

TENDER NOTIFICATION

FOR

NAME OF WORK:

COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT OF MODULAR OPERATION THEATERS.

(Qty. -02 Nos.)

(a) **Last date for submission of tender: 08 / 07 / 2016 up to 4:00 PM**

(Tender will be received in the Institute only through speed/registered post / courier.)

(b) **Tender Document Cost: Rs. 1, 000/- (non refundable).**

(c) **Earnest Money Deposit: Rs. 1, 00, 000/- (One Lakh Only).**

X-----X-----X-----X-----X-----X-----X-----X-----X-----X

Sealed tenders in **two bid system (Part-A Technical bid and Part-B Financial bid)** are invited from competent and eligible firms/contractors/agencies having requisite experience in supply/installation/repair/maintenance of Modular Operation Theatres. The tender document may be downloaded from the institute website-www.igims.org. The duly filled tender document will be received in the Institute by **Speed post/Regd. Post / Courier only till 08 / 07 / 2016 up to 4:00 P.M.** Technical bid & financial bid should be kept separately in a sealed envelope. Earnest Money deposit and tender document cost will be kept in technical bid envelope. All two envelopes will be sealed in a single larger envelope. The tender Notice no. and name of the work must be superscribed on the top of the larger envelope. The tender document cost & earnest money will be in the shape of Demand draft, valid for minimum 90 days, in favour of "The Director, I.G.I.M.S. - Patna" payable at Patna (Bihar), Technical bids will be opened in the presence of authorized representatives of the bidders at 11:00 am on the next day of the last submission date of the tender in the Conference Hall of the Institute. Date for opening of financial bids will be communicated to all the technically qualified bidders through Mobile / E-Mail after technical evaluation of the received bids. If last date of the tender submission is observed as holiday, the next working day will be treated as last date. In case of any legal dispute, the legal jurisdiction shall be court of law, Patna (Bihar). Director reserves the right to cancel the tender without assigning any reason. The Institute will not be responsible for any postal delay.

1- General Terms & Conditions

- i. The tenderer submitting his tender would be deemed to have considered and accepted all the terms and conditions of tender.
- ii. Any tender received after the prescribed date and time in the Notice Inviting tender will be rejected.
- iii. The tenders shall remain valid for a period of 120 days from the date of opening of tender.
- iv. The incomplete tender in any respect or not complying with the terms and conditions are liable to be summarily rejected.
- v. The tender should be submitted in prescribed format. The tender not submitted in prescribed format is liable to be rejected.
- vi. The successful tenderer OR his worker shall have to follow the instructions given to him from time to time by the Competent Authority of the Institute and violation of which may result in cancellation of the contract.
- vii. The successful tenderer shall pay compensation for any loss or damage of property of the Institute/ Patients caused by his workers.

- viii. The successful tenderer shall comply with all instructions/ direction /rules and regulations of any statutory authority and discharge all obligations, imposed upon him by the statutory authorities or under any law and shall indemnify the Institute and officers/ employees from any claim or consequences/ damages for any lapse or non compliance thereof.
- ix. The successful tenderer will be responsible for any accident or mishap or death of workers engaged by him and any claim made on this account will be paid by the successful tenderer, the successful tenderer will also indemnify the Institute from any claim in this regard.
- x. The workers of the successful tenderer shall not be treated as employees of the Institute in any case and successful tenderer will be solely responsible for their affairs and will be under obligation to comply with the statutory obligations.
- xi. The successful tenderer will have to abide by the Minimum Wages Act and other statutory labour laws, rules and regulation as applicable in the state of Bihar. Any liability arising on the Institute as principal employer shall be deducted from the bills of the tenderer and from the security money.
- xii. The tenderers are suggested to carefully go through the terms and conditions of the document before offering his/ their rates.
- xiii. The tenderers are also advised to take a visit and see the entire operation theaters at the Institute during working hours to know installed items in operation theaters and make enquiry with Senior Bio-Medical Engineer of the Institute, before tendering.
- xiv. If the successful tenderer fails to start the work in stipulated time as per award letter/ acceptance letter of the Institute, the award letter/ acceptance letter may be cancelled and EMD may be forfeited.

