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E-mail: rimsranchi@rediffmail.com

RAJENDRA INSTITUTE OF MEDICAL SCIENCES
(An Autonomous Institute under Govt. of Jharkhand)
Ranchi-834009 (Jharkhand)
Phone: 0651-2541533, Fax: 0651-2540629,
Email : rimsranchi@rediffmail.com

Tender notice no. RIMS/Stores/ME(4)/ 7328 Dated 07.06.2016

Final Tender paper for(1) Equipment/Mannequins of College of Nursing (2) Hand Instruments / Equipments for all the departments of RIMS & (3) Combined & Compact BMW Grade System including Autoclave, Microwaves & Shredders etc, on turnkey basis at RIMS, Ranchi

Issued to

M/s _____

_____

_____

_____

Against money receipt number ……/RIMS, dated : ……

Cashier
RIMS, Ranchi

Invitation of tender notice for Equipment of (1) Equipment/Mannequins of College of Nursing (2) Hand Instruments / Equipments for all the departments of RIMS & (3) Combined & Compact BMW Grade System including Autoclave, Microwaves & Shredders etc, on turnkey basis at RIMS, Ranchi

To,

M/s _____

_____

_____

_____

Dear Sir,

Director, Rajendra Institute of Medical Sciences, Ranchi invites you to tender for Equipments (1) Equipment/Mannequins of College of Nursing (2) Hand Instruments / Equipments for all the departments of RIMS & (3) Combined & Compact BMW Grade System including Autoclave, Microwaves & Shredders etc, on turnkey basis at RIMS, Ranchi

If you are in a position to quote for supply & installation in accordance with requirements stated in short tender notice & tender form, you must also furnish all the information, called for, along with your tender.

This tender is non transferable.

All legal matter in respect to this tender will be subjected to jurisdiction of Hon'ble Jharkhand High Court, Ranchi.

The last date of submission of tender by registered posts / speed post only, -- 19.07.2016 (upto 4:30 p.m).

Date for opening technical bid – 20.07.2016 at 12:30 p.m.

Note : The department wise separate list & specification sheets are enclosed with this tender document. The bidders have to pay separate tender document fee Rs. 5,000.00 for each department tender (i.e. for one department Rs. 5,000.00 for 2 departments Rs. 5,000.00+Rs. 5,000.00 = Rs. 10,000.00 and so on)

Yours faithfully

Sd/-
Director
Rajendra Institute of Medical Sciences
Ranchi

General Terms & Conditions

1. The terms and conditions mentioned in tender notice no. 7328 dated 07.06.2016.
2. The tender should be submitted in duplicate complete with specification, literature, leaflet along with catalogues etc. leaving no room for back references.
3. Bids are to be submitted in two parts viz. (A) Technical Bid containing complete technical aspects including original EMD, Affidavit etc., except price bid & (B) Price Bid containing price elements only.

   Note : The tenderers have to submit separate sealed technical & price bids for each department. The envelops must be superscribed as technical bid for tender no. ……. dated …… for department of …….. & similarly price bid envelopes should be superscribed. All the envelops of one department should be sealed within one envelop.
4. Technical Specification should be in the proforma / format given below :

A. Technical Specification Proforma for department of …… …….. (for Major Equipments)

Sl. No.	Required technical specification as mentioned in tender form	Tenderer's detail technical specification of the equipment for which they are quoting	Remarks or any other extra advantages of the quoted model or attachments (if any)

B. Tenderers Technical Details of turn key works

i. **Civil /Electrical/Mechanical / furnishing etc works to be done (if any) by the bidders under turnkey project.**

Sl. No.	Tenderer's detailed item list/work list	Quantity offered by the tenderer

ii. Electrical works : (If any required under turnkey)

Sl. No.	Tenderer's detailed item list/work list	Quantity offered by the tenderer

Note :

1. All the electrical items including Air conditioning & earthing will have to be supplied & installed by the tenderer

iii. Furnitures works : (If any required to run the machines under turnkey)

Sl. No.	Tenderer's item list	Quantity offered by the tenderer

1. Before quoting the tender & before participating in the meeting the tenderers must have to visit the sites & they have to discuss with authority for location & confirmation of site.
2. Before finalization of the tender, the tenderers have to arrange on site practical demonstration of their quoted machines (major equipment) to the members of technical committee on any of their pre installed sites on tenderer's own cost.

Full signature of the
tenderer with seal
Designation : ……
Dated : ……

5. **Price Bid Proforma : (Price of every item must be in separate sealed envelops)**

A.

Sl. No.	Technical specification of the main machine	Unit Price in Indian Rs.	Mention clearly the excise duty charges, or any other charges, sales tax etc. in Indian Rs.	Price FOR destination with installation charges, training to staff/ Doctors on turn key basis with all taxes. (INR)

B. Essential accessories supplied by the firm free of cost with main machine to run the machine smoothly.

Sl. No.	Name of accessories	Technical specification in details with manufacturer name.	Quantity	Remarks (if any)

C. Optional accessories (if any for major equipments)

Sl. No.	Name of accessories	Detail technical specification with make & model	Qty	Unit price in India Rs.	Mention clearly the excise duty charges, or any other charges, sales tax etc. in Indian Rs.	Price FOR Destination with installation charges, training to staff on turn key basis with all taxes.

D. Essential consumables required to run the machine such as papers, cartridges, chemicals etc. supplied by the firm free of cost with main machine to run the machine smoothly.

Sl. No.	Name of consumables	Technical specification in details with manufacturer name.	Quantity	Unit Rate	Remarks (if any)

E. Rate for essential civil, electrical works & furnitures for smooth running & installation of the machine. (Tenderers have to give details of civil (including furnitures) & electrical works to be done for smooth running of machine). Rs. …… (in words Rs……..…)

(Total amount of the complete equipment set on turn key basis i.e. A+B+C+D+E = Rs. ……)
(in words Rs ……..) with five years comprehensive guarantee/warranty with all accessories, spares, manpower & turnkey maintenance works.

6. Price of Comprehensive maintenance contract with all spares after expiry of guarantee period for five years :-

Year	C.M.C. Rate in Indian Rs. (per year)
1st Year	
2nd Year	
3rd Year	
4th Year	
5th Year	

Note :

(1) Price of C.M.C. for five years will also be considered during price comparative evaluation.

(2) Warranty as well as CMC will cover (inclusive of) all spares, accessories & turnkey works and it will also cover :-

i. X-ray & C.T. tubes & high tension cables
ii. Helium replacement
iii. Any kind of motor
iv. Plastic & glass parts
v. All kind of sensors
vi. All kind of coils, magnets, probes, transducers, cuffs, paddles, cables, chart recorders, patient circuits, tube, bulbs, electrodes, humidifiers, sensors, cassettes, printers & images, UPS including the replacement of batteries, Air-conditioners, fuses, transformers, monitors, cameras, stabilizers, furnitures, aprons, badges, radiation accessories, software & Hardware, chambers, phantoms & other accessories (if any) including complete turnkey works will be supplied & installed by the bidders without charging any extra cost under warranty & C.M.C.

(3) For radiological equipment, it will be complete responsibility of the bidder to have N.O.C from AERB and after installation the bidder shall arrange the license from AERB to run the machine at RIMS. The RIMS shall provide all the required data to the bidder for getting the license. Final payment will be released after getting license to run the machine.

(4) For the bidders of biomedical waste grade compact combined system including autoclave, microwave & shredder, it shall be complete responsibility of the bidder to have N.O.C from State Pollu8tion Control Board and after installation the bidders also have to provide operators for operating their installed system for at least 10 years on their (contractor's) own cost. For operators the bidder have to quote their monthly rates. It will be compared during price evaluation. The bids without manpower will not be considered at the time of evaluation.

Full signature of the
tenderer with seal

Sd/-
Director
Rajendra Institute of Medical Sciences
Ranchi

Name
(in capital letters)

Designation

7. List & specifications of equipments :- Department wise separate list is enclosed herewith this tender documents. All the bidders have to get it confirmed at the time of purchase or downloading of tender documents.

8. The tenderers have to mention clearly the names and technical specifications of the relevant accessories which they will supply along with the main equipment, free of cost in their price bid.

9. The price should be inclusive packing, carriage & installation cost.

10. The total cost of each equipments should be quoted in figures and words.

11. The price quoted should be valid for at least two years from the date of opening of tender.

12. The intending tenderers should produce the copy of manufacturing registration certificate. In case of authorization – original authorization certificate issued by the manufacturer in the name of Director, RIMS, Ranchi. The authorization must be valid at the time of tender opening.

13. The tenderer must enclose registration certificate of Jharkhand Sales tax/JVAT along with update respective clearance certificate or If the bidding agency is not registered under Jharkhand Sales tax department then they must give an undertaking through notary affidavit that "They will supply & install the equipment/items at fixed destination after payment of JVAT/Jharkhand Sales tax on their own & they will make their own arrangements for customs clearance in case of imported equipments. They shall not demand any document from Director, RIMS for clearance or duty exemption/waiver/relief in this regard."

14. The tenderer should furnish the warranty / guarantee period of the complete system.

15. The tender without EMD will be ignored straightway.

16. Incomplete tender will be summarily rejected.

17. The EMD will be refunded in full to the unsuccessful tenderers after finalization of tender and in case of successful tender, the EMD will be refunded only after expiry of warranty / guarantee period.

18. The full EMD shall be forfeited in case of backing out of the offer after acceptance.

19. The successful tenderer have to supply the items in accordance with the specification as finalized and approved by the purchase committee.

    In case of late supply of materials, penalty will be charged on the bidder as per norms mentioned hereunder :-

    i. After 07 days (one week) from stipulated date of supply completion - @0.5% (point five percent) per week of total contract value uptoto 04 weeks
    ii. After 04 weeks @1% (One percent) of contract value per week upto 08 weeks
    iii. After 08 weeks @2.0% (Two percent) of contract value per week upto 12 weks.
    iv. After 12 weeks the security money & EMD will be forfeited by RIMS and the bidder will be debarred / black listed for further participations

    Above mentioned same penalty will be charged during warranty as well as comprehensive maintenance contract period if there will be delay for more than 07 days from the date of information of breakdown.

20. The bidders have to do the essential construction works by their own including all the plumbing, mechanical & electrical works as per requirement of their quoted equipments for full functioning of the complete project including all the equipments, generators, deep hole boring, separate water tank, drainage from the site to the main drainage system, water & electrical distribution system for all the machines under the project. They have to quote accordingly. No consideration regarding extension of work or escalation of rates will be made after finalization of tender.

Full signature of the tenderer
With seal and date
Designation.

21. Contractor Form 'A'

    Telegraph Address :- ……..
    Telephone No. : ……..
    Telex No. : ……

Fax No. ……

From

_____

_____

(Full name and address of the tenderer)

To

The Director
Rajendra Institute of Medical Sciences,
Ranchi.

Sir,

1. I / We hereby offer to supply the stores detailed in the schedule here to such position thereof as you may specify in the supply order at the price given in the said schedule and agree to hold the order (offer) open till it is opened. I/We shall be bound by communication of acceptance within the prescribed time.

2. I / We have understood the instructions to tenderers and terms conditions of contract for contract concluded by Director, RIMS as contained in schedule & tender notice. We have thoroughly examined specification drawing or pattern quoted in the schedule here to and am/are fully aware of the nature of the stores required.

3. The following pages have been enclosed to and from part of this tender's technical bid …… ……

Yours faithfully

Signature of tenderer

Address ……
Dated ……
Seal……..

22. All documents duly completed, signed and sealed should be enclosed with your tender offer failing which your quotation will be treated as incomplete.

Technical compliance report duly filled and signed with seal of the bidder.

The bidders must fill all the rows/columns of this compliance report. This report will be inspected & evaluated by purchase committee and accordingly documents will be verified on the concerned page numbers.

Sl. No.	Enclosures required	Have you enclosed it? write clearly Yes or No	If yes then on page no. of this bid.
	In case of lack of any essential required documents the tenders will be rejected - The list of essential required documents which must be submitted with technical bid of the bidders :		
1.	Photocopy of JVAT (Sales tax) Registration certificate in Jharkhand State	Yes/No	Page No. ……
2.	Photocopy of JVAT/Sates tax clearance certificate of Jharkhand State, valid at the time of opening of technical bid **OR** If the bidding agency is not registered under Jharkhand sales tax department, then they must give an undertaking through notary affidavit that "They will supply the equipment/items at RIMS, Ranchi after payment of JVAT/Jharkhand Sales tax on their own & they will make their own arrangements for custom clearance in case of	Yes/No	Page No. ……

	imported equipments. They shall not demand any document from RIMS for JVAT/custom clearance/duty exemption/waiver/relief in this regard".		
3.	Copy of Manufacturing certificate or original copy of authorization from original equipment manufacturer in the name of authorized bidder for bidding on their behalf. (Photocopy or fax copy will not be valid).		
	(i) Whether manufacturer or authorized dealer	Write clearly manufacturer or authorized dealer	If manufacturer then valid manufacturing licence on Page No…….
	(ii) If authorized dealer then write names of the original manufacturers and enclose the authorizations issued to you. e.g.		
	a. Authorization letter of M/s …….. b. Authorization letter of M/s …….. and so on	Yes or No Yes or No	On Page No. …. On Page No. ….
4.	I.T. PAN no. of the bidder.	Yes or No	On Page No. ….
5.	Earnest money in form of Demand Draft issued by any nationalized bank only in faviour of **Director, Rajendra Institute of Medical Sciences, Ranchi –** (1) Equipment/Mannequins of College of Nursing - Rs. 1,00,000.00 (2) Hand Instruments / Equipments for all the departments of RIMS - Rs. 1,00,000.00 (3) Combined & Compact BMW Grade System including Autoclave, Microwaves & Shredders – Rs. 3,00,000.00	Yes or No	On Page No. ….
6.	Affidavits through first class magistrate / Notary Public, mentioning that – (a) "Our company has not been black listed or convicted in the past by any Hospital Organization or by any Government / Semi government organization / P.S.Us / C.B.I / C.C.I & free from all kind of litigation/allegations, (b) That the firm has no vigilance case/CBI/FEMA/CCI case pending against him/supplier (Principal) (c) That the firm is not supplying the same item at lower rate quoted in this tender to any government organization or any other institute". (d) That the firm shall supply the consumables & accessories required to run the machine uninterruptedly during warranty & cmc PERIOD	Yes or No	On Page No. ….
7.	Technical specifications with catalogue & dimensions of equipment, accessories & details of turnkey works. The bidders have to provide complete layout plan of the constructions & electrical works (if any) required and to be done by the bidder within their offer for installation & functioning of the complete system.	Yes or No	On Page No. ….

8.	I.T. return certificate & balance sheet of the bidders for last three financial year having minimum turn of Rs. 1,00,00,000.00 (one crore) in every year or Rs. 3,00,00,000.00 in any one year of last 3 years.	Yes or No	On Page No. ….
9.	Acceptance letter/undertaking that they shall provide five years comprehensive warranty for all the equipments and turnkey works. Then further five years comprehensive maintenance contract with all spares, accessories & labour charges for all the equipments as well as turnkey works.	Yes or No	On Page No. …
10.	For Radiological equipments bidders must have to enclose the license or NOC issued from Indian Atomic Energy Regulatory Board, Government of India for the same model of equipment which they have / are quoted / quoting in this tender.	Yes or No	On Page No. …
11.	The bidders of Biomedical waste grade autoclave, microwave, Shredders etc must have to give an undertaking that their quoted products are as per norms of Central Pollution Control Board (CPCB) / State Pollution Control Boards. If it will not confirm the norms of CPCB / SPCB then the bidders shall replace their equipments by themselves without any extra cost.	Yes or No	On Page No. …

Note :

1. Sales tax form JVAT-504 G / Road permit / Entry tax etc. of Govt. of Jharkhand will not be issued by R.I.M.S. authority. It will be responsibility of the bidders to arrange JVAT form 504-G or any other documents related to sales tax / entry tax on their own.
2. If any of the above enclosures are of more than one page then in the page number columns write clearly on page no. ……..….. to page no. ……..
3. Without filling the compliance report the offer will be rejected directly at the time of technical evaluation.
4. All the bidders have to provide soft copy of their technical specification (same as they have submitted in hard copy of technical bid) in PEN drive also. PEN drive must be submitted by all the bidders at the time of opening of technical bid in front of purchase committee.

Certificate of Compliance

I Mr. / Mrs. / Miss ……..……. on behalf of M/s (Name of firm / company) ……..…… do hereby confirm that I have verified the above compliance report, it is duly filled. Our technical bid consists of total (No. of pages) ……. (in words ……..……)

Signature of the Bidder
with date & seal of the firm / company

23. Please enclose photocopies of your complete registration certificate with DGS&D / NSIC ./ DGQA, (if any) as applicable, which should be valid on the date of tender opening.
24. Price bid of technically acceptable offers would only be opened for which either the respective firm would be invited through telephone / fax or the same may be opened with display in the notice board in case telephone message can not be passed on.

25. The following information should be given in the offer by tenderers :-
    a. Complete configuration of the main equipments.
    b. Relevant (must) accessories should be supplied with the equipment, if it is required for running the complete system.
    c. Optional accessories, if any.
26. Liquidated damages shall be levid for delay in supplies as per Governing Rules.
27. The successful tenderer shall have to submit security deposit equal to 10% of the value of the contract in form of Bank guarantee pledged to Director, RIMS, Ranchi. The bank guarantee shall ve valid for minimum period of 60 months.
28. Tenders / Quotations are to be submitted in duplicate. Number of pages, leaflets / pamphlets, catalogue drawings etc. should be tied separately and marked original / duplicate. However, the tender inquiry document issued by RIMS should be attached with original copy of tender / quotation.
29. Technical bids & Price bids should be kept sealed separately superscribing the envelope **"Technical Bid" & "Price Bid"** and Tender Notice No. & Tenderers name with full address & telephone numbers.
30. The tenderers shall give a clear and guaranteed delivery period for completion of supply & installation and functioning of the complete system in their bid and they have to maintain the time frame.
31. Tenderers are required to answer all the question mentioned in the schedule & should return the same duly signed and filled along with form "A"
32. The tendering firms shall note that the supplies will be made in accordance with the specification mentioned in the tender.
33. Nevertheless, the purchaser shall be liable for price variation after final approval by purchase committee. The overseas bidders also have to quote their rates in Indian rupees. They shall calculate the exchange rate of foreign currencies in Indian rupees & quote accordingly in Indian rupees.
34. The tenderer has to mention clearly the quality, specification, names of companies for consumables like films & others to be used in the machines for optimum quality results. The tenderer has to assure in written about the local availability of consumables in their tender.
35. If the supplier, having been called upon by the purchaser to furnish security deposit (S.D.), failed to furnish the same within the period provided it shall be lawful for the purchaser to forfeit the E.M.D. and to cancel the contract.
36. The purchaser shall be entitled and it shall be lawful on his part to forfeit the amount of security deposit in whole or in part in the event of any default, failure or neglect on the part of the supplier in the fulfillment of performance in all respect of the contract under references or any other contract with the purchaser or any part thereof to the satisfaction of the purchaser.
37. The security deposit shall remain in full force and effect during the period that would be taken for satisfactory performance and fullfitment of in all respects of the contract i.e. since final acceptance of the goods/equipments or any other by the consignee and be valid upto guarantee period of the equipments to be purchased.
38. After complete installation of the equipment the supplier shall inform the technical committee or the concerned authority in writing for inspection & functioning of the equipments. If the inspecting officer finds that pre-inspection of the consignment is not as required then the consignment is liable for rejection.
39. Contractor / Seller hereby declare that the goods / stores / articles sold / supplied / installed to the purchaser under this contract shall be of the best quality and workmanship and new in all respects and shall be strictly in accordance with the specification & particulars mentioned in the contract.

