

Amendment No. 03

Sub: Extension of due dates to the referred tender enquiry

Ref.: HITES/PCD/AIIA/01/22-23 dated 05-08-2022 read with Amendment No. 01 dated 17-09-2022 and Amendment No. 02 dated 10-10-2022

The following changes are being incorporated in the above referred Tender Enquiry Document.

Section – VII
Technical Specifications

Item No 01 Gas Chromatography-Tandem Mass Spectrometer		
Tender spec Para	TENDER SPECIFICATION	READ AS
10	Instrument Detection Limit The sensitivity of the MS/MS system should be as follows: EI MRM Instrument detection Limit: 0.5 fg or less octa fluoro naphthalene (OFN) for MS/MS transition of m/z 272 >222, statistically derived at 99% confidence level from the area precision of at least eight sequential splitless injections of 1 fg/uL OFN Standard using 30 m x 0.25 mm ID x 0.25 mm film thickness column. This sensitivity of the MS/MS system MUST be demonstrated on site at the time of the installation.	Instrument Detection Limit The sensitivity of the MS/MS system should be as follows: EI MRM Instrument detection Limit: 0.5 fg or less octa fluoro naphthalene (OFN) for MS/MS transition of m/z 272 >222, statistically derived at 99% confidence level from the area precision of at least eight sequential splitless injections at 2 fg/uL OFN Standard using 30 m x 0.25 mm ID x 0.25 mm film thickness column. This sensitivity of the MS/MS system must be demonstrated on site at the time of the installation.
20	Autosampler & Capacity tray Auto sampler should have minimum 100 vials capacity tray. A combined auto sampler for headspace and liquid auto sampler	Auto sampler should have minimum 100 vials capacity tray. A combined / dedicated auto sampler for headspace and liquid auto sampler.
21	Headspace Sampler 80 or more vial capacity Head space sampler, 10 or more vial incubation. A combined auto sampler for headspace and liquid auto sampler	Headspace Sampler 80 or more vial capacity Head space sampler, 10 or more vial incubation. A combined / dedicated auto sampler for headspace and liquid auto sampler
22	Software Latest and licensed versions of the following mass spectral libraries containing mass spectral and GC data of natural	Latest and licensed versions of the following mass spectral libraries 1. Latest NIST library 2. GC/MS Metabolomics

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Tender spec Para	TENDER SPECIFICATION	READ AS
	products. flavors, fragrances, pheromones, drugs, pesticides. pollutants and their metabolites should be integrated with the MS search mode. 1. Latest NIST library 2. GC/MS Metabolomics Library (>1000 RTL spectra with free updates) 3. MRM Database	Library (>1000 RTL spectra with free updates) 3. MRM Pesticide Database 4. MRM Metabolomics Database
25.1	Helium, Niwogen, Methane, Hydrogen, Zero air (O2 each) with regulator and gas purification panel	Helium, Nitogen/Argon , Methane, (O2 each) with regulator and gas purification panel
25.2	Natural products, pesticides (Organochlorine pesticides, Organo-phosphorous pesticides. Synthetic Pyrethriods, PCBs) standards of size pack 1 -5 gm of AR grade preferably Sigma/Merck.	Natural products, pesticides (Organochlorine pesticides, Organo-phosphorous pesticides. Synthetic Pyrethriods, PCBs) standards of size pack 1 -5 mg of AR grade preferably Sigma/Merck.

Item No 05 MRI Machine 3T		
Tender spec Para	TENDER SPECIFICATION	READ AS
1	Whole body 3.0 Tesla Magnetic Resonance Imaging system optimized for higher performance in cardiac and neurological examinations with short superconducting magnet, high performance gradients and digital Radio frequency system. The system should have been launched after 2016. The system should be totally new and should not contain refurbished or having recycled items.	Whole body 3.0 Tesla Magnetic Resonance Imaging system optimized for higher performance in cardiac and neurological examinations with short superconducting magnet, high performance gradients and digital Radio frequency system. The manufacturer should quote the model not older than 2015. The system should be totally new and should not contain refurbished or having recycled items.
3.i	System should have a minimum gradient strength of 36 mT/m or more at slew rate of at least 150T/m/sec or more in each axis and this should be achieved simultaneously with the rise time not more than 250ms. The rise time should be proportionate to reach the maximum gradient strength so that the duty cycle is around 100%. Both Max slew rate and peak amplitude should be achieved simultaneously. Also the vendor should provide the proof either through the data sheet or	System should have a minimum gradient strength of 36 mT/m or more at slew rate of at least 150T/m/sec or more in each axis and this should be achieved with the rise time not more than 250ms. The rise time should be proportionate to reach the maximum gradient strength so that the duty cycle is around 100%. Also the vendor should provide the proof either through the data sheet or through a letter from their factory / Principal manufacturer."

