### M. Y. HOSPITAL

&

# ASSOCIATED HOSPITALS AN AUTONOMOUS SOCIETY, INDORE (M.P.)

# TENDER FOR OUTSOURCE OF C.T. SCAN & M.R.I.

**YEAR 2015** 

Price: Rs. 1,000/-

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# TENDER NOTICE FOR OUTSOURCE OF C.T. SCAN & M.R.I. ON TURNKEY BASIS AT M. Y. HOSPITAL INDORE MADHYA PRADESH

 Sealed tenders are invited from the eligible tenderers to provide services OUTSOURCE OF C.T. SCAN & M.R.I. ON TURNKEY BASIS, as per terms & conditions of the tender document.

Name of	Earnest	Last Date and	Date and	Date and
Work	Money	Time for	Time of Pre	Time of
	Deposit	Receiving	Bid Meeting	Tender
		Tenders		Opening
OUTSOURCE OF		13.02.2015		
C.T. SCAN &	Rs.		14.02.2015 at	16.02.2015
M.R.I. ON	10,00,000/-	up to 01.00 PM	12.00 PM	at 11.00 AM
TURNKEY BASIS		PIVI		

- ii) A set of tender document can be obtained from the Office of the Superintendent cum Joint Director M. Y. Hospital, Indore, on any working day from **29.01.2015** to **12.01.2015** up to 1.00 PM at a cost of Rs. 1,000/- (Rupees One Thousand Only) payable by non-refundable cash / demand draft from any scheduled bank drawn in favour of Superintendent cum Joint Director M. Y. Hospital, Indore payable at Indore.
- iii) A Pre Bid meeting shall be held in the office of Superintendent cum Joint Director M. Y. Hospital, Indore to clarify any queries of the Tenderer on **14.02.2015** at **12.00 PM**.
- iv) Superintendent cum Joint Director M. Y. Hospital, Indore, reserves the right to accept or reject the tender without assigning any reason thereof.

Superintendent cum Joint Director M. Y. Hospital, Indore

#### **CORRIGENDUM**

The dates are new as Follows:-

1. Last Date for selling of form - 12-02-2015

2. Prebid Date – 16-02-2015

3. Submission of Forms – 26-02-2015

4. Opening of Forms – 28-02-2015

		Sr.No:
_		Money Receipt No
То,	The Joint Director cum Sup M. Y. Hospital, Indore, Indore 452001 (M.P.)	perintendent,
Sub:	Tender Submission for	
the ev		a bidder ford conditions as have been specified in the tender form. In offer, we shall enter into an agreement with your at
		Yours faithfully,
		Authorized signatory (Signature & Seal)
Full name &	address of Authorized Signa	tory under official seal)
Name Address	:	
Date	;	Place :
	<u>:</u>	Fax No. :
Phone No.		e-mail address :

Indore Madhya Pradesh.

#### **SPECIFICATION (i)**

### BROAD BASED SPECIFICATIONS FOR MULTISLICE SPIRAL CT SCANNER ON TURN KEY BASIS

#### 1) REQUIREMENT:

Installation of advanced high end multislice spiral CT Scanner with comprehensive whole body imaging on turn key basis. These are the broad based specifications.

For quoting of modern machines three different categories have been made.

Companies are supposed to quote in each catogaries separetly with respect to modern version.

C.T. scanner capable of aquiring minimum 128 slices in one gantry rotation.

Detector should be 128 rows or more.

However, companies can quote equivalent or higher comparable technologies to consider them in this category.

Only the top of the line model/version should be quoted. The vendor must supply the latest version of the equipment commercially available at time of placing the supply order. The quoted model must be FDA approved for clinical use.

The aim of the government is to buy the latest equipment with good performance. The major/minor deviations from this broad specification will be evaluated by technical committee for equivalent and comparable technologies.

Demonstration has to be arranged by the company before the price bid opening at their own cost for their quoted models to the technical committee

#### 1. Patient table

- a) Load carrying capacity 180 kg or more with positional accuracy of +/- 0.25 mm or less
- b) Metal free scannable range of 150 cm or more
- c) Mention the horizontal movement range and it should be sufficient to cover the patient from head to toe Also specify horizontal speed
- d) Specify vertical range vertical scannable range and elevation speed.

#### 2. Gantry

- a) Aperture minimum 70 Cms or higher
- b) Scan field of view in acquisition mode be 50 cm specify minimum and maximum FOV with increment
- c) Tilt: +/- 30 degree adjustable from gantry and console is desirable for 128 slice.
- d) 3-D laser lights for positioning
- e) The gantry should be provided with user control panels on either side for easy positioning.
- f) Specify focus to iso center distance and focus to detector distance.

#### 3. X-ray Generator

- a) High frequency type
- b) Generator Power: 70 KW or more for 128 slices

c) mA range: 10-600 mA or more.

#### 4. X-ray tube

- a) Tube voltage: 80-140Kkvp or more
- b) Anode heat storage capacity of at lest 7.5 MHU or more Alternatively the tube should have a high dissipation specify the dissipation rate also. And mention the details of cooling system of the tube
- c) Specify the focal spot size as per IEC standard.

#### 5. Spiral Acquisition

- a) Scan time should be 0.40 sec or less for full 360 rotation.
- b) Specify the time in minutes for warm up from fully off in normal as well as in emergency
- c) Minimum slice thickness should be 0.625 mm or less specify minimum slice thickness in axial spiral and cardiac mode
- d) Specify the pitch factor for general radiological application and its variability However for cardiac scanning pitch 0.2 or less specify all possible pitch selections.
- e) Single continuous spiral scan time should be at least 60 sec or more.
- f) Should have multiple acquisition facility with no inter slice gap.
- g) Mention total single gapless spiral coverage.
- h) Mention gapless volume coverage with time taken for single / multiple runs.
- i) Bolus triggered or bolus chase spiral acquisition should be available
- j) Real time x-ray dose reduction which combines both Z axis and angular tube current modulation to adjust the dost size and shape of individual. It should be possible to modulate the mA with ECG signals (prospective and retrospective)

#### 6. Detector System

- 1) Number of physically independent rows of detectors must be 128 or more please separately quote a system with specifications with dual energy capability (OPTIONAL). Quote price separately if necessary)
- 2) Detector type: solid state detectors. it should not require frequent calibration
- 3) Mention minimum acquired slice thickness in axial and helical mode after reconstruction.
- 4) Specify total number of elements in a row, row arrangement thickness and number of channels
- 5) Cone beam correction scope.

#### 7. Contrast Resolution

- 1) High contrast spatial resolution: minimum of 15 or more Ip/cm at minimum MTF (2% or less) is essential.
- 2) Low contrast resolution: The low contrast resolution at 20cm CATPHAN Phantom should be 5mm @ 3HU. All radiographic factors and radiation dose for the above specification. Please note that only the lowest available rad factors and radiation dose will be preferred specify algorithm (Standard & High resolution).

#### 8. Automatic Exposure control

- 1) Provision for tube current modulation along 2-axis for different patient size and during rotation.
- 2) Mention the software available for mA modulation to reduce the patient dose.
- 3) Step and shoot or an equivalent algorithm cardiac scanning for dose reduction will be an essential required
- 4) Paediatric and infant based protocols.
- 5) The system should have the facility to display the total radiation dose to the patient

#### 9. Clinical applications

#### A) CARDIAC APPLICATIONS

1) Prospective ECG triggered facility

- 2) Retrospective ECG gated facility
- 3) Facility for ECG editing for Removing irregular or ectopic beats
- 4) Facility for automatic selection of rotation speed according to heart beat
- 5) Specify heart beat /min requiring use of beta blocker and solution available with the system for optimizing of scan irregular heart rate.
- 6) Specify maximum number of sectors used in multi reconstruction and temporal resolution
- 7) Comprehensive software packages for cardiac applications including the latest advanced applications
- 8) Calcium scoring
- 9) Plaque characterization and quantification
- 10) Coronary vessel analysis with all relevant software for vascular analysis and display of the evaluated data
- 11) Detailed cardiac function analysis (LV/RV function)
- 12) Coronary CT angiography preferably with single phase acquisition and reconstruction.
- 13) Automatic segmentation of coronary vessels (coronary tree)
- 14) Ejection fraction calculation /wall motion studies
- 15) Depiction of color coded bulls eye report
- 16) Automatic calculation of vessel stenosis

#### **B) ACUTE CARE**

- 1) Triple rule out package
- 2) High resolution head to too scanning in one go. (Mention the minimum time taken).

#### C) COMPREHENSIVE NEURO PACKAGE

Neuro perfusion/ evaluation with neuro perfusion analysis over large area of 80 mm or more in one examination

- \*Depiction of blood supply compromised areas
- \*ICV angiography
- \*Perfusion study with simultaneous cerebral angiography with single contrast injection
- **D)** ONCOLOGY PACKAGE INCLUDING COMPUTER ASSISTED DETECTION
- \* Auto CAD software for lung nodule evaluation
- \*Automated evaluation of liver
- E) Body perfusion CT
- F) Angiography package

However another pacages which are not mentioned above but are essencial should be mentioned and provided by the company.

#### 10. IMAGE EVALUATION AND DISPLAY

In addition to the software for all routine functions like measurements annotations windowing image addition and subtraction artifact reduction capability reversal of images filters reference scale and grids the following software also be available:

- 1. Real time MPR (curved/oblique/coronal sagittal)
- 2. Dynamic scanning and cine display specify the frame and umber of images that can be displayed.
- 3. minimum and maximum intensity projections
- 4. 3D shared surface display
- 5. Advanced 3D volume rendering technique
- 6. CT angiography with colored facility: MIP MPR, SSD, VR
- 7. 3D Virtual reality (CT endoscopy, Bronchoscopy, colonoscopy, colonoraphy and angioscopy)
- 8. Automatic bone sculpting (Auto bone)
- 9. Advance vessel analysis including stenosis quantification.
- 10. Latest reconstruction technology software to be provided.