The contractor / seller hereby guarantees that the said goods / articles would continue to confirm to the description and quality aforesaid for a period of Five years from the date of final installation.

a. Warranty to the effect that before joining out of production for the spare parts they will give in adequate advance notice to the purchaser of the equipment so that the later may undertake the balance of the life time requirements.

b. Warranty to the effect that they will make available the blue prints of drawings of the spares if & when required in connection with the main equipment.

40. The following clauses are required to be confirmed :-

a. Free routine servicing (at least 2 visits of their engineers at site in one year) will be carried out by the firm till guarantee period.

b. The firms will make available full engineer support package (ESP) including essential maintenance and recommended spares for maintenance of the equipment for further 05 years after the guarantee period.

c. The following set of documents in respect of the equipments are also required to be supplied by the firm :-

	Literature	Distributions	Quantity
(i)	Operation instructions	With each equipment	sets each
(ii)	Wiring diagram	Inspecting authority (Concerned authority)	2 sets
(iii)	Maintenance service manual	Inspecting authority	2 sets
(iv)	Spare parts lists indicating cost	(Concerned authority)	2 sets

d. The tenderers should quote the latest models. Quotations for out dated models of equipments will not be entertained.

41. Payment terms as follows :

100% after installation and completion of training. If needed, the L.C. account in nationalized bank may be opened for assurance of payment. The payment clauses in L.C. will be after job completion.

42. Price bids and technical bids should be separately sealed, covers duly superscribed. Both the bids should be in duplicate. Both these sealed bids should be put in another main envelope duly sealed & mentioning following informations.

Tender notice no. 7328 dated 07.06.2016 for the department of …….

Date & time of opening : 20.07.2016 at 12.30 P.M.

Director
Rajendra Institute of Medical Sciences,
Ranchi

Signature of Tenderer
Name (in block letters) : _____
Capacity in which tenderer is signed : _____
Address in full : _____
Dated : _____ Seal _____

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¼>kj[k.M ljdkj dk ,d Lo;r'kklh lLFkku½
jkph&834009 ¼>kj[k.M½
njHkk"k 0651&2541533] QDl 0651&2540629]
E-mail: rimsranchi@rediffmail.com

RAJENDRA INSTITUTE OF MEDICAL SCIENCES
(An Autonomous Institute under Govt. of Jharkhand)
Ranchi-834009 (Jharkhand)
Phone: 0651-2541533, Fax: 0651-2540629,
Email : rimsranchi@rediffmail.com

Tender notice no. RIMS/Stores/ME(4)/ 7328 Dated 07.06.2016

NOTICE INVITING TENDER

FOR SUPPLY AND INSTALLATION ON TURN KEY BASIS OF (1) MANNEQUINS, AT COLLEGE OF NURSING, (2) HAND INSTRUMENTS FOR VARIOUS DEPARTMENT OF RIMS AND (3) BIOMEDICAL WASTE GRADE COMPACT SYSTEM WITH AUTOCLAVE, MICROWAVE & SHREDDER AT RIMS RANCHI.

Open tenders are being invited through sealed offers in two bid system (Technical bid & Price Bid) by speed post / Registered post only, from original equipment manufacturer or authorized dealer for supply and installation of (1) Mannequins at College of Nursing, (2) Hand instruments for various department of rims and (3) Biomedical Waste Grade compact system with Autoclave, microwave & shredder at rims at RIMS, Ranchi. Tenders will not be accepted by hand or any other agency.

A.	**Important dates for Tenders**	
1.	Date of uploading of sample tender paper on RIMS website www.rimsranchi.org for attending pre-bid meeting	On 14.06.2016
2.	Pre bid meeting for discussion on various technical issues	On 20.06.2016 at 12:30 P.M at RIMS. All the intending bidders must attend the pre-bid discussion meeting for clarification of their queries & requirements of RIMS. No claims will be considered after finalization of tender paper.
3.	Date of issue of final tender documents (after pre-bid meeting)	From: 28.06.2016 to 18.07.2016 (The intended bidders may purchase tender document on any working day upon payment of Rs 5,000/- for each tender paper in cash to the RIMS Cashier or those who want to bid by downloading the tender document, they have to submit separate demand drafts in favour of Director, RIMS, Ranchi for Rs 5,000/- for each tender paper with their technical bid. Cost of Tender Document for College of Nursing - Rs. 5,000.00 Cost of Tender Document for Hand Instruments - Rs. 5,000.00 Cost of Tender Document for BMW Grade System - Rs. 5,000.00
4.	Last date of submission of sealed tender documents (Only by speed post / Registered post)	On 19.07.2016 till 04.30 P.M
5.	Opening of technical bid & discussion on technical issues.	On 20.07.2016 at 12:30 P.M in RIMS administrative conference hall, in front of purchase committee. All the bidders or their duly authorized representative must represent the tender opening for discussion & queries of purchase committee.

Note :1. For details of list of equipments, tender terms, conditions & specification please visit RIMS website : **www.rimsranchi.org** from 14.06.2016 for sample tender paper to attend the pre-bid meeting.
2. Final Tender paper will be uploaded on 28.06.2016 after pre bid meeting. All the bidders have to submit their tenders as per final tender paper (Not as per sample tender paper).
3. Before participating the meetings the bidders may physically visit the site and they may discuss with the concerned H.O.Ds /Principal, College of Nursing / Officer In-charge, RIMS, Ranchi regarding requirements or queries.

Sd/-
Director
Rajendra Institute of Medical Sciences
Ranchi

In case of lack of any essential required documents the tenders will be rejected - The list of essential required documents which must be submitted with technical bid of the bidders :

(i) Photocopy of JVAT (Sales tax) Registration certificate in Jharkhand State

(ii) Photocopy of JVAT/Sates tax clearance certificate of Jharkhand State, valid at the time of opening of technical bid

OR

If the bidding agency is not registered under Jharkhand sales tax department, then they must give an undertaking through notary affidavit that "They will supply the equipment/items at RIMS, Ranchi after payment of JVAT/Jharkhand Sales tax on their own & they will make their own arrangements for custom clearance in case of imported equipments. They shall not demand any document from RIMS for JVAT/custom clearance/duty exemption/waiver/relief in this regard".

(iii) Copy of Manufacturing certificate or original copy of authorization from original equipment manufacturer in the name of authorized bidder for bidding on their behalf. (Photocopy or fax copy will not be valid).

(iv) I.T. PAN no. of the bidder.

(v) Earnest money in form of Demand Draft issued by any nationalized bank only in faviour of **Director, Rajendra Institute of Medical Sciences, Ranchi –**

(1) for College of Nursing Rs. 1,00,000/- (Rupees One lakh only).

(2) for Hand Instruments Rs. 1,00,000/- (Rupees One lakh only).

(3) for Biomedical Waste Grade autoclaves, microwaves, Shredders etc. Rs. 3,00,000.00 (Rupees Three lakhs only)

(vi) Affidavits through first class magistrate / Notary Public, mentioning that –

(a) "Our company has not been black listed or convicted in the past by any Hospital Organization or by any Government / Semi government organization / P.S.Us / C.B.I / C.C.I & free from all kind of litigation/allegations,

(b) That the firm has no vigilance case/CBI/FEMA/CCI case pending against him/supplier (Principal)

(c) That the firm is not supplying the same item at lower rate quoted in this tender to any government organization or any other institute".

(d) That the firm shall supply the consumables & accessories required to run the machine uninterruptedly during warranty & cmc PERIOD

(vii) Technical specifications with catalogue & dimensions of equipment, accessories & details of turnkey works (if any required for installation of equipments). The bidders have to provide complete layout plan of the constructions & electrical works (if any) required and to be done by the bidder within their offer for installation & functioning of the complete system.

(viii) I.T. return certificate & balance sheet of the bidders for last three financial year having minimum turn over of Rs. 1,00,00,000.00 (one crore) in every year or Rs. 3,00,00,000.00 in any one year of last 3 years.

(ix) Acceptance letter/undertaking that they shall provide five years comprehensive warranty for all the equipments and turnkey works. Then further five years comprehensive maintenance contract with all spares, accessories & labour charges for all the equipments as well as turnkey works.

(x) For Radiological equipments bidders must have to enclose the license or NOC issued from Indian Atomic Energy Regulatory Board, Government of India for the same model of equipment which they have / are quoted / quoting in this tender.

(xi) The bidders of Biomedical waste grade autoclave, microwave, Shredders etc must have to give an undertaking that their quoted products are as per norms of Central Pollution Control Board (CPCB) / State Pollution Control Boards. If it will not confirm the norms of CPCB / SPCB then the bidders shall replace their equipments by themselves without any extra cost.

(C) Other terms & conditions of tender :

(1) Technical part should contain the documents & request for proposal and all such details as mentioned in the term of reference or tender paper.

(2) Financial part should contain the financial bid inclusive of equipment, accessories, all admissible turnkey works, warranty, guarantee, C.M.C., taxes etc.

Note :

(i) The offered price will be valid for minimum period of two years.

(ii) No price escalation for hardware's/accessories/equipment/turnkey etc will be acceptable during warranty/guarantee or CMC period, whatever circumstances may be.

(iii) Price escalation will be considered only for consumable / chemicals etc. but only atleast after two years from the date of handover of the complete project

(3) Details with respect to terms and conditions & list of items and submission of such proposal can be obtained from "Term of Reference" i.e. tender document/paper & on RIMS **website - www.rimsranchi.org**

(4) If required by the technical committee, all the tenderers have to organize practical demonstrations of the same model machine at their nearest installation site to the nominated technical team of RIMS, Ranchi on tenderer's own cost before finalization of technical evaluation report.

5. The undersigned reserves the right to accept or reject in part or as a whole any of the proposal received without assigning any reason thereof.
6. Any legal matter related to this tender shall be under jurisdiction of Hon'ble Jharkhand High Court, Ranchi.
7. Before participating the bid, the bidders may visit the site at RIMS, Ranchi and may have discussion with the concerned faculty H.O.Ds regarding their requirements & queries.
8. Price Bid of only those bidders will be considered/opened who will qualify the technical documents parts as well as technical specification parts.
9. For major equipment the bidders have to quote separate, sealed price for each & every equipment, so that price of only specific technically qualified items of the bidders may be opened.
10. No payment shall be made in advance, whatever circumstances may be.
11. The bidding prices will be valid at least for two years or the next tender which ever is earlier. If there will be government holiday on any last day of the above schedule, the tender process will continue on the just next working day.

Sd/-
Director
Rajendra Institute of Medical Sciences
Ranchi.

1. List & specification of College of Nursing

1. Abdominal Palpation Mannequin for Leopold Manoeuvers during pregnancy
2. Dictaphone
3. Model with normal uterus and accessories along with postpartum accessories
4. Essential New born care and new born resuscitation mannequin
5. Fetal Skull
6. Adult female pelvis
7. Nebulizer
8. Metered dose inhaler (Multi dose inhaler with spacer)
9. Crash Cart
10. Colour coded spring balance infant weighing scale
11. Pulse oximeter with probe
12. Hand held uterus model
13. Oxygen concentrator

(1) Item No. 1.

ABDOMINAL PALPATION MANNEQUIN FOR LEOPOLD MANEUVERS DURING PREGNANCY

Version no. :		1.0
Date:		7/4/2014
Done by : (name/institution)		HCT/ NHSRC
GMDN name		NA
GMDN code		1816
GMDN definition		Lower adult female torso with anatomical features capable of demonstrating various stages of pregnancy (5th, 7th and term)
		GENERAL
		1. USE
1.1	Clinical purpose	To demonstrate Leopold maneuvers during pregnancy
1.2	Used by Clinical Department	Skill labs
		2. TECHNICAL CHARACTERISTICS
2.1	Technical characteristics (specific to this type of device)	1. The material of mannequin should be of polyvinyl or silicone rubber, free from any hazardous materials. 2. The texture of the mannequin should be as close to the feel of the baby/ adult skin as relevant. 3. The internal parts of the mannequin must be realistically sculpted, anatomically accurate and feel must be smooth/resilient/bony as relevent and suitable for simulation. 4. The abdominal palpation model should have full size adult female torso (abdomen and pelvis). 5. The abdominal palpation mannequin should have one-piece full term fetus with palpable frontanelles, spine, shoulders, elbows and knees. 6. The abdominal palpation mannequin should have a mechanism to adjust the firmness of the abdomen in respect to the weeks of pregnancy i.e. 12, 24, 36, 42 gestational age models. 7. The abdominal mannequin should be able to accomodate the fetus in vertex, breech, or transverse positions.
2.2	Settings	NA
2.3	User's interface	NA
2.4	Software and/or standard of communication (where ever required)	NA
		3. PHYSICAL CHARACTERISTICS
3.1	Dimensions (metric)	NA
3.2	Weight (lbs, kg)	NA
3.3	Configuration	NA
3.4	Noise (in dBA)	NA
3.5	heat dissipation	NA
3.6	Mobility, portability	Yes, Portable

	4. ENERGY SOURCE (Electricity, UPS, Solar, Gas, Water, CO_2 ....)	
4.1	Power Requirements	NA
4.2	Battery operated	NA
4.3	Tolerance (to variations, shutdowns)	NA
4.4	Protection	NA
4.5	Power consumption	NA
4.6	Other energy supplies	NA
	5. ACCESSORIES, SPARE PARTS, CONSUMABLES	
5.1	Accessories & spare parts	Fetus size-5th, 7th and term flexible enough to fit inside abdominal palpation mannequin.
5.2	Consumables/reagents (open, closed system)	NA
	6. ENVIRONMENTAL AND DEPARTMENTAL CONSIDERATONS	
6.1	Atmosphere/Ambiance (air conditioning, humidity, dust ....)	Capable of being stored continuously in ambient temperature of 0 to 50 deg C and relative humidity of 15 to 90%. Capable of operating continuously in ambient temperature of 10 to 40 deg C and relative humidity of 15 to 90%.
6.2	User's care, Cleaning, Disinfection & Sterility issues	Complete unit to be easily washable with mild soap and water without bringing deterioration in the mannequin.
	7. STANDARDS AND SAFETY	
7.1	Certifications	BS EN ISO/IEC 17050-1:2010 Conformity assessment. Supplier's declaration of conformity. EMC Directive 2004/108/EC.
	8. TRAINING AND INSTALLATION	
8.1	Pre-installation requirements: nature, values, quality, tolerance	NA
8.2	Requirements for sign-off	Demonstration to the user while delivering the product.
8.3	Training of staff (medical, paramedical, technicians) OPTIONAL (Depending upon scope of work order)	Training of users in handling and basic maintenance shall be provided.
	9. WARRANTY AND MAINTENANCE	
9.1	Warranty	3 years against functionality excluding asthetics.
9.2	Maintenance tasks	maintainance manual detailing complete maintaining schedule.
9.3	Service contract clauses, including prices	Local clinical staff/authorized officer on behalf of purchaser to affirm completion of installation.
	10. DOCUMENTATION	
10.1	Operating manuals, service manuals, other manuals	Advanced maintenance tasks required shall be documented User manuals to be supplied in english/hindi language along with machine diagrams. List to be provided of equipment and procedures required for local calibration and routine maintenance Once a year visit to site, within warranty period including training of user on maitenance.
10.2	Other accompanying documents	List to be provided of important spares and accessories, with their part numbers and cost. Certificate of calibration and inspection to be provided.
	11. NOTES	
11.1	Service Support Contact details (Hierchy Wise; including a toll free/landline number)	NA
11.2	Recommendations or warnings	Any recommendations for best use and supplimentary warning for safety should be declared.

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2. ABDOMINAL PALPATION MANNEQUIN FOR LEOPOLD MANEUVERS DURING PREGNANCY

Features:

- The abdominal palpation mannequin should have full size adult female lower torso (abdomen and pelvis)
- The abdominal palpation mannequin should have a one-piece full term fetus with palpable fontanelles, spine, shoulders, elbows, and knees
- The abdominal palpation mannequin should have upper and lower inflatable cushions with independent inflating devices in the abdominal part of the mannequin
  - Lower cushion when inflated should raise the fetus to desired position
  - Upper cushion when inflated should create a firm abdomen as in the ninth month of pregnancy
- The abdominal mannequin should be able accommodate the fetus in vertex, breech, or transverse
- The abdominal mannequin should have the facility to accommodate the fetus of different gestational age, demonstrates vertex/breech/transverse position delivery, and attach the perineum to demonstrate the episiotomy repair

Item No (2)

Dictaphone:

- Dictaphone should be able to give a simulation of fetal heart sound
- Dictaphone should have 4GB Digital Voice Recorder
- Dictaphone voice recorder should be perfect for recording digitally all the voices and reproduce it with good quality sound.
- Dictaphone should have different recording settings.
- Dictaphone should have digital pitch control / facility for different Scene Selection
- Dictaphone should have Intelligent Noise Cut / Low Cut Filter / Digital VOR
- Dictaphone should have Linear PCM/MP3/WMA/AAC Playback
- Dictaphone should have Track Mark

Theme 2: Infection Prevention

Skill station: Sterilization

AUTOCLAVE

- The autoclave should be of 20 L capacity and must be Stand-Alone Bench Top autoclave.
- The autoclave should have automatic single door, self-sealing with high-quality silicone gasket.
- The autoclave should have chamber diameter 25 cm, depth 45 cm.

