



Government of West Bengal

Office of the Principal,
College of Medicine & Sagore Dutta Hospital, Kolkata-58.

NIT No. : CMSDH/ 103/13

Date: 22/01/2013

NOTICE INVITING TENDER

Sealed Tenders are invited for Equipments/Instruments and Chemicals & Reagents from the manufacturers/ authorized agents. The sealed Tenders are to be submitted in the office of the Principal, College of Medicine & Sagore Dutta Hospital by 12-00 Noon of 14/02/2013. For details, please visit College Website www.cmsdh.org Or Department of Health & Family Welfare Website www.wbhealth.gov.in.

Shetty
22/01/2013

Principal
College of Medicine & Sagore Dutta Hospital
Kamarhati, Kolkata - 58

Memo. No. : CMSDH/103/13 /1(3)

Date: 22/01/2013

Copy Forwarded to:-

- 1) Director of Medical Education, Dept. of Health & Family Welfare, Swasthya Bhavan, Salt Lake, Kol-700091
- 2) Additional Director of Health Service, Audit, Accounts & Verification, Swasthya Bhavan, Salt Lake, Kol-700091
- 3) Office Copy

Shetty
22/01/2013

Principal
College of Medicine & Sagore Dutta Hospital
Kamarhati, Kolkata - 58

2.5 The Commercial bids of the short listed bidders will be opened at the Auditorium of the Institute in the presence of their authorized representatives, if any. (The date of opening of commercial bids will be communicated to the technically successful bidders only).

2.6 All the correspondences shall be addressed to **the Principal, College of Medicine & Sagore Dutta Hospital, 578, B.T. Road, Kamarhati, Kolkata 700058.**

3. Purchaser's Right to Vary Quantities at the time of Award

The Purchaser reserves the right to vary the quantities and/or services and/or split the order among the selected Bidders.

4. Purchaser's Right to accept any Bid and to reject any or all bids

The Purchaser reserves the right to accept any bid, to annul the tender process and reject all bids at any time, without assigning any reason prior to award of Contract without ,thereby, incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for the Purchaser's action.

5. Bidder Qualification

The 'bidder' as used in the tender documents shall mean one, who has signed the tender form. The bidder may be either the manufacturer of the item for which prices are quoted on the price schedule or where the manufacturer does not sell his product directly, his duly authorized representative, in which case he shall submit a 'certificate of authority' as per Model Proforma - 4. All certificates and documents required in connection with the bid shall be furnished by the manufacturer / authorized representative.

6. Earnest Money

6.1 Earnest money shall be payable at the rate of **Rs. 5,000/- (Rupees Twenty thousand) only for each set of item** by way of demand draft / pay order drawn in favour of the **Principal, College of Medicine & Sagar Dutta Hospital.** The demand draft / pay order shall have to be enclosed along with the financial bid.

6.2 The "Earnest Money ", in case of unsuccessful Bidders, shall be retained by the Purchaser, upto a maximum period of 1 Year from the date of opening of the Bids or till the finalization of the tender, whichever is later. The Earnest Money shall be refunded to the unsuccessful bidder on written request along with photocopy of Demand Draft. No interest will be payable by the Purchaser on the EMD.

6.3 The Earnest Money shall be forfeited,

a) If a Bidder withdraws his bid during the period of bid validity specified by the Bidder in the Bid

or

b) In the case of the finally selected bidder, if the Bidder fails;

i) to sign the Contract in accordance with Clause 17; or

ii) to furnish Performance Bank Guarantee in accordance with Clause 10.3 ;or

iii) if, at any stage any of the information/declaration is found false.

Earnest Money in respect of the finally selected Bidder(s) will be discharged upon the Bidder(s) executing the Contract, and furnishing the Performance Guarantee, pursuant to Clause 10.3.

7. Period of Validity of Bids

Bids shall remain valid for atleast one year from the date of opening of the bid. The Purchaser as non-response may reject a bid valid for a shorter period.

8. THE FORWARDING LETTER/UNDERTAKING (MODEL PROFORMA-1) ALONG WITH CHECKLIST FOR TERMS AND CONDITIONS DULY SIGNED SHOULD INVARIABLY BE RETURNED ALONGWITH QUOTATIONS FURNISHED, FAILING WHICH THE TENDER SHALL BE REJECTED.

9. Terms and Conditions of Tendering Firms

Printed terms and conditions of the Bidder will not be considered as forming part of their Bids. In case terms and conditions of the contract applicable to this invitation of tender are not acceptable to any Bidder, he should clearly specify deviation in his Bid.

10. Bid Requirements

10.1 The Bidder must quote for the equipment with all items and quantities as specification in the catalogue.

10.2 Arithmetical errors will be rectified on the following basis: If there is a discrepancy between the unit price and the total unit price as declared in the Price Schedule the unit price shall prevail and the total price shall be corrected. If there is a discrepancy between words and figures, the amount in words will prevail. If the supplier does not accept the correction of the errors, its bid will be rejected.

10.3 The finally selected Bidder(s) will be required to furnish Performance Bank Guarantee for 10% of the Contract Price, on award of Contract as per the prescribed Proforma, from any Nationalised Bank in India which shall be valid till warranty period. The performance bank Guarantee (Model Proforma-8) should be submitted to the purchaser within two weeks from the date of acceptance of the tender. Failure to furnish performance B/G, in time, would entail forfeiture of EMD.

10.4 Bids from Bidders who have not purchased the Bid document or Bids not accompanied by Earnest Money or Bids from representatives without letter of Authority from the manufacturer will be summarily rejected.

11 Mixed quotation will not be considered for acceptance

Bidders should enclose, along with the Techno-Commercial Bid of their offers, the full details including proposed configuration of offers with full documentation, descriptive literature/leaflets supplementing the description and point out any special feature of their system. All documentation is required to be in English.

The bid shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by the Bidder, in which case such corrections shall be initialed by the persons signing the bid.

All pages of the Bid being submitted must be signed and sequentially numbered by the Bidder.

12. Bid Prices

12.1 The bidders should quote rates in Indian Rupees only.

THE PURCHASER IS NOT AUTHORIZED TO ISSUE 'C/D FORMS. Tender not confirming to these requirements shall be rejected and no correspondence will be entertained whatsoever.

12.2 The bidder shall indicate on the Price Schedule attached to these documents the Unit Prices and the total Unit Prices of the goods it proposes to supply under the contract in the following manner :

- i) Unit price for each item.

- ii) Local levies, if any, on per unit price
- iii) Other incidental charges, if any, on per unit price
- iv) Unit price, for destination
- v) Total unit price, for destination. Excise duties, sales tax if included should be explicitly specified.

12.3 It should be noted that payment by the Purchaser towards customs duty and local levies, if any would be made on actual effective rate on the day of opening of price bid. The purchaser would provide appropriate forms applicable to purchases made on behalf of Govt. of West Bengal.

12.4 The prices quoted by the Bidder and accepted by the Tender committee shall hold good till the completion of the works and no additional claims will be admissible on account of any price variation or fluctuation in market rates.

12.5 The finally selected Bidder will have to apply to the proper Government Authority for grant of requisite License/foreign exchange for such items as required and the purchaser will only tender such assistance, as considered necessary.

12.6 The firm has to provide the breakup expenditure of different quoted items as well as total expenditure clearly for the system.

