

ALL INDIA INSTITUTE OF MEDICAL SCIENCES  
ANSARI NAGAR, NEW DELHI - 110029  
STORE SECTION (D.O.)

Ref. No. XX-190/SO (DO)/R.D./2024-25/M&E

Dated: 29.03.2025

CORRIGENDUM

It is informed that the tender bearing no. XX-190/SO (DO)/R.D./24-25/M&E and CPP tender I.D No. 2025\_AIMSD\_846004\_1, published through CPP portal has revised technical specification, as per TSEC recommendation and detail given below:

Digital Subtraction Angiography ( Single Plane) System against buy-back and turnkey basis		
Sl. No.	DETAIL	AMENDED
1.	Technical Specification	Enclosed revised technical specification. Annexure-I

All other terms & condition of the tender are same.

  
29/3/25

Sr. STORE OFFICER (D.O)

## Annexure-I

Tender Reference Number: : XX-190/SO(DO)/R.D./2024-25/M E: Amended Tender specifications (After Pre-Bid) for Purchase of Digital Subtraction Angiography (Single Plane) System against buy-back and turnkey basis - 01 No. for the Department of Radiodiagnosis & Interventional Radiology, AIIMS, New Delhi

### **Department of Radiodiagnosis and Interventional Radiology**

**AIIMS, New Delhi**

#### **SPECIFICATIONS FOR DIGITAL SUBTRACTION ANGIOGRAPHY UNIT (SINGLE PLANE)**

A state-of-the art Single Plane digital subtraction angiography (DSA) system with flat panel detector technology for vascular diagnostic and interventional procedures is required for Room No. 78 in the Department of Radiodiagnosis and Interventional Radiology on a buy-back basis of DSA unit Artis Zee (Siemens).

The manufacturer/bidder must quote the latest 'state of the art' Single Plane Digital subtraction angiography with flat panel detector technology for vascular diagnostic and interventional procedures as per the specifications below.

- The vendor must quote the latest state-of-the-art system and give a declaration from the company (OEM) for supply of the latest released version of the quoted model supported by FDA/CE certification.

- The offered model should be BIS / European CE with 4 digit notified body number/ US FDA certified. (authentic and legible certificate for the same to be annexed).
- Also, the vendor will guarantee that the system supplied is not refurbished and the DSA system quoted is the latest, best available model in the segment quoted, at the time of delivery and should submit an undertaking in this regard.

### **Technical Specifications**

#### **Certifications:**

1. The system should be AERB type approved and the copy of E-LORA Listing should be submitted along with the bid. If the quoted model has not yet been installed in India, the vendor should submit NOC from AERB. Regular QA according to AERB norms will be the responsibility of the bidder during warranty and CMC period.
2. Should have import/manufacturing license from Central licensing Authority or State licensing authority of CDSCO for Medical Devices and copy of valid license should be submitted for the quoted model.
3. In case the vendor has not yet obtained import/manufacturing license from CDSCO for the quoted model, proof of application for CDSCO medical device license to be submitted in the bid document and valid CDSCO license to be produced at the time of supply/ NOC for the quoted model.

#### **1. Gantry**

1. The system should have a ceiling suspended C-arm (gantry) providing full body coverage.
2. It should be possible to pre-program the gantries for multiple examination positions.
3. **All movements of the gantries should be controlled from the controller on the table side as well as from the control desk – subject to procedure conducted.**
4. The system should have adequate collision protection for the safety of the patient. The gantry movements should be rapid, motorized & collision proof. Manual override by the operator should be possible.
5. The gantry should have fast speed for angulation and positioning. It should have a speed of at least 15 degrees/sec. for all positions
6. Gantry angulations should be freely user-selectable to satisfy clinical imaging needs.
7. The gantry should have an automatic positioning capability dependent on the reference image being selected.