2- **INSTRUCTION FOR PART A - TECHNICAL BID:**

- i. Earnest Money Deposit (EMD) of Rs. 1, 00, 000/- (Rs. One Lakh Only) in the form of Bank Draft of any nationalized bank/ scheduled bank in the name of The Director, I.G.I.M.S. – Patna payable at Patna (Bihar) should be enclosed with tender.
- ii. Copy of Service tax registration certificate, Trade tax registration, PAN no. and Income tax return of the last three years, should be enclosed with tender.
- iii. An affidavit duly certified by a Notary that the firm / company is not blacklisted, should be enclosed with tender.
- iv. An affidavit duly certified by a Notary that firm / company is not convicted or punished by any Hon'ble Court of Law, should be enclosed with tender.
- v. The tenderer must duly sign each page of the technical bid including all enclosures.
- vi. The tenderer must duly sign complete downloaded tender document, this should be enclosed with tender.
- vii. The tenderer shall submit the complete information on the format-1(Part A-Technical Bid), attached with tender document.
- viii. Authorized person should only sign the tender.
- ix. The tenderer shall enclose the Proof of **having minimum three years experience in the field of maintenance of modular & non modular operation theaters in Govt. Hospitals / reputed corporate Hospitals.**
- x. The firm should have minimum annual turnover of Rs. 50.00 lacs (Rupees fifty lacs) in each year of last three years.
- xi. The firm should enclose balance sheet for the last three years duly certified by a Chartered Accountant.

3- INSTRUCTION FOR PART B - FINANCIAL BID:-

- i. Rate should be quoted according to Format-II enclosed with tender document. Financial bid will be sealed in separate envelop.
- ii. Detailed list of items and its specifications available in each Modular Operation Theatre is attached as Annexure – III for references.
- iii. The tender should be clearly filled in ink legibly or type written. The tenderer should quote in figure as well as in words, the rates, and amount tendered by him. Cutting if any unless legibly attested by the tenderer with his full signature shall invalidate the tender.

4- EARNEST MONEY:-

Earnest money of Rs. 1, 00, 000/- shall be paid in the shape of Bank Draft of a nationalized/ scheduled bank, valid for minimum three months, in name of The Director, I.G.I.M.S. – Patna, payable at Patna (Bihar) should be enclosed with Technical Bid of the tender. The earnest money will be refunded to unsuccessful bidders within three month of finalization of tender.

5- PERFORMANCE GUARANTEE / SECURITY: -

10% of the annual contract value shall be submitted by the Successful Tenderer as a performance security deposit in the form of Bank Guarantee/F.D.R. of any nationalized/ scheduled bank pledged in favour of The Director I.G.I.M.S. – Patna within 07 days from the receipt of letter of award of bid. This should be valid for the whole contract period. On each renewal of contract, Bank Guarantee shall be renewed accordingly. The Institute shall be entitled to claim/adjust any due amount from the said security deposit.

6- SCOPE OF WORK:-

- i. There are **2 (Two) nos. of Modular Operation Theaters** in Diagnostic Block (1st Floor) of the Institute.
- ii. The items covered under this contract shall be repaired, rectified or replaced on site as and when required. The cost of the genuine/ original spares and consumables like rubber/PVC pipes, bulbs, Hepa Filters. Micro Filters, Battery of UPS etc. required for maintenance, shall be borne by the successful tenderer.
- iii. The place of maintenance of the equipments will be inside the Institute. In the event of any major break down, when repairs cannot be carried out at the Institute, the defect will be got rectified at any service center, as the successful tenderer may think proper after approval of the authorized officials of the Institute but dismantling, packing, forwarding, transportation and insurance charges etc. if any would be borne by the successful tenderer.
- iv. The successful tenderer will ensure the preventive maintenance of all the equipment and accessories as per the schedule of the manufacturer of the equipment. In case schedule for any of the equipment is not available, the maintenance work will be carried out as per discussion with Engineer In charge/ Nodal Officer of the Institute.
- v. The successful tenderer will attend all type of minor or major breakdown within 24 hours.
- vi. A sufficient quantity of spares/consumables for maintenance should be kept at site to minimize time of maintenance. As far as possible, all spares/consumables parts shall be of same make & type as installed OR equivalent.
- vii. The successful tenderer will depute one skilled personnel. He will visit operation theaters daily and will receive

complaints. He will take immediate action to remove the complaints and if he is unable to remove complaint, then he will intimate to successful tenderer immediately. The successful tenderer will arrange to remove complaint by sending other skilled personnels.