13. Important Instruction with regard to submission of tender

13.1) The rate **should be quoted in Indian Rupees only** (both in figure and words) for a particular brand or model / model no. of the offered item only as mentioned in the appropriate column of the 'Tender Form'. **(Alternative offer will not be accepted)**. The tender shall be **cancelled for the quotation of item without its brand name, model, model no. etc.** The detail information regarding the manufacturer and the item quoted in the 'Tender Form' shall be furnished. **One 'Tender Form' will be used for quoting the rate of one set of items [i.e. either (1) Equipments & Instruments or (2) Chemicals & Reagents or (3) Charts & Models] only.** No clustering offer will be entertained.

13.2) Bidders are instructed to submit all tender papers / documents in four separate covers marked 'Cover-A', 'Cover-B' and 'Cover-C' as per instructions contained hereunder. Each cover shall be addressed to the **Principal, College of Medicine & Sagore Dutta Hospital, 578, B.T. Road, Kamarhati, Kolkata 700058**. The four separate covers (marked 'Cover-A', 'Cover-B' and 'Cover-C') must finally be enclosed in one big sealed cover superscribed "TENDER FOR INSTRUMENTS AND EQUIPMENTS / CHEMICALS & REAGENTS" (as the case may be) FOR THE PERIOD FROM _____ TO _____ in bold capital letters and addressed to the **Principal, College of Medicine & Sagore Dutta Hospital, 578, B.T. Road, Kamarhati, Kolkata 700058** with a forwarding letter as per "Model Proforma-1" supplied and also bearing full name and complete address of the 'Bidder', and name of the item with serial no.

13.3) **COVER-A shall contain following papers / documents in the following order :**

i) **Deposit of Rs. 5000/- (Rupees five Thousand only) as Earnest Money in form of Demand Draft /Pay Order in favour of "Principal, College of Medicine & Sagar Dutta Hospital" for the quoted Set of item along with a letter mentioning the name of firm, name of the set of item offered and its catalogue nos. under signature of the Bidder.** (marked 'Annexure-I'). The onus of proving that a Bidder is exempted from depositing earnest money shall lie on the Bidder.

ii) The photocopy of the 'Income Tax Return' as submitted in the previous financial year along with photo copy of PAN Card of the Bidder. (marked 'Annexure-II').

- iii) VAT Registration Number / up-to-date Return of Sales Tax submitted to the Sales Tax Authority (marked 'Annexure-III).
- iv) Papers in connection with the exemption of VAT of the Manufacturer (in the case of the indigenous firm). Papers shall be duly certified by the Commercial Tax Authority. (marked 'Annexure-III A').
- v) Up to date 'Trade License' from the appropriate authority. (marked 'Annexure-V').
- vi) 'Affidavit for non-conviction in a criminal case / not being black listed in the past by any Govt./ Pvt. Institution in non-judicial stamp paper as per "Model Proforma-5" supplied. (marked 'Annexure-VI').
- vii) Treasury Challan Form (T.R. Form 7) in Original showing deposit of cost of Tender Paper of Rs. 1000/- (marked 'Annexure-VII').
- viii) Valid 'Manufacturing License' of the manufacturer must be accompanied with the bid document, if available (marked 'Annexure-VIII').
- ix) Bidder Particulars as per Model Proforma - 2 supplied (marked 'Annexure-IX').
- x) Bidder profile as per Model Proforma - 3 supplied (marked 'Annexure-XI').

13.4) COVER-B shall contain following papers / documents only.

- i) 'Letter of Authority' from Manufacturer/Principal Firm' as per 'Model Proforma- 4' supplied. The 'Letter of Authority' must be legible and valid stating name of the item with 'Model / Model No.etc.). (marked 'Annexure-I').
- ii) Technical Specifications in detail against the offered item along with one copy of relevant paper of catalogue / information booklet with regard to the offered item only. (marked 'Annexure-II').
- iii) Performance statement as per Model Proforma - 6 supplied. (marked Annexure-III)

13.5) COVER - C shall contain only duly filled in 'Tender Form' (i.e. 'Price Bid') in original and duplicate as per given format.

13.6) No subsequent submission of any tender paper after the stipulated time will be entertained. Also any representation after the acceptance of tender by a firm for any reason whatsoever will not be entertained.

14. Opening of bids

The bids will be opened in the presence of bidders/representatives who choose to attend on the date and time as mentioned. The bidders/representatives who are present shall sign a register evidencing their attendance. The bidders/representatives shall furnish letter of authority from their principal to attend the bid opening. Financial bids of bidders whose bids are found technically suitable (after the presentation, if any) only will be opened. Decision of the sub-committee on technical suitability shall be final and shall not be opened for discussion. THE TENDERERS ARE REQUIRED TO DEMONSTRATE THE QUOTED MODEL OF THE EQUIPMENT DURING THE TECHNICAL EVALUATION, IF REQUIRED, FAILING WHICH THEIR BIDS/OFFER SHALL BE REJECTED. THE TENDERER MUST QUOTE THE BEST OPTION AS PER OUR SPECIFICATION.

15. Award of contract

Prior to the expiry of the period of the bid validity, the **Principal, College of Medicine & Sagore Dutta Hospital** will notify finally selected bidders in writing by registered letter or by fax that its bid has been accepted. If a need for extension of the bid validity period arises, it should be extended by mutual agreement. The notification of award will constitute the formation of contract.

During the period of validity of the contract, the selected bidder shall supply surgical instruments and hospital equipments to the purchaser as per their requirements subject to the terms and conditions of this tender.

Any bid not conforming to the terms and conditions as laid down in the terms and conditions shall be rejected.

16. Signing of contract

Successful Bidders (hereinafter referred to as the supplier) shall enter into an agreement with the purchaser as per Model Proforma-8 as the purchaser notifies the finally selected bidders that its bid has been accepted, the finally selected bidders shall collect the supply order & Contract Form from the purchaser, as and when such supply order are required subject to terms and conditions of tender.

17. Inspection and Tests

The purchaser shall have the right to inspect and/or test the equipment for conformity to the contract specifications.

In case any inspected or tested equipments fail to conform to the specifications, the purchaser may reject them and the supplier shall either replace the rejected equipments or make all alterations necessary to meet specification requirements free of cost to the purchaser.

The supplier shall provide installation and standard tests for the individual equipments before the delivery of the system at site.

Leaflet and literature should invariably be attached for ready references along with complete documentation of all the measurement conducted during installation period which shall be submitted by the supplier for future reference.

The technical problem faced during installation, testing and commissioning period and their solutions shall be submitted by the supplier at the time of handing over the completed works.

For the purpose of taking over the equipment/system supplied pursuant to this contract, an acceptance test shall be carried out at the purchaser/consignees destination site. The equipment which meets the acceptance test shall only be accepted by the purchaser.

Before the equipment is taken over by the Purchaser/Consignee, the Supplier shall provide manuals of the equipment/system. This shall include the following:-

- i) System interface drawings, Wiring diagrams
- ii) System interconnection and Block diagrams
- iii) User Operation Manuals
- iv) Equipment Maintenance Manuals.

18. Spare Parts

18.1 The Bidder will undertake that supplies of necessary maintenance equipment and spare parts will be made available for all items/equipments and the complete system for a least five years on a continuing basis. However, this does not relieve the supplier of any warranty obligations under the contract.