## 2. Patient Table

1. The table should have motorized Vertical & longitudinal and free floating with electromagnetic locking facility.
2. It should have the motorized stepping facility for automatic bolus chase for peripheral angiography.
3. It should be possible to swivel the table or should have multiple floating success in case of emergencies.
4. Table should have a Trendelenburg tilt/cradle facility.
5. It should have patient load capacity of 200Kg or more
6. Table side touch control panel for 3D reconstruction and C-arm positioning with respect to 3D image & selection of 3D image positioning should be provided

## 3. X-Ray Generator:

1. System should have a Microprocessor-controlled high-frequency (100 kHz) X-ray generator with automatic dose rate control for fluoroscopy and acquisition.
2. Generator should be multi-pulse/high frequency for constant output.
3. Max generator power output should be 1000 mA at 100 KV equivalent to 100 kW.
4. **Radiography KVP range should be 50 kV-120 kV.**
5. It should have an automatic exposure control device for radiographic fluoroscopy and angio mode. Manual Override facility is preferable.
6. It should have a digital display of kVp&mAs.
7. **Tube current should be freely selectable in real time mA steps for continuous fluoroscopy, pulsed fluoroscopy and angiomode**
8. Anatomical programming radiography should be possible.
9. It should have overloading protection.
10. It should have the facility for pulsed fluoroscopy at variable rates for reducing the radiation dose to the patient during intervention procedure.

#### 4. X-Ray Tubes

1. System should be provided with rotating anode high speed tube with oil based cooling mechanism with Increased contrast during fluoroscopy, especially for examinations on obese patients

2. The focal spot should have the following sizes:
  - Large focal spot 1.0 mm or less should provide at least 65kW or more output for the extended runs
  - Small Focal spot 0.4 mm or less should provide at least 17kW or more
3. **Anode heat storage capacity should be 3 MHU or more having liquid bearing technology or metal lubricant for optimal heat dissipation & noiseless operation to withstand long interventional procedures**
4. The system should have adequate cooling facility for the x-ray tubes for uninterrupted performance during procedure.
5. **Fluoroscopy power (maximum continuous power)-tubes should provide at least 2.2kW continuous output for over 30 minutes**
6. **Anode heat dissipation rate 400,000 J/min or more / 6667W or more with continuous heat dissipation of the tube assembly 2900 W or more**
7. Leakage radiation should conform to international standards. Filtration & leakage radiation dose should be indicated in the offer.
8. System should be quoted with the latest dose reduction technique for better image quality with less dose.

## 5. Collimator

1. One collimator for each plane is to be provided.
2. The collimator should have facility for automatic /pre-program / suitable alternative technology copper pre-filtration for reducing the X-ray dose.

3. The collimator leaf should have IRIS/rectangular/ wedge shaped type arrangement with Independent rotation and shift of filter blades
4. The collimator should have the facility for the dose measurement chamber in order to display the skin dose on the monitors in the lab.
5. The collimator should have facility for automatic copper pre-filtration for reducing x-ray dose as per patient thickness. Additional filters with multiple leaf's should be provided & it should be possible to position these filters & collimator leaf's without live fluoroscopy & independent of each other (clearly mention in the offer).
6. Automated exposure control with at least 3-level motorized Cu-filters
7. Independent rotation and shift of filter blades

## 6. Detector Digital System

1. Dynamic flat detector system with high spatial and 14 bit contrast resolution with 1.5k matrix resolution with Integrated collision sensor, Removable grid and active detector cooling facility
2. **Size of the detector should be at least 48 cm in diagonal plane.**
3. **At least 4 step Detector Zoom fields should be available.**
4. **Detector rotation in portrait to landscape mode and vice versa, should be possible at detector level, examination console / control console.**
5. Standard AAPM phantoms for resolution measurement to be provided.
6. It should have multiple input format / field with minimum of 4 field zoom sizes,
7. **Spatial resolution should be at least 2.58 LP/mm.**
8. **Detector should have high resolution of 2K x 1.5K matrix with minimum pixel size of 194 micrometer.**
9. Detective quantum efficiency (DQE) of at least 70%