#### 11. MAIN CONSOLES, WORKSTATIONS AND MONITORS

1) The system should have a main console with two medical grad monitors with fully loaded workstation

and one loaded additional identical workstation which is to be installed in the reporting room. On both the work stations all processing techniques viz MPR angiography 3D virtual endoscopy bronchoscopy colonoscopy colonography and angioscopy perfusion studies automatic bone sculpting advance vessels analysis dedicated software for lung part evaluation and quantification for inflammatory and malignant disease state ventricular function and stent quantification package can be performed. One additional viewing station to be installed in the console room to which viewing recording and filming can be performed.

- 2) All LCD monitors should be flicker free and have diagonal dimension of 18 inches or more 3) Hardware
- i. Minimum number of uncompressed image in 512x512 images 200.000 images or more on main console and 200.000 more on additional work station.
- ii Archive options CD-RW combo DVD
- iii The main console and work station must be DICOM 3.0 or more ready for print send manage query retrieve enabled for their respective functions.
- 4) Image reconstruction rate should be minimum 16 images /sec or more on 512x512 matrix.

#### 12. IMAGE STORAGE DEVICE

- 1) Please mention archive image transfer rate to other stations from the main console.
- 2) In case of independent work stations please mention all its specifications like hard disc capacity RAM of CPU transfer rate and various post processing capabilities etc.
- 3) A server of 5 tera bytes expandable to 20 terabytes and connected to existing CT MRI and digital equipments in department.

#### 13. IMAGE NETWORKING AND IMAGE STORAGE FACILTY

- 1. The system should be capable to connect to PACS through RIS/ HIS and presently to be connected to the existing no extra cost.
- 2. DICOM 3.0 or higher version (Conformance statement to be provided)
- 3. The system should have the facility of integrating all models for printing (DICOM ready ) including the existing laser cameras in the MR section of the Department.

#### 14. ACCESSORIES:

- **1)Dual head automatic pressure injector:** for minimum 200 ml for contrast and 100 ml for saline capacity injector 5 syringes with syringes with tubing with y connector should be provided alternatively an injector system of similar capability with dispensing with disposable syringes should be quoted.
- **2) Two desktop single module monitor** (dell/lenovo/apple) with cordless key board and mouse along with one laptop (sony/dell/lenovo) of top model should be provided with LCD projector (sony 3000 luminous) and motorized project screen.
- 3) Medical grade film digitizer for x-ray films of high image quality and resolution
- **4) UPS- 150 kV** Power rating compatible to whole machine load (including injector, camera, computer system will stations, X-ray gantry system etc. ) for 15 minutes UPS must be online with high frequency inverter system and with high amphear capacity maintenance free battery backup.

#### 15. DRY VIEW IMAGING CAMERA WITH THE FOLLOWING SPECIFICATIONS

- 1 Dry chemistry image
- 2 Resolution: 16 bits/500 dpi
- 3 Support 5 multiple film size: one of which must be 17\*x14\*
- 4 Must have 3 or more online film sizes

5 Throughput of 180 films or more per hour

6 DICOM compatible attach conformance statement

7 Laser printer for high resolution on minimum A4 size printing.

8 All standard accessories pertaining to the patient comfort and desired study should be provided and list of optional accessories may be furnished.

#### **16. ANAESTHESIA MACHINE:**

- 1) Machine should have 3 gas system
  - Oxygen
  - Nitrous oxide
  - Air with double flow tubes for all gases
- 2) Machine must be with 2 number of oxygen yokes & 1 number or N2 O yoke beside pipe line connection for gas specific pin indexed yoke
  - Oxygen
  - Nitrous oxide
  - Air
- 3) Machine must be with mechanical type hypoxic guard to maintain minimum 255 oxygen of total gas flow (should be free from any rubber material)
- 4) Para magnetic oxygen analyzer & control system to monitor concentrations to a degree of accuracy of+=1% in either fresh gas flow or breathing system

Display oxygen concentration

Audible & visual alarm activated if oxygen concentration strays

outside the HIGH & low alarm set controls

Pneumatic device which activate audible alarm when oxygen

supply pressure falls to 205 kPa for minimum 7 sec.

Visual indicator for gas supply

5) Flow meter

Color coding of flow meter

Height indexed antistatic flow meter tubes

Touch coded oxygen flow control knob

HIGH/LOW dipper switch which is particularly relevant

endoscopy proceedings

Dual low & high flow tubes provided for oxygen and nitrous

oxide for greater degree of accuracy at low flows.

- 6) Vaporizer inter lock system
- 7) Pressure gauges

High pressure gauges (2 each for O2 and N2O) and low pressure gauges

8) Regulators

Primary pressure regulators (four nos) mounted on each yoke.

Secondary pressure regulators one each in oxygen and nitrous oxide line.

9) Monitoring

Continuous monitoring of inspiratory O2 concentrations breathing frequency airway pressure (Paw, Peak Pmean PEEP) minute volume and tidal volume.

- -Display of measured parameter.
- -Airway pressure in graphical form.
- -Air entrainment valve operating at 4 cm H2O negative patient effort.
- -Colour coded gauges for cylinders and pipe lines.
- -Emergency oxygen flush for rapid and direct administration at about 55L/min O2 to the breathing system.

- -Auxiliary high pressure oxygen outlet with check valves.
- -Electrical sockets
- -On/off pneumatic switch
- -Tidy tray
- -Multipurpose looks and mounting blocks
- -Cable look
- -Draver unit
- -Roller bearing antistatic castors
- -Lockable front castors.
- -Suction system
- -A circle absorbers and circuits.
- -Steel structure electrostatically power coated
- -Antiglare stainless steel tray with raised edges.
- 10). Machine must be applicable for adult paediatric.
- 11) Machine's Anaesthesia ventilator should display
  - Tidal volume
  - Minutes
  - Oxygen%
  - Frequency
  - Airway pressure and graphical display
- 1. Machine's Anaesthesia ventilator should have Cardiac Bypass mode.
- 2. Machine should have CO2 bypass mode.
- 3. Machine's Anaesthesia ventilator should be electronically controlled electrically driven.
- 4. Machine anaesthesia ventilator should compensate for compliance circuits leak
- 5. Machine should have attachment to connect Main circuit
- 6. Machine must be of latest generation having worldwide acceptance and installation
- 7. Machine should have agent specific, flow with temperature controlled vaporizer for Iso/sevoFlurane from same manufacture.

All the components of the anesthesia workstation should be compatible to each other.

#### 17. TRAINING

- 1. Training of two faculty members for minimum Two weeks each at firms equivalent installation site in a prime institute mutually agreed by Department of Radiology and Company.
- 2. Onsite training: The application specialist of the company will stay on the site of installation for training the utilisation of the equipment for a total period of Two months for the faculty and radiographers.

#### 18. Books:

Ten latest Text Books in respect of MDCT should be supplied by the company in consultation with the respective Head f the Department.

#### 19. MANUALS

Operator and technical manuals of main and subsystems cooling chart curve of the x-ray tube and all relevant documents about the machine must be supplied.

#### **20. WARRANTY:**

- 1. The complete system including the machine, CT tube, equipments & all accessories including computer system, AC to be under warranty for 5 years. The entire turnkey project is to be maintained during the period of warranty, to the satisfaction of the Institute.
  - a. The warranty will start after successful and complete installation of the CT scanner and completion of the Turnkey project.
  - b. There after, a comprehensive maintenance contract (including repair/replacement of the

- parts) of the complete system including C T tube all accessories, computers and printers and all other items supplied/installed should be offered for 5 years.
- c. All the breakdown calls should be attended within 48 hrs, beyond this permissive limit the warranty will be extended by double the number of days for the service.
- d. The uptime for the work by the machine is minimum 95%.

Scope of warranty will include the machines and its accessories including UPS, computers printers, air conditioner, pressure injectors and anesthesia equipment supplied along with the machine and all the items supplied by the company.

#### 21. GENERATOR:

150kva or more as per requirement of equipment and A/C.

#### 22. Quote as optional

#### P A C S System

#### **TECHNICAL SPECIFICATIONS**

#### 1. Master server hardware

- INTEL Server mother board SE7520BD2V.
- QUAD INTEL XEON PROCESSROS, INTEL E7520 CHIPSET.
- Windows 2003 server OS.
- 800MHz FSB WITH 2 MB L2 Cache.
- 10/100/1000 Base T Lan / Ethernet interface with WOL.
- 200GB SCSI hard disk drive.
- 2GB DDRAM up-gradable to 16 GB.
- 100 / 1000 Mbps LAN.
- SCSI+SATA Connectivity.
- 52xCD-ROM Drive.
- 4 Cooling FANS for ample cooling.
- 17" color monitor.
- Standard windows 101 US Key board.
- Scroll two button mouse with mouse pad.
- Preferred three spare PCI slots.

#### 2. Image Valut NAS Box RAID level 5 storage box with storage capacity of 2 TB

From factor 2 U Rack Mount Design

**Processor Intel** 

RAM 1 GB

Disk interface Serial ATA (S-ATA) / 150 MB ps

Disk channels 8 operating parallel channel

Disk type 48 bit LBA mode serial ATA

Host interface Dual Ultra 320 LVD SCSI

Host channels 2 channels

Drive bays 8 bays hot swappable

Environment monitor Power, fan, disk and temperature failure

Power Dual 300 watts redundant power

supplies with load sharing

RAID level 0, 1, 10,3,5,30,50, JBOD

Multiple RAID Sets Yes

Online capacity expansion Yes

Rebuild hot spare drivers Automatically and transparently

Drive hot swap Yes

Drive insertion or removal Automatically detection and rebuilding

Firm ware upgrade Via RS -232 port

Management tool LCD panel or RS - 232 port

Dimensions 31.4 x 39.0 x 17.0 (cm) (l x h x w)

Weight 15 kg (W/O HDD)

Input voltage 100 – 240 V AC

#### 3. Pro PACS Software - 5 Concurrent Users

- DICOM 3.0 conformance.
- Acquires and stores images from DICOM modality.
- Supports scalable multi user concurrent access.
- Server performs as a DICOM device on any imaging network.
- Works on windows server environment.
- Storage of DICOM 3.0 images in a secured database.
- Image and data archival thro LAN/ WAN.
- Immediate download of images from Data Centre.
- DICOM protocol (SCP/SCU) supported.
- Customized report formats.
- System admin controls for assigning users to centres (ie giving accesses to radiologists).
- Monitoring the data upload.
- Streaming server allows easy and fast downloads of images.
- Web server allows viewing of images from any location and supports Tele radiology.