18.2 The bidders are requested to enclose the price list of consumables items, if any, along with price bid.

18.3 If any spares and accessories other than the price list attached/enclosed by the firm are required for future repair it will be borne by the firm only.

18.4 The Bidder shall include in his tender, the details of essential spares, and their quantity and unit price as per schedule of requirements. Detailed explanation to confirm that quantity of spares quoted as per requirement of this clause shall be given.

18.5 In addition to the essential spares, Bidder shall indicate additional recommended quantities of spares for efficient maintenance of the equipment and the systems for a period of 5 years, after the completion of warranty period, to ensure that the quality and reliability objective is achieved. The details on which unit price and the total cost or recommended spares is based shall be included in the tender as an option. However, the cost of such recommended spares shall not be considered for tender evaluation.

19. GUARANTEE / WARRANTY PERIOD:

THE TENDERERS MUST QUOTE FOR 1 YEAR COMPREHENSIVE ON SITE WARRANTY OF ENTIRE SYSTEM (INCLUDING ALL SPARES & LABOUR) FROM THE DATE OF COMPLETION OF THE SATISFACTORY INSTALLATION. For Extended warranty of 3 years rate should be quoted separately.

19.1 If the performance of any individual equipment of system is not satisfactory, the same shall be replaced by the supplier free of cost.

19.2 All faults appearing and their rectification shall be periodically advised to the hospital, the period being not more than a month.

19.3 Any lacuna or lacunae noticed in the functioning of the installation as a result of any design feature shall be rectified by the supplier free of cost.

20. After Sales Services and Maintenance Contract

After sales services will be provided by the supplier during and after guarantee period of the equipment. Details along with the yearly maintenance charges for five year after warranty shall be forwarded:

21. Previous Installations

The names and address of the institutions/hospitals where the supplier has already installed/supplied the equipment indicating the dates of installations may be given (in India).

22. Delivery, Installation and Commissioning

22.1 Delivery of the goods at the purchaser's premises shall be completed by the Supplier in accordance with the terms specified by the purchaser.

22.2 The installation, testing and commissioning of the proposed system shall be completed in accordance with the order.

22.3 In case of distributor, the firm should be direct distributor from the principal's. The sub-distributor authority by distributor will not be accepted at all.

23. Incidental Services

The supplier is required to provide Hardware and Software up gradation from time to time, at mutually agreed terms. During warranty all Software updated version/up gradations are expected to be provided at free of cost to Purchaser.

23.2 Further, any bugs/shortcomings detected by the purchaser/user as well as the supplier himself shall be rectified at free of cost to purchaser beyond warranty period.

24. Termination for default

The purchaser may without prejudice to any other remedy for breach of contract, by written notice of defaults sent to the supplier, terminate the contract in whole or in part.

- i) If the supplier fails to deliver or install system within the time period(s) specified in the contract,
- OR
- ii) If the supplier fails to perform any other obligation(s) under the contract.

25. Use of Contract Document & Information

The supplier shall not, without the purchaser's prior written consent, disclose the contract, or any provision thereof, or any specification, plan, drawing, pattern, sample of information furnished by or on behalf of the purchaser in connection therewith, to any person other than a person employed by the supplier in the performance of the contract.

26. Property Rights

The Supplier shall indemnify the Purchaser against all third party claims of infringement of patent, copyright, trademark, license of industrial design rights, software piracy arising from use of the goods or any part thereof in the purchaser's country.

27. Payment

100% payment will be made after supply, installation and satisfactory demonstration of the said equipment.

28. Packing and Marketing.

Best trade packing suitable for Rail/Road/Air/Sea transit shall be used subject to packing and marking being acceptable to the Inspecting Authority.

a) The supplier shall provide such packing of the goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the contract. Packing case, size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and absence of heavy handling facilities at all points in transit.

b) The packing marking shall show the description of quantity of contents, the name of the consignee and address, the gross weight and distinctive number of mark sufficient for purpose of identification. Each package shall contain:

- i) A packing note quoting the name of the purchaser,
- ii) The number and date of Purchase order,
- iii) Nomenclature of the goods,
- iv) Schedule of parts of each complete equipment giving part number with reference to assembly.

Notwithstanding anything stated in this clause, the supplier shall be entirely responsible for loss, damage, deterioration, depreciation of the goods due to faulty packing.

29. PREPARATION AND DELIVERY OF TENDER

Tender documents must be signed by the tenderers in full along with their stamp.

30. Force Majeure

Any failure of omission or commission to carry out the provision of the contract by the supplier shall not give rise to any claim by any party, one against the other, if such failure of omission or commission arises from an act of God, which shall include all acts of natural calamities such as fire, flood, earthquake, hurricane or any pestilence or from civil strikes, compliance with any statute and/or regulation of the Government, lockouts and strikes, riots, embargo, or from any political or other reasons beyond the supplier's control including war (whether declared or not) civil war or state or insurrection, provided that notice of the occurrence of any event by either party to the other shall be given within two weeks from the date of occurrence of such an event which could be attributed to Force Majeure conditions.

The Institute reserves the right to accept or reject in whole or in part any or all the quotations received without assigning any reasons thereof.

SPECIAL TERMS AND CONDITIONS FOR TENDER SUBMISSION

- 1. The tenderer should have been in this business for a period of at least two years in the country in relation to the type of equipment for which the quotations / tenders are being submitted.*
- 2. A proof of ownership/partnership etc. shall be submitted along with verification of address, telephones and fax numbers.*
- 3. The tenderer should submit statement of financial standing from their bankers. The name of the bank along with full address is to be furnished.*
- 4. The supplier should submit a statement of overall turnover for the previous three years. If applicable a copy of the applicants annual report and accounts for each of the last three years should also be submitted.*
- 5. The tenderer is also required to submit performance report from other similar organization where the firm is registered for supply and erection of similar projects of hospital equipment/system. He will also submit list of organizations where the System has been installed by the firm in the last two years.*
- 6. The tenderer has to give a certificate that the firm has not been blacklisted in the past by any Institution-Government/Private or convicted in any criminal case.*
- 7. If the tenderer gives a false statement on any of the above information the firm/supplier will not be considered and their quotation/tender shall be rejected and the security deposited shall be forfeited.*
- 8. The manufacturer should submit all the quotations directly or through their authorized agent where applicable provided the manufacturer accepts responsibility for any lapse on the part of the agent and authorization certificate must be enclosed.*
- 9. Quality assurance certification like ISO 9000 series should be enclosed wherever applicable.*

To
The -----
.

Sub: Tender for item (name).....[Cat. No.....]
Sir,

In response to your Tender Notice No..... published in the ‘... ..
dt.....’, we are offering our price bid with the following particulars and documents of our firm:

1. Name of the ‘Equipment/Item’:
2. Name of the Brand / Model (with Model No., if any):
[If there is no model no., please state clearly model no. NIL]
3. Name of the manufacturer
with his complete postal address:
4. Name and complete postal address
of the tenderer with telephone no.:
5. Submitted sealed cover envelopes marked as ‘Cover-A’, ‘Cover- B’ and ‘Cover-C’ completed in all respect as per given terms and conditions of said Tender Notice.

We will abide by the instructions issued by the tender inviting authority time to time and will comply all terms and conditions of the said tender notice.

