Tender document for procurement of

High Dependency Unit for Department of Urology

AIIMS, Rishikesh

Ref. No. : 24/Urology/393/2018-Rish(Admn)
Publishing Date : 23-07-2018 at 9.00 AM
Pre-Bid Meeting : 02-08-2018 at 3.00 PM
Bid Submission Start Date : 06-08-2018 at 9.00 AM
Last Date of Bid Submission : 17-08-2018 at 3.00 PM
Bid Opening : 18-08-2018 at 3.30 PM

Tender documents may be downloaded from institute’s web site www.aiimsrishikesh.edu.in (for reference only) and CPPP site https://eprocure.gov.in/eprocure/app
1. E-tenders in Two Bids (Technical & Financial) are invited on behalf of the Director, All India Institute of Medical Sciences, Rishikesh from interested and eligible manufacturer or their authorised distributors/dealers, for providing **High Dependency Unit for Urology Department, AIIMS Rishikesh**.

2. Bids shall be submitted online only at CPPP website: [https://eprocure.gov.in/eprocure/app](https://eprocure.gov.in/eprocure/app).

3. The complete bidding process is online. Bidders should be possession of valid digital Signature Certificate (DSC) for online submission of bids. Prior to bidding DSC need to be registered on the website mentioned above. For any assistance for e-bidding process, if required, bidder may contact to the helpdesk at 0135-2462915.

4. Tenderer/Contractor/Bidders are advised to follow the instructions provided in the ‘Instructions to the Contractors/Tenderer/Bidders for the e-submission of the bids online through the Central Public Procurement Portal for e Procurement at [https://eprocure.gov.in/eprocure/app](https://eprocure.gov.in/eprocure/app)’.

5. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.

6. Hard Copy of earnest money deposit and tender fee etc. must be delivered to AIIMS, Rishikesh on or before last date/time of Bid Submission as mentioned above. The bid without EMD and tender fee will be summarily rejected. The scanned copy of the EMD and Tender fee should be attached in the technical bid.

7. The tender shall be submitted online in two part, viz., technical bid and financial bid. All the pages of bid being submitted must be signed and sequentially numbered by the bidder irrespective of nature of content of the documents before uploading.

**The offers submitted by Telegram/Fax/email shall not be considered. No correspondence will be entertained in this matter.**

8. Any future clarification and/or corrigendum(s) shall be communicated through Administrative Officer on the AIIMS, Rishikesh website: [www.aiimsrishikesh.edu.in](http://www.aiimsrishikesh.edu.in). And other Central Government Procurement Websites (subject to its access of AIIMS Rishikesh). The bidders are required to regularly check the website to know about any/all such corrigendum(s) as only these bids, taking care of such corrigendum(s) shall be considered for finalisation of the tender.

5. Bidder should necessarily enclose a covering letter mentioning a summary of applied document with proper numbering. Secondly, bid should also attach a compliance sheet as per specification mentioning that they are complying to all specification or have any variation.

6. The pre bid conference would be held on **02-08-2018 at 03.00 PM** in the office of Tender Opening Room, AIIMS, Rishikesh. All firm’s representative who are attending the pre bid meeting, shall produce an authorization letter from their firm on the firm’s letter head. They are required to put their query in writing before the committee and submit the same in writing on its letter head.

7. All the duly filled/completed pages of the tender should be given serial /page number on each page and signed by the owner of the firm or his Authorized signatory. In case the tenders are signed by the Authorized signatory, a copy of the power of attorney/authorization may be enclosed along with tender. A copy of the terms & conditions shall be signed on each page and submitted with the technical bid as token of acceptance of terms & conditions. Tender with unsigned pages/incomplete/partial/part of tender if submitted will be rejected out rightly.
8. Any omission in filling the columns of Financial Bid form (Schedule of Rates) shall debar a tender from being considered. Rates should be filled up carefully by the tenderer. All corrections in this schedule must be duly attested by full signature of the tenderers. The corrections made by using fluid and overwriting will not be accepted and tender would be rejected.

9.(i) **Bid Security:** -The bidder shall pay the respective amount of Bid Security (EMD) as mentioned in table-I along with the Technical Bid by way of demand draft/FD/TD/CD in favour of “AIIMS, Rishikesh” drawn on any Nationalized Bank/ Scheduled Bank and payable at Rishikesh and must be valid for (6) six month. Bids received without tender fees and Earnest Money deposit (EMD) shall stand rejected and thus shall not be considered for evaluation etc. at any stage. The original EMD will be put in cover-I containing with Technical bid.

a) The Public Sector Undertaking of the Central/State Govt./MSEs/MSME/Registered with Central Purchase Organization are exempted from furnishing Earnest Money along with tender, subject to submission of its valid proof.

b) The firms Registered with DGS & D/SSI and any approved source of Centre/States Govt. are not exempted from furnishing Earnest Money in so far as this institute is concerned.

c) Earnest Money deposited with AIIMS, Rishikesh in connection with any other tender enquiry even if for same/similar material / Stores by the tenderer will not be considered against this tender.

(ii) EMD is required to protect the purchaser against the risk of Bidders conduct. The EMD will be forfeited if the bidder withdraws or amends its tender or impairs or derogates from the tender in any respect within the period of validity of its tender or if it comes to the notice that the information/documents furnished in its tender is incorrect or false.

10. The bid security (EMD) without interest shall be returned to the unsuccessful bidders after finalization of contract with successful bidder.

11. Bidders are not allowed to submit more than one bid for the same/similar tendered item else all his bids shall be cancelled thereby making him disqualified in addition to the forfeiture of the EMD.

12. The successful bidders have to execute a contract on Indian non judicial stamp paper of Rs.100/- (Rupees one hundred only) within twenty-one (21) days from the date of award of this tender in his favour and also required to furnish the Security Deposit @ 10% of contract value in the form of FD/BG/ TD/CD for three months extra of the contract period from any Nationalised/Schedule bank duly pledged in favour of AIIMS, Rishikesh & payable at Rishikesh only. The EMD deposited by successful bidder may be adjusted towards Security Deposit as demanded above after its validation for the required period. If the successful bidder fails to furnish the full security deposit or difference amount between Security Deposit and EMD within 21 (twenty-one) days after the issue of Letter of Award of Work, his bid security (EMD) shall be forfeited and award of tender in suppliers favour automatically stands terminated at his cost & liability, unless time extension has been granted by AIIMS, Rishikesh.

