GB
CD/DVD writer : should be available
DICOM Viewer : automatically included in every CD for viewing in PC

Special Processing Software's for Multi-Modality Cardiac Workstation:

3D Color Image Processing

3D Surface Rendering
3D Volume Rendering including CT Angiography
MPR (Multi Planer Reconstruction),
CT Colonoscopy
CT perfusion study for brain etc.
Lung volume analysis
Dental CT

Dual energy up gradation facility (DECT)

System should have the option to be up graded for dual energy applications in future.

Accessories & civil works:

7. Dual Head Cardiac Injector:

Pedestal Head Mount and interface with CT System to start the injection from the CT-Console
Flow rate: 0.1 to 10 ml/sec in 0.1 ml increments
Programmable pressure limit for 200 ml syringe: 2241 kPa
Syringe: 200 ml
Display control unit with stand
100 syringe and tubings

8. Dry Laser Imager:

Resolution: 325 dpi
Throughput: 70 films/h
Film size: 35 x 43 cm / 28 x 35 cm / 35 x 35 cm – One size online

9. **WORK STATION** :

One Workstation should be provided with the system having i5 processor or equivalent ,4GB Ram,500 GB or more HDD and should have minimum 19 inch medical grade monitor.It should have DVD R/W drive, Minimum 3 USB ports and should be having DICOM 3.0.(Dicom storage function,Q/R etc.)

The software for the workstation should be of the same manufacturer and should able to perform
3D Surface Rendering
3D Volume Rendering including CT Angiography
MPR (Multi Planer Reconstruction),
CT Colonoscopy
CT perfusion study for brain etc.
Lung volume analysis and lung nodule analysis.
Dental CT
Liver segmentation

Color Laser Printer:
Resolution: 600 x 600 dpi
Throughput: 30 pages / min
Media types: A4, A5, B5 – Plain paper

UPS: True on-line UPS for 60 minute backup of the whole system in case of mains failure & fluctuation. KVA rating of UPS should be mentioned in the offer. The CT Scanner in addition should be supported by a separate Suitable High Capacity Stabilizer for the Complete System as a Stand BY Protection in the event of failure of the UPS.

Lead glass: 2 ft X 4 ft lead glass between Machine room and Control room for radiation protection.

Training: 2 weeks of Applications Training at Site by a visiting CT Applications Specialist from the Principal Manufacturer

Quality Standard: Product quality certificate FDA & CE must be submitted with the offer. The System offered should carry a NOC from AERB for Installation in India.

Warranty :

1. Five years for CT Scanner System including X ray tube and all accessories.
2. The offer should be accompanied by Original data sheet/brochure of the product .
3. The Cost of the CMC (Comprehensive Maintenance Contract) from 6^{th} to 10^{th} year inclusive of labor, spares and X Ray tube. The CMC Should cover all vendor items and local accessories.. This will be added to the Cost for evaluation of the Tender and to arrive at the Lowest Bid.

Technical Specification of 3.0 Tesla MRI System

Sl.No.	Tender Specifications
	Quoted Model :
	'State of the art' Whole Body 3.0 Tesla Magnetic Resonance Imaging System optimized for all body applications, including musculoskeletal, vascular, pediatric, hepatobiliary, abdominal, cardiac and neurological applications with super conducting magnet, high performance gradients and digital Radio Frequency System. The manufacturer/ bidder must quote the latest 'state of the art' 3 Tesla MR system as per the specifications below. Latest model to be quoted;. Model should be US-FDA approved.
	Please mention the year of launch of the quoted model/version/release offered. It should be latest RSNA November 2014 launch –or later. The manufacturer will guarantee the latest available version with latest hardware and software at the time of delivery. Future hardware upgrade should be provided free of cost for the next 10 years. The detailed specification that follows shall be understood to be minimum requirement.
	The offered model should be USFDA approved. Authentic and legible certificate for the same should be annexed.
	The scanner supplied should not have any refurbished/recycled parts/accessories.
1	**Magnet**
A	3.0 T active shielded super conductive magnet should be short and non-claustrophobic.
B	It should have at least 70 cm patient bore with flared opening.
C	Magnet length should be less than 200cm.
D	Homogeneity of the magnet should be better than 1.4 ppm at 40 cms (guaranteed homogeneity)
E	The magnet should be well ventilated and with in-bore illumination with built in 2 way intercom for communication with patient.
F	It should have a built in cryo-cooler .The high-performance refrigerator allows the magnet to be operated with zero helium boil-off.
G	Specify hardware and software for acoustic noise reduction.
H	Active shielding/ Fringe field - quote values for 5 Gauss and 1 Gauss line.
I	External shielding - external interference shield (sufficient to house the magnet, anaesthesia and physiologic monitors) should be provided.
2	**Shim System**
A	High performance, highly stable shim system with global and localized manual and automated shimming including 3D shimming for high homogeneity magnetic field for complete imaging, volume imaging & CSI and spectroscopy.
B	Auto shim should be available to shim the magnet with patient in position.
3	**Gradient System**
A	Actively shielded Gradient system in X, Y, Z planes
B	The gradient should be actively shielded with each axis having independently a slew rate of at least 200 T/m/s and a Gradient duty cycle 33 mT/m
C	The system should have efficient and adequate Eddy current compensation.
D	Effective cooling system for gradient coil and power supply
E	Silent MRI" sequence package to be quoted as standard.
4	**RF System**
1.A	A fully digital RF system capable of Multi Transmission amplifier of 30 kW, to reduce magnetic susceptibility artifacts.
1.B	Inhomogeneity correction should be possible. Vendor has to elaborate on technology used to improve organ specific the inhomogeneity.
2.A	If the vendor has additionally technology like Zoom it/FOCUS or equivalent for selective excitation within a user specified FoV, the same should be quoted. True shape and true form or equivalent technology such as multi drive/multi transit 4D to be quoted.
B	It should also have at least 32 independent RF receiver channels "acquisition" with each having bandwidth of 1 MHz or more along with necessary hardware to support quadrature array / Matrix coils.
C	It should support Parallel acquisition techniques.
D	Should allow remote selection of coils and or coil elements.