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MEDICAL DEVICE SPECIFICATION

Item No. 3

(3)

FEMALE LOWER TORSO MANNEQUIN WITH NORMAL AND POSTPARTUM UTERUS AND ACCESSORIES

Version no. :		1.0
Date:		7/4/2014
Done by : (name/institution)		HCT/ NHSRC
GMDN name		Gynaecologic trainer
GMDN code		CT1817
GMDN definition		A model of female adult lower body with relevant internal anatomical landmarks suitable for intended palpation and inspection of female pelvic organ.The model should also permit practice of IUD insertion and removal and use of other female contraceptive devices.
		1. USE
1.1	Clinical purpose	used for teaching/practicing bi-manual pelvic examination, vaginal examination, PPIUCD (postpartum intrauterine contraceptive device).
1.2	Used by Clinical Department/ Ward	Skill labs
		2. TECHNICAL CHARACTERISTICS
2.1	Technical characteristics (specific to this type of device)	1. The material of mannequin should be of polyvinyl or silicone rubber, free from any hazardous materials. 2. The texture of the mannequin should be as close to the feel of the baby/ adult skin as relevant. 3. The internal parts of the mannequin must be realistically sculpted, anatomically accurate and feel must be smooth/resilient/bony as relevent and suitable for simulation. 4. Should have full size adult female lower torso with relevant internal landmarks and post-partum uterus. 5. Should have palpable normal and pregnant uteri with realistically sculpted and anatomically accurate ovaries and fimbriae. 6. Should have normal and abnormal crevices. 7. Should be suitable for teaching/practicing bi-manual pelvic examination. 8. Should be suitable for vaginal examination, including insertion of speculum, uterine sounding and IUD insertion and removal and PPIUCD (postpartum intrauterine contraceptive device). 9. Should have distal end of vagina to facilitate introduction of a female condom. 10. Should have detachable and attachable cervix.
2.2	Settings	NA
2.3	User's interface	NA

2.4	Software and/or standard of communication (where ever required)	NA
	3. PHYSICAL CHARACTERISTICS	
3.1	Dimensions (metric)	NA
3.2	Weight (lbs, kg)	NA
3.3	Configuration	NA
3.4	Noise (in dBA)	NA
3.5	heat dissipation	NA
3.6	Mobility, portability	Yes, Portable
	4. ENERGY SOURCE (Electricity, UPS, Solar, Gas, Water, CO_2 ....)	
4.1	Power Requirements	NA
4.2	Battery operated	NA
4.3	Tolerance (to variations, shutdowns)	NA
4.4	Protection	NA
4.5	Power consumption	NA
4.6	Other energy supplies	NA
	5. ACCESSORIES, SPARE PARTS, CONSUMABLES	
5.1	Accessories & spare parts	1. One normal and abnormal uterus. 2. One set of normal and abnormal cervices. 3. One anteverted and retroverted uterus. 4. One set of postpartum uterus with duckbill cervix and fallopian tubes. 5. 3 sets of 6 different types of cervices.
5.2	Consumables/reagents (open, closed system)	NA
	6. ENVIRONMENTAL AND DEPARTMENTAL CONSIDERATONS	
6.1	Atmosphere/Ambiance (air conditioning, humidity, dust ...)	Capable of being stored continuously in ambient temperature of 0 to 50 deg C and relative humidity of 15 to 90%. Capable of operating continuously in ambient temperature of 10 to 40 deg C and relative humidity of 15 to 90%.
6.2	User's care, Cleaning, Disinfection & Sterility issues	Complete unit to be easily washable with mild soap and water without bringing deterioration in he mannequin.
	7. STANDARDS AND SAFETY	
7.1	Certifications	BS EN ISO/IEC 17050-1:2010 Conformity assessment. Supplier's declaration of conformity. EMC Directive 2004/108/EC.
	8. TRAINING AND INSTALLATION	
8.1	Pre-installation requirements: nature, values, quality, tolerance	NA
8.2	Requirements for sign-off	Demonstration to the user while delivering the product.
8.3	Training of staff (medical, paramedical, technicians) OPTIONAL (Depending upon scope of work order)	Training of users in handling and basic maintenance shall be provided.
	9. WARRANTY AND MAINTENANCE	
9.1	Warranty	3 years against functionality excluding asthetics.
9.2	Maintenance tasks	maintainance manual detailing complete maintaining schedule.

9.3	Service contract clauses, including prices	Local clinical staff/authorized officer on behalf of purchaser to affirm completion of installation.
	10. DOCUMENTATION	
10.1	Operating manuals, service manuals, other manuals	Advanced maintenance tasks required shall be documented User manuals to be supplied in english language along with visit log sheet. List to be provided of equipment and procedures required for local calibration and routine maintenance Once a year visit to site within warranty period including training of users on maintenance.
10.2	Other accompanying documents	List to be provided of important spares and accessories, with their part numbers and cost. Certificate of calibration and inspection to be provided.
	11. NOTES	
11.1	Service Support Contact details (Hierchy Wise: including a toll free/landline number)	NA
11.2	Recommendations or warnings	Any recommendations for best use and supplimentary warning for safety should be declared.

Item No. 4

(4)

ESSENTIAL NEW BORN CARE AND RESUSCITATION MANNEQUIN

Version no. :		1.0
Date:		7/4/2014
Done by : (name/institution)		HCT/ NHSRC
GMDN name		Simulators and associated devices
GMDN code		CT2372
GMDN definition		Human neonate model for the demonstration of ENBC and practice of cleaning of airway and ventilation as part of neonatal resuscitation
		1. USE
1.1	Clinical purpose	To demonstrate and practice neonatal resuscitation
		2. TECHNICAL CHARACTERISTICS
2.1	Technical characteristics (specific to this type of device)	1. The material of mannequin should be of polyvinyl and silicone rubber, free from any hazardous material. 2. The texture of the mannequin should be close to the feel of the baby/ adult skin as relevant. 3. The internal parts of the mannequin must be realistically sculpted, anatomically accurate and feel must be smooth/resilient/bony as relevent and suitable for simulation. 4. Newborn mannequin should have features for training essential newborn care (ENBC) and newborn resuscitation. 5. Newborn Mannequin should facilitate effective bag and mask ventilation, chest must rise only with correct technique. 6. The newborn mannequin should include the following: Squeeze bulbs for simulation of cord pulsation, spontaneous breathing, auscultation of heart sound and cry. 7. The new born mannequin should demonstrate clearing of airways, perform suction;monitoring of ventilation and pulsation.
2.2	Settings	NA
2.3	User's interface	NA
2.4	Software and/or standard of communication (where ever required)	NA
		3. PHYSICAL CHARACTERISTICS
3.1	Dimensions (metric)	NA
3.2	Weight (lbs, kg)	NA
3.3	Configuration	NA
3.4	Noise (in dBA)	NA
3.5	heat dissipation	NA
3.6	Mobility, portability	Yes, Portable

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	4. ENERGY SOURCE (electricity, UPS, solar, gas, water, CO2 ....)	
4.1	Power Requirements	NA
4.2	Battery operated	NA
4.3	Tolerance (to variations, shutdowns)	NA
4.4	Protection	NA
4.5	Power consumption	NA
4.6	Other energy supplies	NA
	5. ACCESSORIES, SPARE PARTS, CONSUMABLES	
5.1	Accessories & spare parts	1. 10 units-device for suction of nose and mouth. 2. 4 external umbilical cords and 6 umbilical ties. 3. 2 neonatal mucus sucker (easy to open, clean, autoclave and reusable). 4. 2 training stethoscopes.
5.2	Consumables/reagents (open, closed system)	NA
	6. ENVIRONMENTAL AND DEPARTMENTAL CONSIDERATONS	
6.1	Atmosphere/Ambiance (air conditioning, humidity, dust ...)	Capable of being stored continuously in ambient temperature of 0 to 50 deg C and relative humidity of 15 to 90%. Capable of operating continuously in ambient temperature of 10 to 40 deg C and relative humidity of 15 to 90%.
6.2	User's care, Cleaning, Disinfection & Sterility issues	Complete unit to be easily washable with mild soap and water without bringing deterioration in the mannequin.
	7. STANDARDS AND SAFETY	
7.1	Certifications	BS EN ISO/IEC 17050-1:2010 Conformity assessment. Supplier's declaration of conformity. EMC Directive 2004/108/EC.
	8. TRAINING AND INSTALLATION	
8.1	Pre-installation requirements: nature, values, quality, tolerance	NA
8.2	Requirements for sign-off	Demonstration to the user while delivering the product.
8.3	Training of staff (medical, paramedical, technicians) OPTIONAL (Depending upon scope of work order)	Training of users in handling and basic maintenance shall be provided.
	9. WARRANTY AND MAINTENANCE	
9.1	Warranty	3 years against functionality excluding asthetics.
9.2	Maintenance tasks	maintainance manual detailing complete maintaining schedule.
9.3	Service contract clauses, including prices	Local clinical staff/authorized officer on behalf of purchaser to affirm completion of installation.
	10. DOCUMENTATION	
10.1	Operating manuals, service manuals, other manuals	Advanced maintenance tasks required shall be documented User, technical and maintenance manuals to be supplied in english/hindi language along with visit log sheet. List to be provided of equipment and procedures required for local calibration and routine maintenance Once a year visit to site within warranty period including training of users on maintenance.
10.2	Other accompanying documents	List to be provided of important spares and accessories, with their part numbers and cost. Certificate of calibration and inspection to be provided.
	11. NOTES	
11.1	Service Support Contact details (Hierchy Wise, including a toll free/landline number)	NA
11.2	Recommendations or warnings	Any recommendations for best use and supplimentary [illegible] should be declared

COLLEGE OF NURSING
RIMS, RANCHI

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Sl No	Name of the model /mannequin	Specifications
6	Female pelvis	•Pelvis with stand. Shape - Short and broad, Pelvis cave-barrel Angle: 90-100 degree. Symphysis pubis- short and broad
5	Foetal Skull	• Foetal skull in 30th week of pregnancy showing charastictis of prenatal development like fontanelle and sutures which should be clearly visible on foetal skull
11	Pulse Oximeter	•Should have plethysmography wave form with numeric display for SPO2 •Should have a SPO2 range of 0 to 100% •Should provide bar graph for pulse strength •Audio and visual alarm sound for both upper and lower SPO2 •Should be portable, light weight •Should work with input 200 to 240 Vac 50 Hz supply . •Should have safety certificate from a competent authority
9	Crash Cart	•Overall size shall be more than 900mm L *500mmH •Crash cart should be made of 25.4 mm * 18 G Stainless steel tubular frame work •Should have SS Shelves,6coloured removable bins& 2 polystyrene lockable storage unit with 3 drawers each •Facility to carry ECG monitors, defibrillators etc. on open areas at centre and bottom shelves •Should have stainless steel saline rod fixed •Crash cart should be mounted on 12.5 cm dia non rusting swivelling castor wheels.2 have lock arrangement •Oxygen cylinder stand epoxy powder coated on one side
10	Spring Balance	• Hanging type • Nylon 66 casing with 0 adjustment suspension ring with grip handle and load hook • Calibrated to weigh 0-5 kg in 100 gms. Gradation with a tricolour coding • Should be supplied with a parachute material double stitched tear resistance sling for new born babies • Length of scale should be 12 cm to17.5 cm • Guarantee of one year

27/05/15

Item No. 13

(13)

Oxygen Administration (Oxygen Concentrator)

- Oxygen concentrator to provide oxygen from atmospheric air
- Oxygen concentration measured at the flow meter by oxygen sensing device (OSD)
- Sound level <15 dB
- Superior grade of molecular sieve with an indicator / sensor on the device indicating whether the sieve is functional or non-functional
- Maintenance free rotary propper valve.
- Oxygen purity approximately 90%.
- Oxygen output approximately: 0 - 5 LPM,
- Pressure approximately: 8 psi
- Double outlet or flow splitter for oxygen Delivery
- Oxygen tube of 2 m length must be provided with facility for nebulization with tube & mask With two humidifier bottles and two cabinet filters
- Power requirements: 220 V/50 Hz
- Power consumption: 450 W
- Device is safety certified according CE 93/42, FDA 510k or equivalent

Additional Accessories:

- 3 spare set of tubing
- 3 spare set of internal and external filters (bacterial);
- 10 spare set of fuses

12. **Oxygen Administration (Oxygen Hood)**

- Should have round shape: 1 - Medium size, approximately height 22 cm, diameter 25 cm, 1 small size , approximately: height 18 cm, diameter 20 cm
- Should be autoclavable polycarbonate
- Should be free from trauma of silicon neck, with adjustment flap
- Should have bilateral oxygen nozzle.
- Should have oxygen tube of 1 m length with one spare set of tubing
- Should have port for oxygen sensor
- Device is safety certified according CE 93/42, FDA 510k or equivalent

Item No. 7

(7) **Nebulizer**

- Should be easy to use and clean
- Should deliver inhaled steroids, antibiotics and all commonly prescribed bronchodilators

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- Should have features to respond to breathing pattern, to increase release of drug on inspiration and to decrease the wastage of drug on expiration
- Should have mask with different size (for adult & pediatric)
- Flow rate: 8 lpm rising up to 22 lpm on inspiration

Additional Accessories:

- 5- Filters,
- 10 masks (Each Size),
- 10 – Mask & mouth piece
- 1 – Replacement mesh
- 5- Set Tubing,
- 2- AC/DC Adapters,
- 10 set of Batteries

Item No 8

MULTI DOSE INHALER WITH SPACER

- The Spacer must be of 145ml volume
- The spacer should be 5 -6" long and 2" diameter
- The spacer should fit with the inhaler
- It should have silicone one way valve to prevent exhaling air from entering the chamber
- The spacer should be washable, could be sterilized and reusable
- The spacer should be latex free

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Item No 12

(12)

UTERINE MODEL

Version no. :		1.0
Date:		7/4/2014
Done by : (name/institution)		HCT/ NHSRC
GMDN name		Uterine Cavity Simulator
GMDN code		CT1816
GMDN definition		Rubber or synthetic model with anatomical structures capable of demonstrating insertion of IUD.
		GENERAL
		1. USE
1.1	Clinical purpose	Based on real anatomy of female genitalia, this model is designed and used for demonstration of insertion or removal of IUD.
		2. TECHNICAL CHARACTERISTICS
2.1	Technical characteristics (specific to this type of device)	1. The material of mannequin should be of polyvinyl or silicone rubber, free from any hazardous materials. 2. The texture of the mannequin should be as close to the feel of the baby/ adult skin as relevant. 3. The internal parts of the mannequin must be realistically sculpted, anatomically accurate and feel must be smooth/resilient/bony as relevent and suitable for simulation. 4. Anatomically accurate sagittal or coronal section of uterus and vagina suitable for demonstration of insertion and removal of IUCDs. 5. Should have uterus, ovaries and fimbria. 6. Model should have a transparent window for easy view of cavity.
2.2	Settings	NA
2.3	User's interface	NA
2.4	Software and/or standard of communication (where ever required)	NA
		3. PHYSICAL CHARACTERISTICS
3.1	Dimensions (metric)	NA
3.2	Weight (lbs, kg)	NA
3.3	Configuration	NA
3.4	Noise (in dBA)	NA
3.5	heat dissipation	NA
3.6	Mobility, portability	Yes
		4. ENERGY SOURCE (Electricity, UPS, Solar, Gas, Water, CO_2 ...)
4.1	Power Requirements	NA
4.2	Battery operated	NA

4.3	Tolerance (to variations, shutdowns)	NA
4.4	Protection	NA
4.5	Power consumption	NA
4.6	Other energy supplies	NA
	5. ACCESSORIES, SPARE PARTS, CONSUMABLES	
5.1	Accessories & spare parts	NA
5.2	Consumables/reagents (open, closed system)	NA
	6. ENVIRONMENTAL AND DEPARTMENTAL CONSIDERATONS	
6.1	Atmosphere/Ambiance (air conditioning, humidity, dust ...)	Capable of being stored continuously in ambient temperature of 0 to 50 deg C and relative humidity of 15 to 90%. Capable of operating continuously in ambient temperature of 10 to 40 deg C and relative humidity of 15 to 90%.
6.2	User's care, Cleaning, Disinfection & Sterility issues	Complete unit to be easily washable with mild soap and water without bringing deterioration in the mannequin.
	7. STANDARDS AND SAFETY	
7.1	Certifications	BS EN ISO/IEC 17050-1:2010 Conformity assessment. Supplier's declaration of conformity. EMC Directive:2004/108/EC.
	8. TRAINING AND INSTALLATION	
8.1	Pre-installation requirements: nature, values, quality, tolerance	NA
8.2	Requirements for sign-off	Demonstration to the user while delivering the product.
8.3	Training of staff (medical, paramedical, technicians) OPTIONAL (Depending upon scope of work order)	Training of users in handling and basic maintenance shall be provided.
	9. WARRANTY AND MAINTENANCE	
9.1	Warranty	3 years against functionality excluding asthetics.
9.2	Maintenance tasks	maintainance manual detailing complete maintaining schedule.
9.3	Service contract clauses, including prices	Local clinical staff/authorized officer on behalf of purchaser to affirm completion of installation.
	10. DOCUMENTATION	
10.1	Operating manuals, service manuals, other manuals	Advanced maintenance tasks required shall be documented User manuals to be supplied in english/hindi language along with visit log sheet. List to be provided of equipment and procedures required for local calibration and routine maintenance Once a year visit to the site within warranty period including training of users on maintenance.
10.2	Other accompanying documents	List to be provided of important spares and accessories, with their part numbers and cost. Certificate of calibration and inspection to be provided.
	11. NOTES	
11.1	Service Support Contact details (Hierchy Wise; including a toll free/landline number)	NA
11.2	Recommendations or warnings	Any recommendations for best use and supplimentary warning for safety should be declared.

(2) List & specification of Hand Instruments & Small Equipments For Various Departments

Note : (1) All the hand instruments like forceps, retractors etc must be SS-410 grade

(2) The heavy hand instruments (like – ortho / neuro etc) the quality must be S:S – 420 grade

(3) All the small equipment like SS drum / instrument sterilizer / all types of trays / or any other equipment which have plates must be SS-304 grade

(4) For confirmation of the above S.S. grades, the bidders have to enclose the certification of the same in the technical bid as well as it may be confirmed at the time of supply also.

Sl. No.	Name of Hand instruments / equipments	Specialization / specification
1	Anthropometric set	
2	(Straight) artery forceps	SS size 8", 6" 5",7", 4"
3	(Curved) artery forceps	SS size 8", 6" 5",7", 4"
4	Mosquito artery forceps	Straight / Curved SS – 3, 4, 5"
5	Anteral Burr -	Small, Middle, large 4", 5", 6"
6	Antral Harpoon	
7	Artery forceps	
8	Auriscope	
9	Antivirus software	
10	Allice's forceps (Tissue forceps)	4", 5", 6", 7", 8
11	Adson bayonette dural forceps scrrated tip 8" long	
12	Adson bayonette dural forceps 1x2 teeth 8" long	
13	Artery forceps (Mosquito Curved)	4", 5", 6"
14	Artery forceps Mosquito straight	4", 5", 6"
15	Anal Retractor	
16	Antegrade urethral "U Boogies	
17	Aneurism needle	
18	Alli's forceps (Medium	
19	Autoclave (Horizontal)	
20	Autoclave (Vertical)	
21	Air Cannula	
22	Aggressometer	
23	Analgesiometer	
24	Block holder	
25	Bone cutting forceps	
26	Bone rounger	
27	(i) B.P apparatus / B.P. Instrument (Mercurial)	
	(ii) B.P. Instruments LED/LCD type	
	(iii) B.P. Instruments (Mercurial) with stand	
28	Brain knife	
29	Bunsen burner	
30	Boyel's Davis Mouth gag with tounge Depressor	
31	Bone Nibbler	
32	Boynet shape nasal bone gauze	
33	Bulls Eye lamp	
34	Bandage cutting scissor	
35	B.P. Handle	