13. The EMD/PBG shall be forfeited if successful bidder fails to supply the goods/equipment in stipulated time or fails to comply with any of the terms & conditions of the contract or fail to sign the contract.

14. The bid shall be valid and open for acceptance by the competent authority of AIIMS Rishikesh for a period of 180 (one hundred eighty) days from the published date of opening of the tenders and no request for any variation in quoted rates and / withdrawal of tender on any ground by bidders shall be entertained. The unilateral withdrawal at any stage will cause forfeiture of EMD in addition to any remedy that the purchaser may have under the law.

15. To assist in the analysis, evaluation and computation of the bids, the Competent Authority, may ask bidders individually for clarification of their bids. The request for Clarification and the response shall be in writing but no change in the price or substance of the bid offered shall be permitted.
15. After evaluation, the work shall be awarded normally to the Agency fulfilling all the conditions of the contract and who has quoted the lowest rate as per financial bid after complying with all the Acts / provisions stated / referred to for adherence in the tender.

16. The competent authority of AIIMS, Rishikesh reserves all rights to accept or reject any/ all tender(s) without assigning any reason. It can also impose/relax any administrative term and condition/specifications of the tender enquiry after due discussion in pre-bid conference. This will be communicated and shown over the website of the Institute. No representation will be considered after pre-bid meeting and **bidders may ensure its queries only in pre-bid meeting.** AIIMS, Rishikesh also reserves the right to reject any bid which in his opinion is non-responsive or violating any of the conditions/specifications without any liability to any loss whatsoever it may cause to the bidder in the process.

17. Tender must be submitted on the prescribed Tender Form otherwise tender will be cancelled straightway.

18. The tender form is not transferable.

19. Canvassing in any form is strictly prohibited and the tenderers who are found canvassing are liable to have their tenders rejected out rightly.

20. It is required by all concerned, namely the Bidders/Suppliers, as the case may be to observe highest standard of ethics during the procurement and execution of this Tender.

21. Installation at consignee’s site should be free of cost immediately on arrival of equipment at consignee’s site.

22. In case the quality of goods supplied are not in conformity with the standard given in tender and as per the samples supplied or the supplies are found defective at any stage these goods shall immediately will be taken back by the supplier and will be replaced with the tender quality goods, without any delay. The competent authority reserves all rights to reject the goods if the same are not found in accordance with the required description / specifications and liquidates damages shall be charged in addition to the cost of re-tender. The supplier is required to provide the demonstration of equipment at AIIMS premises to the AIIMS representatives for its evaluation as per the specification & desired functionality standard. However, a submission of videography displaying functionality as per tender specification may also be considered by the AIIMS, representative.

23. In case the bidder on whom the supply order has been placed, fails to make supplies within the delivery schedule and the purchaser has to resort risk purchase, the purchaser (AIIMS, Rishikesh) may recover from the tender the difference between the cost calculated on the basis of risk purchase price and that calculated on the basis of rates quoted by tenderer. In case of repeated failure in supplying the order goods the supply order may be cancelled and bid security deposit will be forfeited.

24. Where the specifications are as per tenderer’s range of products the tenderer’s offer should mention that the item meets all specifications as per the tender enquiry and if there are improvements/deviations the same should be brought out on separate Letter Head of the firm. It would be discretion of the competent authority of the institute to accept or reject such deviations which are not in accordance with our required specifications as given below the financial bid.

25. It must be mentioned clearly whether bidder is a manufacturer/sole distributor/ sole agent for the items for which he is quoting.

a. **Manufacturer** must add a certificate that item(s) is manufactured by them as per range of products.

b. **Sole Manufacturers** must add a certificate that they are the sole manufacturer of the Item for which they are quoting in this tender enquiry & item is /are their proprietary Item in India. The rate
c. **Authorized agents** must add authority letter from their Manufacturer/Principals on the letter head of the manufacturer/principals signed by a competent person and comes in proforma given in attach must duly supported by a notarised affidavit on Indian Non Judicial Stamp Paper of Rs.10/- (Rupees ten only) that they are quoting Rates on behalf of them. The authorization letter must give/mention the purpose for which it is allowed. The validity period of the authorization letter must be mentioned in the authority letter otherwise tender will be liable to rejection.

26. The bidders should have furnished a copy of GST/S.T. /C.S.T./VAT registration number, the State / U.T. of registration and the date of such registration. Tenders not complying with this condition will be rejected.

27. **Turnover provisions:** - (i) The tenderers should submit along with the tender, a photo state copy of the last three years Annual Accounts with Audit certificate by Chartered Accountant, Income Tax returns and a copy of current valid income tax clearance certificate(IT CC), otherwise bidder will not be considered for administrative evaluation (in evaluation of Technical bid) and will be declared disqualified in technical evaluation.

(ii) In case of bidder falls under Section 44AD/44ADA/44AE of Income Tax shall be required to submit turnover certificate verified by Chartered Accountant with his Registration number issued by Institute of Chartered Accountants of India.

(iii) In case of supplier is an Indian Agent, the firm can submit copies of purchase orders issued in favour of firm (As the payment is made through LC directly to foreign manufacturer and equipment payment does not exist in the book of account of the supplier) in support to its turnover whatever amount is getting short.

(iv) There will be relaxation on turnover on case to case basis for **Start-up firms** registered by Government of India under Start-ups scheme as per orders of Ministry of Commerce, Government of India.

28. **Sample/demonstration:** - In case, the item required prior submission of sample/performing demonstration, tenderer will have to submit sample/perform demonstration of the equipment/item to the competent authority of the institute, the bidder will have to born all the expenses for the same. Non submission of sample/non performing demonstration will **disqualify** the bidder in the technical bidding process and financial bid of the bidder will not be opened.

