

According SPPRA rules 2010 sealed tenders are hereby invited from Interested Agent / Sole Agent/ Foreign Companies Distributors in Pakistan for the purchase of following items for Liaquat University Hospital, Hyderabad/Jamshoro on FOR Basis. The last date for submission of tender documents is 14th April 2016 up to 11.30 A.M and the opened on same day at 12.00 P.M in presence of participants.

S. NO	NAME OF ITES	QTY	SECURITY DEPOSIT	TENDER FEES (NON-REFUNDABLE)
01	PURCHASE OF MACHINERY / EQUIPMENT UNDER ADP NO. 370 2015-16			
I	Purchase & Installation of Bed Lift with Commissioning And Cabling Cardiothoracic Surgery Building LUH, Hyderabad	01		
II	Purchase & Installation of dual fired Generator 100 KVA, 50 Cycle Frequency, 410 Volts appropriate size cable ATS Panel, Circuit Breakers and Switches Cable Laying, Testing & Commissioning with Transportation, Housing at Cardiothoracic Surgery Building LUH, Hyderabad. 06 Monthly Mandatory service and maintenance with parts for further three years.	0dp1	2.5%	Rs.2000/-
III	Operation Theatre Light			
IV	Operation Table			
V	Echo Cardiography Machine with Trans Oesophgeal Probes.			
VI	One old to New Born Ventilator with Bipap Mode.			
VII	Oxygen Generation Plant.			
02	Purchase of Single Plane Cardiac Angiography / Interventional System for Cardiac Surgery Department LUH, Hyderabad.		2.5%	Rs.2000/-

The tender form can be purchased From 29.03.2016 to 13.04.2016 from office of the undersigned LUH, Hyderabad Telephone No.022-9210207 and Fax No.022-9210208.

NOTE:

1. The Medical superintendent LUH, Hyderabad / Jamshoro reserves the right to increase or decrease the quantity of any item of schedules as and when it is deemed necessary according to SPPRA Rules. The Procuring agency may reject all or any bids subject to the relevant provision of SPPRA Rules.
2. Minimum three years experience in relevant filed with documentary proof.
3. Minimum Ten millions turn over with Bank Certificate.
4. Three year Income Tax Return. (Photocopies must Enclosed)
5. Tender form should be submitted in **Two Envelope system** i-e **Technical** and **Financial** separately.
6. The Income Tax / GST / SST will be deducted according to rules of Government of Sindh / Pakistan if applicable. (The copy of Registration Certificate must be enclosed).
7. The specification and other terms and condition can be seen from Tender Enquiry or SPPRA Website.
8. The tenders should be addressed to the Medical Superintendent, Liaquat University Hospital, Hyderabad duly prescribed the words tender for _____ on the top of the Envelope.



Medical Superintendent
Liaquat University Hospital
Hyderabad/Jamshoro



NOTIFICATION

7060

05-11-2015

No.HD (P&E) 3-5 (55) / 2015. The Government of Sindh, Health Department is pleased to constitute a Procurement Committee under Clause 7 of Sindh Public Procurement Rules 2010, comprising of following members for the purchase of machinery / equipment, furniture and fixture (Revenue Component) for the development schemes namely "ESTABLISHMENT OF CARDIOTHORACIC SURGERY DEPARTMENT AT LIAQUAT UNIVERSITY HOSPITAL, HYDERABAD" and also purchase of Angiography machine, for the year 2015-16;

- | | |
|--|----------|
| 1. Medical Superintendent,
Liaquat University Hospital, Hyderabad / Jamshoro | Chairman |
| 2. Director General Health Service,
Sindh, Hyderabad. | Member |
| 3. Additional Medical Superintendent (Procurement),
Liaquat University Hospital, Hyderabad / Jamshoro | Member |
| 4. Representative of Commissioner
Hyderabad Division Hyderabad. | Member |
| 5. District Accounts Officer, Hyderabad | Member |

The committee will responsible to observe all the codal formalities as per Sindh Public Procurement Rules 2010 (Amended 2013).

LM
a/n

Dr.Saeed Ahmed Mangnejo
SECRETARY HEALTH

NO.HD (P&E) 3-5 (55) / 2015

Karachi, dated, the 31.10.2015

C.c. to:

1. Commissioner, Hyderabad Division Hyderabad with request to nominate the representative for the purchase committee.
2. Managing Director, Sindh Public Procurement Regularity Authority, Karachi
- ✓ 3. Medical Superintendent, Liaquat University Hospital, Hyderabad / Jamshoro.
4. District Account Officer, Hyderabad,
5. All the members of the committee.
6. P.S to Secretary, Health Department, Govt. of Sindh, Karachi.

1. ASAS Spore
2. Gen. Sec.
for
4/11

[Signature]
Research Officer (Dev)



NOTIFICATION

7063 CS-21

No.HD (P&E) 3-5 (55) / 2015. The Government of Sindh, Health Department is pleased to constitute a Technical committee, comprising of following members for the purchase of Machinery / Equipment, furniture and fixture (Revenue Component) for the development scheme namely "ESTABLISHMENT OF CARDIOTHORACIC SURGERY DEPARTMENT AT LIAQUAT UNIVERSITY HOSPITAL, HYDERABAD", for the year 2015-16;

1. Prof. Raheel Ahmed
Head of Department of Cardiac Surgery
Liaquat University Hospital, Hyderabad / Jamshoro.
2. Head of Department Anesthesia
Liaquat University Hospital, Hyderabad / Jamshoro.
3. Head of Department Surgery
Liaquat University Hospital, Hyderabad / Jamshoro.
4. Head of Department Pathology
Liaquat University Hospital, Hyderabad / Jamshoro.

Technical committee members will responsible to prepare the technical specification of machinery / equipment and also carry out the evaluation of technical specification offered in bids.

Dr.Saeed Ahmed Mangnejo
SECRETARY HEALTH

NO.HD (P&E) 3-5 (55) / 2015

Karachi, dated, the 31.10.2015

C.c. to:

- ✓ Medical Superintendent, Liaquat University Hospital, Hyderabad / Jamshoro.
2. Managing Director, Sindh Public Procurement Regularity Authority, Karachi
3. All the members of the committee.
4. P.S to Secretary, Health Department, Govt. of Sindh, Karachi.

1. Mus (Sindh)
✓ Gen. Br.
4/11

Research Officer (Dev)



NOTIFICATION

7061

05-10-15

No.HD (P&E) 3-5 (55) / 2015. The Government of Sindh, Health Department is pleased to constitute a Technical committee, comprising of following members for the purchase of Angiography Machine to be installed at "CARDIOTHORACIC SURGERY DEPARTMENT AT LIAQUAT UNIVERSITY HOSPITAL, HYDERABAD", for the year 2015-16;

1. Prof. Raheel Ahmed
Head of Department of Cardiac Surgery
Liaquat University Hospital, Hyderabad / Jamshoro.
2. Prof. Khalida Soomro,
Head of Department of Cardiology,
Civil Hospital, Karachi.
3. Prof. Nadeem Rizvi,
National Institute of Cardio Vascular Diseases Karachi
4. Prof. Ghulam Qadir Buladi
Head of Department of Radiology,
Liaquat University Hospital, Hyderabad / Jamshoro.

Technical committee members will responsible to prepare the technical specification of machine and also carry out the evaluation of technical specification offered in bids.

Dr Saeed Ahmed Mangrejo
SECRETARY HEALTH

NO.HD (P&E) 3-5 (55) / 2015

Karachi, dated, the 31.10.2015

C.c. to:

1. Medical Superintendent, Liaquat University Hospital, Hyderabad / Jamshoro.
2. Managing Director, Sindh Public Procurement Regularity Authority, Karachi
3. All the members of the committee.
4. P.S to Secretary, Health Department, Govt. of Sindh, Karachi.

1. Amul (Sindh)
2. Gen. Sec.
3. Secy
4/11/15

h. l. m.
4/11/15

Research Officer (Dev)



Phone # 99203108, 99204203

No. S.O.(PM&I) 2-1/2015 (CRC)

**GOVERNMENT OF SINDH
HEALTH DEPARTMENT**

Karachi, Dated, the 28th March, 2015

NOTIFICATION

In supersession of this Department's notification of even number dated: 29th July, 2015 and in pursuance of Rules-31 and 32 of Sindh Public Procurement Rules 2010, the Government of Sindh, Health Department re-constitutes Complaint Redressal Committee (CRC) comprising of the following officers for scrutinizing the complaints of aggrieved bidders against tender invited by Health Institutions / Hospitals / Programmes / Projects in Sindh.