5	**Patient Table**
A	Patient table/table trolley to be quoted which should be fully motorized with computer Controlled table movements in vertical and horizontal directions.
B	A CCTV system with LCD display to observe the patient should be provided
C	Emergency manual traction of the subject from the magnet.
D	Table technology - Automatic/ continuous moving table should be offered and should be available
6	**Computer System /Image Processor Operator Console.**
A	The main Host computer should have a 24 inches or more high resolution LCD TFT color monitor with 1024 x 1024 matrix display. The system should have image storage capacity of 100 GB for at least 10,00,000 images in 256 x 256 matrix.
B	The Image reconstruction speed should be at least 1300 images/second or more for full FOV 256 matrix.
C	The main console should have facility for music system for patient in the magnet room. The system should have DVD / CD/ Flash drive archiving facility. Supply 1000 DVD along with the system. The system should be provided with auto DVD writer.
D	Patient monitoring devices for ECG, respiratory rate, pulse rate, O2 saturation at console.
7	**Measurement System**
A	Largest Field of View should be at least 50 cm X 50 cm X 45cm or more higher will be preferred in all three axis. 4Specify the maximum and minimum FOV.
B	The measurement matrix should be from 128x128 to 1024x1024. Highest matrix available to be quoted.
C	Minimum 2D slice thickness mm should be equal to or less than 0.5
D	Minimum 3D slice thickness mm should be equal to or less than 0.1
8	**Coil System**
	The main body coil integrated to the magnet must be Quadrature/CP of the latest technology.In addition to the in-built body coil, following coils should be quoted. All coils (other than coils for Exclusive spectroscopy, like surface coils) should be compatible for parallel acquisitions. The Vendor should supply latest coil (with maximum channels and elements) with the best technology available with them at the time of tender submission.
I	Head / Neck Coil combined, capable of high Resolution neuro-vascular imaging or combination of head & neck coil for similar coverage.
II	Spine Array/Matrix Coil for thoracic and lumbar spine imaging.
III	Body Array/Matrix coil with at least 40 cm z axis coverage for imaging of abdomen, for body part angiograms and heart. In case one coil cannot provide this coverage then multiple coils should be offered. (The best available body coil with the vendor must be supplied)
VI	Dedicated peripheral vascular coil for angiography application of Suitable surface / phased array coil for peripheral angiography application with coverage of minimum 50 cm, with single coil. For Angio application if the coils offered are in combination it will be counted as 1 coil for the purpose of peripheral angiography.
V	Bilateral Breast Coil with at least with fully functional spectroscopy with biopsy Attachments. Please confirm if biopsy is possible with same breast coil. If biopsy facility is not available on coil separate coil should be provided (specify number of channels.)
	Flex Coil
VI	Large (1 quantity) – 4 channel
	TOTAL COILS - 6 Nos.
VII	For Storage of all coils a caddy to be provided.
9	**Application Package**
	Data acquisition:
I	The system should be capable of 2D and 3D acquisitions in conventional, fast and ultrafast spin echo and gradient echo modes so that real-time online images can be observed if needed. All the sequences that are available with the vendor at the time of quote/delivery should be provided as per their manual.
II	2D multi-slice imaging should be possible in all planes (axial, sagittal, coronal, oblique and double oblique)