## 7. Imaging Display System

### 1. Examination Room Monitor

- I. Medical grade large high definition display (minimum 55 inches) to display live, reference, 3D CT /MRI images of any patient, Hemodynamic and EP waveforms with layout selection from integrated tableside control in the exam room.
- II. **Another Two medical grade (2kX2k) monitors (one for live, another for review) mounted on a movable trolley /ceiling suspended should be provided as a standard, for radiographer viewing while doing procedure.**

### 2. Console Room

- I. Control room shall have at least 2(QTY) of wide screen (19" or more each), Medical grade monitors for display of live, playback, reference images of each plane.
- II. **Gantry, collimator, table & injector operations should be possible from exam room /control room console without interrupting image review, hard copying, and archiving or image transfer functions.**
- III. Separate/inbuilt Monitor for patient data registration.
- IV. Integrated Two-Way communication system with integrated mic & speaker to allow duplex communication between Console & Exam room.



## 8. Digital Imaging System

1. Should be possible for Fast, direct access to all series, single images and reference images, store monitor images, in both the examination room and the control room
2. Should be Possible for display of USG/CT/MR images as static reference image on the examination room monitor
3. Post processing software facilities with Changing window values, real time edge enhancement, positive/negative image display, electronic shuttering, roaming, image reversal, zooming/panning, annotation, Distance, angle measurements image labelling, text functions, drawing lines, arrows and circles
4. It should have the capability to acquire images in 1024 x 1024 matrix with a maximum speed of 6 frames or more per second on-line subtraction. Specify the maximum image acquisition rate without subtraction.
5. **It should have minimum image storage capacity of 200,000 or more images in the 1024 x 1024/12 bit."**
6. **Operating modes**

### A. Fluoroscopy mode should have following functions

- Fluoroscopy mode to allow side-by-side display of digitally processed non-subtracted fluoroscopy and trace-subtract fluoroscopy for visualization and catheter guidance during complex procedures.
- Digital pulsed fluoroscopy with 7.5, 10, 15, 30 p/s
- Road mapping with automatic pixel shift
- Overlay fade (online superimposing of active fluoro and reference image)
- Store Monitor and Store Reference (even during online fluoroscopy)
- Store Fluoro: Last 1024 image of last performed fluoro
- Last Image Hold (LIH)

**B. DSA mode should have following functions**

- **Digital subtraction angiography with digital real-time filtering with frame rates from 0.5 f/s to 6 f/s**
- Remask/move mask/Replace mask, peak opacification for iodine contrast (MaxOpac) and CO2 contrast (MinOpac), display of anatomical background (Landmark) from 0 to 100 %
- **Manual pixel shift, automatic pixel shift, live motion compensation.**

7. A separate workstation with medical grade monitor 2K matrix for 3D reconstruction of the rotational angiography images should be provided. The 3D image measurement and slicing should be possible. Facility to display reconstructed images in the procedure room should be provided. The same workstation should have the capability to query, retrieve images from existing PACS system and also should have 3D post processing capability and the same should be displayed on one of examination room monitor for viewing during interventional procedures
8. It should be possible to fuse the 3D CT data with 3D Angio to combine high resolution vessel information with soft tissue information.
9. The complete digital system along with the workstation should be networked and connected to a DICOM compatible laser camera. Entire networking and necessary switches should be borne by the vendor.
  
10. The digital system should have software for vascular analysis and quantification including stenosis %. All measurements should be possible from the patient table side.
  
11. DVD reader and CD/DVD recorder should be provided with a workstation and main console Computer system.

12. The system should be able to Query, receive DICOM format CT/MRI/USG from PACS or other modality network nodes and display images on reference monitor,
13. DICOM print facility should be made available. Also compliant with HIS/RIS/PACS
14. It should have a facility to measure dose during the procedures.
15. The system should have latest radiation safety package like Clarity IQ/CARE & CLEAR MAX/Blueprint/ Autoright / equivalent
16. All software updates should be provided free of cost in warranty & CMC period.