29. The tenderer hereby guarantees that the equipment supplied to the Institute (purchaser) under the Contract shall be of the best quality/latest version and workmanship and new in all respects and shall be strictly in accordance with the specification and particulars contained/mentioned in the Tender Document. The date of manufacturing of the equipment/goods supplied will not be more than 3 (Three months) old. The tenderer will have further guarantees that the said equipment would continue to conform to the description and quality aforesaid for a period of five (5) years guarantee period (As per MoH&FW guidelines), from the date of installation of the said equipment to the purchaser and notwithstanding the fact that the Purchaser (Inspector) may have inspected and/or approved the said equipment, if during the aforesaid period of five years the said equipment be discovered not to confirm to the description and quality as required as per specification or not giving satisfactory performance or have deteriorated, the decision of the Purchaser in that behalf shall be final and binding on the tenderer and the Purchaser shall be entitled to call upon the tenderer to rectify the equipment or such portion thereof as is found to be defective by the purchaser within a reasonable period or such specified period as may be allowed by the purchaser in his discretion on/ an application made thereof by the tenderer and in such an event, the above mentioned warranty period shall apply to the equipment replaced from the date of replacement thereof. In case of failure of the tenderer to rectify or replace the equipment, within specified time, the purchaser shall be entitled to recover the cost with all expenses from the tenderer for such defective equipment.

30. Full description & specifications, make/brand and name of the manufacturing firm must be clearly mentioned in the tender, failing which, the tender will not be considered. The tenderer must also mention whether the goods are imported/indigenous. Descriptive literature /catalogues must be attached with the tender in original, failing which, tender may be disqualified.
31. **Force Majeure:** Any failure or omission to carryout of the provisions of this supply by the supplier shall not give right for any claim by supplier and purchaser to one against the other, if such failure or omission arise from an act of God which shall include all acts of natural calamities from civil strikes compliance with any statistics and or requisitions of the Government lockout and Strikes, riots, embargoes or from any political or other reasons beyond the suppliers control including war (whether declared or not) civil war or state of incarceration provided that notice of the occurrence of any event by either party to the other shall be within two weeks from the date of occurrence of such an event which could be attributed to force majeure. Any delay due to Force Majeure will not be attributable to the either of the parties.

32. The equipment installed should be up for 95% of the total warranty time. If the equipment is down for more than 5% suitable action shall be taken against the supplier including imposition of penalty as deemed fit.

33. If there is a close system the tenderer shall ensure and will have to submit an affidavit on Indian Non Judicial stamp paper of Rs.10/- along with technical bid that spare parts and consumables for these equipment’s/instruments/item will be available at reasonable fixed rates for next 10 (ten) years, such rates should not be more than the rates supplied to institutes of national importance.

34. The successful Bidder shall at all times agree to indemnify and keep indemnified the purchaser against all losses, damages which may arise in respect of action/inactions of such Bidder or breach of any term of this tender by such Bidder. All claims regarding indemnity shall survive the termination of the contract with such Bidder.

35. Incase the vendor fails to supply the spare parts or fails to provide the agreed maintenance during the prescribed period, as per the terms of contract, the purchaser is automatically entitled to procure the required parts and hire services from the market at the risk and cost of the vendor, such inability of bidder will entail forfeiture the security deposit. The purchaser also reserves the right to terminate the contract on immediate notice, if the vendor fails to comply with this clause for more than one instance.

36. **Liquidated damage/demerge:** - The time for the date of delivery/ dispatch stipulated in supply order shall be deemed to be the essence of the contract and if the supplier fails to deliver or dispatch any consignment within the period prescribed for such delivery or dispatch in the supply order, liquidated damages may be deducted from the bill @ 0.5% per week subject to maximum of 10% of the value of the delayed goods or services under the contract. The competent authority of the institute may also cancel the supply at the cost & liability of the supplier. In such a case, bid security of the supplier shall stand forfeited. The supply of equipment must be in single consignment, inclusive of all parts & accessories in adherence to the specification so as to make the equipment fully functional at the time of the installation. No installation repeat shall be signed in case of absence of any part as per the specification.

37. **Legal Jurisdiction:** - The Courts at Rishikesh/ Dehradun alone and no other Court will have the jurisdiction to try the matter, dispute or reference between the parties arising out of this tender/supply Order/contract.

    **Applicable Law:**

38. The contract shall be governed by the laws and procedures established by Govt. of India, within the framework of applicable legislation and enactment made from time to time concerning such Commercial dealings / processing.

39. Any disputes are subject to exclusive jurisdiction of Competent Court and Forum in Rishikesh/Dehradun, Uttarakhand India only.

40. Except as otherwise provided under this Contract for immediate termination of the Contract, in the event of a disputes which may be arising out of the execution of the tender contract, the matter will be referred to the Deputy Director (Administration). Appeal against the decision of the DDA will lie to the Director, AIIMS Rishikesh and his decision shall be final and binding upon both the parties.

I / We hereby accept the terms and Conditions given in the tender

(Signature & Stamp of the bidder)
(B) Financial terms and conditions

1. Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BoQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BoQ file, open it and complete the white coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BoQ file is found to be modified by the bidder, the bid will be rejected.

2. Rates quoted should be inclusive of all applicable taxes, packing, forwarding, postage and transportation charges at for AIIMS Rishikesh (Site of installation/Use). Rates should be mentioned both in figures and in words.

3. The supplier has to submit a notarised affidavit on Indian Non Judicial Stamp Paper of Rs.10/- that the bidder has not quoted the price higher than previously supplied to any government Institute/Organisation/reputed Private Organisation or DGS&D rate in recent past. Therefore, if at any stage it has been found that the supplier has quoted lower rates than those quoted in this tender; the Institute (the purchaser) would be given the benefit of lower rates by the Supplier and any excess payment if any, will become immediately payable to the AIIMS, Rishikesh. If such affidavit is not submitted, tender will be outrightly rejected. (Part of technical bid)

4. Guarantee / Warrantee Period: The Tenderers must quote for 5 years’ comprehensive warranty (Including all Spares, Accessories software application, if any and Labour) from the date of completion of the satisfactory installation. The warranty charges shall not be quoted separately otherwise the offer shall be summarily rejected. Also the bidders are requested to submit their quote (Rates) for subsequent 5 years Comprehensive Maintenance Contract (CMC) (Including All Spares, Accessories software application, if any and Labour). Failure to comply this condition will entail the rejection of the bids. The price comparison shall be taken into account on basic price and post warranty CMC.