01	Secretary Health Department, Sindh	Chairman
02	Additional Secretary (PM&I), Health Department, Sindh	Member
03	Professor Khalida Soomro, Professor of Cardiology, Dow University of Health Sciences / Civil Hospital, Karachi.	Member
04	Dr. Syed Khalid Hussain, Procurement Executive, N.I.C.V.D., Karachi.	Member
05	Representative from Accountant General Sindh, Karachi.	Member

FOR:

- To scrutinize the complaints from the aggrieved bidders and decide the case strictly in accordance with SPP Rules 2010.

IFTIKHAR ALI SHALLWANI
SECRETARY HEALTH

No. S.O.(PM&I) 2-1/2015(CRC)

Karachi, dated, the 28th March, 2015

C.C to:

- The P.S to Chief Secretary, Sindh, Karachi.
- The Managing Director, Sindh Public Procurement Regulatory Authority, Karachi.
- The Executive Director, NICVD, Karachi.
- The Director General Health Services Sindh, Hyderabad.
- The Additional Secretary (Admin/Development/Public Health), Health Department.
- The Chairman & all members of the Committee.
- The P.S. to Secretary Health Sindh.


D. Borach
H.S.
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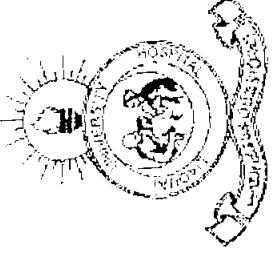
(CRASHID HUSSAIN)
SECTION OFFICER (PM&I)

ANNUAL PROCUREMENT PLAN
LAQVAT UNIVERSITY HOSPITAL, HYDERABAD, JAMSHORO
FINANCIAL YEAR 2015-16

S.No.	Description of Procurement	Qty	Estimated Funds Total cost/Allocated	Source of Proposed Funds / (ADP / Non ADP)	Proposed Procure- ment method	Timing of procurement	Remarks
1	Drugs / Medicines & Surgical Items (L.P)	87.75 M	87.75 M	Non ADP	Single Stage Two Envelope	1st Qtr 2nd Qtr 3rd Qtr 4th Qtr in all quarters as per Requirement	
2	Dietary Items	34.13 M	34.13 M	---d0---	---d0---	---d0---	
3	Uniform & Liveries	2.89 M	2.89 M	---d0---	---d0---	---d0---	
4	Misc / Petty / Electric Items	4.39 M	4.39 M	---d0---	---d0---	---d0---	
5	Medical Gases	19.69 M	19.69 M	---d0---	---d0---	---d0---	
6	Janitorial Services & Items	9.45 M	9.45 M	---d0---	---d0---	---d0---	
7	Printing Articles	0.92 M	0.92 M	---d0---	---d0---	---d0---	
8	Stationary Articles	0.55 M	0.55 M	---d0---	---d0---	---d0---	
9	Instruments	3.68 M	3.68 M	---d0---	---d0---	---d0---	
10	Consumable Items / Pathology Kits & Chemicals	8.2 M	8.2 M	---d0---	---d0---	---d0---	
11	Repair of Machinery / Equipment	16.57 M	16.57 M	---d0---	---d0---	---d0---	
12	Repair of Furniture / Fixture	1.65 M	1.65 M	---d0---	---d0---	---d0---	
13	Machinery Equipment under SNE	0.84 M	0.84 M	---d0---	---d0---	---d0---	Subject to Release of Funds
14	Furniture / Fixture under SNE	0.50 M	0.50 M	---d0---	---d0---	---d0---	Subject to Release of Funds
15	Stores Purchase under ADP Scheme No:370	50 M	50 M	---d0---	---d0---	---d0---	Subject to Release of Funds

List Enclosed


 Medical Superintendent
 Laqvat University Hospital
 Hyderabad / Jamshoro



(Rs.2000/= Non Refundable)

LIAQUAT UNIVERSITY HOSPITAL, HYDERABAD / JAMSHORO

SUPPLY OF MACHINERY /EQUIPMENT FOR THE YEAR 2015-16 UNDER ADP SCHEME NO.370

DUE ON 14.04.2016

TENDER INQUIRY NO. 16/2015-16

Time of Receipt of Tender Form 29.03.2016 to 13.04.2016 upto 2.00 PM
Time of Submission of Tender Form 14.04.2016 at 11.30 A.M
Time of opening of Tender Form 14.04.2016 at 12.00 NOON

Guarantee / Warranty, Service, Maintenance:

Warranty

The tenderers must quote for 5 years onsite warranty from the date of completion of the satisfactory installation as certified by the end user.
The Warranty charges shall not be quoted separately otherwise the offer shall be summarily rejected.

Bidders will provide a certificate from the original manufacturer that they will stand responsible and fulfill the contractual responsibility in case of change, or liquidation, of present local agents.

Also the Bidders should submit their quote for subsequent 5 years on site comprehensive maintenance contract (CMC) (include free labour, repair, other services & spare parts).

Failure to comply this condition will entail the rejection of the Bids.

The price comparison shall be made taking into account on basic price and post warranty CMC.

The Rate Contracting Authority reserves the right to award CMC. The amount of CMC would be released to the supplier on successful completion of the maintenance of that particular year duly certified by the user department.

Service

The supplier will ensure regular maintenance service by the appropriate engineer certified by the manufacturer having the technical know-how of the equipment.

Maintenance

As the cost of the equipment is more than Pak Rs. Five Lakhs, the supplier has to include in the bid a comprehensive maintenance contract with the purchaser for five years after the lapse of mandatory warranty period. Without this tender will be considered incomplete and summarily rejected.

The supplier shall ensure quality maintenance / check service of minimum 4 times a year in addition to the calls that might be raised by the user department.

- Non-compliance of any of these conditions or any of the conditions mentioned in the document renders the purchaser to blacklist the supplier along with appropriate legal actions.

Downtime penalty Clause

- During the Guarantee/warranty period, desired uptime of 95% of 365 days (24 hrs) if downtime more than 5% the institute shall be entitled to impose penalty equal to amount of 0.05% of the total cost of the equipment per day for the first seven days will be payable by the vendor which will double on subsequent weeks along with extension of warranty period to further five years by the excess down time period i.e. more than 10%.

The vendor must submit an undertaking from the original manufacturer guaranteeing supply of all spares for optimal upkeep of the equipment for at least TEN YEARS after commissioning of the unit in the department.

Solvency & Liquidated Damages

Vendor will submit a certificate from the original manufacturer, duly endorsed and authenticated by the embassy/consulate in Pakistan that in case of Liquidation of vendor or change of dealership in TEN YEARS from date of commissioning of the merchandise, the manufacturer will be responsible to honour the CMC and AMC directly or through a third party.

If the supplier fails to deliver any or all of the goods or fails to perform the service within the time frame(s) incorporated in the tender, the Purchaser shall, without prejudice to other right and remedies available to the Purchaser under the tender, deduct from the quoted price, as liquidated damages, a sum equivalent to 0.5% per week of delay or part thereof on delayed supply of the quoted price. Once maximum 10% of value of delayed supply is reached, Purchaser may consider termination of the tender.

FORCE MAJEURE:

If, at any time during the subsistence of this contract, the performance in whole or in part by either party of any obligation under this contract is prevented or delayed by reasons of any war or hostility, act of public enemy, civil commotion, sabotage, fire, floods, explosion, epidemics, quarantine restriction, strikers lockout or act of God (hereinafter referred to as events) provided notice of happening of any such eventuality is given by party to other within 21 days from the date of occurrence thereof, neither party shall be entitled to terminate this contract nor shall either party

have any claim for damages against other in respect of such non-performance or delay in performance, and deliveries have been. if the performance in whole or in part of any obligation under this contract is prevented or delayed by reason of any such event for a period exceeding 60 days, Liaquat University Hospital Hyderabad, party may, at least option to terminate the contract.

Insolvency etc.:

In the event of the firm being adjudged insolvent or having a receiver appointed for it by a court or any other order under the Insolvency Act made against them or in the case of a company the passing any resolution or making of any order for winding up, whether voluntary or otherwise, or in the event of the firm failing to comply with any of the conditions herein specified. Liaquat University Hospital Hyderabad shall have the power to terminate the contract without any prior notice.

Breach of Terms and Conditions:

In case of breach of any terms and conditions as mentioned above, the Competent Authority, will have the right to cancel the work order/ job without assigning any reason thereof and nothing will be payable by Liaquat University Hospital Hyderabad. In that event the security deposit shall also stand forfeited.

Subletting of Work:

The firm shall not assign or sublet the work/job or any part of it to any other person or party without having first obtained permission in writing of Liaquat University Hospital Hyderabad, which will be at liberty to refuse if thinks fit.

The tender is not transferable.

One tenderer shall submit only one tender.

Tenderer must provide evidence of having supplied to at least 3 reputed government / reputed private organizations in Sindh including at least one government institution & atleast 1/3 contract value in the last three years.