36	Blood pressure instrument (LED type)	
37	B.P. Handle Long No. 15 (20cm, 25cm) straight & bionet type)	
38	Brain biopsy canula	
38	Small bowl	
39	Bone nibbular angled & straight of different sizes.	
40	Brain spatulla	
41	Boomerang Needle (Prestatectomy)	
42	Bulldog clamp curved	
43	Babecook Tissue Forceps	5", 6", 7" 8"
44	Bladder retractor	
45	Bulldog clamp straight	
46	Bone cutter Medium	
47	Bone Holding forceps medium	
48	Bladder syringe	
49	bowl lifting forceps	
50	Bowel sterilizer	
51	Basin Ss (Bed side bowl)	40 cm
52	Bottle Lifter	
53	Bowl Sterilizer	
54	Blue tube (Phototherapy type)	
55	56Bone Chizel	
56	B.P. Instrument for small animal like Albino Rat	
57	Bi PAP equipment	Having spontaneous & timed mode to trigger on demand or automatically to deliver prescribed therapy. Can recognize & compensate leakages, flex pressure relief should be US FDA approved.
58	Baby tray (for Gynae)	.
59	CPAP equipment	Continuous positive airways pressure machine with CPAP, Auto, Auto check & auto trail mode, A Flex, Opti – start features, SD card capable, Oximeter module. Should be able to detect and respond to Apnea, Hypopneea, Snoring. Should be US FDA approved
60	Cough extractor machine (Paediatric & Adult)	Non-invasive cough assist for enhance or replacing their natural removal of bronchial secretions via mechanical insufflations-exsufflationi. Should have detachable battery facilities, control level for manual application, automatic mode with track & trigger option. Noninvasive & flexible technique can be given via facemask, mouthpiece, endotracheal &

		tracheotomy tube. Should be US FDA approved.
61	Cartilage knife	
62	Chisel (different sizes)	
63	Copper foil	
64	Costotome	
65	Councilman blade saw	
66	Curved scissor	
67	Citellis Bone Punch	Number 1,2,3
68	Chitel's forceps	Small, Medium, Large
69	Cushin bayonette dural forceps sorrated tip 7 1/2 long	
70	craniotomy set with hudson brace and perforatic & with extra rods	
71	Cervical spinal surgery hand instruments	
72	Cystolithotomy forceps	Big & Small
73	Czerny's retractor	6", / 8" / 10"
74	Cleft palate repair set	
75	CBD dilators	
76	Coscos Speculam	
77	Cochers clamp	
78	Coscos forceps	
79	Curved Scissors (Mayos)	7"
80	(i) Cryo cautery	
	(ii) CTG machine with printing paper (for Gynae use)	
	(iii) Colposcope (for Gynae)	
	(iv) Chromatography chamber (for Biochemistry PG Lab)	
81	Centrifuge machine	8 tube/bucket high speed
82	Centrifuge machine	4 tube/bucket high speed
83	Calorimeter (Interface filter digital)	Filter range 405 to 660
84	Cell counter (Manual)	8 key
85	Cell counter (Manual)	12 key
86	Conjunctival Scissors	
87	Collibri forceps	
88	Corneal forceps with plate	(Titanium)
89	Conjunctival spring scissors	
90	Chemical balance	
91	Dissecting knife	
92	Denis Brown Tonsil Holding	
93	Denture wire cutting scissor	
94	Deveker Scissor	
95	S.S. Dressing drum	(i) Size : 10" x 12", (ii) Size : 11" x 9"
		(iii) Size : 12" x 15"
		(iv) Size : 12" x 18"
96	Disection forceps (toothed)	4", 5", 6", 7", 8"
97	Digital lontopheresis SS	
98	Diaphragm for Microscope	Carl Zeiss

99		Olympus
100	Digital Projector bulb	Mitsubishi Model No. DX4900
101	Dura Elevator (Adson's)	
102	Dura Scissors	
103 104	Disc forceps up, down & straight	
105	Dissecting forceps (Plain)	
106	Disjardin's Forceps	8
107	long tooth dissecting forceps	
108	long plain dissecting forceps	
109	Dajens deep retractor	
110	dressing cutting scissor	
111	Doyn's retractors (small size)	
112	Dialeter set	
113	Dissecting forceps non toothed	Fine 6"
114	Devecker's scissors	
115	Frontal wiring lever	
116	Dales isoloated organ bath (Student Jar bath)	
117	Dryer	
118	Dispensing balance with Wt	1G to 20Gm
119	Domestic Refrigerator – 180 Ltrs to 200 Ltrs	
120	Domestic Refrigerator – 250 Ltrs to 300 Ltrs	
121	Eye piece Lens foe Microscope	Carl Zeiss / Olympus / T/M India
122	ECG maching for small animal	
123	E.C.G. Machine	(i) 3 channel (ii) 12 channel
124	(i) Electrophoresis unit (Serum Electrophoresis) + power pack (for Biochemistry PG Lab)	
	(ii) Electro convulsiometer	
125	Electric derma brador	
126	Electric cautery machine	
127	Foreign body hookds	
128	Flow meter	
129	Fine curved scissors	
130	Foley's catheter mounter	
131	Foggar machine	5 ltrs. / 8 ltrs. / 10 ltrs.
132	Flussing currette	
133	Freer's suction elevetor (Karl stortz)	
134	Finochieto Retractor for RIBS	INFANT
135	(i) Finochieto Retractor Small	
	(ii) Finochieto Retractor Medium	
136	(i) Foetal Doppler (for Gynae use))	
	(ii) Foetus scope (for Gynae use)	
137	3/2 fixation forceps	
138	Fine Iris repositor	
139	Freer's elevator Septoplasty set elevetor, seprator, knives etc.	
140	Fullers Bivalved Tracheostomy tube	Size - 0 to 9
141	Folley’s catheter introducer	
142	Fishtail bone gauge	

143	Glucometer	
144	Gastro entrostomy clamp set	
145	steel gally port	
146	Green Armittaze	7"
147	Gooze	
148	Gigli saw, Dura guide & Gigli wire	
149	Hack saw	
150	Hammer	
151	Hand lens	
152	Hand set sealer	
153	Hot plates	
155	Hartman's forceps	
156	Hemocytometer with silver lining counting chambers	
157	Hemogobinometer with Prismatic computer	
158	Hudson brace with perforators & burrs of different sizes and extension rod	
159	Hand drill and drill bits	
160	Haemorrhodiectomy forceps	4, 6, 7, 8
161	Humby's Handle	4, 6, 8
162	Hook retractor Single & Double	4, 5, 6, 8
163	Hegar's dilator set	
164	Hernia Dissector	
165	Heating elements	6 Kva
166	Histamine chamber	
167	Heating mental	2L, 3L
168	Handycam	12 MPxl / 16 MPxl
169	Handle knife	
170	High Power Lense for Microscope	Carl Zeiss
171	Infantometer	
172	Intestinal scissor	Enterotome
173	Itching pen	Diamond pencil
174	Infra Red Lamp	
175	(i) Intestinal non crushing clamp straight	6", 8", 10"
	(ii) Intestinal non crushing clamp curved	10", 8", 6"
176	Incubator (Baby incubator)	
177	Instrument sterilizer	
178	Intestinal clamp (Straight)	(AT)
179	Intestinal clamp (Curved)	(AT)
180	Irrigation vectis – 2 size, Preferable serrated	
181	Irrigation chopper	Microphaco
182	Iris Hooks	
183	Indo Capsular Rings	
184	Irani's Clamp	
185	Joll's Thyroid retractor	
186	Jenkins bone Gouge	Size -2,4,6,8,10,12
187	Jenkins Chisels	2, 4, 6, 8mm
188	Jakson forceps with one movable jaw	12", 14", 18", 22", 24"

		FB holding type, Biopsy type
		- up, down,right, left punch
189	Jakson forceps with both movable jaw	12”, 14”, 18”, 22”, 24”
		FB holding type, Biopsy type
190	Jakson horne probe	
		- up, down,right, left punch
191	Kockers clamp	8”
192	Kolner’s Mouth Gag (Adult/small)	
193	Kidney pedicle clamp	
194	Kochar’s thyroid retractor	
195	Kocher’s clamp long curved	6, 8, 10
196	Kocher’s clamp long straight	6, 8, 10
197	Kidney Tray (S.S)	8”, 10”, 12”
198	Karrison punch	
	1. Upward cutting 90 deg. 2mm, 7”long	
	2. Doward cutting 90 deg. 2mm, 7”long	
	3. Upward cutting 45 deg. 4mm, 7”long	
	2. Doward cutting 45 deg. 4mm, 7”long	
199	Large amputation knife	
200	Leather strops	
201	L-modes	
202	Laryngeal Mirror	Number 3,4,5,6
203	Luc’s Forceps	
		Ant commisure-child & Adult
		(Twin bulb tupe)
		Sliding panes – Child & Adult
204	Laryngoscope	Child & Adult
205	Loutophorocesis for Ion nutrain	
206	Low Power Lense for Microscope	Carl Zeiss
207	Loyella brain retractors	
208	Loyala Brain Retractor Complete set	
209	Lifter	
210	Langenbach's retractor	
211	Lead Apron/CAP/Goggle/Gloves/Collar Zero lead type	
212	Laser Pointer (with pencil torch battery)	
213	Laryngoscope set (Machintosh)	
214	Laryngoscope set (Wise foregger)	
215	Lens expressor	
216	Lacirimal Probe	
217	Liq. N2 Gyotherapy instrument with gas cylinder	
218	Lead apron (Zero Lead)	
219	Lead gloves (Zero Lead)	
220	Lead Cap (Zero Lead)	
210	Metal probe	
222	Myo-dissecting scissor	
223	Mayo's Scissor	Straight / Curved -4”,5”, 6”, 7”, 8”
224	Mucks Tonsil Holding forceps	

225	Mastroid Cell seeker with Scoop	
227	Mallet	200 gm
228	Microscope	
229	Research microscope	
230	Mouth piece for spirometer	Autoclavable
231	Mirror for Microscope	Carl Zeiss
		T/M India
		KHM Model
		Olympus GB
232	Micro dissector 9" long	
	1. 1mm tip	
	2. 2mm tip	
	3. Round shaped tip	
234	Microneedle holder	
235	Microscissor yasargil type 7 1/2 long	
	1. Straight blade	
	2. Curved blade	
236	Microsurgical Hand instruments for spinal surgery	
237	Microsurgical Hand instruments for Cervical/Neuro surgery	
238	(i) Mosquito forceps	
	(ii) Midwifery forceps	
239	Multipurpose intestinal clamp	
229	Metzenbaum Scissor	6.5"
230	Monocular microscope	
231	Microtome (Manual)	SIPCON design
232	Mixter baby forceps	6"
233	Scissor (Mayo) fine	
234	Magill forceps	16 cm
235	Magill forceps	19 cm
236	Modigied urata's forceps	Titanium - 10mm
237	MC Phersons	Titanium
238	Mahatme's Chopper (Sharp)	Titanium
239	Microscope bulb	Pihlun 1200 VT
240	Micro sen bulb	1500 VT
241	Magnetic stiring bar	
242	Magnetic stirrer	
243	Mega surge Gold	
244	Needle Holder	Size - 6", 8", 4", straight and curved SS
245	Negus Oesophogoscopes different forceps with fibreoptic carrier	5mm x 30 cm
		7mm x 35 cm
		9mm x 45 cm
		10mm x 53cm
246	Negus Bronchoscope with fiberoptic carrier	5mm x 27 cm
		6mm x 30 cm
		7mm x 35 cm
		9mm x 45 cm

247	Fine needle holder (small & long)	
248	Nebulizer	
249	Needle cutter and destroyer	Electrical & Mannual (Combined cutter)
250	Nasopharyngeal Pronge	
251	Nizal Prong	
252	Needle holder with lock (Small size) (Cornil)	Titanium
253	Needle holder without lock (Small size)	Titanium
254	Nagahara's chopper (Blunt)	Titanium
255	Osteometric board	
256	Otoscopes with rechargeable battery	Alleyn / Hynes/Equivalent
257	Oesophageal Bougy	Size - Big, Medium small
258	Oesophageal Speculum with fiber optic carier	Child & Adult
259	Overhead Projector Bulb	Galaxy 2000
260	Osteotome	
261	Ophthalmoscope	Pocket model
262	Olive Tipped/Ring polisher for caapsule	
263	Otoscope with rechargeable battery	
264	Paraffin bath	
265	Post-mortem instrument set	Complete set
266	Punching machine	
267	Post Rhinoscopy Mirror	Number 2,3,4
268	Periosteum Elevator Mollisoris	
269	Puch Biopsy forceps endoscopy	
270	Portex Tracheostomy tube	Size - 0 to 9
271	Phototherapy set (Paedia / Neonate)	
272	Petallar hammer	
273	Penion for Microscope	Carl Zeiss
		Olympus
		Olympus
		Olympus
274	Perimeter Bulb	
275	Periosteum elevator	
276	Penfield dissector different sizes (Straight, Curved & fine)	
277	Pyelolithopomy forceps (Set)	8
278	Punch Biopsy forceps	8
279	Pulse Oximeter	
280	Proctoscope Adult size	
281	Proctoscope pediatric size	
282	Portable light for O.T	
283	Photo electric colorimeter	
284	Phototherapy tube holder	
285	P.H. Meter (Digital)	
286	Quinsy Forceps	Adult
287	Doyen's mouth retractor	
288	Zerney's small and large retractor	
289	Cheech retractor	Small, Middle, large

290	Skin hook retractor	Single / Double
291	Anterior Pilar retractor with dissector	
292	Mastroid rectractor	
293	(i) Tracheal retractor	Blunt sharp
	(ii) Anterior Vaginal wall retractor	
294	Rigid Oesophogoscopes (Jackson)with fibre optic carrier	Diff. Size - Infant, Child, Adult
		5mm x 30 cm
		7mm x 35 cm
		9mm x 45 cm
		10mm x 53cm
295	Retangular Tray Big (S.S)	Size : 12”x18”,
		Size : 12”x15”
296	(i) Retangular Tray Small (S.S)	8”x10”,
	(ii) Retangular Tray Medium (S.S)	10”x12”
297	Radiant Warmer (for Gynae)	
298	Ring retractor for urethroplasty	
299	Self retaining retractors of different sizes	Straight & Curved
300	Self retaining retractors for spinals surgery lumber and cervical clowards retractors	
301	Self retaining hinged Arm retractor	
302	Rigid sigmoidoscope with biopsy forceps	
303	Rectum clamp for anterior resection	
304	Retractors kellis	
305	Recording drum	
306	Scalpel	Large size
307	(i) Scissor with one sharp and one blunt blade	
	(ii) Scissor (Episiotomy Scissor)	
	(iii) Dressing Cutting scissor	
	(iv) Sherman’s endomental biopsy forceps	
308	Serrated tip forceps	
309	Set of models	Please specify the name of required models
310	Sims Viginal Speculum	
311	Suction apparatus (Electrical Suction Machine)	
312	Sponge Holding forceps (S.S) wild size	8”, 9", 10”
313	Sineous forceps	SS size 7", 6", 5"
314	Lempert end aural speculum	
315	St. Clair Thomson adenoid curatte with guard	Size - 1,2,3,4
316	Suspension laryngoscope and chest piece	Child & Adult
317	Spirit Lamp	
318	Sickle knife	19 cm. pointed round double cutting karl stortz make
319	Stetho Scope	(i) Adult
		(ii) Paediatric
		(iii) Cardio Vascular
320	Stich cutting scissor	

321	Scissor straight & curve	
322	Very Small Scissor (Straight)	3”
323	Scissors cuved	3"
324	Scissor's pointed	6”, 7”, 8"
325	Scissor's Blunt	6", 7”, 8"
326	Scalp forceps	
327	Shunt introducer (Adult & Child)	
328	Scoop	
329	Sealput handle bayonette shaft 8”long	
	1. Vertical cutting	
	2. Horizontal cutting	
330	Spinal instruments & fixation instruments	
331	Sterlizer (Electrical)	Please specify size
332	Silver Probe Various Size	8
333	Suprapubic metal trocar & cannula	
334	Steel bowl with everted margine 16 inch dia	
335	Steel dressing tray	10”, 12”, 16”
336	Straight marks pattern rectum retractor Adult	
337	skin grafting handle (Humby's)	
338	Skin Hook	6"
339	Sterilizing Bins, Seamless s/s	S/S-304 grade steel sleek flat wall body, extra strong bottom and easy locking system
340	Spong holding forceps (Narrow size)	8", 9”, 10"
341	Sharp and blunt currette (wild size)	
342	Scissor Cuticular	5"
343	Scissor Palt's angle 45 deg.	6"
344	Superior rectus forceps	
345	Sinsky Hook	Titanium
346	Suture tying forceps Titanium - Curved & Straight	Titanium
347	Soxhlet apparatus	2L, 3L
348	Smoking burner	
349	Tilley's forceps	Long size 9"
350	Turning forks Brass	512 Hz / 1024 Hz
351	Tonsilar Snare and wire eves	
352	Tracheal dialator	
353	Tracheal Hooks	Blunt sharp
354	Tongue forceps or Tongue depressor	
355	Tonsillar Scissor	Size - 7.5" Metzenbam
356	Tracheostomy tube silver jackson	Size - 0 to 9
357	Tympanoplasty set	
358	Tatto electrical machine	
359	Tissue holding (Biopsy) forceps with cupped up tip both plain & serrated	
360	Trephine with guard different sizes.	
361	Tumour graspoing forceps (Straight & Bayonette)	
	1. 2mm tip bayonette shaft	
	2. Curved upwards	

	3. Curved downwards	
362	Trephine with guard	
363	Towel clip cross action	4
364	Towel clip moynihans	8
365	Tailor scissors	Brass handle size : 10” & 12”
366	Towel clip backhan's	5", 6"
367	Test lung	
368	toothed conjunctival forceps	
369	Trial box	Balliwala
370	Trial frame	
371	Turning fork with board base	128, 256, 515 Hz
372	UV light chamber	
373	Urethral dilator set (Paediatrics)	
374	Urethrl dilator set (Adult)	
375	Uretheral sound (Dittel) All test	
376	Universal Corneal scissor	Titanium
377	U-shaped aspiration cannula	
378	UV cabinet for TLC monitoring	
379	Viscera cutter	
380	View Box	Single film
381	View box	two films / four films
382	Vascular dissecting forcep straight	6, 8
383	Volcellum	
384	VDRL shakers	
385	(i) Vannas scissors - long, curved	Titanium
	(ii) Vannus scissors Fine	Titanium
386	(i) Ventous with cups (for Gynae)	
	(ii) Uterine sound (for Gynae)	
387	Vaccume filteration assembly	
388	Water bath	
389	Weigh machine (Adult)	Manual
390	Weigh machine (Child/ Infant)	(i) Manual
		(ii) Digital
391	Wrigly's forceps	
392	Warmer heating element	
393	Wire Eye speculum	
394	Wernier calliper	Able to measure at least 10 inch
395	Yankurs suction with Tip	
396	Yiliya IPL	
3397	Sterilization Drum s/s – 16”*20”	
398	Formalin Chamber - Different Size	
399	Suction Canula s/s – Different Size	
400	Sterilizer - Size	
401	Vertical Autoclave – For two drums	
402	Brain Ventricular Canula – Different Size	
403	Trochette (Lights) (Lifter)	
404	Antral Burr	Small, Middle, large 4”,5”,6”

403	Antral Harpoon	
404	Autoclave (Horizontal)	
405	Bone cutting forceps	
406	Bunsen burner	
407	Boynet shape nasal bone gauze	
408	Bulls Eye lamp	
409	Blood pressure instrument(LED type)	
410	Small Bowl	
411	Bowl lifting forceps	
412	Bowl sterilizer	
413	Cartilage knife	
414	Citellis Bone Punch	Number 1,2,3.
415	Czerny's retractor	6"
416	Cleft Palate repair set	
417	Cryo cautery	8 tube/bucket high speed
418	Denture wire cutting scissor	
419	X-ray view box (LED type)	(i) Single film
		(ii) Double film
		(iii) Three films
420	Dryer	
421	Fishtail bone gauge	
422	Glucometer	
423	Gigli saw, Dura guide & Gigli wire	
424	Hook retractor Single & Double	4,5,6,8
425	Handycam	12 MPx1/16MPx1
426	Jenkins bone gauge	Size 2,4,6,8,10,12
427	Jenkins chisels	2,4,6,8mm
428	Jakson forceps with one movable jaw	12",14",18"22"24"
		FB holding type, Biopsy type
		-up, down, right, left punch
429	Jakson forceps with both movable jaw	12",14",18"22"24"
		FB holding type, Biopsy type
430	Kolner's Mouth Gag	Adult & small
431	Laryngoscope	Child & Adult
		Ant commisure-child & Adult
		(Twin bulb type)
		Sliding panes- Child &Adult
432	Laser Pointer (with pencil torch battery)	
433	Laryngoscope set (Machintosh)	
434	Laryngoscope set (Wise foregger)	
435	Lacirimal Probe	
436	Liq. N2 Cryotherapy instrument with gas cylinder	With all ENT probes
438	Magnetic Set for removal of foreign body	
439	Mastoid Cell seeker with Scoop	
440	Microneedle holder	
441	Microscissor yasargil type	