4. Custom Clearance: For the Goods to be imported and supplied, the Institute will provide Custom Duty Exemption Certificate (CDEC) to successful bidder for availing concessional rate of duty as per prevailing Custom Tariff. In case, the bidder requires CDEC certificate, then the same should be specifically mentioned in the bid. The supplier is solely responsible for getting the material clearance from customs. Institute will provide all custom documents for custom clearance on the demand of supplier. The supplier undertakes to fully co-operate to avoid any fine, demurrage or other charges and shall indemnify AIIMS Rishikesh in case of any such failure. Transportation of goods up to AIIMS, Rishikesh and its successful installation and commissioning demonstration (and training, if required) is also the responsibility of the supplier. All charges/ expenses incurred in this process will be borne by the supplier and after submission of deposit slips of custom clearance and transportation charges will be reimbursed to the supplier if said provisions are to be shown separately in the financial bid.

5. Payment terms: -If the supplier supplied the requisite item within stipulated time and installation is pending on the part of AIIMS Rishikesh on various reasons, up to 90 per cent payment against supply can be made by the AIIMS Rishikesh on various reasons, up to 90 per cent payment against supply can be made by the AIIMS Rishikesh on the case wise only, but will not be considered as precedence in all cases.

(A) Payment Term for Imported goods: For imported goods payment shall be made in the following manner:

a) On shipment: 75 % payment of the contract price shall be paid 60 days after presentation of shipping documents {goods shipped shall be paid through irrevocable, non-transferable Letter of
Credit (LC) opened in favour of the supplier in a bank in his country and upon the submission of the following documents:

I. Four copies of Supplier’s invoice showing contract number, goods description, quantity, unit price and total amount;

II. Original and four copies of the clean, on-board Bill of Lading/ Airway bill, marked freight prepaid and four copies of non-negotiable Bill of Lading/Airway bill.

III. Insurance Certificate;

IV. Certificate of origin by the chamber of commerce of the concerned country;

V. Certificate of country of origin;

VI. Manufacturer’s / Supplier’s warranty certificate;

VII. Manufacturer’s own factory inspection report.

i. **On Acceptance**: 25% payment would be made after satisfactory installation, commissioning, demonstration and training, if required on issuance of Inspection certificate by the AIIMS, Rishikesh.

**B) PAYMENT TERMS FOR INLAND GOODS**

(Seventy-five) 75% Payment of the contract price shall be paid on receipt of goods condition and upon the submission of the following documents:

(i) One Original and Four Copies of supplier’s invoice showing contract number, goods description, quantity, unit price and total amount.

(ii) Final Acceptance as per Inspection report issued by faculty.

(iii) Two copies of packing list identifying contents of each package.

(iv) Inspection Certificate issued by the user concerned department.

(v) Final Acceptance Certificate issued by the Institute.

**On Acceptance**: -

(i) Balance Twenty-Five (25) % payment would be made against ‘Final Acceptance Certificate’ as per Para (B) (i) & (v) of goods to be issued by the consignee’s subject to recoveries, if any, either on account of non-rectification of defects/deficiencies not attended by the Supplier or otherwise.

6. **L1 Clause**: L1 firm will be decided on the basis of Total Price in addition with the CMC charges quoted by the firm. The CMC charges should be quoted separately in format provided in pdf.

NO DEMURRAGE / WHARFAGE CHARGES WILL BE PAYBALE BY THE INSTITUTE UNDER ANY CIRCUMSTANCES. NO ADVANCE PAYMENT WILL BE PAYABLE FOR CUSTOM CLEARANCE/ FREIGHT/INSURANCE ETC

**Note:** In case of any dispute regarding award of tender, decision of AIIMS Administration would be final.

I / We hereby accept the terms and Conditions given in the tender

(Signature & Stamp of the bidder)
**TECHNICAL BID**
(Documents to be attached in the “Technical Bid”)

1. Name & Address of the manufacturer and their authorised dealers/distributors/Agency with phone number, email, name and telephone/mobile

2. Specify your firm/company is a manufacturer/authorised dealer/distributor/Agency

3. Whether the signature on each page has been made by the bidder or not.

4. Name, Address & designation of the authorized person (Sole proprietor/partner/Director)

5. Have you previously supplied these items to any government/reputed private organization? If yes, attach the relevant proof.

6. Please provide a notarised affidavit on Indian Non Judicial stamp paper of Rs. 10/- that you have not quoted the price higher than previously supplied to any government Institute/ Organisation/reputed Private Organisation or DGS&D rate in last one year. If you don’t fulfil this criteria, your tender will be outrightly rejected.

7. Please attach copy of last three years’ of Income Tax Return

8. **Turnover**
   a. Please attach balance sheet (duly certified by Chartered Accountant) for last three (3) years (Attach copy of annual minimum turnover which should not be less than 3 crores duly certified by the Chartered Accountant)
   b. The bidder falls under Section 44AD/44ADA/44AE of Income Tax Act shall be required to submit turnover certificate verified by Chartered Accountant with his Registration number issued by Institute of Chartered Accountants of India.
   c. Indian Agent can submit its copy of POs of LC cases, in support of its amount getting short in required turnover.
   d. Start-ups may submit its Start-up Registration for consideration (Relaxation in turnover can be considered as the case may be, subject to fulfilment of other conditions. However, it will not mandatory)

9. PAN No. (Please attach copy)

10. GST/VAT/Service Tax Registration Number. (Please attach copy)

11. Acceptance of terms & conditions attached (Yes/No). Please sign each page of terms and conditions as token of acceptance and submit as part of tender document with technical bid. Otherwise your tender will be rejected.