#### 4. PC Workstation

- Pentium Duo Core 2.4 or above GHz processor speed system or equivalent with appropriate mother board.
- 1 Serial, 1 parallel & 4 USB ports.
- 10 / 100 Base T LAN / Ethernet interface with Wake On Lan (WOL).
- 80 GB (minimum) or more HDD.
- 512 MB DD RAM.
- CD / DVD Writer.
- 17" TFT color monitor for displaying medical data / images.
- Standard windows 101 US key board.
- Scroll two button mouse with mouse pad.
- Preferred three spare PCI slots.
- Windows XP professional software.

#### 5. Pro PACS viewer

- Authorized users can only login to the system.
- Supports on any windows operating system.
- Provides the user with modality worksheet with patient ID, modality and status on reporting.
- Image streaming approach to fetch images in a progressive manner.
- Viewer supports cut lines and scout display.
- The specialist can Flip/Rotate, Zoom, ROI and Pan Gray scale invert.
- Allows the user to use various measurement lines.
- Allows multiple series and studies display.
- Easy reporting with images and reporting tool on one page.

#### 6. Networking:-

- 1. OFC cabling for 600 metres.
- 2. LIU 12 port 5 Nos.
- 3. Gigabit switch 5 Nos.
- 4. CAT 6 cables 1000
- 5. Installation & other costs LS

#### 22. TURNKEY PROJECT FOR MDCT SCANNER.

The turn key requirement may vary. The vendor should visit the sites and prepare the suitable layout plan involving equal construction in terms of square feet (approx. 1000 sq ft) and other infra structural facilities.

The units are to be installed on turnkey basis.

The vendor must visit the site, at their own cost, before they submit their quotation for the turnkey and give a certificate that the proposed site is suitable for installation of equipments. Before submitting their bids, the vendor has to submit the proposed layout of the CT section according to the requirements of the department and after getting it approved by the department, the final proposal would be added in the bid.

This project involves installation and commencing of the new equipments with all necessary and ordered accessories, all necessary civil, mechanical, electrical works to facilitate the commissioning of the equipments and the same shall be at the supplier's cost and risk if any. The institute however, will provide the space (flooring, walls, and roof) for the turn key project and installation of the equipment and main electrical supply upto the site. The central HVAC system of the adequate capacity to be installed for controlling room temperature and ventilation of the offered equipments, its components and complete equipments along with provision of 20% air change. The temperature regulation has to be separate for the equipment section and the rest of the section and should be controllable in each room independently. The road map for turn key project and equipment should be provided in words and as bar diagram presentation. Clearly specify the time to be taken for completion of turnkey project and installation and commissioning of the machines commencing from the date of getting the final order. In case of not meeting the final time schedule, a penalty will be imposed as per Government Rule.

The layout plan and other site requirements to be finalized in consultation with the consignee hospital authorities.

The site earmarked for installations is to be inspected and layout plan prepared in consultation with the user department. The exact plan depending upon the area/ location available has to be got approved from the Medical College authorities.

The lay-out will comprise of various rooms like Reception, Waiting Area, Gantry Rooms, Common Console Room, Electrical Equipment and UPS Room, Radiologist Room Change Room, Toilets etc.

Civil Works: Turn key will include the Civil Construction work as under mentioned:-

The walls will be cement plastered with Plaster of Paris finishes.

Flooring will be flat and stable where CT gantry and table are installed.

The flooring shall be done with 600 x 600 high density mat finish vitrified ceramic tiles.

In the CT Gantry room the walls shall be finished with high density vitrified tiles 600 x 600 mm upto ceiling

In the toilets necessary modifications to be done.

The walls will be painted with washable plastic emulsion paint.

Floor trenches with block board covers will be provided for the cables in the CT scan and Equipment rooms.

Plumbing operations if needed anywhere, including laying of sanitary lines, manholes, wash basins, geysers, white vitreous EWC etc. will be provided.

Furniture should be of high quality.

View boxes should be thin and compact, should be flicker free and of high luminous density of at least 6500 cd, with shutters and electronic dimmer.

Arrangement of water supply lines for drinking and general use including hot water will be made if needed.

The washing units and drainage lines should be resistant to chemicals.

The entrances to the units to be felt padded at the junction of both the doors to avoid dust and provide insulation.

False ceiling in all the areas will comprise of metal suspension system, perforated fireproof aluminum panels with integrated acoustic lining.

All fluorescent lights and smoke detectors to be accommodated/integrated in the false ceiling.

All the internal wiring including that of telephone, LAN, DICOM & PACS etc. will be of concealed variety.

**Cabinets** should be made of 19 mm thick water proof commercial board finished with 1mm thick lamination of approved shade with hard wood edging.

**Fire Safety measures**: A fire alarm system of reputed make with smoke/heat detectors, indicator panels, call boxes, electronic sirens and wiring will be installed if needed and not available at the site.

Audio call bell system, with intercom and remote locking/ unlocking facility, to be provided at the main door of the complex.

A security grill/shutters to be put at the main entrance. It will be wide enough to permit easy entry of patients on trolleys and wheel chairs.

The surrounding area to be illuminated for security reasons.

Music system for all the rooms and waiting areas in the center.

Closed circuit cameras of reputed company should be provided in the examination room, console room and waiting areas to be provided.

Neon light signboard is to be provided.

All the rooms in the complex will be signposted. Sun-film and Venetian blinds will be put up in all windows.

The entire complex will be made rodent/pest proof.

All windows should have MS grill, Aluminum frame and glass, sliding window type.

Pop/ plaster / paint also to be mentioned in each rooms

RF Interiors on MR are to be specified

Transformer / All power line till building to be customer's scope.

Scope of AC also needs to be clear in the form of ductable / units

Doors specification should be provided by the Vendor (followed by AERB guidelines wherever required)

Construction and all material should be of top quality (ISI Mark) and work should be completed within prescribed period.

#### **Electrical Services:**

The CT Scanner and all connected/required equipment for scanning, post-processing and filming are to be connected to the supplied UPS.

All the equipments/computers along with peripherals, light points, fire alarm system, EPABX and view boxes are to be supplied power through the common or a separate UPS with 30 minutes back up.

Dimmer controlled incandescent light fixtures are to be provided in the gantry room, console room.

All the electric wiring (Copper), switches, sockets, plugs, MCBs etc. are to be of reputed make and as per ISI standards.

Different parts of the complex will have separate wiring for light and power circuits through MCBs of suitable capacity.

Adequate safety measures will be incorporated in the electrical power supply system.

Dedicated isolated earthling is to be provided for the complex.

#### **Air Conditioning**

Dedicated separate transformer of suitable capacity required for CT,AC and other auxiliary equipment should be provide by vendor with consultation to CSEB and PWD. Required cable and fitting will be responsibility of vendor for various purposes.

Electrical fitting, switches in all above rooms should be provided by Vendor for various purposes.

Ductable Central A.C. for gantry and console and Split A.C. of reputed Company in other rooms.

The complete area is to be air-conditioned optimally except for Toilets/Services with split type of Acs.

All weather AC with cooling, heating and humidity control capabilities is to be provided.

Air flow in various rooms should be adjustable to have some degree of control over temperature in

different rooms of the complex.

The AC unit(s) should be microprocessor controlled for adequate temperature control.

The total A/C capacity being offered for the complete center to be clearly mentioned.

The entire turnkey project (building and the supplied items) should have an underlying colour scheme so that it gives a homogenous, aesthetically pleasant and patient friendly appearance.

Any addition and alteration as and when required during turnkey work will be done by mutual discussion between the supplier and technical committee. The whole turn key work has to be done to the fullest satisfaction of the technical committee and engineering department (civil & electrical) In case of any difference of opinion the decision of the technical committee shall be final and binding on the supplier.

#### **Furniture:**

#### Console, Gantry room

Trolley for CT and any other furniture required as per need in gantry room is to be provided.

4 tables required for console equipment with 5 computer revolving chairs with armrest.

Cupboard with lockers, made up of plywood and sun mica with lock and key.

#### **Equipment Room**

Cupboard with lock and key to keep spares and user manual

Cupboard for stationary and record made up of ISI mark plywood and sun mica with lock and key.

#### **Receptionist Chamber**

Plywood sun mica table for writing purpose, drawers cupboard to keep film. Folders, records and provision for PC, CPU, UPS and Printer.

Revolving chair

Illumination System

Fans.

Provision for glass counter

Microphone and Speakers for giving instructions to patients.

Plywood sun mica rack to keep reported films.

#### **Patients Waiting Hall**

Permanent sitting arrangement for patients in form chairs/ benches as per the space available.

Fans

Provision of 29" size flat screen Colour television with close cabinet and DTH disc with set top box and CD/DVD/ Player

#### **SPECIFICATION (ii)**

#### **Technical Specification for MRI SYSTEM**

**REQUIREMENT**: Installation of advanced MRI System on turn key basis. These are the broad based specifications. For quoting of modern machines two different categories have been made. Companies are supposed to quote in each catogaries separetly with respect to modern version. 3.0 Tesla with 32 Channel However, companies can quote equivalent or higher comparable technologies to consider them in these category. Only the top of the line model/version should be quoted. The vendor must supply the latest version of the equipment commercially available at time of placing the supply order. The quoted model must be FDA approved for clinical use. The aim of the government is to buy the latest equipment with good performance. The major/minor deviations from this broad specification will be evaluated by technical committee for equivalent and comparable technologies. Demonstration has to be arranged by the company before the price bid opening at their own cost for their quoted models to the technical committee.