	1. Straight blade	Small ,Medium & Large
	2. Curved blade	Small ,Medium & Large
442	Magill forceps	16cm & 19cm
443	Needle holder with lock	Small size (Titanium)
444	Oesophageal Bougy	Size – Big, Medium, Small
445	Oesophageal speculum with fiber optic light carrier	Child & Adult
446	Post Rhinoscopy Mirror	Number 2,3,4
447	Punch Biopsy forceps endoscopy	Different sizes & Different shape
448	Portex Tracheostomy bube	Size 0 to 9
449	Punch Biopsy forceps	Small & Large
450	Quinsy Forceps	Adult
451	Cheek retractor	Small, Middle, Large
452	Anterior Pillar retractor with dissector	
453	Mastoid retractor	Child & Adult
454	Lempert end aural speculum	Different sizes
455	St. clair Thomson adenoid curatte with guard	Size 1,2,3,4
456	Suspension laryngoscope and chest piece	Child & Adult
457	Skin grafting handle (Humby's)	
458	Tunning forks Brass	256Hz,12Hz,1024Hz,2048Hz,
459	Tonsillar snare and wire	
460	Tongue forceps	
461	Tracheostomy tube silver Jackson	Size-0 to 9
462	Tumour grasping forceps (Straight & Bayonette)	2mm tip bayonette shaft
		Curved upwards
		Curved downwards
463	Tunning fork with broad base	128Hz,256Hz, 512Hz,1024Hz,2048Hz
464	Thudicum nasal Speculum	All sizes
465	Headlight with Transformer	
466	Head mirror CE & FDA approved	
467	Higginson syringe	
468	Mucs tonsil holding forceps	Cup shaped
469	Antrum Trocar & channula	
470	Set of models	(Ear, Nose ,Throat & Neck)
	Anaesthesiology	
1	Laryngoscope with (Oxiport Macintosh blades) Size 1 to 4	
2	Laryngoscope with (Miller blades) size 00, 0, 0.5, 1	
3	Laryngoscope (fiber optic laryngoscope blade) Macintosh type size 1 to 4	
4	Laryngoscope (fiber optic laryngoscope blade) Miller type size 0 to 1	
5	Oxiport (miller blades) size 0,1,2	

6	Stylet, fiberlite of handle with light source	
7	Stylet (Dr' Talwaker Directable)	
8	Jet ventilator for bronchoscopy	
9	Twin Gauge oxygen regulator	
10	Peripheral Nerve Stimulator	
11	Transcutaneous electrical nerve stimulator	
12	Breathing system tube support	
	Neurosurgery	
1	Automated Subglottic Secretion device	
2	Portable Transport ventilator	
3	Suction Mahcine Aspirator (Mains / Battery)	
4	ICU Pendent	
5	Endoscopic 3D camera system	
6	Hospital cubical track system	
7	Patient warming system	
8	Intermittent pneumatic compression system for DVT prophylaxis	
9	Instant PT – INR measuring meter	
10	Battery operated suction machine	

SPECIFICATIONS FOR NEURO SURGICALS

(1) Automated subglottic extraction device

- Should be low noise and little vibration (35 dB(A))
- Should be simple operation, very safe to use
- Should have choice of batteries or mains power
- Should have DFS - double filter system protects the inside of the device against contamination
- Should be used with a disposable secretion
- Should have closed container system and has various accessories, prevents from cross contamination
- Overall aspiration capacity max 8 liters/min
- Pressure -25 mbar to -200 mbar (in steps of 10 mbar)
- Adjustable pause time from 3 min to 45 min
- Adjustable suction time from 30 seconds to 60 seconds
- Secret collection Containers Disposable secretion container system, 750 ml
- Secret collection canister including solidifier, bacterial and carbon filter
- Nominal mains voltage (mains-powered) 100 – 240V AC primary / 12V DC secondary
- Maximum current 1.25 A
- Mains frequency (mains-powered) 50 / 60 Hz
- Rating 15 W (charging and operation) / 10 W (charging only)
- Current drawn 1.25 A at 12 V
- Rechargeable battery 7.4 V, 4.4 Ah – lithium ion
- Dimensions (H x W x D) in mm 290 x 259 + 100 (container) x 130 mm
- Weight (basic device) less than 3 kg
- Running time
- Mains continuous operation
- Battery approx. 12 hours when the vacuum pump is at full capacity

- Operating mode Intermittent Aspiration
- CE / FDA approved
- Alarm for low battery, empty battery and blockage
- Key lock
- Made acc. to IEC 60601-1 3rd Edition

(2) SPECIFICATION FOR ICU / TRANSPORT & RESCUE VENTILATOR

Portable Ventilator suitable for Transport & Sub-acute Care and Rescue Operations. The Ventilator must have advanced feature & fulfill following specifications & configuration as mentioned here below:-

(1) Must be suitable for patients from infants (5 kg body weight onwards) to Adults. a certificate from " FDA" type must be attached.

(2) Suitable for Non-Invasive Ventilator i.e. without the intubations. Leak compensation must be available to avoid unwarranted alarms as well as effective ventilation.

(3) Built in Battery must be capable of full operation including Compressed Air Supply for at least one hour. Ventilator must have provision to work on external DC Source in the ambulance 12 Volts jack & mains AC power.

(4) Must offer following modes of Non Invasive & Invasive Ventilations:-
   (1) Non Invasive (NPPV / NIV) with provision of easy setting of IPAP & EPAP levels.
   (2) Assist / Control.
   (3) SIMV
   (4) CPAP (0 to 20 cmH2O)
   (5) Apnea Back up

(5) Breath types : Volume Control, Pressure Control, Pressure Controls, Pressure Support & Spontaneous.

(6) Tide Volume Setting in VC : 50 ~ 2000 ml

(7) Breathing frequency : 0 – 80 bpm

(8) Built in Compressed air source capable of giving spontaneous flow up to 150 lpm and making the ventilator independent of Wall Air Sockets / External inputs other than Oxygen. The Air and Oxygen blender must be electronically controlled and inbuilt in the ventilator itself.

(9) Trigger Sensitivity by flow 1 ~ 9 Lpm.

(10) Capable of working with Low Pressure 0_2 (≤ 10 PSIG) High Pressure O_2 (40 – 80 PSIG) Oxygen supply

(11) Must be able to offer following alarm conditions:-
   (a) Apnea
   (b) High Pressure Alarm
   (c) Low Pressure Alarm
   (d) Low PEEP
   (e) High PEEP
   (f) High Breath rate
   (g) Low Minute Volume (Adjustable 0.1 – 90 litres)
   (h) Power failure: High & low inlet pressure, low battery; disconnect & Ventilator inoperative alarms / status indication must also be available.

(12) The PEEP valve must be internal. Pressure support & pressure control breaths must be PEEP compensated automatically.

(13) Inspiratory & Expiratory hold must be available to observe vital static compliance, AutoPEEP etc.

(14) A provision of 100% O_2 flush for 1 ~ 3 minutes must be available.

(15) A provision to lock the front panel must be available to prevent accidental change of setting during traumatic conditions or while transporting the patients or to prevent unauthorized access.

(16) The display of parameters should be on LED/LCD types such that readings can be easily read in bright light outdoor settings common to rescue operations.

(17) The total weight of the Ventilator must not exceed 8.0 ~ 10 kg. Lower weight & easy to carry dimensions may be preferred.

(18) Demonstration unit must be kept ready by the quoting company; otherwise the tender will be rejected, if the company fails to demonstrate the unit at the desired timings.

(19) Ventilator must comply to International standards & cop of the following certificates are essential:-

1. CE Certification
2. 1S0 13485 Certificate of the Manufacturing company
3. IEC 60601 Certification
4. Shock & Vibration Compliance to MIL-STD-810E or equivalent.
5. US-FDA

(20) Following items must be supplied with each Ventilator:-

- Main unit.
- 2 sets of Reusable Adult Circuits
- 5 pcs. of HME filter.
- O_2 hose for connection to Cylinder / Wall socket.
- Bracket for Ambulance such that Ventilator can be mounted & demounted with ease.
- External DC power cable for use for Ambulance. (1pcs)
- Non-Vented NIV Masks for both Pediatric & Adult sizes (2 sizes each).

(3) Suction Machine / Aspirator (Mains / Battery) :

Description of Function :

- To extract fluid from the body during surgery or emergency treatment.

Operational Requirements :

- Shall have Compton Greaves / American Universal / GEC Motor of Minimum ¼ H. P. capacity.
- The machine should be portable on four wheels and handle for Transportation

Technical Specification :

1) The Suction pump should be oil immersed fitted on Motor shaft.
2) Suction pump should have line grinding internally.
3) To facilitate maintenance the cover of machine should be easily to open from the top & sides.
4) The suction machine should be capable of producing minimum vacuum of 500 approx mm Hg which should be adjustable and monitored by vacuum gauge of suitable range. The suction capacity should be 20 litres per minute and can be regulated.
5) It should have bottles of 1 or 2 litres (as per requirement) with synthetic rubber lids. The bottle shall be fitted with the arrangement to prevent overflow of fluids.
6) ON / OFF Switch and Power indicator should be available.

7) Body material: Base, top & panel made of rust proof and corrosion resistant moulded ABS / Stainless Steel. Jar / Bottle material : Autoclavable polycarbonate.
8) Machine must be capable of running for at least 12 hours on a continuous basis.
9) Inbuilt maintenance free battery. Battery backup up to 60 minutes on full charge. Provided with cable for ambulance / car use.

System Configuration Accessories, Spares and Consumables :

- System as specified.
- 3 core lead of 2 meter along with one 3 pins 15 amp. Plug **– 01.**
- Power cable – 3 core lead of 15 meter along with one 3 pins 15 amp. Plug **– 01.**
- The following spares per machine are also required :-
  - Bottles **~ 2 Nos.**
  - Lids **~ 2 Nos.**
  - Rubber Seals **~ 2 Nos.**
  - Blades **~ 2 Nos.**
  - Suction tubing set **~ 1 No.**

Environment Factors :

- Shall meet IEC–60601–1–2 : 2001 (or equivalent BIS). General requirements of safety for electromagnetic compatibility or should comply with 89 / 366 / EEC, EMC – directive.
- The unit shall be capable of being stored continuously in ambient temperature of 0 – 50 deg C and relative humidity of 15 – 90 %.
- The unit shall be capable of operating continuously in ambient temperature of 10 – 40 deg C and relative humidity of 15 – 90 % for at least > 12 hours continuously.

Power Supply :

- Power input to be 220 – 240V AC, 50 Hz fitted with Indian plugs.
- A fuse or a Resettable circuit beaker of a appropriate capacity should be incorporated for protection of motor.
- Should work on 220 – 240 V AC as well as batteries. Mains adaptor to be supplied.

Standards, Safety & Training :

- Should be FDA, CE UL or BIS approved product.
- Conforms to BIS standard for suction apparatus IS–4533, Latest Revision except where specified here differently.
- Manufacturer / Supplier should have ISO certification for quality standards.

Documentation :

- User / Technician / Maintenance manuals to be supplied in English.
- Certificate of calibration and inspection.
- List of important spare parts and accessories with their part number and costing.

- Log book with instruction for daily, weekly, monthly and quarterly maintenance checklist.
- The job description of the hospital technician and company service engineer should be clearly spelt out.

(4) ICU PENDENT

1. Installation Base :

Single installation base for swivel arms.

2. Medical suspension arm :

a. The single arm (mechanical) should be___750_mm.
b. The length of double mechanical arms should be_750___mm + _750___mm.
c. The load capabilities of each pendant should be at least_200___kg.
d. The allowable rotation angle of each axis should not be less than 340 degrees.

3. Supply distribution :

a. The allowable rotation angle of each axis should not be less than 340 degrees.
b. Four different versions of column supply distribution available :
500mm, 800mm, 1000mm, 1250mm.
c. Separated design for the gas and electrical outlet for maximum safety.
d. Supply distribution should consist of, but not limited to the following outlets :
(1) Vacuum outlet x 1 no.
(2) Medical air outlet x 1 no.
(3) Oxygen outlet x 1 no.
(4) Electrical outlet x 8 nos.
(5) RJ45 x 1 no.
(6) Equipotential outlet x 8 nos.

4. Accessories :

Supply distribution should consist of, but not limited to the following accessories :
(1) Shelf (with side rail), load capacity 80kg – 450mm (W) x 500mm (D) x 2 nos.
(2) Shelf with drawer (with side rail, load capacity 80kg) – 450mm (W) x 500mm (D) x 1 no.
(3) Infusion pole in length 1000mm, height adjustable, 1 no.
(4) Extension arm 300mm for the infusion pole, 1 no.
(5) Handle to move the distribution x 1 no.

5. Certification :

The following certificate must be compliance with official document.
(1) ISO 13485:2003 & ISO 9001:2008.
(2) The medical device should have been assigned to class IIb by rule 11 according to Annex IX of the direction 93 / 42 / EEC and bear the mark CE 0197.

(5) ENDOSCOPIC-3D CAMERA SYSTEM

S. No	Specification
1	**3D Camera System**
	• Integrated video nasal endoscope, 4 mm, 0° direction of view • Integrated video nasal endoscope, 4 mm, 30° direction of view • Two distal Full HD image sensors with depth of focus 15mm to 120mm, optimized for stereoscopic endoscopy • Slender and light design – weight should not be more than 450 gm for optimal ergonomics, integrated in a fine titanium case. • Sterilization options: Autoclavable, Sterrad® 100S, NX, 100NX; Steris® system, V-Pro, and EtO • Should have DVI-D output for transmitting the 3D signal in 1080p format at 50/60 Hz to a 3D monitor • Easy switching between 2D and 3D modes. • Integrated USB interface for saving captured video or still images in 2D while working on 2D mode. • Should have input Keyboard for title generator, 5-pin DIN socket • Should meets IEC 601-1, 601-2-18, CSA 22.2 no.601, UL 2601-1 and CE according to MDD, protection class 1/CF defibrillation-safe
2	**High Definition Medical Grade Monitor capable of displaying 3D.**
	• LCD Panel 32 inch (16:9 aspect ratio) • High Definition 1920*1200 pixel resolution • Should supply clip on type glasses also for selectable wearing surgeons. • Various signal inputs: DVI-D for 3D signal DVI-D for 2d signal in HD, HD-SDI for 2D signal in HD, S-Video for 2D signal in standard resolution • Should be supplied with 20 pieces of Light, passive circularly polarized 3D glasses. • Viewing angle- Horizontal: 178 degrees, Vertical: 178 degrees (3D: TBD) • Contrast Contrast 1000:1 • Should be supplied with 20 pieces of Light, passive circularly polarized 3D glasses.
3	**Xenon Light Source 300W**

	Specifications : High intensity Xenon light source. **Special features :** • High light intensity with 300watt Xenon Lamp. • High color temperature – more than 6000 K corresponds to brightness of sunlight resulting in high visual and photographic clarity for color retention. • Monitoring of lamp function. **Technical specifications :** Lamp type — Xenon lamp, 300 watt Colour temperature — approx. 6000 K Light outlets — 1 Light intensity adjustment — continuously adjustable from 0 to 100% Certified to — IEC 601– 1, CE label according to MDD, protection class 1/BF
4	**Fiber optic cable**
	• High light transmission for optimal 3D Imaging. • Extremely heat resistance. • Should be supplied with Diameter 4.8mm, Length 250 cm.
5	**IMAGE/VIDEO RECORDING AND DATA ARCHIVING SYSTEM**
	State of the art user friendly Medical grade system (certified to be used in OT) should be offered with following features, • User should have full control of the system from the sterile field via camera head buttons, optional touch screen, optional foot switch. • Parallel (synchronic or independent) recording of two image sources. • Still images and videos (optional with audio) in 2D FULL HD or 3D (with optional 3D-camera system). Water mark feature. • Intelligent, adaptive storage management. • Storage location is freely definable and configurable. • Storage on internal memory (2 TB, FIFO), USB storage media via 2.0 and 3.0, optical media (DVD writer, Blu-ray reader), network drive, FTP or via DICOM. • Automatic storage in the background to reduce the time between the interventions. Easy management and overview of open/automatic save processes. • Import of patient data via keyboard or DICOM work list. • Intra- and postoperative printing via optional printer (local or network). • Various adaptable templates for printing to choose from. • Integrated surgical checklist following the WHO standard or customizable. Basic functions for the editing of still images and videos. • Playback of 2D and 3D content on separate monitor (optional 3D-system required). • Integrated file-viewer for still images, videos and checklists from diverse data sources.

	• Integrated security software as a protection against malware, independent from security patches of the operating system and it is only possible to run certified software. • Structured and clear user guidance, optimized for touch screen control. • Scalable range of functions. • Low noise generation and fast system start due to SSD-technology. • Should have seamless USB silicone keyboard with touch pad to enter details • Controllable via 12'' inbuilt touch screen • Input Voltage: 100-240 VAC. • Input Frequency: 50 - 60 Hz. • Power output: 350 Watt. • CPU: Intel® Core™ i7-2600 @ 3.4GHz. • Internal memory: SSD (70GB) | HDD (2 TB). • Memory RAM: 8GB. • Connectors: 3 x 1 GB Ethernet (RJ 45), 6x USB 2.0, 2x USB 3.0. • Image format: BMP, JPG, JPG2000. • Video format: MPEG-4, MPEG-2, MOV. • Video signal inputs: 2 x DVI-D. • Color system: PAL, NTSC. • Resolution still images: up to 1920x1080, Aspect ratio 16:9. • Resolution videos: up to 1920x1080 Progressive Scan for 25/30 frames. • Preinstalled printer: SONY UP-DR80MD. • Type approval: IEC 60601-1-1, EN60601-1, EN60601-2. The DICOM 3 interface shall be installed to the system in order to allow the surgeon to view all the DICOM 3 images stored in the PACS system on a digital light box within the operating rooms. Furthermore, all intra operative images recorded can be sent via the DICOM 3 interface to the PACS system for further processing.
6	**Imported Endoscopic Trolley**
	Equipment Cart , rides on 4 antistatic dual wheels equipped with locking brakes, central beam with integrated electrical subdistributors with 6 sockets, grounding plugs, modular in nature (should be able to add shelves and components later if required) Should have central monitor holder to mount monitor with height adjustable, swiveling and tilting, swivel range approx. 360°, loading capacity max. 18 kg, with monitor mount VESA 75/100 Cart should have following dimensions in mm (w x h x d): Equipment cart: 830 x 1474 x 730, Caster diameter should be 125 mm It should consisting of: Base Module, equipment cart 1 x Top Cover, Beam Package, equipment cart

	1 x Shelf, size - 630 x 25 x 510, 1 x Drawer Unit with Lock, 1 X Base Plate 1 x Camera holder Cart should be competible to accomodate followings when required, - Atleast 4 more shelves - Isolation transformer - Counter balance plate - CO2 cylinder holder - Monitor holding arms (lateral) **SHOULD BE USFDA APPROVED**

(6) **HOSPITAL CUBICAL TRACK SYSTEM**

Providing, fabricating and fixing of Hospital cubicle track system comprising of the following components and specifications :

(1) CUBICLE TRACK

Made of Aluminum alloy of size 20 x 25mm with 1.75 thickness having 50-60 microns powder coating in white color finish. Tracks are bendable to a radium of 300 mm at 90 degree to cover the whole bed.