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	through a letter from their factory / Principal manufacturer."	
4.i	"RF system should be fully digital and solid state with transmit power of at least 30 KW or more with Dual or 4 Port RF Transmission for B1 inhomogeneity correction"	RF system should be fully digital and solid state with transmit power of at least 30 KW or more with Dual RF Technology like Multi-transmit/ Multidrive/ Trueshape
8	Workstation:	Workstation (2 Nos):
8.i	A workstation from the Manufacturer with preferably the same user interface as of main console is required with the availability of all necessary software including basic postprocessing software including MIP, MPR, surface reconstruction and volume rendering technique.	An Independent workstation from the Manufacturer with preferably the same user interface as of main console is required with the availability of all necessary software including basic post processing software including MIP, MPR, surface reconstruction and volume rendering technique.
11.viii	NON-Contrast Angiography techniques like Native, Inhance, Trance for whole body applications to be quoted as standard	NON-Contrast Angiography techniques like Native, QISS, Inhance, Trance for whole body applications to be quoted as standard.
11.xv	Whole body imaging with surface coil should be offered. This should cover at least 200cm	Whole body imaging with surface coil should be offered. This should cover at least 180cm
11.xvii	Functional MRI of Brain with artifact reduction package to be offered as optional	Functional MRI of Brain with artifact reduction package to be offered as standard
16.v	Imported RF Cabin with complete interiors including wall finish, flooring, false roofing, high classroom lighting, A/C ducting, Gas Pipelines and Top up Helium during handing over.	RF Cabin with complete interiors including wall finish, flooring, false roofing, high classroom lighting, A/C ducting, Gas Pipelines and Top up Helium during handing over.
		Added Para:
		SITE MODIFICATION WORK
		a. The system should be installed and handed over in working condition with all necessary electrical, air conditioning and civil work undertaken by the vendor in consultation with the user dept.
		b. All necessary interconnecting interfaces, cable, modules, and other hardware and software to fully integrate the system for full operational status.
		The Site-Modification Scope of Work - MRI The scope of work includes complete Civil work, Electrical, Plumbing, Furnishing, Airconditioning, Fire detection system for the construction of MRI Scan Centre. While preparing the plan, the following aspects have to be address

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		a. The MRI should be sited in such a manner; in order to minimise the effect of fringe magnetic field on surrounding areas. The areas lying within 5 Gauss line should be clearly demarcated and cordoned off with adequate warning.
		b. Care should be taken to provide easy negotiation of the patient stretchers/ trolleys through corridors and doors.
		c. RF shielding for doors, walls, glass viewer etc.
		d. Furniture like desk, chairs, shelves etc.
		e. Patient stretcher and other furniture/ accessory to make the scan centre functional.
		The cost of Site Modification Work for the area of 1500sq.ft and Air-conditioning of Tonnage 25 TR (including standby unit/s) will be considered for Ranking / Evaluation purpose
		Moreover Bidders will have to quote the Unit Rates of the following components of Site Modification Work and detailed BOQ should be mentioned.
		a. Civil works (in units like sq.m / cubic m , kg etc)
		b. Electrical work (in unit s like per metre price , unit price for panel , isolation etc)
		c. Public health (plumbing and sanitary fittings like per metre of pipe, number of points etc.)
		d. Air Conditioning (HVAC)-rate of tonnage, type of false ceiling and sq.m rate etc
		e. Interior Furnishing & Furniture
		f. Miscellaneous
		Fire Detection system(consisting fire panel, smoke &heat detectors, hooters, response indicators etc.) for the entire MRI area
		Scope of work for Site Modification MRI unit works:- The supplier should inspect the proposed site and submit all the detailed structural and architectural drawings and BOQ for the proposed MRI Scan Centres along with technical bid of the tender. The MRI SCAN CENTRE shall consist of the following rooms:

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Tender spec Para	TENDER SPECIFICATION	READ AS
		a. MRI Room
		b. Console room
		c. Equipment room
		d. Patient preparation room cum patient change room
		e. Radiologist room
		The actual area of Site Modification works done will be considered for payment, based on the unit rates and site measurements and as per the area available.
		I. Civil work Any ab initio new construction or demolition of existing walls etc and reconstruction is unambiguously included in the Site Modification scope of work. This includes, but is not limited to expanding the area of MRI gantry room so as to make it compliant for installation of a 3T strength magnet
		a) Civil construction work including construction of brick wall, plastering, flooring as per the approved plan and equipment layout plan.
		b) Concrete bed at MRI equipment area.
		c) Platform for unloading and shifting the MRI should be provided if necessary.
		d) Platform for Chiller unit would be provided. Fencing and weather protection facility should be provided for the Chiller unit.
		e) Cable tray, trench & channel – necessary trenches, cable tray and channels at required location would be provided.
		f) All the construction work to be done as per the final plan approved by the purchaser.
		g) Active and passive room shielding for magnetic, fringe field should be provided as per the requirement of the equipment.
		h) The entire complex will be made rodent/pest proof.
		1. Flooring
		Anti static Vinyl flooring within the Magnet room Providing and laying approved quality , colour, design and shade fully homogeneous 600 x 600 mm(thickness to be specified by the

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		manufacturer) vitrified tile flooring (Marbonite or Granamite, confirming to IS code 15622 with water absorption less than 0.08%) flooring in pattern as detailed in drawing or as directed by the EIC and grouted with matching colour approved quality readymade grout, curing, cleaning etc to required line level etc. all complete at all leads, lifts and heights to the entire satisfaction of the EIC. Providing and fixing 2-3mm thick POP protection over polythene covering sheet to flooring areas till handed over and cleaning, etc all complete as per drawings & specification and as directed by EIC with 100mm tile skirting to match in console room , equipment room , patient preparation room, reporting room , patient waiting area and radiologist room. Note: Mode of measurement (Finished surface area of the tiles shall be measured and paid. Rate shall be inclusive of providing and laying levelling course, PVC spacers, providing and applying epoxy grout and no additional payment shall be made for wastages)
		50 mm thick cement concrete flooring at all heights and locations including scaffolding , preparing the surfaces , neat cement finished to correct line or as required to receive architectural finish , level and plumb , curing wherever required complete as per requirements and drawings , with Vinyl flooring in MRI equipment / UPS room.
		2. Painting
		Two coats Plastic Emulsion Paint over 2 coats of wall putty including primer in patient preparation area, Lobby area, console room, MRI equipment room etc. Pre laminated particleboard wall panelling in MRI examination room.
		3. False Ceiling
		Acoustical tile for ceiling with light weight insulating material of high quality supported on grid or finished seamless with support above ceiling. Finished with white paint or

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		powder coated with white paint, if metallic. Ceiling height to suit the equipment mount and clearances.
		4. Plumbing work
		All water pipes and fittings shall be of high density polythene of approved and standard make. The gratings shall be brass chrome plated. All plumbing accessories should be of standard make. However, the water supply line and drain line will be provided by consignee upto MRI complex.
		Copper pipes to be used for plumbing the Chiller to the MRI
		Note:
		All sanitary wares & CP brass fitting & fixtures shall be of first quality with ISI mark (unless otherwise specified) and shall be of the make as per the latest approved list of materials as per list of approved make/model, if any. They shall be got approved by the Engineer-in-charge before incorporating in the work
		All the items include testing after completion of the work. Concealed/underground GI pipe line is to be wrapped with hessian cloth and painted with two coats of anticorrosive paint. Disposing off: The surplus excavated materials by mechanical transport lead up to 2KM to the nearby dumping pits/dumping areas within institute campus identified by Engineer in charge, including all lifts, loading, unloading, stacking etc. complete as per specifications & as directed by the EIC.
		II. Electric work
		The supplier shall be required to specify the total load requirements for the MRI scan centre including the load of air conditioning , room lighting and for the accessories if any. The supply line will be provided by the Institute up to one point within the MRI Scan centre area. The distribution panel shall be provided by the vendor. Few lights in each room shall be connected to the UPS to provide emergency