#### 1) MAGNET System:

- a. Latest, State of the Art, Compact & patient friendly 3.0 Tesla with 32 Channel ACTIVELY SHIELDED Supercon.
- b. Magnet Weight ( with cryogens ) not to 9 tons for 3 T
- c. 60 cms or more, patient bore flared at both endsand short effective patient tunnel length.
- d. Magnet length should not be more than 175cm cover to cover.
- e. Exclusive Supercon compensation for heavy iron objects moving in vicinity.
- f. Cryocooler (inbuilt). Low helium consumption magnet will be preferred.
- g. Well ventilated and illuminated; with in-built 2way intercom system for communication with patient.
- h. MRI compatible patient headset for music in gantry and auditory paradigm administration in MRI studies should be supplied.

#### 2) ACTIVELY SHIELDED GRADIENT

- a. (a)Strength:For 3T 40 mT/m or higher true usable peak gradient amplitude in all 3 axes for high quality neuroimaging. The gradients should have a true peak Slew rate of 200 mT/m/mSec or better,.
- b. Min Slice thickness 2D: 0.75 mm or lower
- c. Min Slice thickness 3D: 0.1 mm or lower
- d.Min / Maximum FOV (2D and 3D): 1cm or lower / 50 cms in at least 2 directions or higher preferred
- e.Max Acquisition Matrix: 1024 in both phase and frequency encoding directions

#### 3) PATIENT BED:

- a. Patient friendly with computer controlled movement in vertical & horizontal direction.
- b. Halogen/Laser light beams: for accurate positioning
- c. Return-to-scan plane function: for easy administration of contrast.

#### 4) RF Amplifier and Receiver

- a. At least generate a transmit power of 15 kW or higher at 100% efficiency
- b. Accurate, flexible on-the-fly generation of gradient and RF waveforms.
- c. At least 32 dedicated receiver channels with Receiver Bandwidth of 1.0 MHz per receiver channel or higher for superior RF performance. Receiver to support 12 or more elements of PA coils, compatible with parallelimaging techniques like iPAT2, ASSET, SENSE etc., with Scan time reduction factors of at least upto 8 or more in 2D and 12 or more in 3D sequences (higher true scantime reduction factors in 2D and/or 3D will be given added weightage)
- d. Integrated preamplifiers with each coil preferred.
- e. Multiple coil connection with active coil decoupling preferred.

#### 5)OPERATOR CONSOLE:

- a. 21" High Resolution LCD Monitor
- b. Ergonomically designed
- c. Mouse, Alphanumeric Keyboard
- d. Two way intercom system for patient communication

#### 6) MR WORKSTATION - 2 nos.

- 1. Workstation with 21 inch LCD monitor and 14" x 17" additional laser camera. It should be swappable (Interchangeable with main console with full functional capability as the main console) and should have all post processing softwares and complete dicom functionalities.
- 2. RAM memory capacity at least: 8 GB
- 3. Hard Disk Capacity Not less than 500GB: 5,00,000 at 512x512 MatrixUncompressed
- 4. DVD: Re writeable

#### 7) PATIENT COMFORT ACCESSORIES:

- a. Soft mattress with head rest
- b. Knee support, positioning wedges
- c. Set of soft velcro immobilization straps
- d. MR compatible sandbags
- e. Hand held nurse call device

#### 8) RF COILS:

- a. Dedicated coils where available should be mandatorily offered as a part of the standard package and would necessarily have to be given rather than suitable coils. In case of already quoted coils being suitable for any of the other applications asked herein, those coils need not be duplicated. Howeverthis will be applicable only if no dedicated coils for the same are available with theyendor.
- b. High Quality Quadrature/ Circular Polarized (CP)Body Coil (integrated to magnet)
- c. Dedicated Head Coil 32 Channel for 3T please specify Head Coil with parallel imaging technique compatibility upto factor 8 (higher preferred). Spectroscopy & imaging compatibility on the same coil preferred. Parallel imaging in all directions and without any compromise should be possible with all sequences.
- d. 32 Channel Body/ Torso Coil.
- e. 16 channel NV coil for angio and coverage from Aortic Arch to the Circle of Willis with scan time reduction factors of 4 or better
- f. The above NV coil should be combinable with a Phased Array Spine coil of at least 10 elements or higher for Head, Neck and Spine imaging without patient repositioning (Cervical, thoracic and lumbar spine imaging) with parallel imaging compatibility.
- g. Two Flexible coils suitable for Wrist, TMJ, Inner Ear with parallel imaging compatibility.
- h. Dedicated Shoulder Coils with parallel imaging compatibility, coils with higher channels to be quoted, at least 8 channels, 12 would be preferable
- i. Dedicated Knee Coil with parallel imaging compatibility, coils with higher channels to be quoted, at least 8 channels, 12 would be preferable
- j. 12 or more channel or higher PA Body Coil compatible with Parallel Imaging Technique for scan time reduction factor of 4 or better to cover atleast 45cms FOV in a single station.
- k. Coils with Built-in preamplifier in each coil toensure high SNR proffered (Signal to Noise Ratio)
- I. Bilateral Breast Coil with at least 4 channel with fully functional spectroscopy. System should have facility for breast imaging withfacility to prepare patient fully outside the exam room and scanning the patient using docking facility with table and coil combination without repositioning of the patient.
- m. Point 8 of main specifications

n. Other RF coils to be included are Flexible Coil -Large for imaging of large regions such as shoulder, hip and knee etc. This coil should be PAT compatible. Flexible Coil -small for imaging of small regions such as shoulders, wrist, elbow and ankle. This cil should be PAT compatible.

Multipurpose endocavitatory coil for imaging of the prostate and the uterus and cervix.

Please specify how many RF coils can be connected and how many elements can be activated from different coils combined together. Maximum number of coil connectivity for various applications will be preferred for high resolution Imaging.

- **9) APPLICATION SOFTWARE:** All available softwares at the time of purchase should be provided in their latest version with software upgrades regularly till the machine is in use. All the routine sequences with complete, neuro suite, orthosuite, cardiac imaging suite, body imaging suite, breast imaginf suite and oncology suite should be made available.
- a. Spin Echo (SE); Modified Spin Echo (MSE); Fast Gradient Echo (FGRE), Inversion Recovery (IR) and mixed SE-IR.
- b. Dynamic Study for pre and post contrast scans, Time intensity studies (Wash in and Wash out) and kinematics
- c. Fast Spin Echo Package which generates superb images with conventional SE contrast in scan times typically 10 time shorter for faster MRCP applications. Fast Recalled Spin Echo technique for better fluid contrast should be available
- d. The System should be quoted with Non contrast enhance angio such as B Inhance/Trance or equivalent .
- e. The System should be quoted with Cube / Vista or equivalent software for higher application.
- f. Advance Techniques for Neuro Imaging like Propeller / BLADE / Multivane for motion correction. IDEAL / M Dixon or equivalent sequence for fat and water image in one acquisition for Body Imaging. Volume Acquisition Sequences like CUBE / VISTA for acquisition with sum millimeter resolution.
- g. Arterial spin labeling technique.
- h. Complete Angio Software package including both 2D and 3D Angios with gated inflow to suppress artifacts from retrograde flow and pulsations; includes MOTSA with the possibility of applying MTC pulses and Phase contrast angio.
- i. Contrast uptake analysis with time intensity diagrams.
- j. Fast Gradient Echo technique, 2D and 3D mode, ideal for contrast agent wash-in and wash-out studies. True FISP, Fiesta 2D and 3D, balanced FFE or equivalent must be supported for high contrast, flow independent imaging capability.
- k. Single and Multi Shot EPI (Echo Planar imaging). High resolution multi shot EPI and real time motion detection & correction capabilities in fMRI & Diffusion imaging such as Diffusion Registration with Propellor / Multivane / Blade techniques should be offered.
- I. Single-shot EPI based diffusion with ADC maps onconsole, perfusion with TTP color maps and functional imaging including processing (statistical maps and color overlay on anatomical images) including presentation of visual and auditory paradigm administration for fMRI studies.
- m. High Angular Diffusion Tensor Imaging with atleast 32 diffusion directions and fibre tractography should be offered
- n. Should be able to offer 5 B values or more in single acquisition while doing Diffusion Imaging.
- o. Complete cardiac suite to see Cardiac Morphology, anatomy, perfusion, viability and functional imaging should be offered with full post processing capabilities such as wall thickness, wall thickening, End Systolic and Diastolic Volumes, Ejection Fraction, Cardiac Output, Quantification Flow with Color Doppler simulation, global and regional ventricular wall global analysis, Quad Movie tool with full cardiac MR reporting Software. Any special methods for reliable ECG Triggering / Gating should be offered. Protocols for assessment of coronary heart disease and plaque characterization.
- p. Flow Quantification for flow assessment in otherthan cardiac applications