Yours faithfully,

(Full name in capital letters)
Seal of the ‘Firm’

BIDDER PARTICULARS

- 1. Name of the Bidder :**
- 2. Address of the Bidder :**
- 3. Name of the Manufacturer (s) :**
- 4. Address(es) of the Manufacturer :**
- 5. Name and address of the person :**

**To whom all references shall be
Made regarding this tender inquiry.**

Telephone :

Telex :

Fax :

e-mail address :

Witness :

Signature

Name

Address

Date

Signature

Name

Designation

Company

Date

Company Seal

MANUFACTURER'S AUTHORISATION FORM

No.....dated.....

To

.....
.....
.....

Sub: Tender Notice No.....dt.....

Dear Sir,

We,, are established and reputable manufacturers of.....do here by declare that we are not selling our product directly and as such authorize M/s. (Name and address of Agent/Distributor) to submit a tender, and subsequently negotiate and sign the contract with you against the above stated Tender Notice on behalf of us.

No company or firm or individual other than M/s. _____ are being authorized to participate against this specific Tender Notice. No. dated.....

We hereby extend our full guarantee and warranty as per Clause of the General Conditions of Contract for the equipment / instrument offered for supply against this Tender Notice issued by the ----- Govt. of West Bengal.

This authorization is valid up to

Yours faithfully,

(Name)
for and on behalf of
M/s. _____
(Name of manufacturers)

NON-JUDICIAL STAMP OF TEN RUPEES

(TO BE SWORN BEFORE JUDICIAL / EXECUTIVE /METROPOLITAN MAGISTRATE)

I.....son of.....
a resident of
on behalf of(Name
and address of the firm do hereby solemnly affirm and declare:

1. That I and the Principal Manufacturer of equipment offered have never been convicted of any offence under criminal law of India or never been disqualified/blacklisted while running the manufacturing business and/or supplying Surgical Instruments & Medical Equipment (Drug or Non Drug) to the Institutions/Hospitals under the control of Government of West Bengal / Department of Central Government / Undertaking of Govt. of India / Govt. of West Bengal or any 'Health Institution controlled by the Govt. at any time.
2. That no case is pending against me or against my firm in regards to the subject as stated in Para-I.
3. That I shall abide by the Terms and Conditions of the Tender Notice No.....dt..... as invited by the ----- Govt. of West Bengal for supply of equipment to the Medical Institutions for the period from to
4. That I do affirm that all the statements made by me in this tender are true to the best of my knowledge and belief and all the documents attached to it are genuine.
5. That I declare that if any information is subsequently found incorrect or false, it will automatically render cancellation of tender submitted by me / us and make me / us liable for penal / legal action as per the existing rules of the Government of West Bengal and the laws of this country.

Dated.....

DEPONENT

Model Proforma-6

PERFORMANCE STATEMENT

Tender Notice No.dt.....

Name of the Firm:

Order placed by (full Address of Purchaser / Purchasers)	Order No. and dated	Description and Quantity of ordered equipment mentioning the name manufacturer, brand name, model no. etc.	Value of order (Attach a copy of last order executed)	Date of Completion of delivery (As per Actual Contract)	Remarks indicating reasons for late delivery, if any	Has the equipment been satisfactorily functioning? (Attach a certificate from the Purchaser	Mention a specific installation in hospital / institution under the Govt. of West Bengal / G.O.I. within the State of W.B., if any.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

Signature and Seal of the Tenderer

PERFORMANCE SECURITY FORM FOR BANK GURANTEE

To : _____ (Name of *Purchaser*)

WHEREAS(Name of the Supplier) herein called “the Supplier” has undertaken, in pursuance of Contract to supply.....(Description of Goods and Services) hereinafter called “the Contract”.

AND WHEREAS we have agreed to give the Supplier a Guarantee

THEREFORE WE hereby affirm that we are guarantors and responsible to you, on behalf of the Supplier, upto 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 arguments, any sum or sums within the limit 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.

This guarantee is valid until theday of20__.

Signature and Seal of Guarantors

.....
.....
.....

Date.....20.....

Address.....

.....
.....

AGREEMENT FORM

THIS AGREEMENT made theday of20.....between.....(Name of **Purchaser**) of(Country of **Purchaser**) (hereinafter “the) of one part and.....(Name of Supplier) of.....(City and Country of Supplier) (hereinafter “the Supplier) of the other part.

WHEREAS the **Purchaser** is desirous that certain Goods and ancillary services should be provided by the Supplier, viz.,(Brief Description of goods and Services) and.....has accepted a bid by the Supplier for the supply of those goods and services in the sum of(Contract Price in Words and Figures) (hereinafter “the Contract Price”).

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as respectively
2. The following documents shall be deemed to form and be read and constructed as part of this Agreement, viz.:
 - a. the Tender Form and Price Schedule submitted by the Bidder;
 - b. the Schedule of Requirements;
 - c. the Technical Specifications;
 - d. the General terms and conditions of Contract
 - e. the **Purchaser’s** Notification Award
3. In consideration of the payments to be made by the **Purchaser** to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the **Purchaser** to provide the Goods and Services and to remedy defects therein in conformity in all respects with the provisions of the Contract.
4. The **Purchaser** hereby covenants to pay Supplier in consideration of the provisions of the Goods and Services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

BRIEF PARTICULARS OF THE GOODS AND SERVICES WHICH SHALL BE SUPPORTED / PROVIDED BY THE SUPPLIER ARE:

S.No.	Brief Description of	Quantity to be Supplied	Unit Price	Total Amount (3 x 4)	Sales Tax & other Taxes Payable
1	2	3	4	5	6

Total Value: 5 + 6

Delivery Schedule:

Availability of Spare Parts: The supplier will supply all the spare parts of the equipment from the manufacturer / parent company during lifespan of the equipment within the agreed terms and condition of the contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with their respective laws the day and year first above written.

Signed, Sealed and Delivered by the

Said.....(for the *c*)

In the Presence of

Signed, Sealed and Delivered by the

Said..... (For the Supplier)

In the presence of.....

CHECK LIST FOR TERMS AND CONDITIONS

Check list for Terms and Conditions (To be filled by the bidder and submitted alongwith the technical bid) :

1. Certificate for being in business for more than 2 years _____
2. Certificate for sole ownership / partnership _____
3. Statement of financial standing from bankers _____
4. Performance report / list of organization supplied with the same equipment _____

5. Whether rates and quoted included all taxes / rate is a CIF _____
6. Whether rates are quoted as per tenders specification _____
7. Authority letter from manufacturer / principal enclosed _____
8. Affidavit that the firm has not been black listed in the past by any Govt. / Pvt. Hospital /
Organization _____
9. Affidavit that the firm has not being convicted in criminal case in India _____

10. Affidavit that the firm is not supplying the same item at the lower rate quoted in the tender to
any govt. organization or any other Institute _____
11. Bid being submitted directly by the manufacturer or authorized agent as applicable _____

12. quality assurance certificate like ISI, ISO-9002, IP/BP or any other, please specify _____

13. Statement of turnover / annual report for each of the last 3 years are attached _____

14. Bid security amount deposited is enclosed _____
15. Literature of original catalogue of the product is attached for reference _____
16. Comprehensive Guarantee / Warranty period for _____ and thereafter comprehensive AMC
(including all spares and labour) YES/NO. (Tick the option YES/NO) for further years.
17. Compliance Statement with relation to specification _____

**(NAME OF THE BIDDER)
WITH SIGNATURE & SEAL**

TENDER FORMS
GOVERNMENT OF WEST BENGAL
OFFICE OF THE PRINCIPAL, COLLEGE OF MEDICINE & SAGORE DUTTA HOSPITAL, WEST BENGAL
Tender for instruments & equipment/Chemical&Reagent/Charts& Models for supply to the Medical Institutions for the period from

To
The Principal, College of Medicine & Sagore Dutta Hospital,

I / We submit the following Tenders for supply of _____ during the year
from _____ to _____.