## **9. Essential Applications And Softwares**

1. Dyna CT or equivalent for acquisition of 3D high contrast reconstruction based on digital rotational angiography (2D/3D) at a speed of 40 degree/sec and acquisition frame rate of at least 25/sec. Automatic image data transfer to the advanced workstation while all parameters needed for the 3D reconstruction are already included in the exam set to generate cross sectional CT like images.

2. Road mapping facility (Real time 2D & 3D) should be available with possibility of superimposing fluoro image on reference image. 3D road mapping facility directly from CT/MR 3D image without rotational angio 3D image to save contrast and radiation.
3. Smart mask road mapping procedures by overlaying fluoroscopy with a selected reference image on the live monitor. The reference and fluoro images can be faded to taste on the monitors.
4. Peristepping/Bolus chase software (Stepping of the table with a single contrast-medium injection performed while observing the contrast medium bolus should be provided like Peristepping or equivalent /Bolus chase software) should be provided.
5. Real time stent enhancement,
6. Needle guidance to plan needle-based procedure in a 3D volume by specifying a target and multiple trajectories
7. Embolisation Guidance for planning and performing embolizations
8. Rotational angiography facility (2D & 3D) at a speed of at least 40 degree/sec. with acquisition frame rate of at least 25 frames/sec. in 1k matrix with facility for online display of subtracted images should be available. Rotational data acquisition with an output of cross sectional CT like images should be possible.
9. **System should have CT/MR fusion application.**

10. Facility of CO2 angiography with supportive software should be provided

### **J. Essential accessories:**

The following essential accessories to be provided with the unit

1. Broadband connection and LAN for the operation of SRS System is responsibility of the vendor and all the recurring cost of same should be borne by the vendor
2. **Complete hemodynamic Multiparameter patient monitor (Specifications Annexure 1)**
3. **State of the art Anaesthesia equipment (Qty 1 No) (Specifications Annexure 2)**
4. Suitable UPS of at least 120 kVA with complete back up for the entire system including generator, digital system all essential accessories to continue angio acquisition for 30 minutes.

5. Lead glass 100 x 150 cm for the console room.
  
6. Single Head Pressure injector of reputed make should be coupled with DSA system. 100 Nos. disposable syringes sets and 500 Nos. of tubings should be supplied along with the system. Unit price for syringes and tubings should be quoted separately and the same should be valid during warranty and CMC period.
  
7. Dry Chemistry Laser Imager with resolution of 500 DPI or more with two trays. Printer should be DICOM ready and online for printing films of all variable sizes
  
8. Ceiling suspended radiation protection system (0.5 lead equivalence and table side protection system).
  
9. Focused ceiling mounted high luminous light with a handle for positioning the light.
  
10. Activated Clotting Time (ACT) machine and 30 no's cartridges / tubes. Unit price for cartridges and tubes should be quoted separately and the same should be valid during warranty and CMC period.
  
11. Ultra-light weight ,double sided Lead Gown with lead equivalent of 0.5 mm: 10 Nos
  
12. Thyroid Guards – 10 Nos
  
13. Lead spectacles – 10 Nos.
  
14. Disposable lead shields (sheets) 100 qty
  
15. Fully ergonomic foot switch for fluoro/acquisition control with both cordless and with cord should be provided.
  
16. Wooden/Metal household staircase
  
17. Lead protected viewing glass as per AERB norms (Size: 200cm X 100 cm)

18. Bi-Phasic Defibrillator (Latest and best in the market)

19. Lead Apron Hanger - 4 No's

20. Lead Apron Stand - 1 No

21. Accessories for the table should include: (Supply of 2 nos. each)

- a. Head fixing aids
- b. Chin support
- c. Carbon fiber radiolucent arm support for brachial approach
- d. Body straps
- e. Shoulder harness
- f. Easy to clean suitable soft mattress
- g. Drip stands
- h. Arm support
- i. Sand bags for thickness compensation for the head – adult & pediatric

22. Dehumidifier of 110 Litre - 2 Nos.

23. Environmental friendly sterile plastic covers for ultrasound probe, flat panel Detectors and control touch panel in console room QTY: 1000 each. Unit price for each of these covers should be quoted separately for future purchase and the same should be valid during warranty and CMC period.