12. Power of Attorney/authorization for signing the bid documents (Not required in case of sole-proprietorship.)

13. Please submit a notarised affidavit on Indian Non judicial stamp paper of Rs. 10/- that no case is pending with the police against the Proprietor/firm/partner or the Company (Agency). Indicate any convictions in the past against the Company/firm/partner.

14. Please declare that proprietor/firm/company has never been black listed/debarred by any organization. An oath certificate to this effect may be enclosed on Rs.10 notarised stamp paper.

15. Please submit a notarised affidavit on Indian Non Judicial Stamp Paper of Rs.10/- that they will provide complete warranty for all equipment’s/items for 5 (five) years followed by CMC for further 5 (five) years of these equipment’s/items.

16. Please furnish a notarised affidavit on Indian Non judicial stamp paper of Rs.10/- that they will supply spare parts for next 10 years at reasonable price by submission of suitable benchmarks.

17. Please submit two performance certificate from your two different customers to whom you have supplied such type of equipment in previous 3 years

15. Details of the FD/DD/TD/CD of bid security (EMD)

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<thead>
<tr>
<th>FD/DD/TD/CD No:</th>
<th>DD No.</th>
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<tr>
<td>Date:</td>
<td>Date:</td>
</tr>
<tr>
<td>Payable at:</td>
<td>Payable at:</td>
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</table>

**Undertaking**

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AIIMS, Rishikesh

Page 9
1. I/We have read and understood the contents of the Tender and agree to abide by the terms and conditions of this Tender.

2. I/We shall supply the items of requisite quality and quantity at given rate in timely manner.

3. I/We also confirm that in the event of my/our tender being accepted, I/we hereby undertake to furnish within 15 days, Bank Guarantee/ Performance Security after the issue of Purchase Order, as applicable, in the format to be provided by AIIMS Rishikesh in addition to execution of a Contract as pre-condition for obtaining the supply orders.

4. I/We further undertake that none of the Proprietor/Partners/Directors of the firm was or is Proprietor or Partner or Director of any firm with whom the Government have banned /suspended business dealings. I/We further undertake to report to the AIIMS Rishikesh immediately after we are informed but in any case not later 15 days, if any firm in which Proprietor/Partners/Directors are Proprietor or Partner or Director of such a firm which is banned/suspended in future during the currency of the Contract with you.

5. I/We undertake that the information given in this tender are true and correct in all respect and I/We hold the responsibility for the same.

(Signature of the Bidder)

Name:

Designation with Seal of the Firm:
Chapter-II (Schedule of requirements & EMD)

Table-I

Details of items & their tentative quantity and EMD

The following items manufactured by Indian/International firms of repute are required.

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Item</th>
<th>Quantity</th>
<th>EMD</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>High Dependency Unit</td>
<td>1</td>
<td>INR 3,60,000/-</td>
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</tbody>
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MANUFACTURER’s / PRINCIPAL’s AUTHORIZATION FORM

(Clause 11 (c) of other terms and conditions of the tender)

To

The Administrative Officer,
All India Institute of Medical Sciences
Rishikesh

Dear Sir,

TENDER: _____________________________________________

we, ______________________________________, who are established and reputable manufacturers of
_________________, having factories at ________________ and__________________, hereby authorize
Messrs. _______________________ (name and address of agents) to bid, negotiate and conclude the contract with
you against Tender No.__________________ for the above goods manufactured by us.

We hereby extend our full guarantee and warranty as per the conditions of tender contract for the goods
offered for supply against this tender by the above firm.

The authorization is valid up to _____________________________

Yours faithfully,

(Name)
For and on behalf of Messrs. ___________
(Name of manufacturers)/Principal.
To

The Administrative Officer
All India Institute of Medical Sciences
Rishikesh,
Virbhadra Marg,
Rishikesh-249201

WHEREAS _____________________________ (Name and address of the supplier) (Hereinafter called “the supplier”) has undertaken, in pursuance of contract no________________________ dated _____________ to supply (description of goods and services) (herein after called “the contract”). AND WHEREAS it has been stipulated by you in the said contract that the supplier shall furnish you with a bank guarantee by a scheduled commercial bank recognised by you for the sum specified therein as security for compliance with its obligations in accordance with the contract; AND WHEREAS we have agreed to give the supplier such a irrevocable bank guarantee;

NOW THEREFORE we hereby affirm that we are guarantors and responsible to you unconditionally, on behalf of the supplier, up to a total of. ________________________ (Amount of the guarantee in words and figures), and we undertake to pay you, upon your first written demand declaring the supplier to be in default under the contract and without cavil or argument, any sum or sums within the limits of (amount of guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

We hereby waive the necessity of you to first demanding the said amount of guarantee from the supplier before raising the demand with us. You may directly raise the demand with us, without asking the supplier for the same.

We further agree that no change or addition to or other modification of the terms of the contract to be performed there under or of any of the contract documents which may be made between you and the supplier shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition or modification.

This guarantee will not be changed due to change in the constitution of the bank or the supplier.

This guarantee shall be valid up to 65 months from the date of satisfactory installation of the equipment i.e. up to ----------- (indicate date).

…………………………….
(Signature with date of the authorized officer of the Bank)
………………………………………………………….
Name and designation of the officer
………………………………………………………….
Seal, name & address of the Bank and address of the Branch

Instructions for Online Bid Submission:
The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

More information useful for submitting online bids on the CPP Portal may be obtained at: https://eprocure.gov.in/eprocure/app.

REGISTRATION

- Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: https://eprocure.gov.in/eprocure/app) by clicking on the link “Online bidder Enrollment” on the CPP Portal which is free of charge.

- As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.

- Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.

- Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate issued by any Certifying Authority recognized by CCA India (e.g. Sify / nCode / eMudhra etc.), with their profile.

- Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC’s to others which may lead to misuse.

- Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

SEARCHING FOR TENDER DOCUMENTS

- There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, Organization Name, Location, Date, Value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as Organization Name, Form of Contract, Location, Date, Other keywords etc. to search for a tender published on the CPP Portal.

- Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective ‘My Tenders’ folder. This would enable the CPP Portal to intimate the bidders through SMS / email in case there is any corrigendum issued to the tender document.

- The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

PREPARATION OF BIDS

- Bidder should take into account any corrigendum published on the tender document before submitting their bids.

- Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid.
• Please note the Number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.

• Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF/JPG Tender No. : ..................................... formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.

• To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use “My Space” or “Other Important Documents” area available to them to upload such documents. These documents may be directly submitted from the “My Space” area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

SUBMISSION OF BIDS

• Bidder should log into the site well in advance for bid submission so that they can upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.

• The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.

• Bidder has to select the payment option as “offline” to pay the tender fee / EMD as applicable and enter details of the instrument.

• Bidder should prepare the EMD as per the instructions specified in the tender document. The original should be posted/couriered/given in person to the concerned official, latest by the last date of bid submission or as specified in the tender documents. The details of the DD/any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise the uploaded bid will be rejected.

• Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BoQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BoQ file, open it and complete the white coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BoQ file is found to be modified by the bidder, the bid will be rejected.

• The server time (which is displayed on the bidders’ dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.

• The documents being submitted by the bidders would be encrypted using PKI encryption all techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key

• Further this key is subjected to asymmetric encryption using buyers/bid opener’s public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.

• The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
• Upon the successful and timely submission of bids (i.e. after Clicking “Freeze Bid Submission” in the portal), the portal will give a successful bid submission message & a bid Tender No. : ........................ will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.

• The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

ASSISTANCE TO BIDDERS

• Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.

• Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk number 0120-4200462, 0120- 4001002.

Technical Specification for Equipment for High Dependency unit for Urology department.

1. Equipment needed for comprehensive care of post-operative patients in urology High Dependency Unit.
2. All Equipment as per the list to be supplied as package.
3. Vendor should be responsible for supply Installation and Maintenance of all equipment During Five years warranty followed by Five years CAMC Period.

4. HDU to be equipped with Following Equipment

a) Multiparameter Patient Monitor – 5 nos
b) Multiparameter Monitor with Continuous Non Invasive Haemoglobin Monitoring – 1 nos
c) Advance ICU Ventilator- 2 Nos
d) Mobile Operation light- 1 no
e) Syringe Infusion Pump- 8 nos
f) Suction Unit - 1 no
g) 12 Channel ECG Machine – 1No
h) Biphasic Defibrilator with AED and pacing – 1 no
i) Blood Gas Analyser- 1 no
j) Crash Cart – 1 no

a) Specification for Multi-parameter Patient Monitor

1. Patient Monitors should be design to use in general and critical care area.
2. Monitor should be designed as per the international standards and comply European CE or USFDA or BIS standard.
3. Monitor should have at least 15” color back light LED screen and display 8 waveforms.
4. All the information should be access through touch screen as well as rotary knob.
5. Should have latest Cooling technology based on NO fan design.
6. Should have at least 120 hrs trends.
7. Should have 48 hrs full disclosers
9. ECG - 3/5 lead ECG with ST segment analysis.
10. Should have multi lead arrhythmia analysis of at least 22 different classifications.
11. Should have QT analysis.
12. Heart Rate – 15 to 300 bpm.
13. Respiration range should be upto 120 rpm
14. Should display SpO2 with perfusion index.
15. Should have NIBP monitoring with operation mode manual, auto and STAT.
16. Dual Temperature and range should be 0- 50 degree.
17. Should have dual IBP
18. Should have side stream etCO2 monitoring.
19. Should have audio / visual alarms.
20. Should have VGA output to connect external display.
21. Should have lithium-Ion battery backup of at least two hours.
22. Should have facility for bed to bed view and ready to connect with central station if required.
23. Each Monitor should be supplied with following accessories –
   a. ECG 5 Lead – 2No
   b. SpO2 Sensor, Adult – 2No
   c. SpO2 Sensor, Pedi – 1No
d. NIBP cuff, Adult – 2No
e. NIBP cuff, Pedi – 1No
   f. Skin Temperature – 1no
g. IBP Cable with 10 set of IBP disposable transduce kit
   h. etCO2 water trap and sampling line – 10 pcs each
   i. Wall mount – 1no
b) Multiparameter Monitor with Continuous Non Invasive Haemoglobin Monitoring

1. Patient Monitor suitable for Non-invasive Monitoring of Continuous Haemoglobin, Fluid Responsiveness, Perfusion Index, Pulse Oximetry and Pulse rate in patients.
2. Should provide continuous Non Invasive Haemoglobin measurement and display to enable clinician manage blood transfusions during and after surgeries.
3. Should be able to measure Continuous Non invasive Haemoglobin, SpO2, Pulse rate, Perfusion Index and Fluid responsiveness (Pleth variability) through same single finger sensor.
4. Bedside monitor should have selectable SpO2 averaging Modes-3, 4, 8, 10, 12, 14 or 16 seconds & Sensitivity-APOD, Normal and Max.
5. Monitor should have Multitouch Backlit TFT LCD Colour Display with Adjustable Brightness.
6. Should have inbuilt battery back up for at least four hours.
7. Patient monitor should have rotational colour touch screen with automatic change to horizontal or vertical view.
8. Patient monitor should have facility to customize display to see parameter, waveforms or trends.
9. Patient monitor should have trend function with facility to select one or two parameters and move, expand or collapse parameter trend for real time analysis.
10. Should have facility to store patient parametric data and display trend up to 96 hours at 2 seconds sampling rate.
11. Should have user configurable display settings and alarms for patient parameters.
12. Should have Audible and visual alarms for High/Low Haemoglobin (SpHb), High/Low SpO2, high/Low Pulse rate, high/Low PVI, Probe off, cable disconnect and low battery.
13. Display and measurement Range
   a. Total Haemoglobin (SpHb)-0-25g/DI
   b. Oxygen Saturation (SpO2)- 0-100%
   c. Pulse Rate (PR)-25-240 bpm
   d. Perfusion index (PI)-0.02-20%
   e. Pleth Variability Index – 0-100%
14. Accuracy
   a. Total Haemoglobin : 8-17g/DI
      Accuracy : ± 1 g/DI
   b. Saturation Range : 70 % to 100 %
      Accuracy : ± 2%
   c. Pulse Rate 25-240 bpm
      Accuracy : ± 3 bpm
15. Resolution
   a. Total Haemoglobin (SpHb) -0.1g/DI
   b. Oxygen Saturation (SpO2)- 1 %
   c. Pulse Rate (PR) – 1 bpm
   d. Perfusion Index (PI) – 0.01 %
16. Monitor should meet international quality and safety standards and should be USFDA or European CE or BIS approved product.
17. The vendor should quote price for sensors valid for atleast three years
   a. The patient Monitor should be supplied completer with Sensor for Continuous Haemoglobin, PVI, SpO2, PI – 10 nos