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		lighting. The electrical work shall include the following
		a. Wiring – All interior electrical wiring- with main distribution panel board, necessary MCBs, DB, joint box, switch box etc. the wires shall be of copper of different capacity as per the load and should be renowned make as listed below.
		b. Switches light and power points should be of modular type and of standard make as listed below.
		c. General lights – LED light fittings with 500 Lux Illumination
		d. MRI compatible lights for MRI examination room. The bulbs used within the RF cage should be easy replaceable and locally available.
		e. All wires used must be FRLS (Fire Retardant with low smoke) type only
		Adequate number of earthing required for equipment and accessories should be provided by the equipment vendor.
		III. AIR CONDITIONING:
		i. Total capacity of the Air-Conditioning for the entire MRI scan centre area should be at least 25 TR.(incl. standby airconditioning). However, if the installed system requires more capacity, it will be the responsibility of the supplier.
		ii. Ductable Split / Ductable package air conditioners may be used according to room requirement and suitability.
		iii. The outdoor units of AC should have grill coverings to prevent theft and damage.
		iv. Ventilation is required in toilet.
		Dehumidifier of 110 Liter - 2 Nos. to be provided.
		IV Environment specifications:
		i.Relative Humidity range: To be maintained between 60% and 80% in all areas except equipment room which shall be as per requirement of the equipment.
		ii. Temperature ranges: 22 ± 2° C in all areas except equipment room which shall be as per requirement of the equipment.

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		iii. Air conditioning load: The heat load calculations and maintaining the desired temperature and humidity shall be the responsibility of the bidder
		V. Furniture:
		i. Revolving chairs height adjustable, medium-back with hand-rest . – 8 NO.S
		ii. Cupboard with laminate door shutters for storage of spare parts and accessories and records as per requirement. – 3 NO.S
		iii. Drug trolleys for patient preparation area.- 1 NO.
		iv. Patient trolley with rubber foam mattress to be kept in the patient preparation room.
		v. Tables for Workstation nodes- 2 NO.S
		vi. Changing rooms should have change lockers and dressing table.
		vii. Dustbins (plastic with lid) : 10 no.s.
		viii. All the rooms in the complex will be signposted. Sun film & ventilation blinds / curtain will be put up in all windows.
		All furniture items should be of standard make as mentioned in the table below.
		vi. Miscellaneous:
		1. Reporting room should have LED X-ray Film viewer with adjustable brightness; capable of holding 3 films of 14"x17" size. – 2 no.s
		2. Cabling of Network (LAN) connectivity for camera system, console system, workstation and computers etc
		<p>4. Fire extinguisher ABC type of 2kg each as required for the building safety - 5 nos., with initial filling in brand new cylinder with power coated finish, fitted with Gun metal union, high pressure CO2 gas cartridge, discharge hose, wall mounting bracket etc. complete, confirming t IS:2171 of approved make & complete as directed by EIC.</p> <p>4.5 kg MRI compatible fire Extinguisher - 2 nos to be also supplied</p>

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Item No 05 MRI Machine 3T		
Tender spec Para	TENDER SPECIFICATION	READ AS
		LIST OF ITEMS AND SUGGESTED MANUFACTURERS.
		ITEMS PREFERRED MAKES
		FLOORING VITRIFIED TILES - Somany, Kajaria , H&R Johnson, RAK india
		PAINT - Dulux, Asian Paints , Nerolac
		PLUMBING - Kohler, Jaguar , Grohe , Roca
		SANITARY ITEMS - CERA, Hindware, Parryware
		ELECTRICAL
		CABLES - Finolux, Havells ,V-Guard
		SWITCHES - Legrand, L&T, Crabtree , Roma
		DISTRIBUTION BOX , MCB - Legrand, L&T, Siemens, Havels
		LIGHT FITTINGS - Philips / Crompton / Wipro/Syska
		AIR CONDINTIONING - Daikin, Hitachi, Blue Star, Voltas,
		FURNITURE - Hermen Miller , Godrej , Featherlite,Geeken

Item No 6 Physical Assessment Simulator		
Tender spec Para	TENDER SPECIFICATION	READ AS
4	The manikin should be able to teach Indian resuscitation council and 2020 AHA compliant BLS and ACLS with CPR compressions generate palpable pulse, blood pressure wave form and ECG artefacts and feedback on realistic compression depth and resistance, detection of hand position and depth, release and frequency of compression	The manikin should be able to generate palpable pulse, blood pressure wave form and ECG artefacts and feedback on realistic compression depth and resistance, detection of hand position and depth, release and frequency of compression. The manikin should be able to teach Indian resuscitation council and 2020 AHA compliant BLS, CPR compressions.