Tenderer must provide certificates from the end users of these institutions of satisfactory provision of after sale service.

The demonstration of the equipment forms an essential part of the tender. The bidder has to arrange for the demonstration of the equipment with no financial assistance from.

Provision of Operating and Service Manual in ENGLISH language is mandatory without which the product will not be accepted.

Vendors have to provide certificate from original manufacturer that the equipment is fresh, and a brand new piece.

Hospital reserves the right to forfeit the equipment, demand a brand new replacement and initiate criminal proceedings against the vendor should it at any stage discover that, used or refurbished product was supplied

S.No.	Name of Equipment	Make & Qty Model	Price in figure C&F and FOR	Price in words
	<p>LED OT Light Ceiling mounted triple arms. Triple arm LED OT Light for Cardiothoracic Surgery. Central arm with LED light, 2000,000 Lux and central camera, Second arm with LED Lights, Third arm to hold LED 28" slave monitor Touch screen control panel, Synchronized with sub-handle intensity:160,000 LUX, each dome. CIS Technology 3 steps of color Temperature (3,800K/4,300K/4,800K) Depth of Volume of light (L1+L2+L3 225cm) CRI: 95Ra Red color rendering ability Selectable Focal Size from 20cm~30cmdia. Number of LEDs: 95or more (each done) 4 x Sensors for maximizing dilution effect Dimming Range : 25% ~100% or better Endo Mode at 8,000Lux UV emission & Cool Light Detachable & Autoclave able Hand Grip for both light arms in duplicate. Main dome to have integrated High Resolution internal Camera with the 2,000,000 pixels with zoom, auto focus, auto white balance. Camera be provided with zoom control Networking so that the camera image be projected to a distant area through a multimedia projector of high resolution(to be included in the quoted price) Video Recording on DVD Recorder with inbuilt hard disc (to be included in the quoted price) Five years full warranty with parts starting from the day of installation. Training on site of the OT staff as frequently as needed. User Manual, Service manual be provided. Country origin: UK/USA/EC. Vendor will provide written under-taking on behalf of the manufacturer for availability of LED bulbs for ten years from the date of installation. Transportation and installation will be supplier's responsibility. User Manual and Electrical Drawings</p>	1 No		

1. User manual in English.
 2. Service manual in English.
 3. List of important spare part and accessories with their part number and catalogue available in stock with the supplier.
- OR Equivalent** (USA/EEC/Japan)

Echocardiography Machine:

TECHNICAL SPECIFICATION

Requirement Description:

A high end Cardiac Sonography Machine Applications in OT, Ward and ICU along with in built Ultrasound teaching module for physicians & residents. The equipment must be capable of operating in B Mode, M Mode, Color Doppler, Color Power Doppler (CPD), and Pulsed Wave. It must support transducers with linear array, and trans-esophageal formats. Further, it must include a full array of measurement and calculation packages.

SYSTEM ERGONOMICS

Height adjustment should be at-least 9" travel

The system shall have a large 19" or more medical Grade LED clinical display monitor.

The system display area (image size) shall be no smaller than 800 X 600 pixels.

The system screen size shall not be less than 1280 X 800 pixels with a screen resolution of 1680 X 1050 pixels and an aspect ratio of 16:10.

The "system display-tilt" shall be tilting forward from vertical and tilt backward from vertical. Specify the angle of tilt for optimum visibility in all scanning postures.

While use in an ICU or OT, in order to prevent cross contamination and infection, the system shall have/ possess a sealed (Spill proof) user interface. It should be very easy to clean and disinfect.

The system control panel should be built on a capacitive, 10" touch screen. It should not possess any buttons or controls for germs to hide behind including the absence of traditional keyboard.

System should have three transducer connector, to actively and electronically switch between transducers while scanning.

The system shall be easily maneuvered within the building. While transporting system should be able to absorb the shocks / any accidental bang on hard surface

SYSTEM POWER REQUIREMENTS

The system shall have the ability to function by 200- 240VAC, 50-60 Hz or in

built battery power with the same degree of functionality. Battery back-up should be one hour without an externally powered UPS /

Inverters.

The system should be accompanied by a UPS and power stabilizer from Japan, Europe, USA.

System Architecture Reliability should be ascertained by architecture based on an operating system which is not prone to failure, hang ups, data corruption due to virus infection.

The system shall support a gray scale range of 256 shades.

System must possess Pulse Inversion Harmonics Imaging

System must possess Tissue harmonics on all transducers offered

The system shall have broadband architecture with an operating

frequency of at least 1 to 15 MHz.

The system should have dynamic range of at least 180db

System should have a very high imaging capability to transmit the

ultrasound beam in a way to pin point precision in order to drastically

remove the side lobe artifacts and precisely bring out the real tissue echo

signals.

Highly optimized image with change in just the depth.

USER INTERFACE

To enable the highest level of ease-of-use, the system control panel should

have multi-touch gesture driven interface like, Swipe, Pan (Drag), Tap,

Pinch and Expand, etc. resembling the use of today's daily gadgets like

smart phones, laptops, tablets, etc.

To further simplify the user interface, system control panel should facilitate

personalization of commonly used soft menu keys and user defined presets

for each examination

IMAGE STORAGE & ARCHIVAL

Integrated DVD recorder and with 50G hard disc to record, save, and write

studies, and Color Printer preferably from same manufacturer/same

country will be provided

Thumb nail review of stored images and clip and option to auto clip export

at the end of exam is required

Data storage media should be static and above 60 GB, enough to store

over 50,000 images, clips or combination of the same.

The system shall have archive capability for storage and retrieval of images

and clips.

The system shall provide the capability to storing clips via time of

heartbeats gating.

The system shall provide the capability to store clip data prospectively or retrospectively.

- The system shall provide the ability to preview clips prior to committing them to storage.
- The system's storage capacity shall accommodate up to 64GB on a very highly reliable static memory drive.
- The system shall be DICOM 3.0 compliant.
- DICOM Image Management: Print, store, Modality Work list, Performance procedure Step (PPS), storage commitment
- The system shall be capable of transferring images by batch or as exam is in progress to a DICOM archive.
- The system has easy to use configuration menus for all networking features.
- The system allows for saving the DICOM configuration via USB so they are easy to replicate or restore.
- The system shall allow for location specific connectivity configuration.
- The system shall provide a comprehensive set of tools that the customer can use for HIPAA Compliance. 6. PERIPHERALS
- The system shall support ECG.
- The system shall have minimum inbuilt 4 USB ports (Digital Video Output port), Ethernet port for DICOM interface, DVR USB port.

MEASUREMENT, ANALYSIS and LABELING:

- The system shall support up to 8 generic distance calipers.
- The system shall provide the user with up to 4 generic trace tools.
- The system shall provide the user with up to 4 generic ellipse tools.
- The system shall provide a generic pressure half time tool.
- The system shall have Dobutamine Stress tool.
- Predefined set of Labels (Annotation) to be built in
- Diameter/ellipse measurements, volume flow, percent diameter and area reduction, peak velocity, end diastolic velocity, resistive index, pulsatility index, S/D Ratio, acceleration time, time average mean velocity, time average peak velocity
- Carotid Calculation Package: CCA, ICA, A, ICA/CCA ratio, vertebral
- SMALL PARTS: Volume, Hip, Angle, d: D Ratio 9, B-Mode / M-Mode imaging
- The system shall provide the user with controls for single touch optimizing resolution in B-Mode.
- The system shall display at a maximum depth of 35 cm, and a minimum of 1.5 cm.

The system shall provide a timeline Cine function with 20 seconds of 2D image review and 16 seconds of PW and M Mode Sector width reduction in 2D mode for increase in frame rates and extreme sharp images

The system shall have the ability to enhance tissue margins and improve contrast resolution by reducing artifacts and improving visualization of texture patterns within the image. It should have features and algorithms to produce clearer images at deeper depths

The system shall provide the user with a 8X zoom function that increases the region of interest, without affecting the quality of the image.

The system shall provide the user with the ability to flip the image horizontally and vertically.

The system shall provide a dual multi-image function on a single monitor with the ability to individually scan the images on each side.

System should have dual color images for color compare

The system shall provide a dual multi-image display function with all transducers that positions the two displays alongside each other in a seamless fashion for ease of visualizing an extended field of view from two separate scan positions.

Display Format for Duplex Imaging: 1/3 and 2/3, 1/2 and 1/2, 2/3 and 1/3, side by side, up down and full screen duplex 10. Color and CPD

The system shall provide velocity color Doppler.

The system shall provide a user controlled mechanism to easily control the size and position of the Color/CPD Region of Interest (ROI) including independent control of its height and width thru multi-gesture control from the touch screen

The system shall provide the user with controls for optimizing resolution in Color modes.