Cat No.	Name of the Medl. equipment along with Model No. Brand Name	Name of Mfg.of the item with country of origin	Rate per unit inclusive of all duties taxes & charges etc. and at least One year standard warranty including all potential cost for running the equipment except VAT (in figure and words)	Total amount Inclusive of all taxes & charges at the final destination	Standard warranty period offered	Additional offer if any at free of cost in connection with the running of the equipment offered	Remarks
1	2	3	4	5	6	7	8

We have gone through the terms & conditions of Tender and hereby agree to abide by them. The information submitted herewith are true to my knowledge and belief.

N.B. 1) Rate included Delivery Charges of the institute.

2) All the column must be filled in by the tenderer .N.A. may be noted against the column which is not applicable.

3) Price offered in column no. 5 will be compared for competitive price.

Signature of Tenderer with Seal

Catalogue of Items

Sl. No.	Item No.	Name of the Item	Specification	Qty.
Department of Bio-chemistry				
1.	Bio-Eq-01	Plate Elisa Reader	Specification follows	1
2.	Bio-Eq-02	Cellulose Acetate Membrane	(Cam) Strip for Electrophoresis	1
Department of Physiology				
3.	Physio-Eq-01	Perimeter	Priestley Smith model along with recording charts	1
4.	Physio-Eq-02	Benedict- Roth apparatus	6 litre capacity spirometer fitted with 4-speed electric recording kymograph with writing ink pen; Easily accessible valves, soda-lime container, water outlet, gas outlet and inlet	1
5.	Physio-Eq-03	3-channel Physiograph	Comprises main console, couplers, transducers and related accessories; Main console to be provided with chart drive, ink pen recording system, main amplifier, plug in couplers, channel width – 70 mm, 9 speed chart drive, Time markers	1
Department of Pharmacology				
6.	PHAR_E Q_01	Assembly for isolated tissue experiment with (Dale's organ bath)	Dale's single unit organ bath for isolated tissue experiment with -plexyglass water bath (minimum 7" height X 9 " length X 6" width), at least -glass inner organ bath (7" height X 1 " diameter) with side inlet - long glass made oxygen tube with metallic tissue holder (at least 7" long) - metallic lever holder -metallic oxygen tube holder - heater with thermostat&metallic heating coil -glass coil for connection to the buffer containing container -motor with metallic stirrer -long frontal lever. -Any other relevant accessories required for standard isolated tissue experiments. Name of the manufacturer should be specified with model number.	50
7.	PHAR_E Q_02	Simple Balance with metric system weights	Balance of 100mg sensitivity & metric system weights of 100mg,200mg,500mg,1g,2g,5g and 10g (in slotted weight box)Quality wooden base (6"X12") Balance material: brass Pan diameter: 3-3.5 inches at least. Framed glass cover with front open sliding door (wooden frame) Height adjustable platform. Name of the manufacturer should be specified	50
8.	PHAR_E Q_03	Mortar & pestle	6" diameter porcelain made (enough to accommodate at least 200 ml of fluid) 6" porcelain pestle	50
9.	PHAR_E Q_04	Plethysmometer	It is to measure the effectiveness of anti-inflammatory agents and agents to reduce edemic conditions. Usually rat or mice paw is inserted. The immersed volume is measured through electronic volume transducer. The measurements are shown on the units LCD readout in .01ml for rats and .001ml for mice. - Name of the manufacturer should be specified with	1

Catalogue of Items

			model number.	
10.	PHAR_E Q_05	Digital photoactometer	<p>Unique apparatus to measure the effects of drugs on spontaneous ambulatory activities of small animals (rat & mice). The instrument should use opto-electric system by using solid state invisible light receivers & transmitters. It consists of activity cage (30X30X30) cm. In dimension with wire mesh floor. Six pairs of light transmitters & receivers are placed around the outer periphery of the activity cage so that it forms a mesh of beam in shape of square checks at a suitable height. Interruption of beams by the locomotive animals is recorder digitally. The activity is recorded on a high speed digital counter for display.</p> <ul style="list-style-type: none"> -operating voltage: 220 V+/- 10% AC, 50 Hz -four or six digit high speed electronic display on the panel -mains on/off switches -zero reset -top cover for the activity cage -a sliding tray at the bottom to clean the excreta of the animal -mild steel enclosure (50X50X40) cm -Name of the manufacturer should be specified with model number. 	1
11.	PHAR_E Q_06	Rota rod	<p>Useful for screening of drugs which are potentially active on motory coordination on rat model. Rota-Rod for Rats has four lanes and operates in constant speed, accelerating, and reverse / rocking modes. The tiltable digital panel shows accrued rotations and time on the rod. Preferably Rod should include software for connection to PC, and parameters can be controlled via PC.</p> <ul style="list-style-type: none"> - Name of the manufacturer should be specified with model number. 	1
12.	PHAR_E Q_07	Rat restrainers	<p>Broome Restrainers for fast and easy animal insertion. Transparent acrylic plexyglass made cylindrical design. Sliding adjustable nose piece. Arrangement for exposure of the whole tail after insertion of the animal. Size is such that it should be sufficient for restraining 70- 125 gm rat.</p> <ul style="list-style-type: none"> - Name of the manufacturer should be specified with model number. 	6
13.	PHAR_E Q_08	Mouse restrainers	<p>Broome Restrainers for fast and easy animal insertion. Transparent acrylic plexyglass made cylindrical design. Sliding adjustable nose piece. Arrangement for exposure of the whole tail after insertion of the animal. Size is such that it should be sufficient for restraining 30-70 gm mice.</p> <ul style="list-style-type: none"> - Name of the manufacturer should be specified with model number. 	6
14.	PHAR_E Q_09	Analytical balance	<p>Electronic balance with wide angle LCD display. Equipped with filters to reduce vibration. Glass enclosure with sliding doors on the three sides. Features including automatic zeroing, selectable units. Tare facilities.</p> <ul style="list-style-type: none"> -units of measurement- g, mg, oz etc. -weighing capacity- 0.01 mg to gm (atleast) -Power supply 220/240 V, 50 Hz -water proof keyboard 	1
15.	PHAR_E Q_12	Glass pill tile	<p>Perfectly level glass. ¼” thickness, 10”X12”. Underside graduated up to 30” units (one side). Corners rounded.</p>	60