c) specification for Advance ICU Ventilator

1. Ventilator should be based on latest art of technology.
2. Should have high resolution 12.1" touch color display.
3. Ventilator should have the following mode of ventilation – IPPV/CMV, PCV, Assit control (in pressure and volume mode), SIMV (in Pressure and volume mode), Pressure support, CPAP with PS and apnea back up ventilation
4. Should have advance mode like BIPAP / Bivent / Duoleve, APRV and PRVC / Autoflow
5. Should have non Invasive ventilation with leakage compensation.
6. Should have the following set parameters –
   Vt : 20 – 2000 ml,
   Frequency :up to 80
I:E ratio : 4:1 – 1:10

Inspiratory pressure up to 80 cmH2O

Inspiratory time up to 2 sec

Pressure support upto 40 cmH2O.

7. Should have flow and pressure trigger both.
8. Should be able to deliver flow 180 lpm or more
9. Should have the special function like Sigh, suction support, manual expiratory and inspiratory hold.
10. Should display at least three continuous waveforms at a time,
12. Should have monitoring of following parameters –
   - Inspired & expired tidal volume,
   - Minute Volume, MV Leak and MV spontaneous.
   - Airway pressure – Peak, Mean, Plateau
   - Frequency – Mandatory and spontaneous
   - PEEP, R, C, and FiO2
13. Should have advanced monitoring like intrinsic PEEP, volume trap, Occlusion pressure, NIF, RSBI, and WOB.
14. Should have physiological / technical alarms airway pressure high/low, FiO2, frequency, MV, etc.
15. Should have at least latest 24 hrs.
16. Should have reusable flow sensor.
17. Should have autoclavable expiratory valve and supplied with 2 No with each unit.
18. Should have autoclavable and removable inspiratory valve.
19. Main unit should have at battery backup of at least 60 mins.
20. Should have inbuilt nebulizer control
21. Should have in built or external compressor mounted on trolley and should generate flow up to 180 lpm or more.
22. Ventilator should have option to upgradable to etCO2 and display real-time capnogram on ventilator screen and measures ViCO2, VeCO2.
23. Ventilator should be supplied with trolley and hinged arm of same manufacturer make.
24. Ventilator should be supplied with two set of reusable adult circuit and one set of Pediatric circuit.
25. Ventilator should supply with 10 no of disposable Hose with HME filter.
26. Should have European CE or USFDA or BIS.
27. Equipment should be demonstrated and compliance statement should be supported with brochures and technical data sheet.

d) specification for Mobile Operation Light
1. Mobile OT Light should be LED based designed as per the European CE or US FDA or BIS.
2. Light dome should be mounted on the durable and sturdy mobile trolley having four wheels with breaks.
3. Should have at light intensity of 70,000 lux.
4. Should at least six LED.
5. Should have variable intensity control.
6. LED service life should be at least 50,000 hrs
7. Should have color temperature of 4350 k.
8. Should have CRI 96
9. Should have light field diameter of 170 mm
10. Should have depth of illumination approx. 700 mm
11. All the light control should be embedded on dome of the mobile OT Light.
12. Spring arm should go 45 degree up & down.
13. Should have internal battery back of at least 8 hrs.
14. Should be supplied two sterilizable & reusable handle.
e) Specification for Syringe Pump

1. Syringe pump should be designed for multipurpose uses and should be compatible with 5, 10, 20, 30 and 50 ml syringes.
2. Should have front loading facility.
3. Should have rate mode, Time mode and Body weight mode function
4. Should be compact in design and weight should be less than 2Kg.
5. Should have flow rate up to 1200 ml / hr
6. Should have function of KVO.
7. Should have bolus rate up to 1200 ml/hr
8. Should have pause and key pad lock function.
9. Should have accuracy level of +/- 2%
10. Should have titration function as a standard function.
11. Should have anti bolus function.
12. Should have alarm for Syringe not inserted correctly, VTBI done, VTBU near done, Occlusion, KVO finish, Syringe near empty, Battery low etc
13. Should have three level occlusion alarms – Low medium and High.
14. Should have at least 200 drug libraries.
15. Should have lithium battery with back up of 6 hrs.
16. Should be designed as per European CE or US FAD or BIS standard

f) Specification for Vacuum Suction Pump

1. Should have automatic, programmable & electronic microprocessor controlled vacuum extractor with LCD display
2. Should have automatic Vacuum control for increased safety with sensor monitored vacuum
3. Should have automatic vacuum generation and reduction with pre selectable parameters
4. Should have suction capacity minimum -625 mmHg
5. Should have airflow rate minimum of 36 L/ min capacity (2ltr +/-)
6. Should have hygienic hydrophobic bacterial filter with filter change indication available on display
7. Should have electronic filling level control with over suction protection
8. Should have the vacuum pre selection by finger touch key press
9. LCD display should show the time progress with audible action signals
10. Should include accessories of silicon cups of 50 mm & 60 mm
11. Should have international protection class certification
12. The equipment should be multifunctional and able to be used for freeing the respiratory track, also as a suction curettage & as a breast pump
13. The system should have a collection jar of 1.5 ltr glass with a double hose connector.
14. Should have electronic filling level control with over suction protection
15. Should have European CE or US FDA or BIS