(2) CURTAIN

Made of hospital grade premium quality Stain Proof fabric with High quality Net of 18" and 24" on top.

(3) SUPPORTING SYSTEM OF TRACK CONSISTS OF THE FOLLOWING MATERIALS

(a) Wall Braket : Made of CRC with white powder coating finish

(b) Bridge Clamp : Made of CRC steel with powder coating finish

(c) Roof Clasp : Made of aluminum pipe of 12.5 mm & 12.5 mm inner & outer diameters. The Upper Circular Pate made of aluminum. These are with white powder coating (outer surface) finish & are of variable height fixed with ciling with anchors, bolts, screws etc.

(d) Curtain removal : Made of CRC with SS finish for simple loading & unloading of curtain (also serves as an end hook retainer)

(e) Runners : Roller wheel type runners made of Teflon for easy and smooth sliding of the curtain

(7) **PATIENT WARMING SYSTEM**

1. Should be suitable for intra-operative applications
2. Should consist of active warming arm-cum-shoulder section, pair of leg segments and abdominal segments to cover the entire body
3. Should be based on semiconductor polymer foil for precise warming of entire patient body during & after surgery

4. Size	Abdominal Segment	:	(40-45) cm x (85-90) cm
	Arm & Shoulder section	:	(170-175) cm x (30-50) cm
	Leg Segment	:	(40-45) cm x (85-90) cm

5. Control unit should be cable of warming minimum four segments at a time
6. Control unit should have color TFT touch screen for easy operation.
7. Control unit should have touch screen display to select & display temperature of all segments at a time.
8. Control unit should automatically detect the number of segments which are connected to the unit and display the same on the screen.
9. Should offer precise digital temperature control with selectable temperature range of 37 to 40 degree in steps of $0.1^{o}C$.
10. Arm cum shoulder segment should be divided in two section capable of being switched ON or OFF independently depending upon the nature of surgery and condition of patient.
11. Should have facility to measure & display of the real time core body temperature of the patient continuously on the screen
12. Should have facility to measure & display of patient body temperature for the entire duration of surgery.
13. Should have facility to independently adjust the temperature of individual segment.
14. Should have a provision to connect whole body blanket, paediatric size blanket, jelly based warming matters / pad to the same control unit for future requirement.
15. Should have safety features such as Automatic check, precise temperature control between warming system and patient, auto stop on detecting any problem.
16. Should have non-latex ant-bacterially coated, blood and fluid resistant, washable and replaceable covers.
17. The control unit should be light weight and small in size, easily attachable to LV rod/ OT table with fixing claw
18. Should have low energy consumption and noiseless operation.

8. <u>SEQUENTIAL INTERMITTENT PNEUMATIC COMPRESSION SYSTEM FOR DVT PROHYLAXIS</u>

The controller should provide sequential, gradient & circumferential compression around the ankle, calf & thing.

Controller should provide the pressure of 45 mm/Hg at the ankle area, 40 mm/Hg at the calf area & 30 mm/Hg at the thigh area.
Controller should have graphic user interface of 3.2 inch colour LCD & provide greater Visibility.
Controller should have VRD (Vascular Refill Detection) technology with three ways tubing & 6-8 hrs battery backup.
Consumable sleeves should have three bladders for giving optimal compression in different areas of the leg.
The compression system should USFDA/ISO/CE Mark certified quality product.
SHOULD BE QUOTED WITH 50 PAIRS OF CONSUMABLE SLEEVES.
PRICE OF CONSUMABLES TO BE QUOTED SEPARATELY AS WELL

9. **INSTANT PT – INR MEASURING METER**

- Portable, battery operated, besides, coagulation monitor for PT/INR testing.
- Sample application should be outside the meter to prevent cross contamination.
- Should have a test result memory of minimum 100 results
- Measuring time approximately 60-70 seconds.
- Should be able to measure both capillary and venous blood.
- Option to have easy USB connectivity for data output and management.
- Kit with lancing device, disposable lancets.

	Pharmacology	
1	Rotarod Apparatus with software utility	
2	Digital Physiograph along with software	
3	Elevated plus maze with IR emitter sensor control unit	
4	Semi Automatic Y-Maze	
5	Anxiety Meter for Rat	
6	Fume Hood	
7	Animal Cage for Albino Rat	
8	Animal Cage for Rabbit	
9	Animal Cage for Guniea Pig	
10	Vacuum Pump, Laboatory	
11	Hebb Willian Mage	
12	Individual Ventilated Cage (IVC) System	
13	Langender off System (Heart/Lever/Kidney) ouse to Rabbit	
14	Small Animal Anaesthetic Machine with Accessories	
15	SPSS Software	
16	X-Cologe Software	
17	Ex-Pharma Pro Software	
18	Pharma Expert	
19	Chart & Model	

	Orthopaedics Department	
1	Battery operated Hand Drill set	
2	Penumatic Torniquet	
3	Plaster Cutter of Cast Cutter	
4	Lead aprons & others for Protection from radiation	

Orthopaedics Department

(1) BATTERY OPERATED HAND DRILL SET

Drill and Reamer Hand piece:
Selection of Drilling and Reaming with the built in Switch option DRILL/REAM in same hand piece
Selection of the drilling and reaming with the same attachment
Should have dual trigger for forward/ reverse and oscillation mode
Maximum speed of 1200 rpm in drilling, 270 RPM in reaming
Should have variable speed control on the hand piece
Should deliver maximum torque of 150 in/lbs
Drill torque should be 35 in/lbs
Should have DC brush less motor for low maintenance
With appropriate adaptors for drilling, reaming and pin placement and wire placement
Future up gradation compatible for Navigation interface for Joint replacement surgeries
Micro processor controlled Hand piece Can be calibrate for the consistence performance
Weight of hand piece with battery should be not more then 3.5 lbs
Fully Cannulated 4.0 mm hand piece
Should have Pistol grip Hand piece
Tool less 360 degree attachments insertion
Should be autoclavable
Dedicated Forward and Reveres switch with safe mode
Can be calibrating for the consistence performance

Sagital Saw Hand piece:
 Should have two speed controls with standard and fast mode. Free speed of 10000 - 12000 cycles per minute
 Micro processor controlled Hand piece Can be calibrate for the consistence performance
 Saw Noise level should not more then 89db
 Weight of hand piece with battery should be not more then 3.5 lbs
 Blade mount should be adjustable to different angles with 360 degree rotation
 Should have tool less mounting of accessories
 Should have DC brush less motor
 Should be autoclavable
 Should have safe mode

Reciprocating Saw Hand piece:
 Should have Safe Mode
 Should have minimum 13500 CPM
 Weight of hand piece with battery should be not more then 3.5 lbs
 Micro processor controlled Hand piece Can be calibrate for the consistence performance
 Should have DC brush less motor for low maintenance.
 Should have Pistol grip Hand piece
 Should have tool less mounting of accessories for all blades or attachments. .
 Saw noise level should not more then 93db
 Should be autoclavable.
 With different blades it should have maximum speed of 13500CPM

Drill and reaming Attachments:
 1/4 inch Jacobs Drill Attachment with key
 Keyless Chuck
 Quick Connect attachment

 Reamer Attachment
 Hudson Modified Trinkle attachment
 Pin Collet Attachment
 K Wire Collet Attachment

Battery Charger:

 220-240 volts charger and should have the feature to count the charging cycle for a particular battery,
 Should have capability to identify the worn out battery
 Should have to charge four batteries at a time
 Should have an indicator to provide battery status for charging.
 Should be able to check over autoclaved battery cycles (Number of Time and Total time)
 Should have reconditioning futures for battery
 Should be able to charge different batteries with same charger

Battery Kit:

 Ni Mh & Ni Cd batteries with low internal impedance to deliver higher current than other battery types,
 Ni Mh cells with capacity to produce more torque and non autoclavable with life of 300 approximate charging cycles,
 Should have a run time of minimum 21 minutes
 Should include Autoclavable outer housing
 Shield to protect battery from the housing
 180 degree opening of battery housing for easy insertion of battery
 Should have option for autoclavable batteries

Sterilization Case:

 Should be accommodate all hand piece, attachment and accessories for autoclave

Should be US FDA & CE approved.

2 PNEUMATIC TORNIQUET

Digital Pneumatic Tourniquet System

Typically used in Orthopedic Procedures

- Total Knee, Arthroscopy, ACL, Elbow Wrist Ankle Feet
- Bier Block procedures- Intravenous Regional Anaesthetic Block

Technical Features

Dual Channel- Ability to operate two single bladder cuffs or one dual bladder cuff during a procedure

- Fastest Inflation time is less than 5.3 seconds
- Large Display- Easy to see pressure & time on tourniquet
- Displays and stores reliable, real time data
- Includes a 5 hour internal battery back up
- Visual indicators when cuff inflating & reached necessary pressure
- Default Readings
- No need to reset after every use
- IVRA Lock- Used in Bier Block procedures. Ensures tourniquet cuff not deflated until unlocked
- Avoids user accidently deflating one cuff & causing local anaesthetic to rush into patient's system
- Easy to operate
- Printer capable- Benefit of the printer is that records the inflation and deflation time as well as the tourniquet serial number

- Re usable and disposable cuff option
- Dual Channel Pump can interface with the hospital software system

3 PLASTER CUTTER OR CAST CUTTER

15900 cpm in High Speed mode
• Should work on 220-240V 50-60 Hz 0.75A
• Should have a certification of CE, Class II and BF type equipment
• Should have maximum weight of 2.8 lbs (1.3Kgs)
• Should have carry length of not more than 10 inch or 254 mm
• Should have height of not more than 3 inch or 75 mm
• Can work on operational temperature between 50 to 104 F or 10 to 40 degree C
• Should be used with Vacuum or plugged directly into wall mains power.
• Should cuts on both backward and forward strokes of approximately 1/8" (3.2 mm) excursion
• Blades should be available of Stainless steel, Nitride blades & Titanium Nitride Blades
• Should have efficient DC Motor With speed feedback
• No requirement of any lubricant for life time
• Should have Quick Change Blade Mount assembly

Vacum Pump for Cast Cutter

• Should be available of both option of wall mount and mobile unit
• Cast Cutter should be Quick Connect to Vacuum unit
• Vacuum should automatically turns on when Cast Cutter is activated.
• Impact Resistant Housing
• Should have Integral Vacuum Housing for reduces overall size while improving
Balance and mobility
• Should have Detachable Canister Lid
Should have Quick and easy emptying of dust collection filter
• Should have Tool Bracket for conveniently storing tool on back of stand
• Should have Five Wheel Mobile Stand for easy mobility
• Should have Swivel Hose Mount allows for easy movement of the VAC Hose
• Should have minimum 20" x 20" x 34.5" tall for easy operation
• Should work on 220-240V 50-60 Hz 4.75A
• Should have a certification of CE & Class I Equipment
• Should have maximum weight of 13.5 lbs (6.1Kgs)
• Should have carry length of not more than 8.75 inch or 222 mm
• Should have diameter of not more than 24.4 inch or 620 mm
• Can work on operational temperature between 50 to 104 F or 10 to 40 degree C
• Cord length should not less than 2.5 meter

4	(i) Lead Apron	
	(ii) Lead Gloves	
	(iii) Lead Cap	
	(iv) Lead Collar	
	(v) Lead Goggle	
	Pathology Department	
1.	Six Port Cell Counter	
2	Three port cell counter	
3	Sterilizer Small size	
4	Binocular Microscope	
5	Automated Capillary Electrophoresis	

	Surgical Oncology	
1	Hopking Rod 90^{o}	
	P.S.M Department	
1	Forceps (Toothed & Non toothed)	
2	Dissecting Microscope	
3	Medical binocular compound Microscope	
4	Water bath	
5	Hot air oven	
6	Needle syringe destroyer	
7	Incubator	
8	Autoclave	
9	Baby weighing machine (25 Kg capacity)	
10	Baby weighing machine (16-20 Kg)	
11	Adult Height weight machine	
12	Choloroscope with accessories	
13	Hemocue Machine	
14	B.P. Instrument	
15	Deep Freezer (Top opening)	
16	Centrifuge Machine	
17	Bioimpedence Machine	
18	Dictaphone	
19	Comparator, Nessler	
20	Barometer, Fotin	
21	Extraction Apparatus, fat, complete	
22	Filter, Pasteur chamber land, complete set	
23	Filter, berke fed	
24	Hydrometers, Spirit	
25	Hydrometers, Milk	
26	Hydrometers, wet and dry BULB	
27	Incubator, electric	
28	Balance Analytical 200gm	
29	Balance for weighting food stuff capacity 2 Kg	
30	Centrifuge clinical	
31	Weighing machine adult	
32	Salters baby weighing machine	
33	Harpenders Callipers	
34	Height measuring stand	

35	Refrigerator	
36	IC lined refrigerator	
37	Dissecting Microscope	
38	Microscope oil immersion	
39	Still for distilled water	
40	Autoclave	
41	Sterilizers electric	
	E.N.T. Department	
1	Video Storboscope set	
2	CO_2 Laser with scanner & accessories	
3	Sialendoscopy set	

(1) VIDEO STROBOSCOPE SET

The system should be compact and portable suitable for a variety of endoscopic applications from physician's offices to operating rooms in a variety of specialties.
The powerful all-in-one unit should consist of everything needed for endoscopic imaging, Video recording, and viewing of saved Videos, the monitor, camera, and light source.
IT should have USB ports and a SD card slot for documentation purpose.
Stroboscope for larynx examination a modern device that generates light with a high performance LED
• For stroboscopic examination (stroboscope-mode)
• For normal viewing (continuous light-mode = pulsating light with high frequency)

Suitable for larynx examination, Consisting of:
Mains Cord
Microphone set
One USB pedal footswitch with integrated activation for Stroboscopy function

DISPLAY:
Crystal clear display

- 15" LCD display
- LED backlight display technology for extended service life, enhanced image brightness and reduced power consumption
- Image rotation
- 24 bit color depth for lifelike color display
- DVI video output for brilliant transmission quality

LED Light Source:

- High-performance LED light source: Light output similar to Power LED
- Color temperature of 6000 K - similar to daylight - guarantees color fidelity
- Long lamp life - with an average lamp life of 30,000 hours - Cost Effective

Flexible storage options:

- SD slot for high storage capacity
- USB ports for external hard drives and USB sticks

Easy, extremely reliable control:

- Membrane keyboard included, suitable for wipe-down disinfection
- Hot keys for rapid and direct manipulation
- Arrow buttons for intuitive control
- Connection socket for pedal control without lag time
- Stroboscopy mode can be activated via a special footswitch

Technical Specification of Camera Head:

Image sensor:	1/4'' CCD-Chip.
Resolution:	> 450 lines (horizontal).
Pixels	752(H) x 582(V)
Signal-to-noise ratio:	>= 60 dB.
AGC:	Microprocessor controlled
LENSE	Integrated optical zoom lens system 25-50mm
Min. sensitivity:	3 Lux (f 1.4).

Tele Laryngoscope

Tele-Laryngo- Pharyngoscope with integrated lateral telescope 90 deg, 4 X magnification focusing device diameter 10 mm, length 15 cm, autoclavable, fiber optic light transmission incorporated.

Strobo-Laryngoscope with integrated lateral telescope 70 deg, oval sheath, 7.2 x 9.3mm diameter, length 17 cm, autoclavable, fiber optic light transmission incorporated.

ALL THE ITEMS SHOULD BE FROM A SINGLE COMPANY AND USFDA APPROVED.

(2) CO_2 LASER FREE BEAM AND FIBER WTH SCANNER AND ACCESSORIES (50 WATT).

- It should be a carbon dioxide laser with a wave length 10.60 micro meters, infrared.
- It should have 50 watts power.
- It should have 5mw red diode aiming beam, 635 nm, adjustable intensity it should be microprocessor based.
- It should have a sealed CO2 laser tube.
- It should have continuous, single pulse and repeat pulse tissue exposure modes.
- It should have an average continuous power of 01 – 40 watts.
- It should have a super pulse power of 0.5 – 15 watts.

- The reach of the arm should be at least 120 cm with 360 deg rotation.
- It should have spring balanced arm.
- It should have a timed exposure of following durations;
  On time (single pulse) – 0.05 – 1.0 sec. At 1.0 to 4.5 watts.
  - 0.01 – 1.0 sec at 5-40 watts.

  On time (repeat pulse) – 0.05 – 1.0 sec at 1-4.5 watts.

  -0.01 – 1.0 sec at 5-40 watts.

  It should have a repeat delay, off time, 0.01 to 1.0 sec.
  It should have at least 100 user defined memory settings.
  It should have a 0.2mm focused hand piece.
  It should have at least two bacterial filters.
  It should have five laser safety glasses.

  It should have an inbuilt scanner with preset recommendations.

  For parameters and delivery devices for different applications.

- It should have a multi – colour touch screen panel.
- It should have a user friendly graphic display to provide step by step operating instructions.
- It should have a self contained closed loop cooling system.
- It should be compatible with 230v, 3a, 50hz power supply.
- It should have an optical design to assure perfect co-incidence of the diode and Co2 beams even at highest microsurgical magnifications.
- It should be easily adjustable and should have variable working distance from 200 mm to 400 mm.
- It should have continuously variable defocus with a user adjustable defocus limiter.
- Its joystick handle should be tension adjustable and autoclavable.
- It should be user selectable for left or right hand controls.
- It should be lightweight, to maintain balance of the surgical microscope it should have a minimum spot size of 160 microns.
- It should have a focus range of 0.16 mm – 0.27 mm.
- It should have maximum defocus range of 2.8 mm – 4.6 mm.
- It should have a power transmission of greater than 90%, with unlimited power input.
- It should have a robotic laser microsurgery system with following requirement :
- It should have beam scan shape : linear & curved incision : 0.3mm to 5.0 mm in length (user defined), 0.7 mm to 3 mm for papillomatosis.
- It should have a penetration depth of 0.2 mm to 2 mm (user defined).

2) It should have oral, pharyngeal and nasal handpiece set for oral, pharyngeal and nasal applications which should include :

- 230mm handpiece unit (cvd optical unit, ports holder, conical main extender, Contamination collector)
  Extra conical main extender, backstop extender – 3 Nos,
  Tip extender – 3 Nos,
  Straight tip, Kamami Nasal tip – 3 Nos,
  Kamami tonsil tip – 3 Nos,
  90 degree angled mirror tip extender, cleaning brush, tygon tube (8mm id, 1.5m long) w/reducer
  Smoke evaculator

Compatible with the laser machine, imported quality - includes

- **Smoke evacuation unit with pneumatic footswitch, vi 6**
  Filter – 6 hour double port 7/8" and 1-1/4", 7/8" tubing with wand
  And tip – 2 Nos, 5ml of 50-laser mask 0.1 mm filtration media (flat mask)
  Laser mask 0.1mm filtration media (flat mask)

3) Fiber Accessories :

1) Rigid hand piece kit atleast 8 rigid hand pieces with hand piece cleaning kit
   60mm, straight , straight tip, 180mm, straight, straight tip, 60mm, straight, curved tip, 140 mm, straight, curved tip 180 mm, straight, curved tip, 240 mm, bent, curved tip, 140 mm, bent, straight tip, 240mm, bent, straight Tip,

2) Endoscope Protection Sheath – 2 Nos.
   Length : 640 mm, od : 1.7mm.