- viii. The successful tenderer will provide mobile phone to his skilled personnel to attend any telephonic complaint immediately. He will maintain record of daily complaints.
- ix. For any type of maintenance/repair, if shutdown is required, then permission of shutdown period form Institute will be obtained properly by the successful tenderer.
- x. If some items are added in operation theaters in future, after tendering, then maintenance cost for these added items, will be decided by mutual discussion between Institute and the successful tenderer.

7- PERIOD:-

- i. The period of the work will be of three years. Initially the tender will be awarded for a period of one year and it will be extendable/renewable for next years, the price escalation in renewal of the contract for another two years will be considered as per money inflation rates (price index) of RBI. The renewal will be on the receipt of satisfactory performance report and recommendation for the same from Engineer In charge/ Nodal Officer.
- ii. Contractor/ Successful tenderer cannot stop working without giving notice of not less than three months and the successful tenderer will continue working till proper arrangement is made by The Institute, even after expiry of three months.

8- PAYMENT:-

- i. The payment will be made quarterly on presentation of bill, after satisfactory work, on the recommendation of Engineer In charge/ Nodal Officer.
- ii. Financial rules will be followed.

9- SETTLEMENT OF DISPUTE AND ARBITRATION:-

- (i) If any dispute or difference arises between the parties relating or concerning to interpretation of the contract or any alleged breach thereof of any matter relating to this contract, the same shall be settled by the parties as far as possible by mutual discussions and consultation between themselves, whether the same has arisen during the subsistence of this contract or thereafter.

In the event of any dispute or differences arising in connection with this tender whether during the subsistence of the contract or there after not being settled in aforesaid manner, the matter shall be referred to The Director, I.G.I.M.S. - Patna, whose decision shall be final and binding on both the parties. The proceedings before the arbitrator would be governed by the provision of the **CONCILIATION AND ARBITRATION ACT, 1996**.

- (ii) The Courts of Patna (Bihar) shall have exclusive jurisdiction in all matters arising out of this tender.

10- TAXES AND DUTIES:-

The rate of comprehensive Annual Maintenance work should be inclusive of all taxes and other charges. However, any change whether increase/decrease in Vat/Service Tax rates etc. will be considered by the Institute.

11- PENALTY:-

- i. If there is complaint in O.T., but O.T. is functional and under use, then time allowed to remove complaint will be 72 hours. If complaint is not removed in 72 hours, then penalty of Rs. 5, 000/- per day shall be imposed on the successful tenderer.
- ii. If complaint is not removed and O.T. becomes Non functional, then the penalty of Rs. 10, 000/- per day will be imposed on the successful tenderer, from the date of being O.T. non functional.
- iii. If complaint persist long time, then Institute may forfeit security money and may cancel the contract after giving show cause notice to the successful tenderer.

12- **STAMP DUTY:-**

Stamp duty leviable on agreement to be executed between the Institute and successful tenderer shall be borne by the successful tenderer.

13- **TERMINATION OF CONTRACT:-**

Either party shall be entitled to terminate the contract with three full calendar months notice in writing to the other party. However, the successful tenderer shall have to carry on services even after the expiry of said period till alternative arrangement is made by the Institute.

14- **TERMINATION OF AGREEMENT:-**

After giving opportunity of being heard to the successful tenderer, Institute may terminate/ cancel the agreement forthwith on the following grounds:-

- i. Breach of anyone or all terms and conditions of agreement.
- ii. Non-performance or unsatisfactory performance of work.
- iii. Any documents or information furnished by the successful tenderer is found forged or fabricated at any time.