Catalogue of Items

16.	PHAR_E Q_13	Porcelain pill tile	Perfectly level surface. ¼” thickness, 10”X12”. Corners rounded.	60
Department of Psychiatry				
17.	Psy-EQ-01	Pulse ECT Machine	<p>ECT section: Mode:Timer and manual Pulse width:0.1 to 2 ms in 6 steps Frequency range:20 to 110 Hz in 6 steps Stimulus duration in timer mode:0.1 to 4.9 sec in step of 0.1 sec. Timer displayed on LCD and starts counting on pressing TREAT switch Minimum power:2.5 joules for 210 ohm patient impedance Maximum power:150 joules for 210 ohm patient impedance Energy Display:Energy in joules get calculated automatically by built in Microcomputer and displayed on LCD panel meter in both Timer and Manual Mode Charge:12-1400 milicoulombs in both manual and timer mode Impedence check: Impedence of patient displayed as pass/fail on LCD. Output current:0.8 ampere(constant) Pulse configuration:Bidirectional square wave</p> <p>EEG section: Sensitivity:20 -500 microvolt/cm in 5 steps CMMR:80 db Frequency response:70 Hz with a line frequency notch filter</p> <p>ECG section: CMMR:80 db Frequency response:70 Hz with a line frequency notch filter Sensitivity:0.5,1.2 mv/cm</p> <p>Recorder section: Chart speed:10,25 mmm/sec Chart width:60 mm X 30 mm Recording system:Thermal array printer</p> <p>STANDARD ACCESSORIES: Rubber strap electrodes: 01 nos. Bite block:01 nos. Spring loaded ECT head band with Treat switch: 02 nos. EEG electrodes:01 nos. ECG electrodes:01 nos. Recording paper:01 nos.</p>	
18.	Psy-EQ-02	EEG Machine-32 Channel	<p>FEATURES:</p> <ul style="list-style-type: none"> • Facility to record upto 64-channels with montage bar • Brain mapping with multiple options • Online/offline split video • Dual monitor option for video • Various options for EEG scrolling • Highly synchronised EEG with audio and video frames of 30 mm/sec • USB interface,no external power required • Simultaneous acquisition and analysis of data • Coherence,FTT graph and tabular data • Facility to mark event and write command on analysis mode • Complete EEG transfer from CD/DVD hard disc • Easy connectivity with laptop/desktop • Use-defined photic stimulation protocols • Advanced graphic brain-mapping with special array(CSA) • And Density Spectral Array(DSA) • Split screen facility to study and event/montage carefully during acquisition • Auto backup of patient data for easy recovery • Long distance modular amplifier design with 	

Catalogue of Items

			<p>flexibility and reliability</p> <ul style="list-style-type: none"> • Remote control video tracking device • Day/night digital video cans with high resolution zoom facility • Simultaneous analysis and recording • Online impedance check with displays of numeric values of all electrodes • Online/Offline reformatting of filters/low filters,sensitivity and sweep on channels <p><u>TECHNICAL SPECIFICATIONS:</u> No. of channels: 32 Sensitivity: 1 microvolt and 1000 microvolt/mm Sweep speed:7.5,15,30 and 60 mm/se Notch filter:50/60 Hz on /off Input impedance:>20 Mohm Flah rate;1 to 50 Hz Power supply:USB power CMRR:>110 db power High pass filter:15,30,70 Hz and user definable Low pass filter:0.1,0.3,1 and 5 Hz</p> <p><u>STANDARD ACCESSORIES:</u> Disc electroide EEG paste Jar USB interface cable EEG trolley EEG software backup CD Electrode board Coloured camera Paper Rim(A4 size) Photic flash Ground wire</p> <p><u>COMPUTER BACKUP</u></p>	
19.	Psy-EQ-03	Biofeedback Machine	<p><u>SPECIFICATION OF BIOFEEDBACK MACHINE:</u></p> <p>Provision of feedback on:</p> <ul style="list-style-type: none"> • GSR(skin conductance) • Temperature(skin) • Pulse(Change in blood flow just below the skin surface) • Respiration(abdominal and thoracic) • Electromyography(EMG,muscle tension) • Electroel\ncephalography(EEG feedback brainwave activity) <p>Captured reading is reported visually and auditorily.</p> <p>Description of modules:</p> <p>i)Temperature module: measurement of skin temperature with a sensor attached to hand/forehead by a headband/Velcro strap II)Pulsemodule:Measurement of pulse amplitude and frequency.connected similarly temperature module iii)GSR module:Measurement of skin conductance by Velcro strap attached to palm iv)Respiration module: measurement of breathing [attern by fastening breathing belt around thorax/abdomen v) EMG module : EMG signals are detected with silver surface electrodes and amplified by amplifier vi)EEG feedback: Neurofeedback module used to amplify particular frequency of EEG wave.Band details include: DELTA,THETA,ALPHA,SMR,MIDRANGE,BETA & HIGH BETA. Neurofeedback analysis and 3-D graphic games for feedback.</p> <p>Standard accessories:</p> <ul style="list-style-type: none"> • EEG electrodes • EMG electrodes • GSR electrodes • EEG paste • Jelly • Pulse transducer • Respiration belt • Temperature transducer • Software backup CD 	

Catalogue of Items

			COMPUTER HARDWARE BACKUP	
20.	Psy-EQ-04	Alcohol Breather Machine with inbuilt printer		
21.	Psy-EQ-05	Glucometer strip		
22.	Psy-EQ-06	Psychometric tests These include: <ul style="list-style-type: none"> • Rorschach ink-blot test • Thematic apperception test(Indian modification) • Seguin form board • Vineland social maturity scale • Colour progressive matrices • Standard progressive matrices • Malin'sintell - igence scale • Wisconsin card sorting test • Comprehensive trail-making test • Tower of London test • Stroop color and word test(adults and children) • Bendre visual-motor gestalt test,edition-II 		
Department of Radiology				
23.	Radio-Eq-01	Ultrasound Machine	Specification follows	
Department of Forensic Medicine & Toxicology				
24.	FMT-EQ-01	Mortuary Cabinet (Cooling chamber for deadbody storage)	To be purchased: 6-body cooling chamber × 8 such (for storage of 48 deadbodies) Size of Tray:2100 – 2200 mm (length) × 500 – 600 mm (breadth) × 300 – 450 mm (height) Dimension:2500 – 2700 mm × 1600 – 1700 mm × 1900 – 2000 mm Temperature range: 0 - 4°C Other features:Must have rust-proof coating paint Must be equipped with temperature indicator Refrigeration unit must be plug-in type for easy operation Must be Trolley-mounted for easy shifting	1
25.	FMT-EQ-02	Ozone Generator (for de-odourisation and disinfection of Morgue)	To be purchased: Ozone Generator to de-odourise approx. 350 to 450 sq. m area with 3.6 m roof height Ozone generation & delivery rate should be at least 1000 mg/hr Residual Ozone in atmosphere should be 0.1 – 0.125 ppm Must be plug-in type for easy operation Power consumption should be below 40 watts	