- q. Single slice, Multiple single slice, Multiple slice, Multiple stack, Radial stack and 3Dacquisitions for all applications
- r. Variable Field of View (FOV), specify min to max.
- s. Acquisition Resolution from 64 x 64 upto 1024 X 1024 matrix.
- t. Reduced matrix or half scan to reduce scan times
- u. Artifact suppression for Respiratory, motion, moving blood etc.
- v. Fat sat, Chemsat for high quality images.
- w. MULTITASKING: During scan operators console maybe used for any viewing, post processing, archiving or hardcopy
- x. The system should have the Hydrogen, Single Voxel spectroscopy. Multivoxel. Multislice & Multiangle 2D, 3D Spectroscopy and Chemical shift imaging in 2D/3D. The complete processing/ post-processing software including color metabolite maps should be available on main console. Complete prostate/spectroscopy hardware and applications should be provided. Multinuclear Spectroscopy along with H should be made available.
- y. Visual Triggering of CE MRA and automated lower peripheral angiography with techniques for avoiding venous enhancement should be offered. It should be possible to combine parallal imaging for the lower peripheral angio
- z. Techniques for bilateral breast imaging including axillary coverage (VIBRANT XV / BLISS / VIEWS) with suitable coils should be offered with Parallal imaging capability and parallal imaging factor 4 or higher.
- aa. Whole body imaging / screening & CE angio in one go (one table movement, feet first patient entry, single contrast injecton in case of CE Angio), with different contrasts (T1, T2, STIR) using a single multistation study with automated table movement to enable metastases screening should be offered with stiching/pasting/viewing software to see multi-station coronal images as a seamless single FOV image. Also whole body imaging for metastasis study at one go for the complete patient with Diffusion Weighted Imaging with back ground suppression.
- bb. System should be offered with SENSE / SMASH / I-PAT Plus/ ASSET, GEMS/GRAPPA or equivalent technique with upto factor 6 or higher acquisition time reduction in all sequences. Pls specify compatibility with sequences, Scan techniques and gating techniques clearly. It should be possible to combine parallal imaging in all directions, application and solts both in 2D and 3D.
- cc. 3D Dynamic Liver /multi-phasic liver studies with sequences such as LAVA XV, THRIVE, VIBE should be offered
- dd. Volume Isotropic acquisition techniques such asSPACE, VISTA should be offered
- ee. Venous Bold/SWI for susceptibility weighted imaging in brain should be offered
- ff. Real Time high resolution 3D contrast enhanced angio techniques such as TREAT, TRACS, TRICKS XV should be offered
- gg. Functional Imaging with Package for BOLD Imaging and evaluation and spectroscopic imaging & processing package with paradigm generator (non goggle based) with large high resolution monitor that can be moved to any part of the exam room. It should be fully integrated with MR console for driving the paradigms. Should have console computer, E prime, microphone, fiber optic cables etc-: Quote as Optional
- hh. Body suite for fast imaging of abdomen, pelvis, colonography MRCP , dynamic kidney and MR urography application.
- ii. Protocols for Onco imaging and prostate imaging.
- ij. Complete breast imaging protocols
- kk. Complete ortho imaging protocols including cartilage study.
- II. Complete brain imaging protocols including CISS and DESS or similar sequences.
- mm. Optimized pediatric protocols.
- nn. Two separate powerful workstation for advanced3D Segmentation, BOLD processing, Color maps, neuro

perfusion TTP color maps, q Flow to be supplied with CD recording and filming capabilities. All these capabilities must be available in both main console and in the workstation above.

oo.System should preferably offer Exam automation Tool for Brain , Spine, Knee & Shoulder Imaging. Scaning , Planing & Post processing in automated mode

pp. **Quote as optional** - System should offer connectivity to the system for performing micro target & CRW frame stereotaxy as well as deep brain stimulation & DBS micro drive System with Brain Atlas . A separate coil which is > than 270mm size to accommodate the CRW titanium MR compatible frame for DBS as well as software forperforming DBS should be provided. BRAIN ATLAS for DBS which comes as a hard copy as well as software should be given. It should have interface for frame link 5.2software . It shouldbe compatible to a micro targeting drive and a radionics frame adaptor for micro targeting. The MR machine should comply with the protocols for Stereotactic neurosurgical procedures as well as DBS and that necessary software should be provided by default and not as accessories. Audio visual paradigm generator of reputed make. Approve the models from the department head prior to supply .Also give specifications of the same to the technical committee to approve at the time of the tender prebid.

Point 6 and 9 of the main specifications

All the softwares and post processing functions should be available in triplicate on the main console and the two fully loaded workstations. We must preferably be able to use the workstations independent of the machine and main console

Other softwares to be included Susceptibility-Weighted imaging technique to visualise micro bleeding, shearing injuries, venous vessles should be offered as standard

Perfusion Imaging to enable large anatomy coverage of the brain and in line calculation of resulting hemodynamic data. The perfusion analysis should have capability to calculate color display of relMTT, rel CBV,rel CBF. The same should be possible on the main console.

Imaging technique for high resolution isotropic 3D imaging in short scan time should be offered for imaging of Neuro, Body, Extremity application. This sequence should have imaging possibility with all contrasts and with fat sat technique

BOLD imaging: BOLD technique with automated 3 dimensional motion correction, z- score, correlation analysis with color overlay on anatomical images. It should be possible to have Real Time prospective and retrospective motion correction of BOLD imaging data on the main console.

The perfusion and the BOLD imaging should be possible for the whole brain with motion correction techniques. Please specify the application package and the motion correction technique.

MR Angio Imaging: Should have 2D/3D TOF, 2D/3D PC, MTS and TONE, ceMRA. All MRA & MRV protocols & processing software's should be offered as standard. Evaluation of flow velocity in cm/s, variable velocity encoding and global and regional flow volume should be included as standard on the main console.

The system should be quoted with Time resolved techniques for peripheral vessels, aorta, thorax etc 2D/3D Steady state sequences for high resolution neuro imaging should be part of the main configuration. The real time TrueFisp/FIESTA/Balanced FFE should be standard. Parallel Acquisition Techniques: Both Image based and k space based fast acquistion parallel imaging technique should be offered as standard with fast and turbo caliberation technique.

Bolus chasing with automatic moving table should beoffered and should be available with fluoro triggered MR angiography for manual and fast switchover in less than 1 sec for ceMRA results. The system should have as standard software / technique for motion correction for involuntary head movement of the patient.

The system should be quoted with fast 3D Volume acquisition sequences/package for high temporal and spatial resolution dynamic Liver imaging and also steady state sequences for abdomenimaging should be quoted as standard.

#### 10) Accessories:

- 1) Chiller (for the cryocooler) and gradient amplifiers.
- 2) UPS cum Power Conditioner for the entire system including camera and chiller (gradient and cryocooler)

- to be supplied with backup of minimum 30 minutes.
- 3) Dual head pressure injector with 500 syringes and 1000 y tubings
- 4) two dehumidifiers for an area of 700 sq feet.
- 5) 6 room thermometers for temperature regulation.
- 6) Two hand held metal detectors for patient safety screening
- 7) Electronic weighing machine -1
- 8) Company Onwed additional Dockable trolley or MR compatible Trolley to be provided
- 9) MR compatible Anesthesia machine with Ventilator should be offered of following specification:
- A . MRI compatible anesthesia workstation with integrated ventilators
- B. Multipara monitor.
- C . Gas lines for central O2, nitrous and air

#### 11) Upgradability

All software upgrade on the system console workstation on the existing applications must be provided by vendor indefinitely at no cost.

This will include any hardware or parts if the software added needs them to enhance the existing capabilities.

New software (A software which is totally new and which is / was never a part of supplied and or upgraded software shall be treated as new software ) of must be made available to the purchaser at 30% of the actual listed price for a period of the CMC and warranty.

#### 12) DOCUMENTATION:

- 1.DVD Discs 100 Nos. Should be provided
- 2. Dry camera ( Laser ) of 500 dpi which can print minimum14X17 film size with digital interface should be provided
- 1. Resolution minimum 16 bits/500 dpi
- 2. supports multiple film size -14"x 17" is must
- 3. Throughput of minimum 100 films per hour
- 4. DICOM compatible.
- 5. Company should connect the machine with existing cameras in the department for alternate recording.
- 6. Company should supply 2000 films of -14"x 17" size for the supplied camera for testing and initial use.
- 7. A/C air condition system with16° C to 24° C Maintenance around the Clock should be provided
- **13) TERMS OF INSTALLATION:** The firm should be responsible for site evaluation and complete installation, full technical cooperation for alteration of existing building Complex etc.,

#### Gas piping for anesthesia in gantry room connected to hospital supply.

A. colour ink jet printer for printing images of the coronary scan which allows low cost printing.

#### 14) MISCELLANEOUS:

- 1. Training for two Radiologist at prime institute as mutually decided by the Department and the company for minimum Two weeks.
- 2. Onsite training: The application specialist of the company will stay on the site of installation for training the utilisation of the equipment for a total period of Two months for the faculty and radiographers.
- 3. Free comprehensive warranty for equipment for 5 years (including all parts, helium, cold head etc.)
- 4. Date of Commencement of warranty: After Installation, demonstration & proper functioning of equipment and handing over of the equipment.

#### 15) Warranty:

The complete system including the machine, equipments & all accessories including computer system, AC to be under warranty for 5 years. The entire turnkey project is to be maintained during the period of warranty, to the satisfaction of the Institute.

- a. The warranty will start after successful and complete installation of the CT scanner and completion of the Turnkey project.
- b. There after, a comprehensive maintenance contract (including repair/replacement of the parts) of the complete system, including helium, cold head etc, all accessories, computers and printers and all other items supplied/ installed should be offered for 5 years.
- c. All the breakdown calls should be attended within 48 hrs, beyond this permissive limit the warranty will be extended by double the number of days for the service.
- d. The uptime for the work by the machine is minimum 95%.

Scope of warranty will include the machines and its accessories including UPS, computers printers, air conditioner, pressure injectors and anesthesia equipment supplied along with the machine and all the items supplied by the company.

#### CMC for five(5) years :-

After warranty period the supplier should provide CMC charges for 5 years.

Should include the machine and its accessories, the tube and detectors, other

components of the machine, UPS, computers printers, air conditioner,s pressure injectors and anesthesia equipment supplied along with the machine.

#### 16) Rodent control

Company should take all precautions to strengthen the present construction and a fill up all the holes to prevent rodent entry in gantry and console room.

Air conditioning and turnkey details should be taken from the end user.

The company shall provide names, addresses, phone numbers of all the personal needed for trouble shooting of the machine, the accessories including computers antivirus software and anesthesia equipments and air conditioners and all the items covered under the warranty and CMC.

#### 17) TURNKEY PROJECT FOR MRI SYSTEM:

The turn key requirement may vary, the vendor should visit the sites and prepare the suitable layout plan involving equal construction in terms of square feet (approx. 1500 sq ft).and other infra structural facilities.

The units are to be installed on turnkey basis.

The vendor must visit the site, at their own cost, before they submit their quotation for the turnkey and give a certificate that the proposed site is suitable for installation of equipments. Before submitting their bids, the vendor has to submit the proposed layout of the MRI section according to the requirements of the department and after getting it approved by the department, the final proposal would be added in the bid.