The system shall provide the user with a scale control that varies the scale range in color.

- The system shall provide the user with at least three user selectable wall filter options.

The system shall have velocity color flow imaging, providing the clinician with the color sensitivity to perform color Doppler examinations with all transducers during a clinical procedure.

DOPPLER

The system shall provide Pulsed Wave (PW) Doppler mode.

The system shall provide Tissue Doppler Pulsed Wave Doppler (TDI PW) Mode.

The system shall provide Continuous Wave (CW) Doppler Mode.

The system shall support quantitative assessment of blood flow with Duplex imaging.

The system shall have at least 256 gray levels in the spectral display.

The system shall provide the user with control during timeline replay to

review the spectrum.

The system shall provide the user with a scale control that varies the scale

range.

The system shall provide the user with at least three user selectable wall

filter options.

TRANSDUCERS

The transducers shall operate at frequencies from a minimum of at least 1.0

MHz to a maximum of at least 15.0 MHz.

1.0-5.0MHz, Broadband Phased array adult cardiology transducer with

Scanning Depth up to 35cm.

PROBES

2D TRANS-THORACIC ADULT, PEDIATRIC and NEONATAL ECHO

CARDIOGRAPHY,

ADULT AND PEDIATRIC TRANSOESOPHAGEAL PROBES

TRAINING AND EDUCATION

Ability to scan and practice while simultaneously viewing tutorials ii) Should

possess basics of knobology and ICU, EMED procedure training visual

guides as a Self Teaching Tool.

ENVIRONMENTAL FACTORS

The unit shall be capable of operating continuously in ambient temperature

of 30° C and relative humidity of 80%

Power input to be 220-240V AC, 50Hz fitted with Pakistani plug

Resettable overcurrent breaker shall be fitted for protection

Suitable Servo controlled stabilizer/CVT

Online UPS of suitable rating with voltage regulation and spike protection

for 30 minutes back up.
 Complete Operating and Service Manual will be provided.
 5 years warranty with parts. Maintenance service every 6 months till Five years.
 End User Inspection at source before shipment
 6 weeks training of a physician locally on the same machine.
 Should be FDA of CE approved product from USA,EC or Japan.
User Manual and Electrical Drawings
 1. User manual in English.
 2. Service manual in English.
 3. List of important spare part and accessories with their part number and costing available in stock with the supplier.
 System should have DSE Software
OR Equivalent

1 No

(USA/EEC/Japan)

Electro Hydraulic Surgical Table

3

Multipurpose Electro Hydraulic operation table with table top slide function with high quality covering cushion.
 System operable with hand control switch for all electrical function and foot pump for hydraulic function.
 In case of complete failure of electrical power, table should capable to work on manual system.
 Patient weight bearing capacity should be 100kg of more.
 Longitudinal slide of 12" or more.
 Built in x-ray cassettes channel.
 Radio translucent table.
 Self-diagnosis system with instant error code display.
 Hand switch should have special function of patient positioning, up and down, left and right tilt, up and down back, up and down leg, Sliding function.
 Essential function such as lock/unlock, level, flex/reflex should be incorporated.
 Normal orientation slide to head end 52" or more.
 Normal orientation slide to leg end 15" or more.

Reserve orientation slide to leg end 25" or more.

Range of table movement

Head: ± 90 or better
Back : $+80 / -50$ or better
leg : $+30 / -90$ or better
Trendelburg: ± 30 or better Lateral tilt : ± 20 or better
Height from floor to 46" or better

Flex : 25
Reverse flex: 25
Reflex 100
Reverse reflex : 100

Accessories to be supplied

Anesthesia Screen with brackets
Arm rest with strap Two pieces.
Restraint Strap for adult One piece.
Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450 3
Manufacturer /Supplier should provide a certificate of satisfactory performance of similar product in a leading teaching/Private Hospital of Sindh.
Manufacturer /Supplier should arrange pre-shipment inspection by the end user, of the product at source without added cost.
Manufacturer /Supplier should have ISO Certification for quality standards.
Five year warranty

from the date of installation with parts and Labour.

User Manual and Electrical Drawings

1. User manual in English.
2. Service manual in English.
3. List of important spare part and accessories with their part number in catalogue available in stock with the supplier.

OR Equivalent

(USA/EEC/Japan)

MEDICAL OXYGEN GENERATOR

- 1 x Screw Compressor SCK9 - 7.5KW (10hp - 55 m³/h @10bar)
- 2 x 270 Liter Vessels
- 1 x Cooling Dryer ACT23 (138 m³/h)
- 3 x Filters 100
- 1 x Sterile Filter
- 1 x Electronic Automatic Drain
- 1 x Zirconia Sensor
- 1 x Generator 4.5 Nm³/h @ 93% (±3%) Purity

On-Site Back System**Comprising:**

- High pressure oxygen compressor 152 bar G , 3.2 Nm³/hr
- Filling ramp for 12 cylinders
- Set of accessories for low and high pressure connections
- High pressure Cylinder B50; 50 liters, 200 bar
- High pressure regulator (when cylinders will supply the oxygen as backup source)
- Automatic Switch-over box (for Automatic source selection)

All copper gas piping with complete ICU Panels for 10 ICU beds. And Oxygen points for Forty beds on first, second and third floor of the cardiac building

The piping will include all necessary pressure gauges, alarms, and back-up arrangements.

The vendor will bear all transportation and electrical costs, if so involved

The vendor will provide 5 years service back up with parts and labour, and warranty without any added cost. Failing this, will make vendor liable for black listing by health department and legal action. The cost of all legal proceeding, if any, will be borne by the vendor.

OR Equivalent

(USA/EEC/Japan)

ADULT TO NEW BORN VENTILATOR WITH BIPAP MODE (without in-built

Compressor]

1. Should have facility for Invasive and Non-Invasive ventilation.
2. Microprocessor Control suitable for Pediatric and adult ventilation.
3. Electromagnetic Compatible Hinged arm holder for holding the circuit.
4. Should have built in touch color screen TFT display of minimum 10" or more for display of waveforms and Monitored value.
5. Should have inbuilt facility to upgrade with EtCO2.
6. Facility to Measure and display: - a) Status indicator for ventilator mode. b) Battery indication. c) Pressure Vs time Vs volume Vs time, flow Vs time 3 curves/ waveforms. d) Alarm setting.
7. Automatic compliance and leakage compensation for circuit and ET Tube.
8. Should have facility of log book, for events and alarms with date & time.
9. Should have following settings.
 - a) Tidal volume (Minimum at least 50ml, Maximum up to 2000ml)
 - b) Inspiratory Pressure (upto 80 cm of H2O)
 - c) Respiratory rate 1 to 80 bpm.
 - d) Apnoea back up rate.
 - e) CPAP/PEEP
 - f) Pressure support.
 - g) FiO2
 - h) Pause Time
 - i) Pressure & flow Trigger
10. Monitoring & Display of the following Parameters.

- a) Airway Pressure (Peak & Mean).
- b) Tidal volume (Inspired & Expired).
- c) Minute volume (Inspired & Expired)
- d) Respiratory mechanics.
- e) Spontaneous Minute Volume.
- f) Total Frequency.
- g) F102 dynamic.
- h) Intrinsic PEEP.
- i) Plateau Pressure.
- j) Resistance & Compliance.
- k) Use selector Alarms for all measured & monitored parameters.
- l) Occlusion Pressure.
- m) Pressure Flow & Volume curves.
11. Modes of Ventilation equipped with newer modes of ventilation
 - a) Assist /control.

- b) Volume Control.
- c) Pressure control.
- d) Pressure support.
- e) SIMV with pressure support (Pressure and volume control).
- f) PEEP.
- g) Inverse ratio Ventilation.
- h) Non invasive ventilator- BIPAP, CPAP.
- i) Apnea Ventilation, User selectable, volume & pressure control.
- 12. Should have built in safety alarms for Airway Pressure High & low, Minute volume, High & low, power failure, Low oxygen, High Respiratory Rate, Air Source in-operable.
- 13. Should have inbuilt exhalation filter.
- 14. Should have compatibility with existing central pipe line.
- 15. Humidifier
 - a) Servo controlled heated Respiratory Humidifier.
 - b) Temperature of delivered Gas on LED display.
 - c) Temperature should be adjustable.
 - d) Jar should be autoclavable
- 17. Quality Certification : Valid CE/BIS/US FDA
- 18. Demonstration of the quoted model is must at source
- 19. Nebulization assembly compatible with ventilator and circuit
- 20. Should have interface facility.
- 21. Flow sensor-Should have life more than 1 year.
- 22. Expiratory Unit- Life should be more than 3yrs.
- 23. Data storage facility for at least 24hrs.
- 24. Internal rechargeable battery at least 30min. backup.
- 25. Should be supplied with compatible UPS.
- 26. Should have flow sensors having long life and the company shall specify the life cycle and the cost of the flow sensors at the time of quoting the tender.
- 27 CMC/ AMC for the at least 5yrs and Cost of consumables spares

User Manual and Electrical Drawings

- 1. User manual in English.
- 2. Service manual in English.
- 3. List of important spare part and accessories with their part number and constng available in stock with the supplier.