15- **Special Terms & Conditions:**

- a. During Comprehensive Annual Maintenance Contract, bidder shall provide at least **four maintenance visits per year** at regular interval for usual maintenance and supervision. If bidder fails to provide these maintenance visits at regular interval per year, a proportionate deduction in the form of penalty at the rate of 25% of contract amount per year will be deducted.
- b. During Comprehensive Annual Maintenance Contract, **bidder** will make the “**Complete System**” (as described in Annexure – I) in satisfactory working condition. In case, any spare parts, accessories, PCB, all type of consumables etc. needs replacement due to normal wear and tear, **bidder** will supply and install the same for which no additional payment is to be made. **.If any spares / consumables / accessories etc. are not covered under Comprehensive Annual Maintenance Contract charges; it should be clearly mentioned with frequency of replacement and with rate. The validity of rate of such items should also be mentioned clearly. What will be the rate of escalation on the quoted rate after expiry of the validity of rate of such item must be mentioned.**
- c. In case, the **bidder** is not able to provide services (and the items / accessories is not functioning as the reason thereof) due to natural calamity (act of God), Political unrest, Riot and fire at the user site, then in such a situation the Comprehensive Annual Maintenance Contract will be extended by the period for which the item / accessories could not be operated because of supplier not been able to provide services.
- d. The offered warranty & Comprehensive Annual Maintenance Contract period should includes:
 - The selected agency shall Check air quality, maintenance and replacement of HEPA Filters whenever required during the Comprehensive Annual Maintenance Contract period.
 - Shall do Testing & calibration as per technical/service/operation manual of the manufacturer or as per the period specified or as per the demand of the user institute.
 - Quality Assurance tests (if applicable).
 - The Supplier / fabricator of the Modular OT will have to give a written undertaking that it will be his responsibility to test and maintain all the equipment (during CAMC) which is fitted in the OT facility and this will include air quality inside the OT and periodic maintenance of the HEPA filters and other maintenance & checks of the Laminar flow system, scrub stations, Automatic door systems, OT Control Panel systems, X-Ray Viewing Systems, Peripheral Lighting, etc.

16. Technical bid shall be accompanied with following statement of affirmation.

ACCEPTANCE

I.....son of.....resident of.....who is Proprietor/Partner/Director etc. of M/s have read and understood the contents of the foregoing paragraphs with sound mind and without any pressure from any quarter. If any document or information furnished with tender is found forged or fabricated at any time, the Institute has full right to terminate the tender/contract and forfeit my/our EMD and Security Deposit.

I am putting my signature and seal of the organization, as a token of acceptance to the above.

signature.....

seal.....

Format-I

PART A - TECHNICAL BID

NAME OF WORK:- COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT OF MODULAR OPERATION THEATERS.

S. No.	Particulars	Page No.	Details
1	Name of the firm/ company with office address, Telephone no., Fax no., E-mail etc.		
2	Name of the person with designation, who sign the tender document.		
3	Documentary proof of minimum THREE years experience in the field of maintenance of modular operation theaters. (Copy should be attached)		
4	a) Earnest Money :- Rs..... Bank Draft No..... Date: Banker's Name		
	b) Tender document cost:- Rs..... Bank Draft No..... Date: Banker's Name		
5	a. Service tax registration, (Copy should be attached) b. Trade Tax Registration, (Copy should be attached) c. PAN/TAN no. (Copy should be attached)		
6	Income tax return paper of last year. (Copy should be attached)		
7	An affidavit duly certified by a Notary that the firm or company is not blacklisted. (Affidavit should be attached)		
8	An affidavit duly certified by a Notary that the firm/company is not convicted or punished by Hon'ble Court of Law. (Affidavit should be attached)		
9	Balance sheets of last two years duly certified by the chartered accountant. (Copy should be attached, minimum annual turn over of Rs. Fifty lacs. in each year of last two years, is required)		

Signature of the Tenderer
With address and seal

PART B - FINANCIAL BID

NAME OF WORK:- COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT OF MODULAR OPERATION THEATERS

(Note:- L-1 will be decided according to Grand Total)

Description	O.T. Group	Annual Rate for one no. of Modular O.T. (including all taxes & other charges) for 1 st Year	Annual Rate for one no. of Modular O.T. (including all taxes & other charges) for 2 nd Year	Annual Rate for one no. of Modular O.T. (including all taxes & other charges) for 3 rd Year	Total Amount for Group (col. 3 + col.4 + Col5)
(1)	(2)	(3)	(4)	(5)	(6)
COMPREHENSIVE ANNUAL MAINTENANCE WORK OF MODULAR OPERATION THEATERS.	Modular Operation Theatres (Unit – 1)				
	Modular Operation Theatres (Unit – 2)				
Grand Total:					
Col (6) {Unit – 1 + Unit – 2}					

Signature of the Tenderer
with address and seal

Detail of Modular Operation Theaters**1. WALLS & CEILING CONSTRUCTION:****(Constructed as per following specifications)****Make: Tata - India**