3) Handpiece bending tool
   Handpiece cleaning kit : includes 3 cleaning
   Brushes and 20 extra silicon tubes for hand pieces.

4) CO2 fibre should be 2-2.2 metres long, Sterile / multiple use, 2.0 – 2.75m long preferably glass hallow fibre. Spot size : 290 – 300 micro metre at fibre output. Up to 40 watt.

5) Bending and cutting tools to reuse fiber

6) Sterlization tray for fibers.

Terms :

(1) Manufacturer should have their direct presence in India.
(2) Training of two doctors by the principal company
(3) Regional service support
(4) FDA / CE Certificate
(5) List of installation in India.
(6) Regional Service support by Principle Company.
(7) The company to arrange for demonstration for technical evaluation.
UPS Compatible to LASER to be supplied with the equipment.

Prices of consumable fibre to be fixed for 5 Yrs. The minimum requirement would be at least 10. This price will be part of price comparison.

(3) SIALENDOSCOPY

Miniature Straight Telescope with 0 degree view, diameter not to exceed 1mm with length approx. 10cm, telescope should be semi-rigid with rotating eye-piece with attached Luer-Lock adaptor, transmission for fibre optic light cable should be incorporated.

Sheath for examination of the submandibular duct with one blunt obturator and one with conical tip along with lateral luer-lock for irrigation to be fit with the miniature scope, diameter should not exceed 1.3mm with length approx 8cm.

Operating Sheath with two different channel, along two blunt obturators & two luer-lock adaptors in built, one channel upto for instrument 3 Fr. with O.D. not exceeding 1.3mm, and second channel can be used with miniature straight telescope, irrigation channel should be lateral with luer-lock adaptor with O.D. approx. 1.3mm, working length not exceeding 4mm & the overall length of the sheath should be between 10.5 & 11 cm.

Grasping forceps to extract fragmented stone with both jaws moving, length approx. 11cm & diameter not to exceed 1mm.

Grasping forceps to extract fragmented stone with both jaws moving, length approx. 19cm & diameter not to exceed 1mm.

Biopsy forceps with the jaws working should be flexible with diameter not to exceed 1mm; working length should be approx. 22cms.

Dual action jaw, flexible grasper with diameter not to exceed 1mm, working length 22cm approx.

Disposable Stone extractor basket, outer diameter 0.6mm with 3 wires should be sterilable Qty. 5

Disposable Stone extractor basket, outer diameter 0.6mm with 6 wire should be sterilable Qty. 5

 # Atraumatic mosquito forceps should be curved with length approx. 12cm Qty 2

	Paediatric Surgery Department
1	Transport & Rescue Ventilator
2	Transport incubator
3	LED Phototherapy unit
4.	Anaesthesia work station
5.	Neonatal open care system with radiant warmer
6.	H.F. Oscillator for neonates & paediatric
7	Auto subglotic extraction device
8.	Infusion pump
9.	ICU pendent

(1) **TRANSPORT & RESCUE VENTILATOR**

Portable Ventilator suitable for Transport & Sub-acute Care and Rescue Operations. The Ventilator must have advanced feature & fulfill following specifications & configuration as mentioned here below:-

(1) Must be suitable for patients from infants (5 kg body weight onwards) to Adults. a certificate from " FDA" type must be attached.

(2) Suitable for Non-Invasive Ventilator i.e. without the intubations. Leak compensation must be available to avoid unwarranted alarms as well as effective ventilation.

(3) Built in Battery must be capable of full operation including Compressed Air Supply for at least one hour. Ventilator must have provision to work on external DC Source in the ambulance 12 Volts jack & mains AC power.

(4) Must offer following modes of Non Invasive & Invasive Ventilations:-
(1) Non Invasive (NPPV / NIV) with provision of easy setting of IPAP & EPAP levels.
(2) Assist / Control.
(3) SIMV
(4) CPAP (0 to 20 cmH2O)
(5) Apnea Back up

(5) Breath types : Volume Control, Pressure Control, Pressure Controls, Pressure Support & Spontaneous.

(6) Tide Volume Setting in VC : 50 ~ 2000 ml

(7) Breathing frequency : 0 – 80 bpm

(8) Built in Compressed air source capable of giving spontaneous flow up to 150 lpm and making the ventilator independent of Wall Air Sockets / External inputs other than Oxygen. The Air and Oxygen blender must be electronically controlled and inbuilt in the ventilator itself.

(9) Trigger Sensitivity by flow 1 ~ 9 Lpm.

(10) Capable of working with Low Pressure 0_2 (≤ 10 PSIG) High Pressure O_2 (40 – 80 PSIG) Oxygen supply

(11) Must be able to offer following alarm conditions:-
(i) Apnea
(j) High Pressure Alarm
(k) Low Pressure Alarm
(l) Low PEEP
(m) High PEEP
(n) High Breath rate
(o) Low Minute Volume (Adjustable 0.1 – 90 litres)
(p) Power failure: High & low inlet pressure, low battery; disconnect & Ventilator inoperative alarms / status indication must also be available.

(12) The PEEP valve must be internal. Pressure support & pressure control breaths must be PEEP compensated automatically.

(13) Inspiratory & Expiratory hold must be available to observe vital static compliance, AutoPEEP etc.

(14) A provision of 100% O_2 flush for 1 ~ 3 minutes must be available.

(15) A provision to lock the front panel must be available to prevent accidental change of setting during traumatic conditions or while transporting the patients or to prevent unauthorized access.

(16) The display of parameters should be on LED/LCD types such that readings can be easily read in bright light outdoor settings common to rescue operations.

(17) The total weight of the Ventilator must not exceed 8.0 ~ 10 kg. Lower weight & easy to carry dimensions may be preferred.

(18) Demonstration unit must be kept ready by the quoting company; otherwise the tender will be rejected, if the company fails to demonstrate the unit at the desired timings.

(19) Ventilator must comply to International standards & cop of the following certificates are essential:-

1. CE Certification
2. 1S0 13485 Certificate of the Manufacturing company
3. IEC 60601 Certification
4. Shock & Vibration Compliance to MIL-STD-810E or equivalent.
5. US-FDA

(20) Following items must be supplied with each Ventilator:-

- Main unit.
- 2 sets of Reusable Adult Circuits
- 5 pcs. of HME filter.
- O_2 hose for connection to Cylinder / Wall socket.
- Bracket for Ambulance such that Ventilator can be mounted & demounted with ease.
- External DC power cable for use for Ambulance. (1pcs)
- Non-Vented NIV Masks for both Pediatric & Adult sizes (2 sizes each).

(2) TRANSPORT INCUBATOR (HIGH END)

FEATURES:

- The Head end admittance panel and the front and rear snap-open access ports.
- Separate main unit for increased mobility.
- Different kinds of power sources to cope with various transport settings.
- Double walled hood for a stable nursing environment.
- Built-in pulse oximeter.
- Temperature monitor and oxygen monitor provided as standard equipment
- Clear light through 1500 Lux lamp.
- Low resilience mattress.
- Electrostatic filter to maintain a clean environment.
-

SPECIFICATIONS :

Electrical Requirements : AC at customer's specified Volt/Hz. 800VA External DC power source: DC12V, 20A/DC24V, 10A

Battery : Main battery: DC12V/48Ah Continuous operation with built-in battery: Approx. 90 min (Actual measurement: Aprox. 4 hrs with brand-new battery at ambient temp. 15°*C*, incubator air temp. stable at 36°*C* with fully-charged) Built-in battery: DC12V/7.2Ah Continuous operation: Approx. 15 min at same condition as above

Classification : Class I, Type BF

Temperature -

Incubator Air Temp. Control	: Time proportional control
Incubator Air Temp. Setting Range	: 23.0 – 38.0°C (in 0.1 C increments)
Incubator Air Temp. Display Range	: 20.0 – 42.0°C (Accuracy : ± 1.0°C)
Skin Temp. Display Range	: 30.0-42.0°C (Accuracy: ± 0.3°C)
Heater Output Display	: 0 – 100 (in 10 levels)
Warming Time	: ⩽ 40 min (Ambient temperature: 20°C)
Alarms	: High temperature, set point, power failure, fan, skin Temperature probe, system failure

Oxygen Concentration -

Oxygen Sensor : Galvanic cell

Oxygen Concentration Disp. Range	: 15-105% Accuracy: ± 2% O2 in 15-25% ± 3% O2 in 25-100%
Oxygen Concentration Alarm Setting Range	: Upper limit - 22-99%O2 (in 1% increment) Lower limit: 19-96%O2 (in 1% increment)
Response Time of Oxygen Concentration Display	: 30 sec (90% response)
Stability of Oxygen Concentration Measurements & Calibration Cycle	: 24 hours
Calibration	: 21%
Oxygen Sensor Life	: Approx. 24 months (Ambient Temp.: 25°C, Oxygen concentration in the air : 21%)
Alarms	: Oxygen sensor, oxygen concentration.

Oxygen Supply -

Max. Oxygen Concentration	: ⩽ 60% (Oxygen flow: 10 L/min)
Achieving Time	: ⩽ 30 min (from 21% to 55%, oxygen flow : 10 L/min)

Environment-

CO2 Concentration in Hood	: CO2 concentration when stabilized after administrating Air mixed with 4% CO2 to a point 10 cm above the center of the mattress at 750 mL/min does not exceed 0.5%.

Pulse Oximeter -

Display Calibration	: Functional saturation
Display Update Cycle	: 1 sec
SpO2 Display Range	: 1-100% SpO2 Accuracy: ± 3% SpO2 (in 70-100% SpO2)
SpO2 Alarm Setting Range	: Upper limit: 50-100% SpO2 OFF (in 1% SpO2 increment) Lower limit: 45-95% SpO2 OFF (in 1% SpO2 increment)
Pulse Rate Display Range	: 25-240 bpm Accuracy: ± 3 bpm
Pulse Rate Alarm Setting Range	: Upper limit: 80-240 bpm OFF (in 5 bpm increments) Lower limit: 35-180 bpm OFF (in 5 bpm increments)
Sensor	: Neonatal disposable sensor, premie disposable sensor Wavelength: 600 nm (rd) 905 nm (ir)
Access Ports	*: Each 2 snap-open access ports on front and rear, and 1 iris port on left*
Dimension	: Main body ~ 98 (W) x 49 (D) x 72 (H) cm Hi-Low Stand ~ 120(W) x 52(D) x 32-61 (H)cm Mattress ~ 62 (W) x 33 (D) x 3 (T) cm
Weight	: Main body : Approx. 34 kgs

Mount : Approx. 27 kgs

Hi-Low Stand : Approx. 26 kgs

Maximum Load : I.V. Pole : Approx. 3 kgs.

Scope of Supply for V-808 Transport Incubator :

Main Unit	- 1 No.
I.V. Pole	- 1 No.
Infant Restraining Strap (3 pcs/set)	- 1 Set
Filter Element E	- 1 No.
Access Port Cover	- 1 No.
Semi-Iris Access Port Cover	- 4 Nos.
Skin Temperature Probe	- 1 No.
Neonatal Disposable Sensor (L-Type)	- 1 No.
Premie Disposable Sensor (L-Type)	- 1 No.
Patient Cable (1.6 m) for PulseOximeter	- 1 No.
Oxygen Sensor	- 1 No.
Dust Cover	- 1 No.

(3) LED PHOTOTHERAPY UNIT

- LED phototherapy system.
- Optimal wave length 425-475 nm.
- Irradiance levels capable of irradiance at least 35 µw/cm^2/nm.
- Reduced noise levels (< 30 db).
- Lifetime of more than 20000 hours.
- Omni directional, small wheels to fit under warmer basinet.
- Adjustable height 1130 mm to 1600 mm (approx) from light source to floor.
- Adjustable angle of lamp unit up to 90 degrees.
- IEC class 1 certified.
- CE / US FDA approved

(4) ANAESTHESIA WORKSTATION FOR OPERATION THEATRE

Sl. No.	
1.	The machine should have separate indexed (pin-indexed / DISS / NIST) provision for connecting central pipeline gas supply of oxygen, nitrous oxide and air. It should have mounting capability for two oxygen and two nitrous oxide pin-indexed gas cylinders.
2.	Top shelf with weight limit ≥ 100 lb / 45 Kg. Folding side shelf with weight limit > 20 Kg. / 50 lb.
3.	Each Anaesthesia workstation MUST be capable of accommodating Desflurane vaporizer (i.e. heating unit must be included).
4.	High pressure tubing, nitrous oxide and air for central supply connection with pipeline connectors should be supplied with machine.
5.	There should be pressure-indicating gauges for each gas for both cylinder as well as pipeline supply in accordance to ISO requirement.
6.	Alarm should be initiated in the event of O2 failure. Air should provide automatic back up to drive the ventilator in such an event and air should be driven to the Common Gas Outlet (CGO).
	Gas Flow Management :
7.	a. Electronic color coded flow-meters precisely calibrated 6 tube flow meters for oxygen and nitrous oxide and Air. b. Electronic/Mechanical hypoxic guard to ensure minimum concentration of 25% oxygen, across all oxygen-nitrous oxide mixtures and oxygen failure alarms along with nitrous-oxide cut-off conforming to ISO requirements. c. Emergency oxygen flush that can deliver flows between 25-75 litres per minute

8.	**Vaporizers - Cassette/ Injecteble / Selectatec Tec Type : MAINTENANCE FREE with Delivery Range 0 – 6 %** a. Vaporizers shall mount to Selectatec manifold for two vaporizers which allows easy exchange between agents. There must be an extra vaporizing storage provision on the machine itself for a third vaporizer. b. With each work station temperature, pressure and flow compensated anesthetic agent specific vaporizers for Sevoflurane and Isoflurane should be provided. Each machine must be capable of accommodating a Desflurane vaporizer.
9.	**Breathing System (Autoclavable) :** Warmed Breathing System (35º C) virtually eliminates internal condensation Closed circle system with carbon dioxide absorbent Single canisters of 1.5 Kgs. Should be part of machine. Machine with bi-stable bag vent switch. There should be common gas outlet for using other type of breathing systems with this machine.
	Anesthesia machine should be mounted on four large antistatic castor wheels with foot brake / locking facility for at least front two wheels.
	There should be work surface and at least Three drawers – both loackable.
10.	**Specifications for Anaesthesia Ventilators : 220 – 240 volts**
	The anaesthesia machine should have integrated Anaesthesia Ventilator System that should have at least VCV with Tidal Volume Compensation, PCV with Volume Guarantee , SIMV+PSV and Pressure Support mode with adjustable breath rate, tidal volume and I:E ratio and apnea backup. The ventilator display should be multicolored 15 inch Touch Screen & Touch pad , Low circuit volume, with tidal volume compensation (for compression losses within absorber and bellows assembly).
11.	Ventilator bellows should be integrally mounted to the breathing system and ascending type. Bellows assembly should be autoclavable.
12.	Anaesthesia ventilator should have following adjustable parameters : a. Tidal volume range of 20 ml to 1500 ml. b. Respiratory rate range 4 to 100 breaths per minute. c. I:E ration range 4:1 to 1:8 d. Inspired airway pressure range is 10 to 50 cm of water. e. Patient Mode : Adult, Pediatric and Neonate. f. PEEP adjustable 0-30 cm of H2O g. High peak inspiratory flow 120 – 150 LPM. h. Pressure Support 3-50 cm of H2O i. Pressure limit-10 -100 cm of H2O j. Capable of minimum flow techniques. k. It should have a Bain Circuit / Module.
13.	Anaesthesia ventilator should have audio visual alarms (with temporary muting facility) for power failure, breathing system disconnection, and high inspiratory airway pressure.
14.	Ventilator monitoring FiO_2 oxygen %, inspired and expired volume, PAW, Pressure Waveform, Flow Waveform and Spirometry loop, Mean Pressure, MV, Fresh Gas Flow i.e. full Spirometry features including compliance and airway resistance, with simultaneous display of reference and real-time loops. O_2 Sensor – paramagnetic type.
15.	**Alarms:** Apnea, Setting Error, Low Supply, No Charge, Inspiratory Flow Transducer Error, Comm Fail, Fresh Gas Too High, Peep Error, Power Supply Failure, Vent Inoperative, Under Pressure.
16.	Ventilator should be used in adult, pediatric and neonate mode.
17.	Ventilator should have fresh gas compensation and compliance compensation.
18.	Anaesthesia workstation should be FDA approved and CE certified
19	Should conforms to the IHE (Integrating the Healthcare Enterprise) Patient Care Domain (PCD) profile. Should be capable of outputting data in industry standard HL7 protocol. HL7 with the IHE PCD profile is recognized by anesthesia information and electronic medical records (EMR) systems as the demonstrated industry standard for unambiguous interoperability
20.	**Technical Specification for Modular Monitor (220-240 Volts)**
21.	The Modular Monitor should measure 12 lead ECG, EEG Resp., Temperature (Two Ports) SPO2, NIBP, Dual IBP, CO, ETCO2 (with mainstream type) Neuro-Muscular (NMT) and mixed various oximetry module.

	ECG Module : (Should be transport)There must be ST segment analysis with J-points selection. It should have arrhythmia detection including all life – threatening arrhythmias such as VTACH, ASYST, VFIB as Standard feature. **NMT Module :** The NM Monitoring Module (NMT) should display, TOF count, TOF %, ST, DBS, Tetanic & trend for continuous usage. All relevant accessories must be supplied for maximal utilization of NMT Module.
22.	It should have bright, high visible Touch Screen with minimum 17" color TFT display for easy viewing.
23.	The monitor display at least 8 waveforms traces on the screen.
24.	The monitor should have slots for module for flexible configuration.
25.	The monitor should have changeable screen configuration for various monitoring setting.
26.	Should be provided AGM (Anesthesia Gas Monitor) which can also monitor MAC values.
27.	There should be provision for BIS/AEP/Entropy and EEG monitoring. **EEG Modules :** Three (3) nos. minimum 4 channel with display of spectra (along with reference electrode). Should display SEF, BSR, Median Frequency total power and β, χ, θ, δ, powers. Reversible leads and electrodes.
28	Should have Continuous cardiac output – PiCCO Module for the measurement of CCO (CCI), Stroke volume, SVR,SVV,PPV
29.	There should be provision for using wireless LAN Card & Memory Card.
30.	There should be external ports for Slave Display & USB Ports.
31.	There should be alarm limit setting for every parameter.
32.	It should have priority color coded audio – visual alarm system with bright prompt message on the screen. There should be a separate color coded audio-visual alarm when patient data deviates from normal limits and machine failure, improper function.
33.	There should be complete ST segment & Arrhythmia analysis.
34.	There should be provision for various calculations like Drug dose, Oxygenation, Ventilation, renal and Hemodynamics.
35.	It should come with exchangeable batteries with min. 3 hrs battery backup in the event of power failure.
36.	There should be provision of system interfaces to integrate data and alarms from standalone devices at the bedside.
37.	It should provides Data option for seamless transfer of patient data between monitors ensuring that information always stays with the patient.
38.	Monitor should be FDA approved / CE certified, all the documents should be attached with the tender.
39.	It should be HL7 compliant.
40.	It must be capable of being interfaced with any open architecture Hospital Information Management System. It will be the responsibility of the vendor to integrate / interface this anaesthesia workstation (inclusive of monitor) to the HMIS that the Institute acquires (inclusive of costs). Its monitors should be able to access vital information e.g., lab results, radiology etc. via HIS to the patient monitor. In case the HMIS is not open architecture and licensing issues are involved, these charges only will be applicable.
41.	Be capable of recording all data on Anesthesia chart in real time on monitor screen.
42.	Anesthesia Gas Scavenging System capable of High vacuum with variable flow with indicators. The complete installation will be the responsibility of the supplier.
43.	Must be fully upgradeable to all newer versions of the workstation / monitor over the next five years. Certificate should be attached. If it is not possible, the company will have to replace all the systems with newer within the cost of warranty.