OR Equivalent

(USA/EEC/Japan)

6	<p>Purchase & Installation of Patient Bed Lift / Hospital Bed Elevator with Auto Start Generator at Cardio thoracic Surgery Building LUH, Hyderabad / Jamshoro. With commissioning and cabling (Turn Key basis)</p>	1 No
<p><u>TECHNICAL SPECIFICATION.</u></p>		
Use	Hospital Bed Elevator.	
Capacity	: 1000 kgs.	
Speed	: 60mpm.	
Operation	: Simplex Collective Selective.	
Control System	: VVVF (Variable Voltage	
<p>Variable Frequency).</p>		
Floors & Stops	: 4 Floors & 4Stops.	
Door opening type	: 2 panel Side opening.	
Door opening size	: 1200 x 2500 mm. or as per maximum available According to shaft.	
Cabin Size	: 1500 x 2500 mm. or as per available shaft. shaft size : As per site. Power supply: AC 3 phase 380V, 50 Hz. Lighting supply : AC1 phase 220V, 50 Hz. Machine room : Directly Above the hoistway. CAR DESIGN.	
Five Year free Maintenance with parts and Labour.. With service every 6 months mandatory.		
OR Equivalent		
<p>(USA/EEC/Japan)</p>		
7	PURCHASE & INSTALLATION OF DUAL FIRED GENERATOR 100 KVA on Turn Key Basis	1 No
<p>Bid will include TRANSPORTATION, HOUSING, COMMISSIONING, CABLING WITH ATS PANEL, CIRCUIT BREAKERS AND SWITCHES, including labour, gas connection, and complete installation AT CARDIO THORACIC SURGERY</p>		

BUILDING LUH, HYDERABAD.

6 MONTHLY MANDATORY SERVICE AND MAINTAINANCE WITH PARTS FOR
FIVE YEARS
OR Equivalent

(USA/EEC/Japan)

Cost on C&F and FOR basis

N.B: -

- 1 Sole agent Certificate / Authority letter from the manufacturer must be provided by the bidder.
- 2 The supplier will be bound to train nominated technical personnel to operate and for repair and maintenance of supplied equipment.
- 3 Joint inspection will be carried out by consignee representative / End User, and Director Bio-Medical Govt. of Sindh or his representative.
- 4 Guaranteed presence of manufacturer's trained service engineer in Karachi.
- 5 Presence of manufacture's engineer and application specialist during commissioning phase.

DELIVERY PERIOD: VALIDITY

General Conditions & Instructions:

- 1.1 The tenders shall be submitted with all documents and drawing literature & catalogue (in equipment) in sealed envelopes, with sealing wax. The envelope must contained tender enquiry No. on the top. The name of manufacturer and the supplier should be affixed on the face of envelope at the left side.
- 1.2 Tenders must be filled in with blue or black ink in the columns provided/on separate letter Head duly signed.
- 1.3 The tenders must be free from erasing cutting and over writing. In case of erasing, cutting and over writing, authorized person should initial it.
- 1.4 The rates of each item should be written in figures as well as in words. In case of discrepancy the price in works will be taken as authenticate and final.
- 1.5 Conditional Tenders will be ignored and will not be considered/entertained/accepted.
- 1.6 Tenders from shall be accompanied by Earnest Money @ 2.5% of the value of stores quoted by them in form of call Deposit / pay order.
- 1.7 Original purchase receipt must be enclosed with their offer.
- 1.8 The tendered rate should be inclusive of all taxes, Income & Sales Tax etc payable to Federal & Provincial Govt or Local bodies and no claims on this account shall be entertained.
- 1.9 The bidder shall furnish General sales tax (GST) Registration Certificate of the firm failing which the offer will be ignored. In case the item is exempted from GST either documentary evident or certificate from competent authority shall be attached with the offer.
- 1.10 The bidder shall furnish copy of NTN Certificate.
- 1.11 The bidder shall furnish copy of valid professional Tax (Excise & Taxation) Certificate
- 1.12 The bidder shall furnish an affidavit on non-judicial stamp paper of Rs. 100/- that the firms is not black listed in any Govt Departt.
- 1.13 The bidder shall furnish minimum three years experience in relevant field with documentary proof.
- 1.14 The bidder shall furnish minimum Ten Million Turn over with Bank Certificate.

- 1.15 The bidder shall furnish three years Income Tax Return Certificate.
- 1.16 The bidder shall furnish photocopy of call deposit without showing amount in technical bid and original with financial envelope.
2. **SPECIAL CONDITIONS:**
 - 2.1 Store is required immediately. The tenders may, however, give their short guaranteed delivery period by which the supply will be completed positively.
 - 2.2 Tenders are required to specify make, country of origin and furnish detailed technical Description literature / catalogue along with their offer.
 - 2.3 The Bidders shall quote their firm and final price both in figures & words on "Free Delivery basis to Consignee end.
 - 2.4 Also choice to select/ignore any their alternate offers shall rest with the purchaser.
 - 2.5 No manufacturer shall authorize their distributor/agent/any firm or person to quote the same item which manufacturer is quoting it self in any tender. Failing that offers of both the manufacturer, which the manufacturer as well as other bidder shall be ignored.
 - 2.6 Tenders shall purchase separate tender documents and furnish purchase receipts for each alternate offer in case they want to submit alternate offer for any items. All the bids with alternate offers without separate purchase receipts (Original) are suppose to be rejected.
 - 2.7 The bidder shall confirm the refund of cost difference if the same goods is/was supplied at lower rates to any other Govt./Semi Government institution or Armed Forces in the province or out side in the same fiscal year.
 - 2.8 The Bid shall comprise a single package containing two separate envelopes. Each envelope shall contain separately the financial proposal and the technical proposal.
 - 2.9 The envelope shall be marked as " **FINANCIAL PROPOSAL** " and " **TECHNICAL PROPOSAL** " in bold and legible letters to avoid confusion.
 - 2.10 Initially, only envelope marked as " **TECHNICAL PROPOSAL** " shall be opened.
 - 2.11 The envelope marked as " **FINANCIAL PROPOSAL** " shall be retained in the custody of the procuring agency without being opened.
3. **Purchaser's Right Vary Quantities at time of award.**

The Purchaser reserves the right to increase/decrease or delete the quantities of goods etc at the time of award of contract and also reserves the right to enhance the quantity by 25% of goods and services originally specified in the Schedule of Requirements without any change in unit price or other terms and conditions of goods at any time during the contract period. The purchaser reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to contract award, without thereby incurring any liability to the affected Bidder or bidders on the grounds for the Purchaser's action
4. **Notification of Award/Advance Contract:**
 - 4.1 Prior to the expiration of the period of bid validity the purchaser will notify the successful bidder in writing delivery by hand or by registered letter by cable to be confirmed in writing by registered letter that is bid has been accepted.
 - 4.2 The notification of award will constitute the formation of the contract.
 - 4.3 Upon the successful bidder furnishing of the performance security pursuant to Sr.No.1.1 of the instructions and Sr.No.3 of the advance contract the purchase will promptly notify each unsuccessful bidder and will discharge its bid security on receipt of bidder's request.
5. **Award of Contract & Contract Agreement**

Subject to the fulfillment of all codal formalities the purchaser will award the contract to the successful Bidder who's bid has been determined to be qualified to perform the contract satisfactory.
6. **Performance Security:**

The successful tenders will have to deposit with the purchaser 9% Security Deposits of the total value in shape of call Deposit / Pay Order same will be return after 02 year warranty period.

7 Criteria for evaluation of bids.

- a. Quoted prices.
- b. Specification compliance/preferred functions
- a. After sale service facility (In case of equipment)
- b. Operational cost (In case of equipment & Vehicle)
- c. Delivery schedule
- d. Authority letter from manufacturer
- e. Earnest money.

8. Fee for Award of Contract:

Service charges @ 0.25% of the value of the Contract will be realized/charged by the A.G. Sindh, while making payment to the contractors for award of each contract (If applicable).