The room wall will have two independent surfaces with a minimum opening in between. The inner surfaces walls will be constructed with anti bacterial grade HPL sheet panels/EGP steel panels backed by Calcium silicate / sulphate board with proper support. All joints and cavities should be filled with silicon / metal filler and sanded flush on site ready to receive the plastic /silicon finish. The wall panels design and construction will allow for the installation and support of all equipment and the provision of opening required for the installation, with out affecting rigidity and strength. Access boxes will be fitted to the rear of all wall mounted equipment to enable maintenance to be carried out from outside the operating room. The internal surfaces of the room walls will be sprayed with water based liquid plastic, wall glaze, silicon or equivalent. The plastic coating will be non- reflective and the colour will be submitted for approval. All the four corners should have return air duct outlets, the grill of which should be made of MS steel, duly powder coated with colour choice to suit the hospital. The surface should be highly scratch resistant, impact resistant, abrasion resistant and long lasting. Anti-bacterial and anti-fungus sterile coating should be applied on the EGP finished walls atleast 3 to 4 coats to achieve a thickness of minimum 200 micron. Before application of sterile wall coating an appropriate primer should be applied. Sterile coating and primer should be applied on the surface by airless spray gun. Sterile coating should be able to withstand commonly used cleaners in the operation rooms and regular steam cleaning.

2. Ceiling Filtration System**(Constructed as per following specifications)****Make: Medical Product Services - N. Delhi**

The ceiling filtration system should be Design to ensure unidirectional distribution of sterile air with differential flow velocities decreasing from centre to perimeter of the surgical theatre to ensure the cleanliness of all the area covered by the air flow. The ceiling system should have steel frame, perforated grills, panels, jet diffuser ,HEPA filters preferably having efficient 99.97% down to 0.3 microns, booster fan ceiling fixture, fluorescent lights, double wall return air system and other necessary mounting accessories.

The Plenum box to be made of Aluminum sheet 1.6 mm. S class HEPA filters to be used only. 2 layer diffuser with monofilament precision woven polyester of uniform porosity with an open area of sufficient resistance to create laminar flow from the diffuser face.

Integral lighting should provide 1500Lux in the operating area and 1000 Lox in other area with flicker less stepless dimming down to 5%.

The filters should meet the following Specification:

- Epoxy painted protective grids
- Grid Separators
- Polyurethane sealant
- Gasket – Polyurethane
- MPPS average – 99.95% efficient
- 3 micron DOP – 99.99% efficiency
- Max Operating temp -60 degree Celsius
- Max Humidity – 40-50%

3. Door and Frames (Hermetically Sealed Doors)
(Constructed as per following specifications)

Make: Pneumatic - Berlin (GmbH)

Size 1500 mmX2100mm should conform to BS 7971 / DIN standard.

To Maintain sterility and the correct air pressure in the room , all doors into and out should be of the sliding, hermetically sealing type. The door should meet following Specifications:

- Meets international quality & safety requirement.
- Low noise level of Movement .(Not More than 60 decibel) on all
- Controller should be preferably microprocessor based.
- The Track should be made up of single piece extruded aluminum.
- The doorframe should be made of high quality anodize aluminum and the door panel should be made of compact laminate that can withstand high abrasion.
- The door should seal on all four edges in the closed position & should be surface installed type.
- The track of door should be constructed with high quality door lock with aluminum extrusion, fixed firmly to the walls. Nylon runner guides should be fixed to the door in such a way they do not obstruct trolley movement through the door.
- The doorframes should be edged with an aluminum extrusion & with concealed fixings that are adjustable during installation to ensure a 100% hermetic seal is achieved.
- Vision panels, 300mm X 300mm should be provided in the doors.
- The door controller should be preferably sensing overload condition and in overload case the door will automatically stop & reverse the direction of travel.
- The controller should be preferably capable of either being operated by elbow switches/foot switches, radar switch (touch less sensor). All doors should be able to be operated easily manually in the event of failure of the power supply or the automation unit.

4. Operation Theatre Control Panel
(Constructed as per following specifications)

Make: Medical Product Services – N. Delhi

The control panel should be designed to cope with changing technology & equipment in operating environments. Control panel will be friendly & ease of operating & maintaining purpose.