(5) NEONATAL OPEN CARE SYSTEM WITH RADIANT WARMER :

Description : Quartz heater based radiant warmer with integral bed used for clinical management of neonatal hypothermia.
The equipment can be operated in servo or manual modes.
Facility for halogen based phototherapy units are provided to use the equipment in the labor ward, NICU or general nursery.
The equipment electronic control panel should have key lock facility, Celsius to Fahrenheit change over facility and battery back up to 20 minutes or more better backup of 45 mins to one hour.

Working Temperature : 26.4° C to 40° C.
Accuracy : ± 0.2º C.
Resolution : 0.1° C.
Accuracy of Probe Interchangeability : ± 0.2º C.
Need for Probe Calibration : Not required.
Temperature Probe : Thermistor based interchangeable probe. Wire should be easy to clean, long lasting, teflon coated with silicon rubber sleave.
Set Temperature Range : 32° C to 38° C.
Voltage : 180 to 250 V at 50 Hz.
Power : Less than 1 K. W.
Heating Element : Quartz encapsulated heater with parabolic reflector.
Temperature Display : Bright numerical LED display at 1" for viewing from distance.
Alarms : High temperature (more than 0.5° C difference).
Low temperature (more than 0.5° C difference).
Temperature probe failure.
Power failure.
System failure.
Heater failure.
Time out alarm (manual mode).
Maximum Mattress Tilt : +8° (continuously variable) both side.
Maximum Mattress Swivel on both sides of vertical column : +45° C.
Diameter of Castors : 4” (front 2 wheels lockable).
Imported castors with antistatic wheel.
Observation Lamp : Halogen based lamp focusable any where on the bed.
Bed : Oval-suitable for preterm and LFD babies.
Phototherapy / Halotherapy bulbs on each : Should be placed on the both sides of overhead heaters side angled for effective treatment.

Phototherapy / Halotherapy (Optional) :
Supply to Each Unit Irridiance : 12 V 12 A 50 Hz; 6 – 8 w / cm^2 / nm at bed level.

Recommended Environmental Specifications :
Operating Temperature Range : 20° C to 33° C.
Storage Temperature Range : -25° C to 60° C.
Operating Humidity Range : 0 to 100 % RH.

Coating : Epoxy / Powder coated body for scratch and rust prevention.

1. Confirms to IEC-601 safety standard for medical equipment.
2. Microcontroller based electronic system that performs periodical self-diagnosis.
3. Built in automatic diagnostic software to check the internal working of the equipment periodically.
4. Service free equipment construction with epoxy coated metallic surfaces for easiness to clean.
5. The unit is mobile with 4 swivel castors fixed to the base. Optional anti-static castors for improved electrical safety.
6. Easy to use membrane keypad for improved efficiency.
7. Inbuilt basinet.
8. Oval shaped bed.
9. With 2 swivel drawn in the bottom.
10. Body made with FTP (fibre reinforced plastic) with epoxy powder coated.

11. Firm should have ISO 9001 : 2000 certification.
12. Facility of stand – for I. V. fluids.

(6) STAND-ALONE HIGH FREQUENCY VENTILATOR HIGH FREQUENCY OSCILLATOR FOR NEONATES AND PEDIATRIC

1) Mode: High Frequency Oscillations with active exhalation technology
2) Technology of oscillations: Electromagnetically driven piston technology
3) The main unit should have US-FDA approval and certification for high frequency oscillation ventilation in neonates
4) The compressor should have US-FDA or European CE certification
5) Birth weight operation range: As low as 400 grams to as high as 35 kg

6) Settings:
   a) FiO2: 21-100%
   b) Frequency: 3-15 Hz
   c) Oscillatory Pressure: up to 40 cm H2O
   d) Mean airway pressure: 3 - 40 cm H2O
   e) Amplitude (delta-P): >90 cm H2O
7) Display: Mean Airway Pressure; Oscillatory Pressure amplitude, % inspiratory time, frequency, piston displacement and bias flow
8) Alarms:
   a) High and low mean airway pressure
   b) Oscillator overheated
   c) Oscillator stopped
   d) Power failure
   e) Source gas flow low
   f) Battery low
9) The unit should be mounted on a trolley / Pedestal stand with good quality castors
10) The unit should have an air compressor that can support high gas flow requirements of high frequency oscillation and should have connections online to automatically switch on when the piped central air supply pressure drops below the recommended limit
11) Oxygen / Air delivery hoses as applicable. The vendor should also arrange to supply the nipples for the hoses that are compatible with hospital's AIR and O2 supply sockets
12) **Power supply:** 220-240 V and 50-60 MHz
13) Each unit should have a circuit hanger to support the patient circuit
14) The equipment should come with a warranty of 5 years from the date of satisfactory installation and 5 years comprehensive maintenance contract after the end of the warranty. Warranty and CMC should cover the ventilator, compressor, humidifier, stand and any other parts. Warranty and CMC would include the periodic calibration of all parameters strictly as per manufacturer's recommendations and any spares, gases or standards required for that.
15) Rates of the chargeable accessories should be quoted for the total period 10 years (warranty and CMC) and should be frozen for that duration
16) Essential accessories to be supplied with the initial equipment supply:
   a) Special low compliance ventilator circuits suitable for high frequency oscillations – 4 circuits.
   b) The unit should be supplied with stand alone heated humidifiers (1 no.) which can **servo control** the temperature based on the patient end temperature and gas flow rate in the circuit and of the latest model and complete with all accessories to make it operational.
   c) For each humidifier: Temperature probes (2 nos.), Humidifier chambers – reusable (2 nos.), heater wire adaptors suitable for both reusable and disposable circuits (2 nos.)

17) Price of the essential accessories should be quoted and frozen for the entire duration of the contract period (10 years)

(7) AUTOMATED SUBGLOTTIC EXTRACTION DEVICE

- Should be low noise and little vibration (35 dB(A))
- Should be simple operation, very safe to use
- Should have choice of batteries or mains power
- Should have DFS - double filter system protects the inside of the device against contamination
- Should be used with a disposable secretion
- Should have closed container system and has various accessories, prevents from cross contamination
- Overall aspiration capacity max 8 liters/min
- Pressure -25 mbar to -200 mbar (in steps of 10 mbar)
- Adjustable pause time from 3 min to 45 min
- Adjustable suction time from 30 seconds to 60 seconds
- Secret collection Containers Disposable secretion container system, 750 ml
- Secret collection canister including solidifier, bacterial and carbon filter
- Nominal mains voltage (mains-powered) 100 – 240V AC primary / 12V DC secondary
- Maximum current 1.25 A
- Mains frequency (mains-powered) 50 / 60 Hz
- Rating 15 W (charging and operation) / 10 W (charging only)
- Current drawn 1.25 A at 12 V
- Rechargeable battery 7.4 V, 4.4 Ah – lithium ion
- Dimensions (H x W x D) in mm 290 x 259 + 100 (container) x 130 mm
- Weight (basic device) less than 3 kg
- Running time
- Mains continuous operation
- Battery approx. 12 hours when the vacuum pump is at full capacity
- Operating mode Intermittent Aspiration
- CE / FDA approved
- Alarm for low battery, empty battery and blockage
- Key lock
- Made acc. to IEC 60601-1 3rd Edition

(8) INFUSION PUMP

Configuration, performance and technical characteristics
STRUCTURE:
Weight: approximately 2.5 kg
MECHANNISM
PERISTALTIC SEMI-TRANSIT FINGER SYSTEM
CONSUMABLE
All general IV sets brands are compatible with the unit; and dedicated IV set brand is also matched the unit with special pump structure design
Pre-configured more than 20 infusion IV SET brands, user-defined configuration possible
GENERAL FEATURES
Operating Modes: Rate mode,Time mode,Body weight mode,Ramp up/ down mode, Sequential mode,Loading dose mode,Micro-infusion mode, Standby mode
Rate Mode: Rate Range: 0.1-2000ml/h (Mini. Increment0.01ml/h)
Time Mode: 00:01-99:59 hh:mm; step 1min;

Configuration, performance and technical characteristics
Body Weight Mode: Weight：0.1-300.0kg, step 0.1kg; Drug-Amount：0.1-999.9, step 0.1, g/mg adjustable; Volume： 0.10-9999.99ml, step 0.01ml; Dose：0.01-999.99, step 0.01, μg/kg/h, mg/kg/h, μg/kg/min., mg/kg/min. adjustable;
Ramp up/ down mode: VTBI：0.10-9999.99ml Time range： 00:01-99:59 hh:mm
Sequential mode: VTBI：0.10-9999.99ml, step 0.01ml/h; Rate：0.10-2000ml/h; Time： 00:01-99:59 hh:mm, step 1min
Loading dose mode: Main parameter and first dose： VTBI：0.10-9999.99ml, step 0.01ml/h; Rate：0.10-2000ml/h; Time： 00:01-99:59 hh:mm, step 1min
Micro-infusion mode: VTBI：0.10-1000.00ml, step 0.01ml/h, Rate：0.10-100ml/h, step 0.01 ml/h;
Preset Volume(VTBI): 0.10-9999.99ml
Measure volumes in ml/hr
Delivery rate settings adjustable in 0.01ml/ 0.1ml/ 1ml increments
KVO Rate: 0.1-5.0ml/h adjustable, step 0.1ml/h
Purge is available with maximum rate at 2000ml/h
Bolus Rate: Maual bolus： 0.10-2000ml/h Automatic bolus： 0.10-2000ml/h
Preset bolus volume: Automatic : 0.10-2000ml/h
Self-test system;
Have anti-bolus system
Titriation function: Available to change the delivery rate during infusion at minimum increment of 0.01ml/h
The bolus accumulation volume and bolus rate shall be displayed
Drug library with up to 2000 drugs , add or delete drugs available in user-defined drug list
Have up to 2000 history records, including information: infusion information, pump status, parameter changing, turn on/off, start/stop infusion, bolus, alarms, silence
History records data could be transmitted to PC
Have automatic bolus system, with bolus rate and preset volume adjustable
Start remider function: remember last infusion configuration when power off

Configuration, performance and technical characteristics
Delivery Accuracy: ±3%
Mechanical Accuracy: ±1%
Data transmission is available with multi-function interface
7 languages selectable: English, Spanish, French, Russian, Turkish, Chinese
ALARMS
Visual & audible alarm
3 levels alarm: High level: occlusion, battery empty, VTBI done, air bubble, door-open, KVO finish, system error Middle level: reminder, battery low Low level: No battery inserted,VTBI near done,standby time expired
Occlusion alarm pressure: 11 levels: 150-975mmHg(±75mmHg)
Occlusion pressure unit: 4 units selectable(mmHg, kPa, psi, bar), automaticly calculate and display the conversion in 4 units
Air Bubble alarm level: 1-6 levels adjustable; Minimum air bubble detection lowest to 20 ul; Acculmulated air bubble in 15 min. reached setting size will alarm
Air-bubble detection mechanism: ultrasound sensor
Alarm sound 1-8 levels adjustable
Pre-alarms： 1-30 min. selectable infusion complete, 3 min.battery empty 30 min. as low battery
DISPLAY
Screen: no less than 3.5 inch color TFT LCD,16:9 format; Brightness 1-8 levels adjustable
Delivery rate, current infusion ,VTBI, total volume, IV set brand, pressure limit, battery capacity, current drugs, remaining time, alarms, etc.
POWER SUPPLY:
AC100-240V, 50/60HZ
DC Voltage:10V-15V
Battery
Battery type: Rechargeble Lithium battery
Battery operating time: more than 9 hours@25ml/h
Battery charging time: less than 6 hours for 100%
SAFTY SPECIFICATION
Type of shock protection : Class I, Type CF, defibrillation-proof
Water-Proof Grade : IP23
CERTIFICATION:
CE & ISO
WARRANTY:
60 months

(9) ICU PENDENT

6. Installation Base :

Single installation base for swivel arms.

7. Medical suspension arm :

a. The single arm (mechanical) should be___750_mm.
b. The length of double mechanical arms should be_750___mm + _750___mm.
c. The load capabilities of each pendant should be at least_200___kg.
d. The allowable rotation angle of each axis should not be less than 340 degrees.

8. Supply distribution :

a. The allowable rotation angle of each axis should not be less than 340 degrees.
b. Four different versions of column supply distribution available :
   500mm, 800mm, 1000mm, 1250mm.
c. Separated design for the gas and electrical outlet for maximum safety.
d. Supply distribution should consist of, but not limited to the following outlets :
   (1) Vacuum outlet x 1 no.
   (2) Medical air outlet x 1 no.
   (3) Oxygen outlet x 1 no.
   (4) Electrical outlet x 8 nos.
   (5) RJ45 x 1 no.
   (6) Equipotential outlet x 8 nos.

9. Accessories :

Supply distribution should consist of, but not limited to the following accessories :

(1) Shelf (with side rail), load capacity 80kg – 450mm (W) x 500mm (D) x 2 nos.
(2) Shelf with drawer (with side rail, load capacity 80kg) – 450mm (W) x 500mm (D) x 1 no.
(3) Infusion pole in length 1000mm, height adjustable, 1 no.
(4) Extension arm 300mm for the infusion pole, 1 no.
(5) Handle to move the distribution x 1 no.

10. Certification :

The following certificate must be compliance with official document.

(1) ISO 13485:2003 & ISO 9001:2008.
(2) The medical device should have been assigned to class IIb by rule 11 according to Annex IX of the direction 93 / 42 / EEC and bear the mark CE 0197.

(3) SPECIFICATION FOR BIOMEDICAL WASTE GRADE COMBINED SYSTEM INCLUDING AUTOCLAVE, MICROWAVE & SHREDDER ETC.

(i) Specification for Autoclave combined with Shredder Capacity 300 Ltrs.

System should be non burn technology. It should be steam sterilization method integrated with a shredder. Process should be in one continuous automated cycle with no use of conveyor belts for transporting waste toa separate shredder. The unit should not use any chemicals

Single machine with usable sterilization chamber volume of minimum 300 ltrs or two chambers with usable sterilization chamber volume of minimum 150 ltrs that could work simultaneously or separately. Total capacity of machine to be 300 ltrs.

Should have a capacity to treat minimum 80 kg/hr.
The waste should be able to be loaded in the chamber by a single person without help. No stailrs or lift should be used for suing the machine at any time.
Should have mechanism for shifting of chamber from stationary to any direction for ease of loading & unloading.
West should be removed from the vessel automatically.
Should have AUTO SWITCH OFF for safety.
Should have safety system which should prevent the cycle to start, if the door is open.

The vessel should be built of sturdy material like SS 316L or better quality.
Shredder blades should be of Carbon steel material
Shredder mechanism should be in a manner to optimize full chamber volume.
Each cycle time should not take more than 45 minutes for purging, sterilization & exhaust.
System should be able to sterilize and shred simultaneously.
The system should have separate cycle withy no shredding option so that machine can also be used as only an autoclave.
System should have minimum temperature of 135 deg. Celsius.
The system should be able to separate liquid and solid in the chamber itself before unloading treated waste.
In order to have proper and efficient sterilization, the system should be able to avoid any hazardous air exhaust.
Should have audio visual alarm system for any kind of error.
System should be able to treat mixture or different type of waste in one cycle.
System should be able to treat glass, scalpels, blades, needles, sharps.
The system should have automatic inbuilt washing cycle.
System should have facilities to detect leakage under pressure.
Should be fully automated and microprocessor controlled. If needed, automatic computerized reports facility should be possible.
System should have LCD touch screen facility with all indicator like selected cycle, start time, cycle stages in graphs, temperature, pressure, end time, cycle status i.e. pass / fail.
Should be able to collect cycle data on a memory card.
Should have its on Reverse Osmosis system for water treatment.
System should have cart or trolley to collect treated waste.
Should be as per norms of CPCB guidelines.
Should have quality assurance certification of European CE / US FDA with ISO – 13485 and WHO GMP certification.

(ii) Specification for Autoclave combined with Shredder Capacity 150 Ltrs.

System should be non burn technology. It should be steam sterilization method integrated with a shredder. Process should be in one continuous automated cycle with no use of conveyor belts for transporting waste toa separate shredder. The unit should not use any chemicals

Single machine with usable sterilization chamber volume of minimum 150 ltrs or two chambers with usable sterilization chamber volume of minimum 80 ltrs that could work simultaneously or separately. Total capacity of machine to be 150 ltrs.

Should have a capacity to treat minimum 40 kg/hr.
The waste should be able to be loaded in the chamber by a single person without help.
No stairs or lift should be used for suing the machine at any time.
Should have mechanism for shifting of chamber from stationary to any direction for ease of loading & unloading.
Waste should be removed from the vessel automatically.
Should have AUTO SWITCH OFF for safety.
Should have safety system which should prevent the cycle to start, if the door is open.
The vessel should be built of sturdy material like SS 316L or better quality.
Shredder blades should be of Carbon steel material

Shredder mechanism should be in a manner to optimize full chamber volume.
Each cycle time should not take more than 45 minutes.
System should be able to sterilize and shred simultaneously.
The system should have separate cycle withy no shredding option so that machine can also be used as only an autoclave.
System should have minimum temperature of 135 deg. Celsius.
The system should be able to separate liquid and solid in the chamber itself before unloading treated waste.
In order to have proper and efficient sterilization, the system should be able to avoid any hazardous air exhaust.
Should have audio visual alarm system for any kind of error.
System should be able to treat mixture or different type of waste in one cycle.
System should be able to treat glass, scalpels, blades, needles, sharps.
The system should have automatic inbuilt washing cycle.
System should have facilities to detect leakage under pressure.
Should be fully automated and microprocessor controlled. If needed, automatic computerized reports facility should be possible.
System should have LCD touch screen facility with all indicator like selected cycle, start time, cycle stages in graphs, temperature, pressure, end time, cycle status i.e. pass / fail.
Should be able to collect cycle data on a memory card.
Should have its on Reverse Osmosis system for water treatment.
System should have cart or trolley to collect treated waste.
Should be as per norms of CPCB guidelines.
Should have quality assurance certification of European CE / US FDA with ISO – 13485 and WHO GMP certification.

Note (1) : The bidders have to provide / construct the required building with all the electrical, mechanical, plumbing, fittings & fixings with all accessories for smooth functioning of the complete system under turnkey project. Only main electric power and water pipeline upto site shall be provided by RIMS, Ranchi. Inner electrification and plumbing shall be complete responsibility of the bidders. The bidders have to arrange NOC from CPCB or State Pollution Control Board, Jharkhand for the system installed by their (bidder's or contractor's) own.

(2) The contractor has to provide operational manpower (i.e. Operator of the machine) to operate their installed system for at least 10 (ten) years. Offer without provision of manpower shall not be considered at the time of evaluation. Accordingly the bidders have to quote their rates for operational manpower in their bid

Sd/-
Director
Rajendra Institute of Medical Sciences
Ranchi