24. Vendor should provide LED X-ray Film viewer with adjustable brightness; capable of holding 3 films of 14"x17" size. Qty 2 no.s (one each in the Console room and Examination room)

## **H. The Site Modification Work - To be done in consultation with engineering section of AIIMS**

1. The scope of work includes complete Civil work, Electrical, Plumbing, Furnishing, Air- conditioning and Fire detection for the construction of DSA centre.
2. While preparing the plan, the following aspects have to be addressed:
  - Care should be taken to provide easy negotiation of the patient stretchers/ trolleys through corridors and doors.
  - Radiation shielding for doors, walls, windows etc.
  - Furniture like desk, chairs, shelves etc.
3. The Site Modification Work : The cost of Site Modification Work for the area of 1300 sq.ft and Air-conditioning of Tonnage 25TR (including standby unit) will be considered for Ranking /Evaluation purpose.
4. Bidders will have to quote the Unit Rates of the following components of Site Modification Work.
  - Civil works



- Electrical work
- Public health (plumbing and sanitary fittings).
- Air Conditioning (HVAC)
- Interior Furnishing & Furniture
- Miscellaneous like scrub, catheter wash station, etc

5. Scope of work for Site Modification Work : The scope of work includes complete Civil work, Electrical, Plumbing, Furnishing, Air-conditioning and Fire detection for the installation of DSA system

6. The D.S.A site shall consist of the following rooms:

- a D.S.A Room
- b Console room
- c Equipment room
- d Patient preparation cum change room
- e Change room
- f Scrub area, catheter wash area
- g Patient waiting area

h Radiologist room

j) Added Para: Recovery room

7. The actual area of site modification work done will be considered for payment on prorata basis, based on the unit rates and site measurements.

#### 8. Civil work

- Civil construction work including construction of brick wall if any, plastering, flooring as per the approved plan and equipment layout plan.
- Concrete bed at DSA equipment area.
- Platform for unloading and shifting the DSA should be provided if necessary.
- Cable tray, trench & channel – necessary trenches, cable tray and channels at required location would be provided.
- All the construction work to be done as per the final plan approved by the Consignee.

#### A. Flooring

- 600 x 600 mm vitrified tiles with 100mm tile skirting to match in the entire DSA complex apart from the DSA Exam room, equipment room and UPS room.

- 50 mm thick cement concrete flooring with Vinyl flooring in DSA Exam room, equipment / UPS room.

#### B. Painting

- Two coats Plastic Emulsion Paint over 2 coats of wall putty including primer in patient preparation area, Lobby area, console room, & Equipment room etc.
- Full height wall tiles should be provided in the DSA room.

#### C. 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 powder coated with white paint, if metallic.
- Ceiling height to suit the equipment mount and clearances.

#### D. Plumbing work

- All water pipes and fittings (for Scrub etc) 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.

## 9. Electrical work

- The supplier shall be required to specify the total load requirements for the DSA 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 DSA centre .
- The distribution panel shall be provided by the vendor.
- Few lights in each room shall be connected to the UPS to provide emergency lighting.
- The electrical work shall include the following:
  - 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.
  - Switches light and power points should be of modular type and of standard make as listed below.
  - General lights – LED light fitting with 500 Lux Illumination
  - Adequate number of earthing required for equipment and accessories should be provided by the equipment vendor.