III	Up to 1024 x 1024 matrix acquisitions preferred for all applications
IV	Half Fourier or other techniques to reduce scan acquisition time while maintaining adequate SNR
V	3D volume, multiple contiguous slabs, multiple interleaved and multiple overlapping slabs
VI	Slice thickness in 2D and partition in 3D to be freely selectable
VII	Dynamic acquisition (serial imaging) with capability to initiate scan sequences either from the magnet panel or from the console
VIII	Dynamic acquisition: number of repeat scans with delay time either identical time interval or Selectable
IX	Auto slice positioning from the localizer images
X	Maximum-off center positioning both anterior-posterior and lateral direction and should be Selectable
XI	Gating: physiological signals like ECG, pulse, respiratory
XII	External signal triggering (interface for triggering input pulse from external source). The provision should be available at the console also (for fMRI, EEG, etc.)
XIII	Simultaneous acquisition, processing and display of image data in 2D multi-slice mode.
XIV	Selection of voxels from oblique slices should be possible while doing spectroscopy.
XV	Artifact reduction/ imaging enhancement / image filtering / image Subtraction / addition / multiplication / division techniques:
XVI	Flow: 1st and 2nd order flow artifact compensation
XVII	Presentation slabs: a number of relocatable saturation bands to be placed either inside or outside the region of interest
XVIII	Graphic prescription
XIX	Fat saturation techniques: frequency selective RF pulses to suppress fat signals in the measured image FOV. ROI selective (regional) fat suppression should also be given.
XX	Magnetization transfer saturation: Off resonance RF pulses to suppress signals from stationary tissue in FOV.
XXI	Phase contrast capability in 2D and 3D mode: Image intensity correction.
XXII	Breath hold acquisition
XXIII	EPI mode
XXIV	DTI with MDDW or equivalent with a minimum of 12 and selectable up to 64/256 direction Encoding
XXV	Data acquisition in all three standard planes (axial, sagittal and coronal) and oblique and double oblique planes or more oblique planes
XXVI	Higher matrix acquisition capability in single shot EPI. Acquisition time, TR, TE and slice thickness should be clearly mentioned and supported by data sheet reference.
XXVII	The vendor should offer multi coil acquisition in order to optimize throughput increase and increased effective FOV. Individual acquisition elements of every coil should be mentioned.
10	**Imaging pulse sequences:**
I	All standard and special pulse sequences available at the time of quote/delivery should be offered and quoted in the bid. Fat suppression for high quality images both inversion recovery a method. The system should acquire motion artifact free images in T2 studies of the brain in restless patients (Propeller, Multivane, Blade, etc.). Dynamic study for pre and post contrast scans and time intensity studies.
II	The system should be capable of selecting TR and TEs as per requirement in majority of the pulse sequences.
III	Spin echo (SE): multi-slice single echo, multi-slice multi-echo (8 echo or more), SE with symmetrical and asymmetrical echo intervals and fast spin echo. MT-SE imaging sequence.
IV	Inversion recovery (IR): including short T1 modified IRSE, FLAIR,
V	Gradient echo (GE): with transverse gradient/ RF spoiling and transverse gradient rephrasing, e.g., GRASE or equivalent etc. 3D gradient echo with shortest TR and TE, free choice of angle selection, while maintaining SNR
VI	Fast sequences
VII	Fast spin echo and GE sequences in 2D and 3D mode with T1,T2 and PD contrast capable of acquiring maximum number of slices with a given TR at minimum TE, echo train should be at least 256 or more in fast spin echo mode

VIII	Half Fourier acquisition capabilities should be available with/without diffusion gradients and in combination with fast spin echo
IX	Fast inversion recovery with spin echo
X	Fast gradient spin echo IR multi-slice multi-echo mode with maximum ETL. Sequences should incorporate RF focusing to acquire ultra-fast gradient spin echo
XI	Fast gradient echo sequences should incorporate RF spoiling and other technique to acquire images in ultra-fast 2D and 3D modes, gradient echo with ETL of 255 or more.
XII	Fat and water suppressed imaging sequences
XIII	EPI optimized sequences (with and without fat suppression) with ETL of 255 or more.
XIV	For T1, T2, PD imaging, perfusion, regular diffusion values (at least 5b, 3 directions) EPIFLAIR, EPI-IR, EPI-FLAIR diffusion tensor, EPI-MT-FLAIR, tensor diffusion (at least 16 b values in minimum 32 directions) and diffusion studies. Suitable artifact/ fat suppression techniques to be incorporated in the sequence to have optimum image quality.
XV	There should be capability of calculating ADC map(isotropic and anisotropy from the regular diffusion and tensor data)
XVI	Optimized sequence package for special applications.
11	**Special application packages:**
	Please give details of licensees for acquisition post-processing and for special packages quoted for the following applications
A	**Neuro Applications**
1	Functional MRI accessories and post-processing:
I	Functional Imaging with package for BOLD Imaging and spectroscopic imaging and processing package capable of real-time processing and display of color overlay head coil being supplied with the system.
II	Complete MRI solution including audio-visual projection system
III	The audio-video projection system should have the capability to project movies to the subject, and should be compatible head coil, and should include all attachments that may be required for complete integration
IV	The system should be integrated with stimulus presentation/ paradigm generator along with licensed software (like super lab, eprime, presentation, etc.) which is capable of presenting audiovisual, audio, video (multiple formats), etc.
V	The paradigm presentation should be synchronized with the scanner (for starting and ending along with measurements)
VI	Integration and provision near the console for external trigger (of the sequence) for synchronizing MRI acquisition with paradigm
VII	Post-processing work station / server with post-processing software and hardware associated, with licenses .
VIII	The entire MRI hardware package should be from a single vendor for complete integrated Solution. Please specify the vendor.
1	2D/3D Arterial Spin labeling
2	Perfusion imaging of brain with software for rBV, CBV etc analysis.
3	Susceptibility weighted imaging with phase information /Venous BOLD Imaging
4	Multi Direction DTI . (Complete package including DTI quantification and tractography software). Prospective motion correction enabled software preferred. Spinal tractography should also be possible.
5	T2 Relaxometry and volumetric analysis for Hippocampus
6	3D-T2 weighted Turbo Spin for volumetric acquisition reconstructed in any plane e.g. for lumbar spine and for nerve root analysis
7	High resolution imaging for inner ear.
8	The system should have facility for flow quantification of CSF aqueduct, spinal canal, vessel Flow. Both retrospective and prospective gating should be possible.
9	Whole spine imaging with fusion software.
10	Real time Brain Wave, Pre Acquisition / post processing or Inline BOLD or BOLD Specialist.
11	Sequences such as Double Inversion recovery for "Plaque Imaging' in Carotids to be provided.