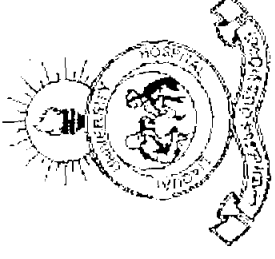
9. Undertaking:

- 9.1 That I/we agree whether our tender accepted for total partial or enhanced quantity for all or any single item. I/we also agreed to supply and accept the said item at the rates for the supply of contracted quantity with in the stipulated period shown in the contract.
- 9.2 I/we understand and confirm the refund of cost difference if the same goods is/was supplied at lower rates to any other Govt./Semi Govt. institution in the Province in the same fiscal year.
- 9.3 I/we undertake that, if any of the information submitted in accordance to this tender enquiry found incorrect our contract may be cancelled at any stage on our cost and risk.

CERTIFICATE

We guarantee to supply the stores exactly in accordance with the requirement specified in the invitation to this tender.

Signature of Tenderer.....
Name & Designation.....
Address.....
Income Tax.....
G.S.T No:.....
CNIC No:.....
(Photo Copies must be enclosed)



(Rs.2000/- Non Refundable)

LIAQUAT UNIVERSITY HOSPITAL, HYDERABAD / JAMSHORO
SUPPLY OF MACHINERY /EQUIPMENT FOR THE YEAR 2015-16

DUE ON 14 .04.2016

TENDER INQUIRY NO. 17/2015-16

Time of Receipt of Tender Form 29.03.2016 to 13.04.2016 upto 2.00 PM

Time of Submission of Tender Form 14.04.2016 at 11.30 A.M

Time of opening of Tender Form 14.04.2016 at 12.00 NOON

SINGLE PLANE CARDIAC ANGIOGRAPHY/INTERVENTIONAL SYSTEM.
FOR LIAQUAT UNIVERSITY HOSPITAL HYDERABAD

A fully digital flat panel single plane Cardiac Angiography / Cardiac catheterization system, dedicated for diagnostic & interventional cardiac procedures with the following minimum specifications and application softwares.

The quoted model must be latest and bidder must mention the number of systems installed worldwide and in Pakistan.
 The vendor must have sold angiography equipment in the province and submit letter of satisfaction of similar Angio systems installed by them regarding after sales service from three reputable public/private centers of Sindh.

S.NO. ITEM DETAILS - MODEL AND SPECIFICATIONS

Vendor to fill up this
Performa with verifiable
references from data sheet.
Please mention page
number of data sheet.

- 1. POSITIONING ARM: Frontal Arm Stand.**
- 1.1 The system should be floor mounted with capability to do head side and toe patient imaging. Without repositioning of Patient.
- 1.2 Real time display of rotation angulations.
- 1.3 Geometry: C-arm / G-arm
- 1.4 RAO / LAO +/- 105 ° or more.
- 1.5 Cranial / Caudal: Min. +/-45° In all detector positions
- 1.6 Rotation Speed: 20°/sec or more in LAO / RAO.
- 1.7 Isocentric Height: Variable / Fixed.
- 1.8 Auto Positioning: Programmable auto positioning of selected.
- 1.9 Angulations, (30 or more) programmable positions.)
- 1.10 The control panel can be mounted at any side of the patient table.
- 1.11 All the rotational / angles should be digitally displayed
- 1.12 Motorized / manual parking / rotation of the positioning arm.
- 1.13

2. DIGITAL FLAT PANEL DETECTOR 8 x 8 INCH

- 2.1 Single plane C-Arm / G-Arm
- 2.2 Image matrix of 1024 x 1024 x 14 bits or more.
- 2.3 Standard cardiology size with three formats.
- 2.4 Built in temperature stabilizer.
- 2.5 Integrated collision protection feature.
- 2.6 All other standard accessories according to this digital flat panel.
- 2.7 Dose management with fluoro filters range of 0.1/0.2mm to 0.9/1.0 mm Cu
- 2.8 Pixel Size of 200 um or better.
- 2.9 Removable grid for pediatric application.

3. PATIENT SUPPORT/ TABLE:

- 3.1 Catheterization Table
- 3.2 Floor mounted with up/down, longitudinal and transverse movements

3.3	Original table from manufacturer
3.4	Longitudinal Stroke: 1000-1500 mm
3.5	Lateral stroke: 100-300 mm
3.6	CPR in any table position.
3.7	All table side movement controls.
3.8	Table top should be of such construction in material and durability to accept patient's weight of not less than 150 kg plus 100 kg for resuscitation.
3.9	Table dimensions should be able to accommodate patients of all ages.
3.10	Table top should have large metal free over hang for un-obstructed imaging coverage.
3.11	Complete accessories should be provided including arm holder.
3.12	Hand grip, arm support and arm rest and positioning aids.
3.13	Left / right table pivoting: + / - 90 degree.
4.	X-RAY TUBE:
4.1	Dual / Triple focus with at least 3.0 MHU or better anode heat storage.
4.2	Large Capacity to enable continuous heat dissipation during serial exposure. Tube power should be same as generator power i.e. 100kw.
4.3	Rotating anode bearing less liquid metal technology tube.
4.4	Focus 0.4, 0.6 and 1.0 mm or similar
4.5	Dose management with auto adjustment fluoro filters.
5.	X-RAY GENERATOR:
5.1	Microprocessor based high frequency using fiber optic for data communication between each imaging system.
5.2	Dedicated X-Ray generator of 100KW.
5.3	Radiographic rating minimum 1000mA.
5.4	Serial filming exposures with shortest exposure of 1ms, with automatic kV and mA control for optimum image quality.
5.5	The system should have capability of digital radiography and fluoroscopy.
5.6	Should have capability of doing digital pulsed fluoroscopy at 10/2.5/15 frames and 25/30frames per second.
5.7	Automatic kV, mA & pulse width regulations.

6. DIGITAL IMAGING AND ACQUISITION / FLUOROSCOPY:

- 6.1 Digital system.
- 6.2 Acquisition, storage and display in 1024 x 1024 x 12 bits or more at 12.5 / 15 and 25/30 FPS and 512 x 512 at 60 FPS for pediatric work.
- 6.3 Parallel processing capability / multitasking facility.
- 6.4 Real time filtering and road map function.
- 6.5 Magnetic Disk Capacity for Storage of 100,000 images in 1024 x 1024 on the magnetic disk of main console.
- 6.6 Minimum scene length to be 10 seconds in 1024 matrix.
- 6.7 Digital pulsed fluoroscopy with 12.5 / 15 and 25 / 30 FPS in 1024 x 1024 x 10 bits or more.
- 6.8 Images to be stored on and retrieved from archival disks for possible manipulation and quantification using available software packages.
- 6.9 Rotational Digital Angiography package

7. MONITORING SYSTEM:

- 7.1 19 Inch x 2 LCD/LED Monitors should be ceiling mounted in the operation room with the original ceiling suspension system.
- 7.2 Above monitor should have DVI Digital input from angio system
- 7.3 Two monitors for live images and road mapping in the control room 18 inch or larger LCD/LED.
- 7.4 All the monitors will be of Medical Graded, complied with international standards for medical monitors.

8. RECORDING / ARCHIVING & COMMUNICATION SYSTEM:

- 8.1 Recording / archiving system should be DICOM-3 compatible.
- 8.2 The digital images should be stored as backup on CD/DVD
- 8.3 DICOM (send/storage, commitment, retrieve/query)
- 8.4 Ethernet connection to connect with other terminals.
- 8.5 Integrated Intercom system.

9. SOFTWARE / HARDWARE PACKAGES:

- 9.1 Complete analysis package for the following cardiac applications.
- 9.2 Dynamic pre and post PTCA / valvotomy comparison with one image live and other reference.
- 9.3 Automatic loop replay after acquisition or fluoroscopy.
- 9.4 Dynamic real time pan / zoom

9.5	Dynamic real time digital image processing like edge enhancement or gamma correction, noise reduction (spatial filtration.)
9.6	Roadmap facility
9.7	Simultaneous display of fluoroscopy and reference images, not only as static images but as dynamic loop.
9.8	Multitasking capability
9.9	Online image density (gray scale) correction.
9.10	Facility to review previous studies in the examination room from the patients old CD.
9.11	Automatic positioning of the C-Arm corresponding to reference image.
9.12	Store floro facility to store fluoroscopy.
9.13	Stent visualization system latest version by the company.
10.	SURGICAL SHADOW LESS LIGHT:
10.1	Ceiling suspended LED arm, for Angiographic and surgical procedures.
11.	RADIATION PROTECTION:
11.1	Ceiling suspended tiltable lead glass for radiation protection of operators head & neck regions and lower body parts.
11.2	+Collision tolerant.
11.3	Lower body radiation protection flap.
12.	ACCESSORIES OF ANGIOGRAPHY SYSTEM:
12.1	PHYSIOLOGICAL HEMODYNAMIC MONITORING SYSTEM: Multichannel for 2 channels IBP, Cardiac output with thermo dilution method. 12 lead ECG, and
12.2	Digital display of all the parameters like IBP, Heart rate, cardiac output parameters.
12.3	Pulse oximeter probe
12.4	Two invasive blood pressure transducer with disposable transducer domes.
12.5	Interface with angio system
12.6	One Complete 12 lead ECG Cable set
12.7	Cardiac Output (01-No)
12.8	Fully programmable latest model contrast medium injectors with volume and flow control and facility of contrast medium.