## 10. AIR CONDITIONING:

- Ductable Split / Ductable package air conditioners may be used according to room requirement and suitability.
- Humidity control should be effective to eliminate moisture condensation on equipment surface.
- The Air conditioning should be designed with standby provision to function 24 hours a day.
- The outdoor units of AC should have grill coverings to prevent theft and damage.
- Environment specifications:
  - 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.
  - Temperature ranges:  $22 \pm 2^{\circ}$  C in all areas except equipment room which shall be as per requirement of the equipment.

- Air conditioning load: The heat load calculations and maintaining the desired temperature and humidity shall be the responsibility of the bidder.

#### 11. Furniture:

- Revolving chairs height adjustable, medium-back with hand-rest in the Control room QTY 4 NO.S
- Radiologist room and viewing area. – 4 NO.S
- Chairs for patient waiting area – Three seater (chrome plated). - 10 NO.
- Wall mounted shelves for catheter and other procedural hardware – 4 Nos.
- Cupboard with laminate door shutters for storage of spare parts and accessories and records as per requirement. – 3 NO.S
- Drug trolley 1 number for patient preparation area.
- Patient trolley with rubber foam mattress to be kept in the patient preparation room.
- Name boards for all rooms
- Tables for Workstation and Radiologist in reporting room.- 2 NO.S
- Changing rooms should have change lockers and dressing table.

- Dustbins (plastic with lid) to be provided as required.
- Crash Cart - 1 No.
- Patient stretcher-01 No.
- All furniture items should be of standard make as mentioned in the table below.

#### 12. Miscellaneous:

- Knee controlled hand free two station scrub unit (antirust Steel) with disinfectant/ soap dispenser suitable for simultaneous usage of two persons.
- Cabling of Network (LAN) connectivity for camera system, console system, workstation and computers etc
- Fire extinguisher ABC type of 2kg each as required for the building safety - 5 nos. to be provided.

#### 1. Terms and Conditions to the Vendors

- Original Product Datasheet of main unit and all accessories, including third party items to be provided.

- All agreements should be binding on the Principal. The principals should be responsible for any lacuna or deficit in service or supply.
- All items in the supply order should be supplied during the time of installation. No exceptions will be allowed.
- **Items under the Research Agreement should be finalized well in advance after receipt of supply order), so that there is no delay in delivery of software or any other accessories. The research agreement will be signed by the institute based on mutual understanding with vendor and common interest and Terms & conditions.**
- **Software upgrades/ updates (where hardware upgrades are not required) like new application packages. etc, should be provided within one month after release and regulatory approval in India.**
- In case, the same is not provided in time, the parent company should undertake the responsibility to implement the same.
- Vendor should provide on site Training for radiologists and Technicians for a period of 4 Weeks
- The warranty period of the system (2 years) commences from the date of handing over (from the date of issue of Inspection Note) the fully functional unit of all essential parts and the accessories supplied (such as UPS including batteries replacement as when Required, AC etc.) including third party items such as patient monitor system, with probes, anesthesia machine, against Manufacturing defects of material and workmanship.
- UPS batteries and Anesthesia machine related accessories repairs (including replacement, if needed) should be included in the warranty and CMC period.



- The post-warranty (after 2 years) CMC should be comprehensive and should include (repair and / or replacement) + labour + spares for the complete system which includes all the accessories supplied such as UPS AC, etc. (including all consumables like batteries for UPS, and maintenance for another 8 years.
- If a particular part is not working for more than 5 days and due to which patient work suffers, the firm will be asked to pay penalty of half-a-day beyond 5 days for each day that it is not working.
- An architectural drawing is attached for the vendors for their site modification price quote. The actual drawing and planning can be worked by the vendors in consultation with their architects, the user department and the engineering section of AIIMS
- The vendor should quote the cost per sq. foot area for the civil work In addition to overall cost. The vendor must fill in the details (like values, Make and model, etc,) so as to specify whether they satisfy the tender by handling each row of this compliance statement. The vendor should mark "Yes or No or Not Available" wherever applicable.