B	**Cardiac applications:**
1	Advanced Cardiac Applications: ECG gating, Morphology/wall motion; Cine perfusion imaging; Myocardial viability imaging; Arrhythmia rejection techniques, Advanced Cardiac Ventricular Measurement Analysis; Cine Cardiac Tagging Techniques; Coronary artery techniques; real time interactive imaging, 2D/3D fast field echo/balanced/steady state techniques. Myocardial tagging, STIR for cardiac use, stress perfusion, 3D acquisition of whole heart in one breath hold. Complete cardiac evaluation package to be included on the workstation, besides the main console.
2	T1, T2, T2 quantification tools for evaluation in real time with automated guidance
C	**Musculoskeletal:**
1	High resolution imaging for cartilage and musculoskeletal imaging. Parametric MAP be available
2	The system should have software package for evaluation of bone marrow.
3	Whole body screening imaging studies for metastasis.
D	**Hepatobiliary and abdominal system.**
1	High resolution Abdominal and Liver imaging in breath hold and free breathing modes with respiratory triggered volume acquisitions with navigation, liver iron quantification and liver fat quantification software, and spectroscopy
2	The system should have basic and advanced MRCP packages including free breathing and 3D Techniques.
E	**Vascular Imaging**
1	MR angio Imaging Should have 2D/3D TOF, 2D/3D Phase contrast (with and without gating and magnetization transfer saturation), black blood angiography for cerebral, pulmonary, abdominal and peripheral vessels and TONE, ceMRA, Facilities for high temporal and high resolution 4D angio imaging for time resolved vascular imaging .
2	Bolus chasing with automatic and manual triggering from fluoroscopy mode to 3D acquisition mode with moving table facility for whole body application. Specify table movement. Inline subtraction should be available.
3	Non contrast enhanced peripheral angiography for arterial flow with Native/ Trance/inhance sequences.
F	**Breast Imaging:**
i	Advance package including diffusion, spectroscopy and perfusion with time intensity curve.
G	**Diffusion Weighted Imaging.**
i	With at least b value of 7000 or more. Whole body diffusion weighted imaging with background Suppression
H	**Spectroscopy:**
i	The system should have the Hydrogen, Single Voxel spectroscopy, Multivoxel, Multislice & Multi-angle 2D, 3D Spectroscopy and Chemical Shift imaging in 2D / 3D.The complete processing / Post processing software including color metabolite maps should be available on main console and the workstation and each of the five clients. Complete prostate, breast, liver spectroscopy hardware and applications should be provided. Spectroscopy phantom for important short echo time neurometabolites, breast and prostate Water and lipid suppression in automated sequences.
I	Prostrate Imaging
J	Workflow improvement Techniques with capability of automatic planning and scanning, post processing for different body parts.
12	**Non contrast MRA should be Standard**
13	TIM whole body suite. Any other hardware, software application packages with the tender to be quoted as standard.
14	**Additional workstation:**
i	Client server architecture-server with 3 concurrent clients (Dexus, Intelligence Portal, Syngo.via, etc. or higher) capable of rendering 40000 images at peak performance.Workstation hardware should be industry standards, and should be the latest with the vendors, as per their globally launched product catalogue.

A	A Server workstation with preferably the same user interface as of main console is required with the availability of all necessary software including.
I	Basic post-processing software including MIP, MPR, surface reconstruction and volume Rendering technique, Image fusion , 3D evaluation on all five concurrent clients.
II	Advanced post-processing offered applications including FMRI, perfusion quantification, advanced diffusion and DTI, advanced cardiac evaluation(EF, Calculation, Wall motions, analysis) including perfusion analysis, processing of 2D/3D CSI data, with color metabolite mapping, quantification of CSF flow data, vascular analysis package on at least two clients Concurrently.
III	The system should support the DICOM print service class as a service class user (SCU)
IV	Workstations support the DICOM query and Retrieve SCU
V	Workstation should retrieve MR spectroscopy images.
B	Desktops with i7 , 6th generation , Intel Processor , 8 GB DDR3 RAM, 500 GB SSD (Solid state Drives) 1 TB HDD 24” LED Medical Grade Monitor - Total five Clients Each of the client should enable printing in laser film camera and color printers. Total 5 client hardware and software to be provided.
C	The offered System is to be networked with the then existing "Department Network" including PACS. Appropriate anti-virus protection to be provided by the Vendor. The vendor should provide picture storage and archival system, to store and retrieve MR images
D	The system should have DICOM 3.0 compliant interface and enabled for networking connectivity to Linux/ Windows based servers/ clients with patient ID labelling and integration to generic hospital information system/ PACS
15	**Module for scheduling and imaging**
	Modality, exam date and time will be fixed during scheduling of the exam Appointment letter with patient instructions will be printed from RIS and given to patient for OPD patients, ward patients, critical patients and VVIPsDWL licences to plan, perform and document examinations Statistics of exams, etc.
16	**Safety Features**
	The System should have following safety features
A	The magnet system should include an Emergency Ramp Down unit (ERDU) for fast reduction of the magnetic field with Ramp Down time below 3 minutes.
B	The magnet should have quench bands that contain the fringe fields to a specified value in the event of a magnet quench
C	Real time SAR calculation should be performed by software to ensure that RF power levels comply with regulatory guidelines and are displayed on each image
D	The system shall have manual override of the motor drive for quick removal of the patients from the magnet bore
E	Temperature sensor (built in) for magnet refrigeration efficiency must be provided
17	**Optional**
	Nuclear Spectroscopy: Facility of P31 Imaging & spectroscopy to be provided with (a) head coil for brain and (b) suitable surface coil for body imaging as optional. Price not to be included for calculation of L1.
18	**Accessories**
A	DICOM compatible Dry Chemistry laser camera (2 No.s) with integrated processor for filming from main console & workstation. The camera should be capable of printing on films of 14" x 17", 11" x 14" and 10" x 8" sizes in a resolution of 600 or more dpi. It should be possible to connect other imaging modalities to the printer. 2000 compatible films to be provided. Films to be provided after installation as and when required by the user. Main equipment (MRI) in the emergency block to be networked with cameras of CT and DRF camera in the emergency block
B	A color laser printer for printing high-resolution color-coded 3D images and protocols on plain paper in 1200 dpi resolution or more than 20 ppm or alternatively a dedicated color printer for medical images
C	The UPS system should be provided for complete MRI unit with Chiller and emergency lights with at least 30 minute back up, preferably 150 kVA or more (specify kVA). An emergency door or hatch should be provided in RF cabin.
D	RF Cabin: The system should be supplied with the imported RF cabin with RF room shielding, RF Door screen, and interiors for the same should be carried out suitably.