The panel should be preferably contain 6 or 9 service title as below:

1. Time day clock
2. Time Elapse day clock
3. General Lighting System
4. Medical Gas Alarm Panel
5. Telephone set hands free
6. Temperature & humidity indicator with controller
7. HEPA Filter Status module
8. Room Pressure Indicator
9. Music Controller

5. Distribution Board
(Constructed as per following specifications)

Make: Medical Product Services – N. Delhi

All High voltage equipment should be properly installed in a separate enclosure. The remote cabinet should house the operating lamp transformers, mains failure Relays, electrical distribution equipment, circuits within the operating theatre. Miniature circuit breakers should protect all internal circuits.

6. X-Ray Viewing Box
(Constructed as per following specifications)

Make: Medical Product Services – N. Delhi

The system should be preferably have electrical safety codes for high & low voltage system. The theatre is to be equipped with a 2 plate x-ray viewing screen. It should be designed to provide flicker free luminance for the film viewing purpose. It should be installed flushed with theatre wall for hygienic and ease of clearing purpose.

7. Pressure Relief Dampers
(Constructed as per following specifications)

Make: Medical Product Services – N. Delhi

Pressure relief dampers should be provided in each room (SS) to prevent contamination of air from clean and dirty areas. Suitably sized air pressure relief damper should be strategically Placed , enabling differential room pressure to be maintenance and ensure that when doors are opened between clean and dirty areas.

8. Operation Theatre Flooring (Antistatic Conductive Tiles)
(Constructed as per following specifications)

Make: Gerford – France

Seamless Static conductive flooring system minimum 2mm thick with perfectly curved flash covings and all joints welded. Copper grounding strips should Preferably be laid flat on the floor in the conductive adhesive and connected to copper wire of grounding. The floor finish in the operating room should be 2mm Conductive PVC Sheet, laid on a semi-conductive adhesive base. Should fulfill EN649 standers

9. Storage Unit
(Constructed as per following specifications)

Make: Medical Product Services – N. Delhi

The storage unit should be made preferably with 1.50 mm thick EGP Zinc coated steel panels. The storage unit should be divided 2 equal parts and each part should have individual glass doors with high quality locking System. Each part will be provided with glass racks.

10. Operation List Board
(Constructed as per following specifications)

Make: Medical Product Services – N. Delhi

One Operating List Board should be provided in each operating theatre . It should preferably be made of ceramic having to the wall of the operating room.

11. Hatch Box
(Constructed as per following specifications)

Make: Medical Product Services – N. Delhi

A hatch should b provided in each operation theater to remove waste materials from the operation theatre to Dirty linen area just adjacent to Operation Theater. Each Hatch should be equipped with two doors and the door should be operated electronically. The Hatch should be designed in such a way that only one door should be opened at one time . the UV light should be so installed that it is kept on while both the doors are closed, this UV light has to be automatically turned off in case of opening of either of the doors.

12. Scrub Station (2 Bay)
(Constructed as per following specifications)

Make: Medical Product Services – N. Delhi

Compact Surgical scrub sink should be designed for use in OT complex providing surgeons with a convenient sink for pre - OT scrub up . Each fixture should be fabricated from heavy gauge type 304 stainless steel and should be seamless welded construction, polished be a stain finish. The scrub sink should be provided with a front access panel which should be easily removed for access to the water controlled value, waste connections, stoppers & strainers. Hands free operation should preferably include infrared sensors with built – in range of adjustment.

Thermostatic mixing, valve control should be located behind the access panel & Maintain constant water temperature use define setting of 1to 3 min should be available . this timing should be adjustable to meet individual application requirements. Provided with infrared sensors, thermostatic control taps with fail safe temperature controls. All units should have reduced antis splash fronts. Knee operated switch should be there. Should conform to BS 7971

13. Multi-Movement Pendant System
(Installed as per following specifications)

Make: Pneumatic – Berlin (GmbH)