#### **J. Buy Back Machine:**

DSA machine by SIEMENS (Artis Zee Ceiling mounted) installed presently in R. No. 78, Department of Radiodiagnosis and Interventional Radiology, Old RAK OPD, AIIMS, New Delhi - 110029. RADIOLOGY DEPARTMENT room no 78. Vendors can inspect the machine on any working day after taking permission from HOD, Radiodiagnosis. Price for the Buy Back unit must be quoted separately and will be used for L1 calculation.

However the institute has a mechanism to calculate the buy back price on the basis of government defined rules. The institute calculated price will be disclosed at the time of Price negotiation. Vendors have to match their quoted buyback price with the institute calculated price, in case their quoted buyback price is less than institute calculated price.

## **Annexure 1**

### **Specifications for Portable Multi-parameter Vital Sign Monitor**

1. **Should be fully portable patient monitoring solution, designed to be small, easy to use and lightweight, to be fixed to the patient table or trolley mount without taking any extra space.**
2. **The unit should come with Wireless/Wired vital signs 3/5 lead ECG module with trusted SPO2 technology.**
3. Clinical Features: Standard
  - **SpO2 with perfusion Indicator: Wireless/Wired**
  - **ECG: 3/5 Lead: Wireless/Wired**
  - Non- Invasive Blood Pressure
  - Dynamic Trend Indicators
  - Tri-Colored alarm light
  - Full gas module with ETCO2 Sidestream
  - Invasive Blood Pressure
  - Accessories Laryngoscope (Pediatric and adult)
  - Vendor should provide the Pediatric & Adult SPO2 probes-10 Qty each
  - Vendor should provide the Pediatric & Adult BP Cuff-10 Qty each
  - IBP transducer : 20 Qty

- ECG leads : 5 Qty
  - Vendor should also quote the price for SPO2 probe and BP Cuff, IBP transducers (Pediatric& Adult), ECG leads separately for the further purchase if required and the same should be valid during warranty and CMC period.
  - Should be European CE marked/FDA marked
4. All the probe and accessories both for Adult & Pediatrics age groups should be provided for 10 years.

## **Annexure 2**

### **ANESTHESIA WORKSTATION WITH ANESTHESIA MODULAR MONITOR : Qty 1**

**Anesthesia workstation is used for delivering anesthesia agent to the patient during Interventional procedure**

A. It should be integrated anesthesia workstation

### **General Instructions for the Vendor**

1. Suppliers must ensure availability of expertise service and maintenance at site of installation. Uninterrupted availability of spare parts and repair for next ten years must be assured.
2. Two bid system: vendor is required to make separate bids for technical and price components. These should be quoted in two separate sealed envelopes.
3. Please note that all technical features, facilities and accessories mentioned in the tender document are standard requirements and hence, these should be offered as the standard feature. None of these should be offered as optional items.
4. In the price bid, the cost of locally supplied items must be quoted separately in Indian currency.
5. Please respond to each specification in the same format and order as mentioned in the tender document and specify/indicate the verification document from the product data sheet against each column.
6. When required, information other than those in the data sheets should be provided as a separate document from the principals only and should refer to the specific sections being addressed. When the standard vendor data sheet disagrees with the bid response (offer/compliance

statement), clarification should accompany in the form of certificate from the principals only. In absence of this, the vendor data sheet will prevail for the purpose of evaluation and the decision of the technical committee shall be final and binding on the supplier.

7. The vendor has to station one application specialist and service engineer at site for a period necessary to familiarize the medical and technical staff to the scanner protocols and enable them to achieve fast and efficient service.

8. Mention the number (with addresses, phone numbers, e-mails) of installations of the quoted unit in the Delhi and India

9. A physical demonstration of the unit offered is a mandatory requirement