E	Dual Head MRI-Compatible Pressure Injector (minimum 2000 Gauss line) with 1000 sets of syringes (Two syringes & connecting tubing per set). It should be compatible with 50 ml syringes for both saline and contrast
F	Non-magnetic I/V stand
G	G Water Chiller for Cold Head and Gradients
H	Two Non-ferromagnetic MR compatible patient transfer trolleys should be globally reputed make
I	Fire Fighting System, Detectors and 6 Fire Extinguishers (MR Compatible)
J	Hand held metal detectors - 2 Nos
K	Closed circuit CCD camera for patient observation.
L	Phantoms for image quality audits
M	Defibrillator Biphasic with ECG recording with Adult and Paediatric paddles
N	MR Compatible Infusion Pump (2000 Gauss Line)
O	Patient positioning accessories with hand held alarrn & look-out mirror.
P	MR Compatible Transport Ventilator. (1000 Gauss Line)
Q	Two desktops with i7 , 6th generation Intel Processor , 8 GB DDR3 RAM, 500 GB SSD (Solid state Drives) 1 TB HDD 24” LED Medical Grade Monitor with three laser Printers of 600 dpi, UPS & Dictaphone
R	SPECIFICATION FOR MRI COMPATIBLE ANAESTHESIA MACHINE (1000 Gauss Line) & MRI COMPATIBLE MONITOR or (1000 Gauss Line)
	MRI COMPATIBLE ANAESTHESIA MACHINE SPECIFICATIONS: (Minimum 1000 Gauss Line)
A	Should be MRI compatible at 3T, antistatic,heavy frame & base with good quality castors with front brakes, with following features
I	Three gas model viz Oxygen, Nitrous oxide and Air.
II	Should be compact, ergonomic, easy to use and easy to maintain.
III	Should have separate fresh gas outlet for use in open circuit.
IV	Machine should have flow meters for Oxygen, Nitrous oxide and air. Emergency Oxygen flush should be available. There should be facility to select oxygen-air or oxygen-nitrous oxide with the help of a separate switch or knob.
V	Dual flow sensing capability at inhalation and exhalation ports.
VI	Should have paramagnetic/ galvanic cell oxygen sensors. In case of galvanic cell sensors, the firm should supply free sensors for the entire warranty period of 5 years. In case of Paramagnetic sensors, the firm shall ensure that there is no down time during repair of these sensors (if necessary) and provide a standby alternative.
VII	Shall have back-up Oxygen Control which provides an independent fresh gas source and flow meter control in case of failure.
VIII	Pressure regulators shall be of modular design.
IX	Should have oxygen fail safe device & an auxiliary built in oxygen flow meter.
X	Electronic or Mechanical Hypoxic Guard to ensure minimum 25% Oxygen across all O2–N2O mixtures and Oxygen Failure Warning.
	Vaporizers:
XI	Facility of mounting minimum two Vaporizers, latest technology , key filler, selectatec type, tool free installation ,meaning any vaporizer of our choice can be mounted at will with interlocking facility.It should be preferably of the same make as that of machine.
XII	Temperature ,pressure and flow compensated with high accuracy of delivered concentration of volatile anesthetic agent. Should be maintenance free.
XIII	Two Vaporizers should be supplied (Isoflurane ,Sevoflurane).
	Ventilators:
XIV	The Machine should have an Integrated Anesthesia Ventilator System, facility to vary respiratory parameters and should be able to ventilate adult and Pediatric patients including infants.
XV	Ventilator should have Controlled ,Manual, Spontaneous modes and provision for PEEP.
XVI	Tidal volume (inspired and expired) respiratory rate ,1 :E ratio, minute volume Airway pressure & FiO2 should be continuously displayed.
XVII	Should have Tidal volume and fresh gas compensation mechanism.
XVIII	Audio-visual alarms for high and low settings of Pressure, volume and disconnection should be present.