This project involves installation and commencing of the new equipments with all necessary and ordered accessories, all necessary civil, mechanical, electrical works to facilitate the commissioning of the

equipments and the same shall be at the supplier's cost and risk if any. The institute however, will provide the space (flooring, walls, and roof) for the turn key project and installation of the equipment and main electrical supply upto the site. The central HVAC system of the adequate capacity to be installed for controlling room temperature and ventilation of the offered equipments, its components and complete equipments along with provision of 20% air change. The temperature regulation has to be separate for the equipment section and the rest of the section and should be controllable in each room independently. The road map for turn key project and equipment should be provided in words and as bar diagram presentation. Clearly specify the time to be taken for completion of turnkey project and installation and commissioning of the machines commencing from the date of getting the final order. In case of not meeting the final time schedule, a penalty will be imposed as per Government Rule.

The layout plan and other site requirements to be finalized in consultation with the consignee hospital authorities.

The site earmarked for installations is to be inspected and layout plan prepared in consultation with the user department. The exact plan depending upon the area/ location available has to be got approved from the Medical College authorities.

The lay-out will comprise of various rooms like Reception, Waiting Area, Gantry Rooms, Common Console Room, Electrical Equipment and UPS Room, Radiologist Room Change Room, Toilets etc.

Civil Works: Turn key will include the Civil Construction work as under mentioned:-

The walls will be cement plastered with Plaster of Paris finishes.

Flooring will be flat and stable where the RF Cabin with MRI gantry and table are installed.

The flooring shall be done with 600 x 600 high density mat finish vitrified ceramic tiles.

In the MRI Gantry room the walls shall be finished with MR Compatible tiles 600 x 600 mm upto ceiling

In the toilets necessary modifications to be done.

The walls will be painted with washable plastic emulsion paint.

Floor trenches with block board covers will be provided for the cables in the MRI scan and Equipment rooms.

Plumbing operations if needed anywhere, including laying of sanitary lines, manholes, wash basins, geysers, white vitreous EWC etc. will be provided.

Furniture should be of high quality.

View boxes should be thin and compact, should be flicker free and of high luminous density of at least 6500 cd, with shutters and electronic dimmer.

Arrangement of water supply lines for drinking and general use including hot water will be made if

needed.

The washing units and drainage lines should be resistant to chemicals.

The entrances to the units to be felt padded at the junction of both the doors to avoid dust and provide insulation.

False ceiling in all the areas will comprise of metal suspension system, perforated fireproof aluminum panels with integrated acoustic lining.

All fluorescent lights and smoke detectors to be accommodated/ integrated in the false ceiling.

All the internal wiring including that of telephone, LAN, DICOM & PACS etc. will be of concealed variety.

**Cabinets** should be made of 19 mm thick water proof commercial board finished with 1mm thick lamination of approved shade with hard wood edging.

**Fire Safety measures**: A fire alarm system of reputed make with smoke/heat detectors, indicator panels, call boxes, electronic sirens and wiring will be installed if needed and not available at the site.

Audio call bell system, with intercom and remote locking/ unlocking facility, to be provided at the main door of the complex.

A security grill/shutters to be put at the main entrance. It will be wide enough to permit easy entry of patients on trolleys and wheel chairs.

The surrounding area to be illuminated for security reasons.

Music system for all the rooms and waiting areas in the center.

Closed circuit cameras of reputed company should be provided in the examination room, console room and waiting areas to be provided.

Neon light signboard is to be provided.

All the rooms in the complex will be signposted. Sun-film and Venetian blinds will be put up in all windows.

The entire complex will be made rodent/pest proof.

All windows should have MS grill, Aluminum frame and glass, sliding window type.

Pop/ plaster / paint also to be mentioned in each rooms

RF Interiors on MR are to be specified

Transformer / All power line till building to be customer's scope.

Scope of AC also needs to be clear in the form of ductable / units

Doors specification should be provided by the Vendor (followed by AERB guidelines wherever required)

Construction and all material should be of top quality (ISI Mark) and work should be completed within prescribed period.

#### **Electrical Services:**

The MRI system and all connected/required equipment for scanning, post-processing and filming are to be connected to the supplied UPS.

All the equipments/computers along with peripherals, light points, fire alarm system, EPABX and view boxes are to be supplied power through the common or a separate UPS with 30 minutes back up.

Dimmer controlled incandescent light fixtures are to be provided in the gantry room, console room.

All the electric wiring (Copper), switches, sockets, plugs, MCBs etc. are to be of reputed make and as per ISI standards.

Different parts of the complex will have separate wiring for light and power circuits through MCBs of suitable capacity.

Adequate safety measures will be incorporated in the electrical power supply system.

Dedicated isolated earthling is to be provided for the complex.

#### **Air Conditioning**

Dedicated separate transformer of suitable capacity required for M.R.I, Chiller, AC and other auxiliary equipment should be provide by vendor with consultation to CSEB and PWD. Required cable and fitting will be responsibility of vendor for various

purposes.

Electrical fitting, switches in all above rooms should be provided by Vendor for various purposes.

Ductable Central A.C. for gantry and console and Split A.C. of reputed Company in other rooms.

The complete area is to be air-conditioned optimally except for Toilets/Services with split type of Acs.

All weather AC with cooling, heating and humidity control capabilities is to be provided.

Air flow in various rooms should be adjustable to have some degree of control over temperature in different rooms of the complex.

The AC unit(s) should be microprocessor controlled for adequate temperature control.

The total A/C capacity being offered for the complete center to be clearly mentioned.

The entire turnkey project (building and the supplied items) should have an underlying colour scheme so that it gives a homogenous, aesthetically pleasant and patient friendly appearance.

Any addition and alteration as and when required during turnkey work will be done by mutual discussion between the supplier and technical committee. The whole turn key work has to be done to the fullest satisfaction of the technical committee and engineering department (civil & electrical) In case of any difference of opinion the decision of the technical committee shall be final and binding on the supplier.

#### **Furniture:**

#### Console, Gantry room

M.R.I. Compatible trolley and any other furniture required as per need in gantry Room.

4 tables required for console equipment with 5 computer revolving chairs with armrest.

Cupboard with lockers, made up of plywood and sun mica with lock and key.

#### **Equipment Room**

Cupboard with lock and key to keep spares and user manual

Cupboard for stationary and record made up of ISI mark plywood and sun mica with lock and key.

#### **Receptionist Chamber**

Plywood sun mica table for writing purpose, drawers cupboard to keep film. Folders, records and provision for PC, CPU, UPS and Printer.

Revolving chair

Illumination System

Fans.

Provision for glass counter

Microphone and Speakers for giving instructions to patients.

Plywood sun mica rack to keep reported films.

#### **Patients Waiting Hall**

Permanent sitting arrangement for patients in form chairs/ benches as per the space available.

Fans

<u>Provision of 29" size flat screen Colour television with close cabinet and DTH disc with set top box and CD/DVD/ Player.</u>

#### **TERMS & CONDITIONS**

- 1. Tenders will have to give offer for both C.T. Scan & M.R.I. for M. Y. Hospital, Indore, Tenders for only C.T. Scan & M.R.I. will not be considered.
- 2. Tenderer will have to enclosed earnest money deposit in the form of Demand draft for rs.5 Lacs each for C.T. Scan & M.R.I. respectively payable to Joint Director cum Superintendent, M. Y. Hospital, (Autonomous Society), Indore along with the tender.
- 3. Successful tenderer will have to deposit Rs.10 Lacs as security deposit in the form of Demand Draft with the Joint Director cum Superintendent, M. Y. Hospital, (Autonomous Society), Indore.
- 4. Tenders will be submitted in three separate envelops A, B & C. In envelope 'A' draft for E.M.D. in envelope 'B' technical bid for C.T. Scan & M.R.I. separately and in envelope 'C' financial bid will be submitted for both C.T. Scan & M.R.I. separately but in the same envelope.
- 5. The tenders received after the stipulated last date and time shall not be considered.
- 6. The tenders will be received in the office of Joint Director cum Superintendent, M. Y. Hospital, (Autonomous Society), Indore on or before 13.02.2015 at 1.00 PM.
- 7. Joint Director cum Superintendent, M. Y. Hospital (Autonomous Society), Indore will provide space in the hospital campus to the successful tenderer to install and run C.T. Scan & M.R.I. machines. Successful Tenderer will have to pay a rent as offered in his tender document above Rupees Two Lacs (2,00,000/-) per month for space and water supply to the autonomous Hospital society. Minimum reserved rent value for the space is Rupees Two Lacs (2,00,000/-) per month.
- 8. Successful tenderer will have their own electricity connection & meter and have to pay electricity bill regularly on their own.
- 9. Both C.T. Scan & M.R.I. units should be of latest make. Refurbished units will not be entertained. Certificate to this effect has to be produced along with the tender in technical bid.
- 10. Successful tenderer will have to arrange for the supply of required as per the specification.
- 11. Successful tenderer will also have to arrange for Consultant Radiologists with full expertise to make report of investigations performed on these equipments. They will have to arrange technicians and other ancillary staff also.
- 12. Consultants should be competent enough to guide the functioning of machines and analyze the reports & to guide the post graduate students of Autonomous Medical Colleges.
- 13. Tenderer will have to offer their rates separately for Below Poverty Line (B.P.L.) patients and Above Poverty Line (A.P.L.) patients and academic cases for various types of investigations being carried out on these equipment with contrast and without contrast in proforma No.1 for C.T. and in proforma No.2 for M.R.I. cases for all teaching hospital & patients.
- 14. Successful tenderer will be free to do C.T. & M.R.I. investigations of the patients form private hospital and clinics at their own rates.
- 15. Successful tenderer will have to give parallel academic affiliation to the department of Radio diagnosis of M.G.M. Medical College (Autonomous Society), Indore so as to fulfill the desired M.C.I. norms.
- 16. Tenderers have to submit their offers in proforma 1 for C.T. and in proforma 2 for M.R.I., in a single envelope.
- 17. Bids will be opened before the presence of tenderers. Then a final agreement of the approved tenderer will be executed between Joint Director cum Superintendent M.Y. Hospital (Autonomous Society), Indore (here in called as Party No.1 and Party No.2 (whose offers has been accepted and approved).