Catalogue of Items

			It has to be Blower-type, not solely sparker type. No perfume should be used in the input Should be easily serviceable locally Preference will be given to concerns having previous experience in this field Company or Product should be certified by ISO / appropriate authorities	
Department of Ophthalmology				
26.	OPH-Eq-01	Direct Ophthalmoscope	a) Apertures: 7(Cobalt blue filter, fixation star with polar co-ordinates, large spot, small spot, pinhole, slit, hemispot) b). All with red-free filter. c) Aspherical Optical System d) Optical components mounted to an aluminum chassis e) Light : Xenon-Halogen	1
27.	OPH-Eq-02	Indirect Ophthalmoscope	a) Apertures and Filters: Can be “locked” into a desired position. b) Adjustment Levers: Also feature a “Friction-Clutch” (“Safety-Clutch”) to protect mechanisms from forced adjustment while in the “lock” position. c) PD Range: From 46–74mm d)Soft Touch Controls: All key adjustment controls feature soft touch surfaces for precise and positive adjustment control.	
28	OPH-Eq-03	Streak Retinoscope	a). External focusing sleeve which is easy to grip and manipulate. b) Crossed-linear polarizing filter. c)One-hand operation for streak focus and 360° streak rotation. d). Interchangeable to plane mirror and concave mirror mode by sleeve movement. e). Light: halogen/Xenon streak lamp. f). Spares: Extra bulbs & bulb holder	
29.	OPH-Eq-04	Gonioscope mirror	a)2mirror and 4 mirror with handle gonio lenses	
30.	OPH-Eq-05	90D & 60D lenses	a)Patented double aspheric glass optics provide enhanced imaging b)High magnification lens for detailed optic disc and macula imaging	
31.	OPH-Eq-06	Applanation tonometer	a)Measuring force: generated by leverage weight b)Measuring range: 10-80 mm Hg c)Measurement divergence: of the force Impingement on the measuring prism over a measuring range from 0-58.84mN d)Standard divergence: 0.49mN= \pm 3s= \pm 1.5% of rated value e)Reverse span: \pm <0.49mN f)3 prism cone tips available g) Direct reading from scale h) Accurate calibration system	
32.	OPH-Eq-07	Perkins Tonometer		
33.	OPH-Eq-08	Vision testing drum	a) manual rotating, illuminated b) Four language test chart contains any four languages out of these - dots, English, any regional language(Bengali), numbers or pictures, Hindi, ‘C’ or ‘E’ chart) c) Worth four dot test	
34.	OPH-Eq-08	Non Contact Tonometer with or without Corneal Response Technology	1.Easy-to-use, touch screen interface 2.Patients simply lean against the forehead rest 3.Alignment is completely automated 4.One-touch, triple measurement mode 5.Clearly displays all measurement data 6.Internal printer simplifies record keeping 7.Electronic data transfer via USB port 8.Optional Chinrest 9.With/without IOPg&IOPcc (IOPg- goldman corrected IOP , IOPcc- Corneal compensated IOP	
35.	OPH-EQ-09	Ultrasound Pachymeter (Handheld/Portable)	a)This easy-to-use, lightweight, hand held instrument includes all of the features in other hand held pachymeters b) Bluetooth wireless connectivity, one-button navigation, rotating color LCD screen c) Rechargeable lithium ion battery.	
36.	OPH-EQ-	Autorefractokerato	Objective & Refraction mode:	

Catalogue of Items

	10	meter	<p>a)Spherical range: -22D to +22D (0.12D/0.25D) b)Cylindrical range: 0D to ± 10D (0.12D /0.25) c) Axis range: 0° to 180° (in 1° or 5° steps) d)Pupil diameter-minimum measureable: 2.0mm</p> <p>Corneal Curvature mode: a) Corneal curvature radius: 5.00 to 10.00 b)Refraction Index: 1.3375 c)Corneal refraction: 67.5D to33.75D (0.12D /0.25D) d)Corneal astigmatism : 0D to± 10D(0.12D/0.25D) e)Corneal astigmatism axial angle : 0° to 180° (in 1° or 5° steps) PD Measurement range : 20-85 mm in 1mm step Standard output, weight, height and power supply</p>	
37.	OPH-EQ-11	Ultrasonic A-Scan machine (for Biometry)	<p>a).Probe: 10MHz with fixation red light b).Resolution:0.01 mm c).Biometry accuracy: ≤±0.06mm d).Gain:≥98dB with adjustable range of 0-59dB e).Measuring range :15-39mm f).Measuring parameters: Anterior chamber depth, Lens Thickness, Vitreous length and Axial Length g).Measuring modes: Automatic (for Normal, Dense cataract, Aphakia and Pseudophakia); Manual h).8groups of standard deviation i).IOL Power calculations: SRK/T, SRK- II,BINKHOST-II,HOLLADAY, HOFFER-Q and HAIGIS j). Save upto 50 groups of IOL calculation results and 4 groups of IOL constants</p>	
38.	OPH-EQ-12	Visual Field Analyser	<p>1.Max. Temporal Range :89 degree 2.Stimulus duration :200ms 3.Visual field testing distance: 30cm 4.Background illumination :31.5 ASB 5.Threshold Test library: 24-2,30-2,10-2,macula,60-4,nasal step 6.Threshold test strategy: SITA Standard, SITA Fast, Full threshold, Fastpac, with/without SWAP 7.Fixation control :HeijiKrakau Blind Spot monitor, Gaze Tracking,Head Tracking, Vertex Monitoring, Remote Video Eye Monitoring 8.Stimulus : White on white, Red or blue on White, Blue on Wellow(SWAP) 9.Stimulus Size: Goldman I-V 10.Foveal threshold test 11.Automatic Pupil Measurement 12.Software Features: Single field analysis, Glaucoma Hemifield test, Visual field Index(VFI), Progression analysis (GPA),Networking, DICOM connectivity, 13.Data Storage: Should have hard drive ,USB drive for backup 14. Laser Jet Printer should be given 15. Motorised table to be provided</p>	
39.	OPH-EQ-13	Synoptophore	Specification follows	1
40.	OPH-EQ-14	Maddox Rod		1
41.	OPH-EQ-15	Maddox Wing		1
42.	OPH-EQ-16	Diplopia goggles		1
43.	OPH-EQ-17	Placido disc		1
44.	OPH-EQ-18	Prism Bar		1
45.	OPH-EQ-19	Schoutz tonometer		3
46.	OPH-EQ-20	Bjerrum screen		2

Catalogue of Items

47.	OPH-EQ-21	Snellen Chart/ Snellen drum with or without remote control		2
48.	OPH-EQ-22	Phacoemulsification	Specification follows	
49.	OPH-EQ-23	Wet field Cautery	a)Foot controlled system gives convenience to surgeons. b) Forceps, Erasers and Cables are autoclavable. c) Digital display for easy setting. d) Imported Forcep and Erasers can be attached. e) Audible tone lets surgeon know the unit is activated. f) Compact in size, elegant look and portable.	
50.	OPH-EQ-24	Operation table for eye OT	1.Motorised Eye OT table 2.Head rest with side trays 3.Patient drape stand 4.Surgical instrument tray	
51	OPH-EQ-25	Surgeons chair for eye OT	1.Comfort sitting angles allowing flexibility 2.With height adjustable 3.Strong back support 4.Backrest with easy to use height adjustment system 5.Adjustable, sturdy hand support 6.Comfortable seat with cushion	
52.	OPH-EQ-26	Doctors stool	1.Comfort sitting support system with circular top 2.Smooth 360 degree rotation 3.Semispherical, height adjustment backrest, offers optimal elbow & back support 4.Smooth movement of the stool	
53.	OPH-EQ-27	Cryo Unit	(Ophthalmic Cryo surgical system) – with Cataract(curved), Retinal and Collins Trichiasis Probes, completely non electric and autoclavable probes	2
54.	OPH-EQ-28	Cataract Surgery set	1. Barraquer wire speculum 2. Tooks corneal knife 3. Sinsky II lens manipulating hook 4. Kuglen iris hook 5. Barraquer iris spatula 6. Smith lens expressor 7. Capsule polisher 8. Lewis lens loop 9. Castroviejo callipers 10. Colibri forceps 11. Castroviejo suturing forceps 12. bishop- Harmon tissue forceps 13. St. martin suturing forceps 14. Superior rectus forceps 15. Wills hospital utility forceps 16. Aruga capsule forceps 17. Shepard IOL forceps 18. McPherson tying forceps 19. McPherson forceps 20. Hartman mosquito forceps 21. Towel 22. Serrefine small 23. Castroviejo corneoscleral scissors 24. Micro iris scissors 25. Barraquer iris scissors 26. Westcott tenotomy scissors 27. Vannuscapsulotomy scissors 28. Iris scissors 29. Vannuscapsulotomy scissors 30. Iris scissors 31. Kalt needle holder 32. Barraquer needle holder 33. Swiss model blade breaker & holder 34. Bard-Parker handle #3 35. Rycroft air injection cannula,16G	7