XIX	Tidal Volume (VT) 20-1500ml (Volume Control) ,Rate atleast 4-80 BPM.
XX	Inspiratory / Expiratory ratio (I :E) 2:1 to 1:6 &Peak Flow -100 to 120
XXI	Ventilator should have at least 30min rechargeable battery backup for ventilator.
XXII	Machine should have an integrated breathing circuit with circle absorber of good quality, easy to clean, autoclavable , fewer parts to reduce leaks.
XXIII	Machine should have mounting capability of One O2 and one N2O pin-indexed cylinder
XXIV	Adult autoclavable (2 sets) breathing circuits & one paediatric circuit to be provided.
XXV	The Machine should be equipped with AGSS.
B	MRI COMPATIBLE MONITOR (Minimum 2000 Gauss Line)
	Specifications for MRI compatibility:
I	Monitor should be quipped with MRI shielding and set to Remote Communication Mode.
II	Should be MRI compatible (Safe will not be acceptable) at 1000 Gauss, 3.0 Tesla and 4W/Kg SAR.
III	System should include fiber–optic SPO2 finger sensor, MRI compatible ECG Patient Leads and Electrodes, NIBP cuffs, hoses and etCO2 sampling kit and temperature probe.
	General Specifications for Monitor:
I	The Monitor should have adult and neonatal application and should be user friendly.
II	It should be capable of monitoring ECG, non-invasive blood pressure ,oxygen saturation (SpO2) ,ETCO2 and temperature.
III	It should have an internal battery which should last for 30-40 min.
IV	It should be operational at wide temperature (10 degree Celsius – 40 degree Celsius) and humidity (20% to 90%).
V	It should have a facility of 24hours data storage of trended parameters and trend graph of 1,2,3,6,12 or 24 hours display format.
VI	Should have a facility to deactivate all the alarms if necessary.
	ECG Monitoring: Essential Specification:
I	Available leads : I,II,III,V,AVR,AVL,AVF with facility for recording 12 lead ECG.
II	Should display one or all the selected leads at a time.
III	Accuracy of +- 5% of the rate.
IV	Monitor Mode : Digital Signal Processing (DSP).
V	T-Wave suppression for high field MRI.
VI	Should have arrhythmia monitoring facility.
VII	Should have user selectable alarms.
VIII	Heart rate measuring ranges 15-300 beats/min.
	Pulse Oximeter (SPO2):
I	Should provide a digital value of the arterial oxygen saturation as well as diagnostic plethysmographic pulse waveform.
II	Measurement range : 0% to100%.
III	User Selectable upper and lower alarm limits.
IV	Probes with finger and ear sensors for adult, paediatric and neonatal use.
V	Should be sensitive and function accurately even at low perfusion states of low blood pressure or hypothermic conditions.
	ETCO2 Monitoring:
I	Should have side stream Carbon di-oxide module and display both graphically and numerically.
II	Single beam ,non-dispersive infrared (NDIR) absorption, radiometric measurement, no moving parts.
III	Initialization time less than 10 seconds, full specifications within 1-2minutes.
IV	Carbon di-oxide range should be 0 to152 mm Hg barometric pressure supplied by module itself.
V	Should be able to detect breath rate in the range of 2-150 BPM.
VI	Respiratory rate accuracy should be + 1 breath.
VII	Barometric Pressure auto compensated from 400mm Hg to 850mm Hg.Operator selectable O2, N2O, He and Agent Compensation.
VIII	No routine user calibration required. An offset calibration should run automatically when the ambient temperature is not stable.
IX	Sampling line should have both nasal sampling line and extension sampling line.
X	Warm up time 10seconds.

	Temperature Monitoring:
I	Measuring range: 5 to 50 degree Celsius.
II	Accuracy + 0.1 degree Celsius.
III	User Selectable upper and lower limit of alarm.
IV	Core and skin probes.
	Non-Invasive Blood Pressure (NIBP) monitoring:
I	Should automatically sense infant / adult cuffs and set appropriate inflation pressure and safety Limits.
II	Operating Modes : Automatic ,Manual ,Stat.
II	Accessories ,NIBP cuff :
1	Adult for thigh and arm.
2	Pediatric.
3	Neonatal.
19	**Guarantee**
	Principals and Indian counterpart. The Principals should be responsible for any lacuna or deficit in service or supply.
1	All items in the supply order should be supplied during the time of installation, No exceptions will be allowed .Items under Research .Agreement should be finalized well in advance (after Receipt of supply order). So that there is no delay in delivery of software or coil or any other Accessories.
2	Software updates (where hardware upgrades are not required)like new pulse sequence, new application package etc. should be provided within one month after release worldwide (any country,viz. north America/ Europe/Germany etc).In case, the same is not provided in time, the parent company should undertake the responsibility to implement the same. This is to make sure that the machine stays updated with similar products for at least 5years.
20	**WARRANTY PERIOD**
I	The equipment should have 60months warranty from the date of handing over the fully functional unit of all coils and the accessories supplied(such as UPS,AC,, etc)\ to the hospital against manufacturing defects of material and workmanship. The Helium Supply and cold head repairs (including replacement. If needed) should be included in the warranty period.
II	Even during the warranty period , the desired uptime of 95% of 320 days (24 hrs basis) will be ensured.
21	**POST GAURANTEE ANNUAL COMPREHENSIVE MAINTENANCE CONTRACT (CMC)**
I	The post –warranty (after 5 years) CMC should be comprehensive and should include helium and cold head (repair and/ or replacement) + labour + spares for the complete system which includes all the accessories supplied such as UPS, AC, etc. (including all consumables like batteries for UPS,.) and maintenance for another 5 years. This CMC should be quoted in Indian Rupees.
	The price of post warranty 5 years CMC shall be taken for price comparison.
II	The desired up-time during post-warranty CMC is 95% of 365 days (24 hr basis.
III	The rate of post-warranty comprehensive CMC should be offered for at least five years by the bidder and be offered in Indian Rupees only.
IV	All local items should be quoted in Indian Rupees. Other items should be quoted in US Dollars only, to have uniformity. The technical and financial bids should be separate. The model with 'the best and latest technical features' available with the vendor should be quoted in tender response with original printed vendor data sheets. The system should incorporate all the features as per the November 2015 RSNA standards/declaration.
V	All product catalogues in original.
VI	When the vendor data sheet disagrees with the bid response, clarification should accompany in the form of letter/certificates from the principals in original.
VII	System should be DICOM - 3MPPS & should be ready to integrate with any existing PACS/HIS System
VIII	List of all installations of the system in the country
IX	The compliance statement must be filled strictly under headings given in the tender.