- 18. The tenderer who offers free services/ minimum charges to patients of Below Poverty Line (B.P.L.) will be given preference. tenderes shall fill in proforma No.1 for C.T. & in proforma No.2 for M.R.I. in the respective columns accordingly.
- 19. Under no condition the tenderer will be permitted to charge above the specified rates for "Below poverty line" as fixed by Autonomous Society M.Y. Hospital Indore. (Rate list attached)
- 20. Preference shall be given to those tenderers who have experience of running C.T. / M.R.I./ Private Allopathic Hospitals/ Clinics/ Centers.
- 21. Successful tenderer will have to submit No Objection Certificate from Atomic Energy Regulatory Board before installation and has to undergo an inspection by Atomic Energy Regulatory Board within 3 months of installation as required under Radiation protection Act.
- 22. Safety, security and maintenance of their equipments, materials will be the responsibility of Party No.2 and Party No.1 will not be liable for any safety, security lapse and maintenance of the machines.
- 23. Any dispute/ controversies arising in dealing with the patients or patient's attendants will be brought to the notice of Superintendent / his representation before any legal action outside the premises is considered.
- 24. Successful tenderes will have to install C.T. Scan & M.R.I. machines completely within the stipulated period of 3 months from the date of agreement.
- 25. P.G. students and faculty members of Department of radio diagnosis of respective Medical College will be freely allowed for clinical and research work and party NO.2 will render full co-operation.
  - Only space will be provided in lieu of rent as fixed by party no. 1 and all other necessary equipments to be fulfilled by Party No.2, right from date of possession of the space by Party No.2.
- 26. Successful bidder will have to provide manpower and trolleys /statures for shifting of admitted patients in M. Y. Hospital, Indore.
- 27. Successful tenderers will have to install the equipments on turnkey basis and arrange for qualified staff within three months, after the award of contract.
- 28. The rate list enclosed is subject to revision every year after the approval from the Hospital management committee.
- 29. Rent for the premises and water is subject to revision every year after the approval by the Hospital management committee. (Not more than 10%)
- 30. Either of the parties can terminate the contract at a six months notice.

#### PROFORMA OF AGREEMENT

#### (On a stamp paper)

Agreement executed between Joint Director cum Superintendent M.Y. Hospital (Autonomous Society), Indore (herein after called Party No.1) & (The <u>successful tenderer</u> whose offer has been accepted) (herein after called Party No.2)

- 1. Duration of agreement shall be for a minimum period of 5 years and may be extended for further 2 years or mutually agreed period subject to performance of party No.2. Agreement can be terminated by prior notice of one month by No.1. in case of violation of terms and conditions by Party No.2. Bidder may offer their period of contract which shall not be less than 5 years subject to approved by the M.Y. Hospital (Autonomous Society), Indore.
- 2. That Party No.2 shall have no right, title or interest in the premises allotted to it for running of ct/MRI machine 7 after completion of the contract period or earlier in case of termination of the contract. Possession shall be handed over by Party No.2 to party No.1 without any claim/ objection whatever and without any damage to the premises.
- 3. That Party No.2 shall arrange/ appoint duly qualified personnel including doctors, staff & attendants for operating the machines & to ensure proper and quick services to the patients. A list of personnel who run the machines shall be submitted to the party No.1 by party No.2, specifying their qualifications and experience at the time of installation of the machines.
- 4. That party No.1 or authorized persons/ committee shall have the power and authority to inspect the machine/ premises/ accounts/ registers with a view to ensure smooth and proper running of the same and prompt services to the patients as also to keep constant vigil.
- 5. That Party No.2 shall be free to examine other patients referred from outside at their own rates and information in that respect shall be kept and will be transmitted to Party No.1 on a monthly basis.
- 6. That machines/ accessories shall be kept properly maintained round the clock. In case of breakdown of any equipment, the Party No.2 will be responsible for repair of the unit within 48 hours and during the period of break down the Party No.2 will have to carry out investigations referred to them from the autonomous hospital at the approved rates from outside agencies. Failure to get the repair done within 48 hours of the break down, the Party No.2 would be liable to pay double the charges rendered on the patients referred for investigations.
- 7. That the students/ teaching staff of M.G.M. Medical College (Autonomous Society), Indore shall have the right to use the machines/ accessories/ installations free of cost from time to time as and when needed and will have full access to CT/MRI units.
- 8. That investigation reports in respect of patients examined shall be submitted in letterhead of Party No.2 duly signed by qualified competent expert without delay.
- 9. That in the event of non-compliance or violation of any of the terms and conditions herein above by Party No.2, the contract shall be liable to be terminated by Party No.1after serving one month notice.
- 10. Within contractual period, the period, the party No.2 will not be allowed to move the machines from the earmarked premises.
- 11. For the purpose of installation of equipments in the earmarked premises, the successful Tenderer shall do only necessary partitions etc. at their own cost with the prior permission of Superintendent. No other additions/ alterations to the premises shall be allowed.
- 12. That Party No.2 shall be bound to abide by the instructions issued from time to time by party No.1.
- 13. Successful Tenderer should provide investigation facilities round the clock.
- 14. The party No.2 should provide facility for the study of academic/ thesis cases of the Department of Radio diagnosis duly forwarded by the Head of Dept.

- 15. Technicians, Ancillary staff & Radiologists would be available for carrying out investigations & reporting round the clock. (Being a govt. Hospital, patients are expected to be scanned round the clock).
- 16. Party no. 2 will be required to pay rent of sum total above the minimum reserved rent value as quoted by bidder in his tender document in lieu of space provided and for water connection but electricity bills would be paid by the Party No.2 right from the day of possession. Party No.2 will have to arrange for its own electricity connection and meter. After fulfilling technical specification and other terms and conditions, the bidder offering highest rental value for the space provided will be finally selected. Minimum reserved rent value for the space provided is Rupees Two Lacs per month (2,00,000/-)
- 17. No other equipments will be allowed to be installed within premises other than CT scan & MRI machine.
- 18. Party No.2 will not be allowed to sublet the provided space or to make any other deal/ agreement regarding the space made available to CT/ MRI equipments.
- 19. Party No.2 will have to undertake the responsibility of proper & orderly maintenance of discipline, decorum and dignified approach of their staff towards patients and their wards, hospital & college staff and the students.
- 20. Breach or violation of any terms and conditions of the agreement by Party No.2 shall be liable for the termination of the contract. In a such termination of the contract the Party No.1 shall have the right to impose the penalty of forfeiting the security deposit of Party No.2.
- 21. Joint Director cum Superintendent M.Y. Hospital (Autonomous Society), Indore may include any clause in the agreement as per their specific requirements.
- 22. Jurisdiction Indore shall be jurisdiction for all legal matters in this regards at the cost & expenses of party No.2.

Signatu	ire of	f Authorized Signator	y	
Date:	/	/		
Witness:				Signature of Joint Director cum Superintendent M.Y. Hospital (Autonomous Society), Indore.
2.				

#### Rate List for CT & MRI Scan

S.No.	SERVICE (STUDY) NAME	MRI/MRI 3.0 T
1	MRI BRAIN	7000
2	MRI BRAIN WITH INTRA-CRANIAL ANGIO	8500
3	MRI BRAIN WITH INTRA & EXTRA - CRANIAL ANGIO	10,000
4	MRI BRAIN WITH VENOGRAPHY	9000
5	MRI BRAIN + ONE REGION [IAC, NECK, ORBIT, PNS, SELLA, SPINE (One Region), CVJ]	9000
6	MRI BRAIN WITH ANGIO & VENO	9000
7	MRI DIFFUSION/ADC	5000
8	MRI IAC	7000
9	MRI SELLA/PITUTARY	7000
10	MRI ORBIT	5000
11	MRI LIMITED STUDY BRAIN	4000
12	MRI BRAIN WITH SPECTROSCOPY/DTI/PERFUSION	9000
13	MRI BRAIN PROTOCOLS [EPILEPSY, VERTIGO, TUMOR, DEMENTIA, STROKE, AUDITORY OR VISUAL PATHWAY]	10,000
14	MRI JOINT (SINGLE) [KNEE, SHOULDER, WRIST, ANKLE, FOOT, ELBOW, HIP]	6000
15	MRI JOINT (TWO PARTS)	9000
16	MRI EXTREMITY(EACH)	7000
17	MRI SPINE (ONE REGION)	7000
18	MRI SPINE (TWO REGIONS)	9000
19	MRI WHOLE SPINE	12,000
20	MRI SPINE SCREENING (ONE REGION)	5500
21	MRI WHOLE SPINE SCREENING	8000
22	MRI SPINE (ONE REGION) + ONE REGION SCREENING	9500
23	MRI PELVIS	7000
24	MRI EXTRA REGION SCREENING	2500
25	MRI PAEDIATRIC	6000
26	MRI FACE	7000
27	MRI PNS	5000
28	MRI NECK	7000
29	MRI CHEST	8500
30	MRI MRCP	8000
31	MRI UROGRAPHY	7000

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32	MRI ABDOMEN	9000
33	MRI CARDIAC	9000
34	MRI FISTULOGRAM	8000
35	MRI WHOLE BODY SCREENING	14,000
36	MRI PROSTATE	7000
37	MRI BRACHIAL PLEXUS	7000
38	MRI BREAST	8500
39	MRI LUMBER PLEXUS	7000
40	MRI TEMPORAL BONE	7000
41	MRI BODY ANGIO/ PERIPHERAL ANGIO	10,000
42	MRI DEFECOGRAM	11,000
43	MRI SPECTROSCOPY	7000
S.No.	COMBISCAN	MRI/ MRI 3.0 T
1	COMBISCAN BRAIN	9000
2	COMBISCAN BRAIN + ORBIT	12,000
3	COMBISCAN ORBIT	7000
4	COMBISCAN TEMPORAL BONE	9000
5	COMBISCAN PNS	7000
6	COMBISCAN NECK	7500
7	COMBISCAN CHEST	9000
8	COMBISCAN SPINE ONE REGION	9000
9	COMBISCAN JOINT	7000
10	COMBISCAN PELVIS	8000
11	COMBISCAN EXTRIMITY	7000
12	COMBISCAN VERTIGO PROTOCOL	10,000
13	COMBISCAN STROKE PROTOCOL	14,500
14	COMBISCAN COCHLEAR IMPLANT PROTOCOL	10,000
15	COMBISCAN HEART	14,500
16	COMBISCAN ABDOMEN	12,000
17	COMBISCAN CT WHOLE ABD & MRCP	10,000