13 OTHER ACCESSORIES FOR ANGIOGRAPHY SUITE

13.1 CPS -120 KVA or more sine wave online with battery bank to support whole system and accessories with atleast 15 minutes back up

13.2 Defibrillator

13.3 Lead aprons (06)

13.4 Lead goggles (06)

13.5 Thyroid protectors (06)

13.6 Lead gloves (06) pairs

13.7 Lead glass window of size 5' x 2.5 feet

13.8 Shielding / lead lining in the doors/walls of Angio room including paneling up to international Standard will be the responsibility of vendor along with complete interference free installation and its surroundings to ensure artifacts free examinations including Air Conditioning.

14. QUALITY & SAFETY STANDARDS / RADIATION PROTECTION:

14.1 Knockout clause : Main angiography system should have FDA 510K approval & or MDD (CE) compliance and country of manufacturing of this unit should be USA, Europe, Japan.

15. TRAINING / APPLICATION SPECIALIST

15.1 Training of Operator for one week at site

15.2 Application training on system to doctors

16. INSTALLATION AND COMMISSIONING

16.1 The contracting firm will install complete system including all accessories within three to four months starting from date of establishing LC.

16.2 Vendor will be responsible for required DB, earthing, main switchboards and complete electric wiring and cabling.

16.3 Manufacturer and supplier shall be responsible for rectifying with all possible speed at their own expense and manage any defect or fault in the system developing at any time during installation and commissioning period.

17. WARRANTY & POST WARRANTY AGREEMENT & MAINTENANCE CONTRACT:

17.1 Warranty period shall be of 3 years starting from date of commissioning, covering services and all parts including X-ray tube (unlimited exposures in 3 years). Detector, software, purchased non

	<p>proprietor & optional items, machine accessories like UPS, Injector, etc. Warranty should come from the manufacturer; local agent warranty is not acceptable and vendor should submit proof of manufacturer warranty. This is a knockout clause. Price for further 5 year annual service be quoted separately. Lowest of this will be awarded contract</p>
17.2	A certificate shall be produced by the manufacturer guaranteeing availability of a certified and trained engineer atleast in Karachi for atleast TEN YEARS to be immediately available on site, should any need arise.
17.3	Maintenance of the machine / equipment during the whole period of warranty shall be responsibility of the vendor, failing which, the vendor will have to pay down time penalty as indicated in terms and condition.
17.4	An annual optimal uptime of 95% is considered as acceptable level of performance. Uptime shall be defined as time available to user for doing data acquisition and processing during working hours of six days a week throughout the year.
17.5	Manufacturer / supplier will guarantee the availability of spare parts and accessories for the system for at least ten years.
17.6	Manufacturer / supplier shall check system performance during and after every two months. Planned Preventive repair and maintenance time will not be considered as downtime.
17.7	Vendor will mention the rate of service charges with and without parts for the complete system, after the expiry of 3 years warranty period on yearly basis along with the bid in USD. This should also include price of X-ray tube, detector, and the cost of major breakable / replaceable parts for 4 th to 10 th year of contract.
17.8	Manufacturer / supplier should also confirm that in event of the services costs falling or reducing in line with the manufacturer policy worldwide due to technical innovations or other reviews, they will reduce the maintenance cost accordingly.
17.09	Up-gradation of computing system / FMIS should be carried out as available during warranty period as desired by end user for console and workstation and after warranty within the maintenance agreement cost.
17.10	Up-gradation of computing system / FMIS should be carried out as available during warranty period as desired by end user for console and workstation and after warranty within the maintenance agreement cost.

18. OPTIONAL ITEMS:

- 18.1 System Up gradation to higher version should be indicated if provided by manufacturer
- 18.2 Any additional option available with each manufacturer may be offered as optional

19.	COST
19.1	Cost on C&F and FOR basis
19.2	Liaquat University Hospital reserves the right to demand a brand new machine in replacement if at any stage it comes to light that the supplied machine, or any part, or component, or accessories thereof, were not brand new.

OR Equivalent

(USA/EEC/Japan)

The following are the knockout clauses and the firms not fulfilling these clauses will not be considered.

- The quoted Equipment must be manufactured in USA, EUROPE OR JAPAN only.
- The Angiography must comply with 510(K) FDA (Food & Drug Administration), and European MDD (Medical Device Directive) and Japanese MHLW (Ministry of Health, Labour & Welfare) for specific quoted model.
- The firm must quote their latest and leading brands from the above mentioned origins with the proven past performance nationally and Internationally. The firm must possess its related back-up support services including trained Engineers, Workshop facilities, Spare Parts availability and Repair / Calibration tools etc.
- The quoting firm should have proper infrastructure to handle and execute the complete package with previous experience of Angiography system.
- The quoting firm must have installed at-least 3 units of the similar Angiography Systems in Pakistan and must bring satisfactory recommendation letters from at-least 3 local users alongwith installation certificates.
- The firm must have sole agency from manufacturer and must have an established track record of Angiography Government supplies of over 03 years.
- Liaquat University Hospital, Hyderabad / Jamshoro can accept or reject any bid as per SPPRA rules.
- Extra items may be offered which will be evaluated accordingly.

Warranty

The tenderers must quote for 5 years onsite warranty from the date of completion of the satisfactory installation as certified by the end user. The Warranty charges shall not be quoted separately otherwise the offer shall be summarily rejected.

Bidders will provide a certificate from the original manufacturer that they will stand responsible and fulfill the contractual responsibility in case of change, or liquidation, of present local agents.

Also the Bidders should submit their quote for subsequent 5 years on site comprehensive maintenance contract (CMC) (include free labour, repair, other services & spare parts).

Failure to comply this condition will entail the rejection of the Bids.

The price comparison shall be made taking into account on basic price and post warranty CMC.

The Rate Contracting Authority reserves the right to award CMC.

The amount of CMC would be released to the supplier on successful completion of the maintenance of that particular year duly certified by the user department.

Service

The supplier will ensure regular maintenance service by the appropriate engineer certified by the manufacturer having the technical know-how of the equipment.

Maintenance

As the cost of the equipment is more than Pak Rs. Five Lakhs, the supplier has to include in the bid a comprehensive maintenance contract with the purchaser for five years after the lapse of mandatory warranty period. Without this tender will be considered incomplete and summarily rejected.

The supplier shall ensure quality maintenance / check service of minimum 4 times a year in addition to the calls that might be raised by the user department.

- Non-compliance of any of these conditions or any of the conditions mentioned in the document renders the purchaser to blacklist the supplier along with appropriate legal actions.

Downtime penalty Clause

- During the Guarantee/warranty period, desired uptime of 95% of 365 days (24 hrs) if downtime more than 5% the institute shall be entitled to impose penalty equal to amount of 0.05% of the total cost of the equipment per day for the first seven days will be payable by the vendor which will be doubled on subsequent weeks along with extension of warranty period to further five years by the excess down time period i.e. more than 10%.

The vendor must submit an undertaking from the original manufacturer guaranteeing supply of all spares for optimal upkeep of the equipment for at least TEN YEARS after commissioning of the unit in the department.

Solvency & Liquidated Damages

Vendor will submit a certificate from the original manufacturer, duly endorsed and authenticated by the embassy/consulate in Pakistan that in case of Liquidation of vendor or change of dealership in TEN YEARS from date of commissioning of the merchandise, the manufacturer will be responsible to honour the CMC and AMC directly or through a third party.

If the supplier fails to deliver any or all of the goods or fails to perform the service within the time frame(s) incorporated in the tender, the Purchaser shall, without prejudice to other right and remedies available to the Purchaser under the tender, deduct from the quoted price, as liquidated damages, a sum equivalent to 0.5% per week of delay or part thereof on delayed supply of the quoted price. Once maximum 10% of value of delayed supply is reached, Purchaser may consider termination of the tender.

FORCE MAJEURE:

If, at any time during the subsistence of this contract, the performance in whole or in part by either party of any obligation under this contract is prevented or delayed by reasons of any war or hostility, act of public enemy, civil commotion, sabotage, fire, floods, explosion, epidemics, quarantine restriction, strikers lockout or act of God (hereinafter referred to as events) provided notice of happening of any such eventuality is given by party to other within 21 days from the date of occurrence thereof, neither party shall be liable for such event but entitled to terminate this contract nor shall either party have any claim for damages against other in respect of such non-performance or delay in performance, and deliveries have been.