X	Each specification corroborated in the compliance statement must give the page number where it is listed in the original technical data sheet along with soft copy. The technical bid should clearly mention model number and make, detailed technical specifications, quantity of each component offered. the technical bid should be duly supported by original brochure/catalogue of the manufacturer and relevant parts proposed to be supplied highlighted. In compliance statement units of measurement used should be same as in the required technical specifications.
XI	There should be no discrepancy between specifications given in technical bid, brochure and compliance statement. In case of any such discrepancy, the technical bid will be disqualified.
XII	The quotation should clearly mention the accessories (including quantity) which are part of the main equipment and the price of which is included in the main equipment.
XIII	The equipment should be fully functional with the standard accessories
22	**Training :**
I	On-site training of all faculty members & radiographers.
II	On-site training for radiographers and other staff by an application expert for a period of at least 3 Months
III	One on site service engineer and one on site application specialist to be available for a uninterrupted continuously break period of two months with the team of both engineers will maintain log book of training provided to technical staff & doctors
23	**Turnkey Works For 3 Tesla MRI Unit**
	The layout plans (with dimensions) allocated uploaded. Air-conditioning of appropriate strength/capacity (tonnage) in the area as required shall be done. Additional standby split air conditioner(s) of appropriate strength/capacity (tonnage) to be fixed in the main equipment rooms.
	Civil work: In the civil works Modifications/Renovations in the existing rooms by the supplier/vendor as shown in the layout plan after approval by Purchaser/HSCC shall be executed as per approved makes specified.
	The walls of MRI Complex should be finished acrylic/plastic emulsion (approved makes) and should be finished with vitrified tiles (approved makes) up to five feet height from the floor. Colour as approved by Purchaser/HSCC shall be provided.
	The flooring in the MRI complex should be as per regulations. Flooring in all rooms shall be of vitrified tiles of 80 x 80cm size or other close appropriate size of reputed makes (approved makes). Colour as approved by Purchaser/HSCC shall be provided.
	Whole area of MRI Complex as in the layout plan shall be finished with fire resistant false ceiling material (approved makes). MRI Room PVC roll flooring with mineral fiber panel false ceiling and Aluminium suspension.
	All the doors should be provided with necessary fittings with hydraulic type door closures (approved makes) and with Mortised locks (approved makes).
	Electrical work: The firm is required to specify load requirement i.e. required for the unit, the air conditioning, room lighting and accessories, if any. The electrical works should be as per approved makes mentioned. The electrical works should have minimum two separate Earthing with copper plate is to be provided for the each equipment and air-conditioning equipment as per equipment requirements. The use of earth leakage circuit breaker will be as required.
	A distribution panel of appropriate capacity is to be provided by hospital. The load shall also be provided by the hospital. From the substation of the hospital to the distribution panel, cable of appropriate size shall be provided & fixed by the hospital. Vendor shall do cabling from distribution panel up to the equipment.
	The switch gears (MCBs / ACBs/ MCCBs), L.T. distribution board for MCBs etc. (approved makes).
	Electrical wires should be of copper of different capacity as per the load (approved makes).
	For Telephone wiring cables (approved makes). Telephones to be provided in all rooms with EPABX system having control in office.
	Modular range Switches / Sockets of approved makes should be provided and fixed as per requirement.
	LED lights of suitable illumination should be provided of Phillips/GE/ Crompton/Syska make.
	Light dimmers (down lighters) should also be fixed in the equipment room.

	Air conditioning:
	Split Air conditioners of reputed make (approved makes) to be provided by the vendor in whole complex as per requirements (to maintain appropriate temperature in the main equipment room & other rooms)
	Standby additional split air conditioners of appropriate strength/capacity (tonnage) to be fixed in the main equipment room
	Hygrometer Nos.1 to be provided.
	In-built or External De Humidifier in Equipment, Console and Examination rooms to be provided as per room layout.
	Fire Protection
	Non water based fire protection is to be integrated as per requirement. Fire extinguishers of appropriate types (approved makes) should be fixed in different rooms as per requirement. Heat detectors/hooters/photoelectric/smoke detectors (approved makes) shall be provided in all the rooms and corridors as per requirements. In case the expiry date of fire extinguishers is before the completion of 5 years comprehensive warranty period, extra set(s) of fire extinguishers will be supplied by the vendor till the completion of the 5 years comprehensive warranty period. Besides, any works required as per statutory/Delhi Fire Services norms shall be executed by the vendor.
	The vendor to also install the following:
	Audio visual Music systems for patient waiting areas.
	Adequate Pest, insect and rodent control system to be provided and installed to ensure that area remains insect, pest and rodent free.
	Music and Public Address system for calling/ informing the patients in the waiting areas.
	Furniture:-
	Following furniture (Godrej/Debono/Delite) will be provided:
	Chairs with castors and armrests 2 nos.
	Coil Rack for MRI 1 No.
	Medicine Trolley 1 No.
	Ultrasonic pest repellent equipment 1 no.
	Steel Storage Almirah 1 nos.
	Overhead Storage(1.2x0.4x.6m) for CD storage 1 no
	In case any item missed out inadvertently, vendor shall provide the same. The price quoted by the bidders shall include all costs required for supply, installation, testing and commissioning of the equipment on turnkey basis and as per bid document.