g) Specification of 12 Channel ECG Machine

1. ECG machine should acquire, analyze, display, store, and record electrocardiographic information for clinical diagnosis and study.
2. ECG machine should have at least 8” color screen to display real time ECG.
3. Should have manual entry patient information through embedded key.
4. Should display patient ID, name, age, gender, heart rate, battery indicator, time etc
5. ECG sampling rate should be 1000 samples/second/channel.
6. Should have pacing sampling 16,000 samples/second/channel.
7. Should have common mode rejection more than 110 db.
8. Should have resolution 1 μV/LSB.
9. Should have USB connector for data
10. Should have different communication port like Network connector, telephone line connector, analog connector etc
11. Should have inbuilt thermal dot array printer with speed selection of 5, 12.5, 25 & 50 mm/s.
12. Machine should generate a print on Z-fold A4 size paper
13. Machine should have facility to connect to external printer though USB cable to take ECG report on A4 size paper.
14. Machine should have internal storage of 400 ECG recodes.
15. ECG storage facility available in different formats like XML, PDF etc.
16. Should have different Report formats like 3x4 +1, 3x4 +3, 6x2, 6x2 +1, 12x1
17. Machine should have facility to preview ECG on screen review.
18. Should have automated re-analysis ECG after modification of patient demographic with option to add patient information later.
19. Should have batter back of more than 3.5 hrs of continuous operation.
20. Weight should be less than 5 kg.
21. Machine should be designed as per European or USFDA or BIS.

**h) Technical Specification of Bi-Phasic Defibrillator with AED and Pacing**

1. Bi-phasic Defibrillator cum monitor should be designed for both hospital and ambulance purposes.
2. Should have integrated monitoring, Bi-Phasic Manual Defibrillation, AED and Pacer.
3. Shock delivery should be through paddle or electrode pad.
4. It should be compact and light weight and weight should be less than 7.5 kg.
5. It should have Asynchronized and Synchronized defibrillation mode with Bi-phasic Technology
6. It should have 1-2-3 step guidance for fast and safety defibrillation
7. Defibrillator should have wide range of output energy 1 – 360 J.
8. Should have charging time less than 3sec up to 200J.
9. Should have energy selection on paddle as well.
10. Should have selectable AED mode and energy selection 100 to 200J.
11. AED mode should have voice and text prompts guide and voice recording up to 180 minutes.
12. It should have 7” TFT large display.
13. Should have inbuilt monitoring of ECG through leads, Pads/Paddles.
14. Should have facility of viewing ECG of 16sec.
15. Should have battery backup of 5hrs of monitoring or delivery of 200 shocks at maximum energy.
16. Should have inbuilt 50 mm thermal recorder.
17. Should have 48 hrs of tabular trends.
18. Should be European CE or USFDA or BIS approved.
19. Should have EN 1789 for road ambulance uses and at least 700mm free fall certificate.
20. Should meet IP 44 standard for water resistance and solid resistance.
21. Compliance sheet should be support with brochures and certificates.
22. Defibrillator should be supplied with flowing accessories –
   a. 5 Lead ECG – 2No.
   b. External Paddle Adult Cum Pediatric. – 1No.
   c. Disposable multipurpose electrode pads – 5 pairs

**i) Specification for Blood Gas Analyzer**

1. The Blood Gas Analyser should be fully automatic.
2. Should permit introduction of real time sample data on Altitude, FiO2, Hemoglobin, patient ID and temperature.
3. Should have a sample temperature control of 37 degree Celsius.
4. Should be able to measure following parameters – pH, Pco2, Po2, Na+, K+, Cl-, Ca++, Hb.
5. Upgrade to Lactate, Glucose.
6. The analyzer should be able to give the following derived parameters – HCO3, TcO₂, SaO₂, BEECF, O₂Ct, A-a DO₂.
7. The analyzer should have soft touch menu based operation.
8. The analyzer should be with advance liquid calibration system without the need of gas tanks, regulators and humidifiers.
9. The analyzer should have reagents pack based and should not be cartridge based system i.e. electrodes should not be in the cartridge system.
10. The analyzer should have data display on well illuminated LCD/color touch screen display with built in printer to take out hard copy and should be able to store patient data, QC reports for the last 1000 patients.
11. The analyzer should be able to give all the results in less than 1 min.
12. The analyzer should be able to accept the following samples – whole blood (heparinized), arterial, mixed venous, capillary.
13. Sample pickup aspiration to allow for Syringe and capillary samples.
14. Sample volume should be less than 250µl for full panel.
15. Electrodes should have long life, be miniaturized cordless and easily replaceable.
16. Should have well configured assembly of wet suction, tubing and valve so that disconnection and breakage are minimized.
17. The system should have RS232 serial communication port.
18. Should be provided with suitable analyzer management system.
19. Power input 220V ± 10%, 50 Hz and a suitable one hour back up UPS supplied along with the analyzer.
20. Maintenance free/ Maintainable electrode and the unit should have upgradeability for auto quality control.
21. System should be ISI/CE marked or US FDA or BIS approved.
22. Should submit certificate of relevant of IEC safety standards.

**Specifications for crash cart**

1. Overall size shall be more than 900mm L x 500mm W x 1500mm H.
2. The crash cart should be made of 25.4mmx18G Stainless steel tubular frame work.
3. Shall have Epoxy / Anti-Microbial powder paint inside and out.
4. Should have dual push handles on either side.
5. Should have S.S. shelves, six colored removable bins & two polystyrene lockable storage units with three drawers each.
6. Facility to carry ECG Monitors, Defibrillators etc on open areas at top centre and bottom shelves.
7. Should have Stainless steel saline rod fixed with.
8. Two accessory mounting brackets to mount accessories anywhere without the need of prethreaded holes.
9. Crash cart should be mounted on 12.5 cms dia non-rusting swiveling castor wheels. Two having locking arrangement.
10. Oxygen cylinder stand epoxy powder coated, on one side.