If the performance in whole or in part of any obligation under this contract is prevented or delayed by reason of any such event for a period exceeding 60 days, Liaquat University Hospital Hyderabad, party may, at least option to terminate the contract.

Insolvency etc.:

In the event of the firm being adjudged insolvent or having a receiver appointed for it by a court or any other order under the Insolvency Act made against them or in the case of a company the passing any resolution or making of any order for winding up, whether voluntary or otherwise, or in the event of the firm failing to comply with any of the conditions herein specified. Laiquat University Hospital Hyderabad shall have the power to terminate the contract without any prior notice.

Breach of Terms and Conditions:

In case of breach of any terms and conditions as mentioned above, the Competent Authority, will have the right to cancel the work order/ job without assigning any reason thereof and nothing will be payable by Laiquat University Hospital Hyderabad. In that event the security deposit shall also stand forfeited.

Subletting of Work:

The firm shall not assign or sublet the work/job or any part of it to any other person or party without having first obtained permission in writing of Laiquat University Hospital Hyderabad, which will be at liberty to refuse if it thinks fit. The tender is not transferable.

One tenderer shall submit only one tender.

Tenderer must provide evidence of having supplied to at least 3 reputed government / reputed private organizations in Sindh including at least one government institution & at least 1/3 contract value in the last three years.

Tenderer must provide certificates from the end users of these institutions of satisfactory provision of after sale service.

The demonstration of the equipment forms an essential part of the tender. The bidder has to arrange for the demonstration of the equipment with no financial assistance from.

Provision of Operating and Service Manual in ENGLISH language is mandatory without which the product will not be accepted.

Vendors have to provide certificate from original manufacturer that the equipment is fresh, and a brand new piece.

Hospital reserves the right to forfeit the equipment, demand a brand new replacement and initiate criminal proceedings against the vendor should it at any stage discover that, used or refurbished product was supplied

N.B: -

- 1 Sole agent Certificate / Authority letter from the manufacturer must be provided by the bidder.
- 2 The supplier will be bound to train nominated technical personnel to operate and for repair and maintenance of supplied equipment.
- 3 Joint inspection will be carried out by consignee representative / End User, and Director Bio-Medical Govt. of Sindh or his representative.
- 4 Guaranteed presence of manufacturer's trained service engineer in Karachi.
- 5 Presence of manufacture's engineer and application specialist during commissioning phase.

DELIVERY PERIOD: VALIDITY:

General Conditions & Instructions:

- 1.1 The tenders shall be submitted with all documents and drawing literature & catalogue (in equipment) in sealed envelopes, with sealing wax. The envelope must contained tender enquiry No. on the top. The name of manufacturer and the supplier should be affixed on the face of envelope at the left side.
- 1.2 Tenders must be filled in with blue or black ink in the columns provided/on separate letter Head duly signed.
- 1.3 The tenders must be free from erasing cutting and over writing. In case of erasing, cutting and over writing, authorized person should initial it.
- 1.4 The rates of each item should be written in figures as well as in words. In case of discrepancy the price in works will be taken as authentic and final.
- 1.5 Conditional Tenders will be ignored and will not be considered/entertained/accepted.
- 1.6 Tenders from shall be accompanied by Earnest Money @ 2.5% of the value of stores quoted by them in form of call Deposit / pay order.
- 1.7 Original purchase receipt must be enclosed with their offer
- 1.8 The tendered rate should be inclusive of all taxes, Income & Sales Tax etc payable to Federal & Provincial Govt or Local bodies and no claims on this account shall be entertained.
- 1.9 The bidder shall furnish General sales tax (GST) Registration Certificate of the firm failing which the offer will be ignored. In case the item is exempted from GST either documentary evident or certificate from competent authority shall be attached with the offer.
- 1.10 The bidder shall furnish copy of NTN Certificate.
- 1.11 The bidder shall furnish copy of valid professional Tax (Excise & Taxation)Certificate
- 1.12 The bidder shall furnish an affidavit on non-judicial stamp paper of Rs. 100/- that the firms is not black listed in any Govt Depatt.
- 1.13 The bidder shall furnish minimum three years experience in relevant field with documentary proof.
- 1.14 The bidder shall furnish minimum Ten Million Turn over with Bank Certificate.
- 1.15 The bidder shall furnish three years Income Tax Return Certificate.
- 1.16 The bidder shall furnish photocopy of call deposit without showing amount in technical bid and original with financial envelope.
2. **SPECIAL CONDITIONS:**
- 2.1 Store is required immediately. The tenders may, however, give their short guaranteed delivery period by which the supply will be completed positively.
- 2.2 Tenders are required to specify make, country of origin and furnish detailed technical Description literature / catalogue along with their offer.
- 2.3 The Bidders shall quote their firm and final price both in figures & words on "Free Delivery basis to Consignee end.
- 2.4 Also choice to select/ignore any their alternate offers shall rest with the purchaser.
- 2.5 No manufacturer shall authorize their distributor/agent/any firm or person to quote the same item which manufacturer is quoting it self in any tender. Failing that offers of both the manufacturer, which the manufacturer as well as other bidder shall be ignored.

- 2.6 Tenders shall purchase separate tender documents and furnish purchase receipts for each alternate offer in case they want to submit alternate offer for any items. All the bids with alternate offers without separate purchase receipts (Original) are suppose to be rejected.
- 2.7 The bidder shall confirm the refund of cost difference if the same goods is/was supplied at lower rates to any other Govt./Semi Government institution or Armed Forces in the province or out side in the same fiscal year.
- 2.8 The Bid shall comprise a single package containing two separate envelopes. Each envelope shall contain separately the financial proposal and the technical proposal.
- 2.9 The envelope shall be marked as “**FINANCIAL PROPOSAL**” and “**TECHNICAL PROPOSAL**” in bold and legible letters to avoid confusion.
- 2.10 Initially, only envelope marked as “**TECHNICAL PROPOSAL**” shall be opened.
- 2.11 The envelope marked as “**FINANCIAL PROPOSAL**” shall be retained in the custody of the procuring agency without being opened.
3. **Purchaser’s Right Vary Quantities at time of award.**
The Purchaser reserves the right to increase/decrease or delete the quantities of goods etc at the time of award of contract and also reserves the right to enhance the quantity by 25% of goods and services originally specified in the Schedule of Requirements without any change in unit price or other terms and conditions of goods at any time during the contract period. The purchaser reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to contract award, without thereby incurring any liability to the affected Bidder or bidders on the grounds for the Purchaser’s action
4. **Notification of Award/Advance Contract:**
4.1 Prior to the expiration of the period of bid validity the purchaser will notify the successful bidder in writing delivery by hand or by registered letter by cable to be confirmed in writing by registered letter that is bid has been accepted.
4.2 The notification of award will constitute the formation of the contract.
4.3 Upon the successful bidder furnishing of the performance security pursuant to Sr.No.1.1 of the instructions and Sr.No.3 of the advance contract the purchase will promptly notify each unsuccessful bidder and will discharge its bid security on receipt of bidder’s request.
5. **Award of Contract & Contract Agreement**
Subject to the fulfillment of all codal formalities the purchaser will award the contract to the successful Bidder who’s bid has been determined to be qualified to perform the contract satisfactory.
6. **Performance Security:**
The successful tenders will have to deposit with the purchaser 9% Security Deposits of the total value in shape of call Deposit / Pay Order same will be return after 02 year warranty period..
7. **Criteria for evaluation of bids.**
a. Quoted prices

- b. Specification compliance/preferred functions
 - a. After sale service facility (In case of equipment)
 - b. Operational cost (In case of equipment & Vehicle)
 - c. Delivery schedule
 - d. Authority letter from manufacturer
 - e. Earnest money.

8. **Fee for Award of Contract:**

Service charges @ 0.25% of the value of the Contract will be realized/charged by the A.G. Sindh, while making payment to the contractors for award of each contract (If applicable).

9. **Undertaking:**

- 9.1 That I/we agree whether our tender accepted for total partial or enhanced quantity for all or any single item. I/we also agreed to supply and accept the said item at the rates for the supply of contracted quantity with in the stipulated period shown in the contract.
- 9.2 I/we understand and confirm the refund of cost difference if the same goods is/was supplied at lower rates to any other Govt./Semi

Govt:

institution in the Province in the same fiscal year.

- 9.3 I/we undertake that, if any of the information submitted in accordance to this tender enquiry found incorrect our contract may be cancelled at any stage on our cost and risk.

CERTIFICATE

We guarantee to supply the stores exactly in accordance with the requirement specified in the invitation to this tender.

Signature of Tenderer.....

Name & Designation.....

Address.....

Income Tax _____

G.S.T No: _____

CNIC No: _____

(Photo Copies must be enclosed)