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S.No.	Test	Plain	Contrast
1	CT Scan Brain	2300	1000
2	CT Brain and MRI Diffusion	3500	
3	CT Scan PNS region (With Sagittal& Coronal)	2500	
4	CT PNS [ Limited Coronal ]	1800	
5	CT Orbits	3500	1000
6	CT Scan temporal bone - HRCT	4500	1000
7	CT scan spine (any one part)	4500	1000
8	CT Scan neck region / Face	5000	1000
9	CT Scan chest/Thorax / HRCT	5000	1000
10	CT Scan abdomen - Upper Abdomen	5000	1500
11	CT Full Abdomen - Abd/Pelvis	5500	2000
12	CT Scan pelvis	5000	1500
13	CT Angiography [ Contrast Must & Included ]		
	(a) Cerebral	10000	
	(b) Carotids	10000	
	(c ) Coronary with calcium scoring	12000	
	(d) Pulmonary	10000	
	(e) Great Vessels	10000	
	(f) Coeliac	10000	
	(g) Mesentric	10000	
	(h) Renal	10000	
	(I) Splenic	10000	
	(j) Peripheral Limb Angio	10000	
	(k) Hepatic	10000	
	(L) Aorta	10000	
	(M) Any two regions	13000	
14	Virtual Endoscopy	77 035 436 436	
	(a) Bronchus	5000	1000
	(b) Colon	5000	1000
15	Dental CT [ Per Jaw ]	3500	1000
16	CT IVU (Contrast Must)	7000	
17	CT Enteroclysis	1.000	
18	3DCT	5000	
19	CT Guided Biopsy (including Biopsy Gun)	6000	
20	CT Guided Procedure	6000	
21	CT Myelo (Inclusive of Contrast)	7000	
22	CT Cisternography (Inclusive of Contrast)	7500	
23	Calcium Score	3000	
	Note :- Anesthesia / Screening study / CD / IInd Opinion	/ emergency	charges /
	will be extra as applicable.		goo ,
	Note :- Ambulance facility available at minimal charges.	nd films only)	

S.No.	Test	Plain
1	MRI Brain	6000
2	MRI Angio	6500
3	MRI Venogram	6500
4	MR Brain with Angio / ( Stroke Protocol )	8500
5	MR Brain with Veno	8000
6	MR Brain + Angio + Veno	11000
7	MRI IAC (Temporal Bone ) + Brain	7000
8	MRI Orbits	6500
9	MRI Pituitary (Sella)	6500
10	MR Brain + Spectroscopy	10000
11	MR Brain with Orbits	8500
12	MRI Brain + Whole Spine / Neural Axis	12000
13	MR Epilepsy [ TLE ]	7000
14	MR Vertigo (Brain +Angio+Carotids+IAC+C-spine)	8500
15	MR Volumetry + MRS + TLE	9000
16	Brain + CSF Q Flow	8500
17	Brain ( Trigeminal )	7000
18	MRI Whole Spine	12000
	Spine Trauma Protocol (MRI-one region spine+CT	12000
19	cuts+Whole spine screening)	8500
20	MRI Cervical Spine	6000
21	MRI Cervico-Dorsal Spine	6500
22	MRI Dorsal Spine	6000
23	MRI Dorso-Lumbar Spine	6500
24	MRI Lumbar Spine -Dedicated	6500
25	MRI Lumbar Spine with <b>Stress</b>	8000
26	MRI Screening	4500
27	MRI Knee Joint [ Per Joint ]	5500
	Joint Trauma protocol (MRI- one region+CT +3D	
28	Reconstruction )	8500
29	MRI Hip Joint [ Per Joint ]	6000
30	MRI Extremity [ Single Region ]	6000
31	MRI Thigh [ Single ] / Leg / Foot	6000
32	MRI Ankle [ Single ]	6500
33	MRI Shoulder [ Single ]	6000
34	MRI Elbow [ Single ]	6000
35	MRI Wrist [ Single ]	6000
	MRI SI joints	5500
37	MRI TM Joint	7000

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38	MRI Pelvis with Both Hips	7500
39	MRI Brachial Plexus including Cervical Spine	7500
40	MRI PNS	6000
41	MRI Neck	6000
42	MRI Chest	6000
43	MRI Abdomen [ Upper ]	6000
44	MRI Pelvis	6000
45	MRI Abdomen + Pelvis	8500
46	MR Perfusion	7500
47	MRCP + ( Abdomen )	7000
48	MR Whole Body STIR ( screening )	10000
	[ Contrast Must & Included ]	
49	MR Urography	8500
50	MR Perineum	8500
51	MRI Prostate ( Diffusion + Dynamic + Spectro )	8500
52	MRI Contrast Enhanced Angio	8500
53	MRI Breast	8500
	MRI Protocols	
54	MRI Brain Tumor [Contrast+Diffusion+Perfusion+spectro]	12500
55	MRI MS Protocol [ Contrast + Orbit + Whole Cord ]	12500
56	MR Cisterno ( MRI + HRCT )	8000
57	Combiscan ( Single Region ) without contrast	8500
58	Backache Protocol (L.S. Spine + Screening of Pelvis + S.I.Joint + Hip Joint & Whole Spine Screening)	8500
59	Headache Protocol ( Brain + Veno + PNS + Angio )	10000

Contrast @ Rs.	2500	
Extra Region Screening @ Rs.( 1500 / 2000 / 2500 & 3000 )		
Note :- Anesthesia / Screening study / CD / IInd extra as applicable.	Opinion / emergency	charges / will be
CALIG GO GPPHOGDICI		

Authorized Signatory

#### SPECIAL NOTES:

- 1. All the Patient of M. Y. H. OPD / IPD will be charged 20% less than the rates quoted in the rate list (attached)
- 2. All the patient under BPL / DDY Scheme will be charged 40% less than the rates quoted in the rate list (attached). The payment for these patients will be made by hospital authority on submission and verification of bill on monthly basis.
- 3. All the staff members and their family members will be charged 40% less than rate list (attached)
- 4. All the patients who are serious /unconscious / unknown will be done free of cost although no films will be provided to them and if the attendant comes and pay they will be provided with films.
- 5. The firm is free to charge any rates from patient outside the M.Y. Hospital

## FINANCIAL BID FOR SERVICES OUTSOURCE OF C.T. SCAN & M.R.I. ON TURNKEY BASIS AT M. Y. HOSPITAL INDORE MADHYA PRADESH

(to be printed on letterhead of Tenderer)

Sno	Name of Work	Monthly Rent Offered by Bidder		
Sno	Name of work	Amount in figure	Amount in Words	
1				
	Outsource of C.T. Scan &			
	M.R.I. on Turnkey basis at			
	M. Y. Hospital Indore			
	Madhya Pradesh.			

I/we also declare that, I/we will abide by all the rules and regulation of M. Y. Hospital Indore Madhya Pradesh, if awarded the Tender. I/we are also aware that the Tender Inviting Authority reserves his right to cancel our Tender in part or full without assigning any reason, what so ever, and for the same, I/we will have no right to challenge the same in any court of law.

Signature of Authorised Person

Date : Full Name: Place : Company's Seal:

#### Annexure-B

#### TECHINAL TENDER FORM

	Date
Ref. Y	our Tender Document Nodated
To,	
1.	We, the undersigned have examined the above mentioned Tender document. We now offer to deploy MRI and CT on Turnkey basis, staff and supervisors to perform duties the rates as mentioned in our financial bid.
2.	If our tender is accepted, we undertake to perform the services in accordance with the terms and conditions in the Tender document.
3.	We further confirm that, if our tender is accepted, we shall provide you with a performance security of required amount in an acceptable form in terms of the Tender Document for due performance of the contract.
4.	We agree to keep our tender valid for acceptance as required in the Tender Document, or for subsequent extended period, if any, agreed to by us. We also accordingly confirm to abide by this tender up to the aforesaid period and this tender may be accepted any time before the expiry of the aforesaid period. We further confirm that, until a formal contract is executed, this tender read with your written acceptance thereof within the aforesaid period shall constitute a binding contract between us.
5.	We further understand that you are not bound to accept the lowest or any tender you may receive against your above referred tender enquiry.
6.	We confirm that we do not stand deregistered/banned/blacklisted by any Govt. Authorities.
7.	We confirm that we fully agree to the terms and conditions specified in above mentioned Tender Document, including amendment/ corrigendum if any.
	(Signature with date)
	(Name and designation) Duly authorised to sign tender for and on behalf of (Name of Tenderer)

N.B: The above tender form, duly signed and sealed by the authorised signatory of the company, should be enclosed with Technical Tender.

1.	I, son/daughter of Shri, proprietor/partner/director/authorized signatory of M/s, am competent to sign this declaration and execute this tender document.
2.	I have carefully read and understood all the terms and conditions of the tender and hereby convey my acceptance of the same.
3.	The information / documents furnished along with the above applicable are true and authentic to the best of my knowledge and belief. I/we, am / are well aware of the fact that furnishing of any false information / fabricated document would lead to rejection of my tender at any stage liabilities towards prosecution under appropriate law.
	Signature of Authorized Person
	(Name, designation and seal)
Date:	
Place	

N.B: The above declaration, duly signed and sealed by the authorised signatory of the company,

should be enclosed with Technical Tender.

**Declaration**