ANNEXURE - II

UNDERTAKING

From

M/s.....

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.....

To,

The Director of

Sub : Fresh Tender for Medical equipment and Instrument.

Dear Sir,

In response to your advertisement in the ..... Dated ..... for purchase of Medical Equipment for the year 2017-18 I/We, a Company / a Partnership / Firm / an Association / Sole proprietor in the case of a firm, an association of a syndicate (please set out here full name of all partners or member .....

.....

.....

.....

..... carrying on business at .....

..... hereby tender to supply the articles including all accessories and attachments complete in all respects at the firm rates quoted in the schedule attached.

1. I/We agree that this offer shall remain valid for a period of 12 months from the date of issue of the approved list or till publication of the next approved list whichever is earlier and , if the offer is withdrawn before the said date, I/We shall be liable for damages to the extent of the percent or my / our Tendered value & pay you the same forthwith on demand without protest or demur.

2. I / We hereby agree to abide by the fulfil the terms & conditions set out in the INVITATION TO TENDER INSTRUCTIONS TO TENDERERS CONDITIONS OF THE TENDER SCHEDULE AND ANNEXURES HERETO, which shall be deemed to form a part of this tender & I / We return herewith all these documents attested on each page in token of my / our acceptance thereof.

3. I / We hereby further agree to notify the Director, ESI Scheme, Bhubaneswar at any time whether before or after acceptance of my / our tender any change in the address and or constitution of my/ our firm/ association/ syndicate either by death or retirement or any partner or by the admission of a new partner of member or otherwise (this shall apply where tenderer is a firm/ association or syndicate)

4. We do hereby certify that I am / we are real manufacturers / stockist/ importers/ authorized agents of the overseas suppliers and my / our financial position is quite sound to fulfil the contract.

5. we hereby declare that this Tender and your acceptance to be notified by you shall constitute a valid and binding contract between us.

In presence of Signature of tenderer with seal

Name :
Designation:
Full Address:

1. Signature of Witness Mobile No.:
Name : Tel. No.:
Occupation : FAX No.:
Full Address :

Mobile No.:
Tel. No.:

2 Signature of Witness
Name :
Occupation :
Full Address :

Mobile No.:
Tel. No.:

ANNEXURE- III

CERTIFICATE

Certified that the information and documents furnished with my tender are genuine, true and correct to the best of our / my knowledge and belief. In case any or all the information given above or the Tender documents is or are found to be incorrect at any time, I undertake the liability to be proceeded within any manner. Any change or changes in regard to the information furnished will be intimated by us / me as and when such changes occur.

Signature of the Tenderer in full with seal & date

Prop./Partner/ Managing Director/

Manager/ Principal Officer / Authorised Signatory

(Strike out which ever not applicable)

ANNEXURE - IV

TECHNICAL BID

Sl. No.	Name of the Firms	Name of the Items	Name of the manufacturer	Make / Brand	State the ISO Cft/ USFD/ISI of the Tenders / Manufacturer	Business Turnover of the tenderer of last three preceding years	Business Turnover of the manufacturer	Quality / Durability / Warranty / AMC warranty	Any other preference offered by the tenderer	Remarks
1	2	3	4	5	6	7	8	9	10	11

Note : The tenderer may enclose the separate sheet disclosing the specification if required.

ANNEXURE - V

PRICE BID

Sl. No.	Name of the Items	Make / Brand	Certificates ISO/ USFD/ISI	Unit	MRP	Basic rate	Value of GST	Total in Rs	Remarks
1	2	3	4	5	6	7	8	9	10

Note : The format to be detached from the tender documents and after filling properly to be inserted in the tender box (Price bid)

ANNEXURE – VI

1.	Status of the Firm, (Proprietorship, Partnership, (P) Ltd., Limited company).	:
2.	Name of the Tender	:
3.	Whether a limited form or Public or private under-taking.	:
4	The name and address of proprietor/ partners/ Managing Director/ Manager/ Principal Officer.	:
5	Financial condition of the firm whether solvent or not with details there of	:
6	Whether manufacturer or / Distributor or / solve selling Agent (in the case of mixed business, the items for each should be indicated)	:
7	Varieties of articles dealt with the names of the items.	:
	a) Is it a registered firm under the partnership Act? If so, Regd. No. & date and office of Registration should be given. (Please furnish and attested true copy of certificate or registration)	:
8	b) If it is a company incorporated under the Companies Act, please furnish an attested true copy of certificate of incorporation	:
9	Are you a Regd. sales Tax Dealer & if so, please quote both Provincial & Central Sales Tax Regd. No.	:
10	Name of the authorized person who can hold discussion on your behalf at the time of necessity.	:
11.	The names of the proprietors / partners or Managing Directors / Principal officer with address or Addresses as the case may be who is authorized to receive money in case of endorsed bill on behalf of the firm from the DIRECTOR / Indenting Officer and their specimen signatures in duplicate for each.	:
12.	Are you an income Tax assessee ? Please furnish the current income tax return / non-assessment certificate	
13.	Indicate in detail about the previous experience of supply of articles of Instrument and Equipments (attach additional sheets)	

Signature of Tenderer