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Item No 6 Physical Assessment Simulator		
Tender spec Para	TENDER SPECIFICATION	READ AS
8	The simulator should have Defibrillation, Pacing and cardioversion capabilities with bilateral palpable pulses in Carotid, femoral, radial artery and unilateral brachial pulses linked to the scenario being simulated	The simulator should have bilateral palpable pulses in Carotid, femoral, radial artery and unilateral brachial pulses linked to the scenario being simulated.
12	Simulator should be supplied complete with a Full body simulator, Laptop /Tab controller, sphygmomanometer, Patient Monitor displaying concise clinical feedback on physiological parameters including wave form and value display for HR, ECG, SpO2 , BP, RR, Temperature, CO2, etc as in a real patient monitor along with dynamic 12 Lead ECG, clothing, Carrying case manual set	Simulator should be supplied complete with a Full body simulator, Laptop / Tab controller, sphygmomanometer, Patient Monitor displaying concise clinical feedback on physiological parameters including wave form and value display for HR, ECG, BP, RR, Temperature, CO2, etc. as in a real patient monitor along with dynamic 12 Lead ECG, clothing, Carrying case manual set.
15	Quality, Safety and Documents	
	IEC 60601 1-1 & ISO 9001- 2008 certified and making them safe for use with human subjects	Deleted
II	The qualified and accredited instructor human resource provided by bidder shall be able to support the AIIA skills lab for initial 6 months which includes Basic operational Training	The qualified and accredited instructor human resource provided by bidder shall be able to support the AIIA skills lab for initial 6 months by multiple visits which includes Basic operational Training without any extra cost.

Item No 11 Ultrasound Machine		
Tender spec Para	TENDER SPECIFICATION	READ AS
3	Advanced ergonomics including 22' wide screen high resolution display (1920 x 1080) with articulating arm, motorized adjustable console, 12.1 inch color high resolution LED touch screen, four active transducer ports and 1 parking ports with patented cable hook	Advanced ergonomics including 22" or more wide screen with IPS technology and high resolution display (1920 x 1080) with articulating arm, motorized adjustable console, 12.1 inch color high resolution LED touch screen, four active transducer ports
5	Other system features should include : Windows 10 Enterprise 2016 LTSB 64-bit operating platform, 1GB cine memory, 1TB internal SSD, DVD-R,image archive, user footrest, integrated on-board black and white printer bay, and user programmable model parameters	Other system features should include : Windows 7 or 10 Enterprise 64-bit operating platform , 1GB cine memory, 1TB HDD, 250 GB SSD ,image archive, user footrest, integrated on-board black and white printer bay, and user programmable model parameters
7	Probes	
a	Convex Transducer - 1	Convex Transducer (2.5- 7.5 MHz) - 1 No
b	Linear Transducer -1	Linear Transducer (2.5- 12 MHz) - 1 No

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Item No 11 Ultrasound Machine		
Tender spec Para	TENDER SPECIFICATION	READ AS
c	Cardiac probe +CWD kit - 1	Cardiac probe +CWD kit (2- 7.5 MHz) - 1 No
d	Micro convex TV/TR probe - 1	Micro convex TV/TR probe (5-7.5 MHz) - 1 No
e	Matrix linear probe - 1	High density probe 1 No
8.p	wirless option kit -1	Deleted
8.q	PWR cord India -1	Deleted

All other contents of the Tender enquiry including terms & conditions remain unaltered.

Note:

- I. In reference to the extension of bid opening date, the participating bidders who had submitted or are submitting their Bid security/EMD in the form of Bank Guarantee (BG) or FDR are instructed to extend the validity of their BG/FDR accordingly, i.e. required validity of EMD is to be kept in line with the extended bid opening date.
- II. Prospective Bidders are also advised to check the website regularly prior to the closing date and time of online submission of bids.
- III. Technical Compliance Sheet (v1.0) and Price Bid Format (v1.0) is uploaded on CPP Portal along with this amendment for necessary action of interested bidders. This will supersede any version uploaded earlier.