- a. Surgical Pendant
- b. Anesthesia Pendant

	<p>Make: Pneumatic Berlin GmbH, Falkenberger Strasse – 40 D – 13088, Berlin</p> <p><u>O.T. No. – 1</u></p> <p style="text-align: center;"><u>Surgical Pendant</u></p> <p>Type: TD 492 – 11 S/N: DVE T0284 Year: 2011 (IP 20)</p> <p style="text-align: center;"><u>Anesthesia Arm</u></p> <p>Type: TD 463 – 10 S/N: DVE T0282 Year: 2011 (IP 20) (230V, 50/60 Hz, 550VA)</p> <p><u>O.T. No. – 2</u></p> <p style="text-align: center;"><u>Surgical Pendant</u></p> <p>Type: TD 492 – 11 S/N: DVE T0283 Year: 2011 (IP 20)</p> <p style="text-align: center;"><u>Anesthesia Arm</u></p> <p>Type: TD 463 – 10 S/N: DVE T0281 Year: 2011 (IP 20) (230V, 50/60 Hz, 550VA)</p>
--	--

14. LED O. T. Light
(Installed as per following specifications)

Make: Dr. Mach GmbH & Co. - GmbH

<p>Ceiling mounted L.E.D. Light System consisting of one Surgical Light and Satellite light. Both should of L.E.D. Lights, Central Surgical Camera in satellite light, one monitor arm for one19”</p>	<p>Make: Dr. Mach GmbH & Co. KG, Flossmannstr. 28 D – 85560 Ebersberg</p>
---	--

<p>touch screen monitor, one monitor arm for one 24" or 27" Full H.D. Screen Monitor including ceiling fixture.</p> <p>The technical details of the offered LED Light system to be as follows:</p> <ul style="list-style-type: none"> • DIN/EN Standard • No. of LEDs: 90 • Life Span: >30,000 hrs. Max Central • Illuminance: 160000 Lux / 100000 Lux, • Color Temperature: 4300K • Color Temperature Index: 97 • Temperature rise in the area of surgeon's head: <1°C • Sterilizable Handle • Reflector Surface: Aluminum • Satin finish covered glass • Field dia – 180 – 320 mm 	<p>O.T. No. – 1</p> <p><u>Surgical Light:</u> Type: 16000151 (24V DC/35W/1.8A) Model: LED 2SC Number: 12/01826 Number of LED's: 21</p> <p><u>Satellite Light:</u> Type: 18000152 (24V DC/45W/1.7A) Model: LED 2SC Number: 12/01736 Number of LED's: 28</p> <p>O.T. No. – 2</p> <p><u>Surgical Light:</u> Type: 16000151 (24V DC/35W/1.8A) Model: LED 2SC Number: 12/01825 Number of LED's: 21</p> <p><u>Satellite Light:</u> Type: 18000152 (24V DC/45W/1.7A) Model: LED 2SC Number: 12/01735 Number of LED's: 28</p> <p>• Total No. of LED in one Set of Light: 49</p>
--	--

CAMERA:

1CCD Chip camera for installation in the central handle of the light head or mounted on independent arm. Control of camera function via external control unit. In addition, picture rotation and camera zoom to be adjusted via the sterilization knob at the light head.

Signal transmission and power supply via inlaying cable with slip rings in all vertical joints

- CCD Sensor ¼° CCD
- Standard PAL / NTSC
- Zoom 25X optical / 12X digital
- Pixels 4000000PAL, 380000 NTSC
- Signal / Noise Ratio , 50 DB
- White balance automatically / manually
- 1USB
- 1 audio in/out

15. LED O. T. Light

(Installed as per following specifications)

Make: Phoenix Pipeline Products - UK

Duplex unit, die cast aluminium channel blowers complete with electrical controls, pressure sensors, relieve valve and drain flask. To incorporate non-return valves to enable the maintenance of one pump while the other is in use.

16. Copper Piping

(Installed as per following specifications)

Make: Metal Gems - India

17. HVAC System

(Installed as per following specifications)

Make: Blue Star

Required masonry, electrical, plumbing, AHU with aluminium ducting, Air-Conditioning. All fittings (eg. Pipelines, wires etc.) should be properly fixed / insulated / painted / identified / color coded (wherever required) as per international standard and guidelines.

Note:- In operation theaters, there may be some minor items, which are not included/ mentioned in above description of items for operation theaters. These minor items will be covered in quoted cost of CAMC by tenderer. The Institute will not pay extra for these maintenance. Tenderers are requested to visit operation theaters and observed the currently available items and contact Senior Bio-Medical Engineer of the Institute for any clarification, before tendering.

**Director,
I.G.I.M.S. – Patna.**