Catalogue of Items

			<p>36. Anterior chamber washout cannula,16G 37. Pearce hydrodissection cannula,25G 38. Kellanhydrodelineation, curved beveled tip,25G 39.Jensen capsular polisher,23G 40.Knolle-Pearce irrigating vectis 41.Silicone bulb with adapter 42. Sterilization box with two silicone mats</p>	
55.	OPH-EQ-29	Glaucoma Surgery set	<p>1.Wire Speculum 2.Spatula- double ended 3.Castrviejo caliper, straight 4.Colibri forceps,1x2 teeth 5.Tying forceps, curved 6.Towel clamps 7.Castroviejo corneal scissors 8.Westcott scissors 9.Vannas Scissors 10.Tenotomy scisspors,curved 11.Bard-Parker handle#3 12.Kelly Descemet's membrane punch 13.Harms trabeculotomyprobe,right 14.Harms trabeculotomyprobe,left 15.Rycroft air injection cannula,27/26 G 16.Anterior chamber washout cannula,16G 17.St. Martin forceps 18.Mc Pherson tying forceps, angled 11mm</p>	2
56.	OPH-EQ-30	DCR Operation set	<p>1.Lid retractor(Desmarres 0-3) 2.Cat Paw retractor 3. Mueller Lacrimal sac Retractor 4.Blade braker& holder 5.Lacrimal sac dissector, double ended, blunt 6.Kerrison bone nibbling rongeur(Bone punch) 2/3/4/1 7.Rollet Rugins for lacrimal sac 8.Lang's lacrimal sac dissector 9.Bone guage(3/4/5 mm) 10.Traquair elevator 11.Mallet for DCR 12.Nasal speculum 13.Pigtail probe, double ended, with suture holes 14.Lacrimal dialator set of 3 15.Bowman Lacrimal probe set of 4 16.Intubation set with tubing 17.Dressing forceps serrated jaws 18.Westcott tenotomy scissors 19.Strabismus scissors 20.Needle holder long 21.Kalt needle holder with lock 22.AC wash cannula 23.Lacrimal cannula 24.Sterilizing case with matts 25.Artery forceps-straight 26.Artery forceps-curved 27.Stevenson Lacrimal sac retractor, 3x3 blunt prongs 28.Mc Phersons tying forceps 29.Fixation forceps</p>	2
57.	OPH-EQ-31	Lid Surgery set	<p>1.Lancaster Eye speculum 2.Desmarres lid retractor 3.Lid plate 4.Fixation hook 5.Graefe muscle hook 6.Chalazion curette (sizes-0,1,2,3) 7.St. Martin forceps,1x2 teeth 8.Fixation forceps 9.Cillia epilation forceps 10.Ptosis forceps 11.Entropion forceps –right&left,small 12.Chalazion forceps (Hunt-12mm dia, Desmarres-13/20mm.dia) 13.Mc Pherson forceps 14.Hartman mosquito forcep, 15. Hartman mosquito forcep, curved 16.Westcott tenotomy scissors 17.Scissors 18.Needle holder</p>	2

Catalogue of Items

			19.Barraquer needle holder 20.Bard- Parkar handle 21.Castroviejo caliper, straight 22.Fixation forceps	
58.	OPH-EQ-32	Enucleation & Evisceration – Operation set	1. Lancetor Eye speculum 2. Muscle hook 3. Wells Enucleation spoon 4. Fixation forceps 5. Halsted mosquito forceps, curved 6.Tenotomy scissors, curved 7.Enucleation scissors-straight & curved 8.Small scissors-straight 9.Mule evisceration scoop	2 each
59.	OPH-EQ-33	Squint Surgery set	1. Lancaster eye speculum 2.Desmarres lid retractor, size 0 3.Graefe muscle hook, size 1 4.Jameson muscle hook, large 5.Jameson muscle forceps, right & left 6.Worth advancement forceps 7.Serrefine 8.Stevens tenotomy scissors 9.Knapp strabismus scissors 10.Castroviejo Calliper	2
60.	OPH-EQ-34	Slit lamp		1
61.	OPH-EQ-35	Trial set with trial frame both for adult and children		1
62.	OPH-EQ-36	Perimeter		1
63.	OPH-EQ-37	Colour vision chart		1
64.	OPH-EQ-38	Near vision chart with different language		1
65.	OPH-EQ-39	Ophthalmoscope	a) Apertures:7(Cobalt blue filter, fixation star with polar coordinates, large spot, small spot, pinhole, slit, hemisplot) b). All with red-free filter. c) Aspherical Optical System d) Optical components mounted to an aluminium chassis e) Light : Xenon-Halogen	1
66.	OPH-EQ-40	Retinoscope	a). External focusing sleeve which is easy to grip and manipulate. b). Crossed-linear polarizing filter. c)One-hand operation for streak focus and 360° streak rotation. d). Interchangeable to plane mirror and concave mirror mode by sleeve movement. e). Light: halogen/Xenon streak lamp. f). Spares: Extra bulbs & bulb holder	1
Department of Anaesthesiology				
67.	Anaes-EQ-01	Anaesthesia Workstation	<p>Essential features</p> <ul style="list-style-type: none"> • In Built Ventilator (HIGH-PERFORMANCE VENTILATION) • Sensitive oxygen ratio controller (S-ORC) • Electronically controlled, electrically driven • 2 Vaporizer mount • Power and battery backup (min 45 minutes) • Wide-base trolley with extra stability for flexible monitor combinations (atleast gas monitorfor volatile agents) • Solid, spacious design with large drawers (trolley version only) <p>• CLIC absorber compatible</p>	2

Catalogue of Items

			<p><u>Desirable feature:</u></p> <ul style="list-style-type: none"> • – Supports all major ventilation modes • –Optional wall or ceiling versions • – High-contrast monitor with color option • – Patient monitors and mounting solutions • –Breathing system with integrated heater 	
68.	Anaes-EQ-02	Ventilator-High End (I.C.U)	Specification Follows	
69.	Anaes-EQ-03	ETO STERILIZERS	Specification Follows	
70.	Anaes-EQ-04	FIBEROPTIC BRONCHOSCOPE WITH LIGHT SOURCE AND CAMERA	<p>FIBER BRONCHOSCOPE</p> <ol style="list-style-type: none"> 1. Should have minimum 100° field of view. 2. Should have a depth of field of 3 to 50 mm. 3. The insertion tube should have maximum 6mm diameter. 4. Should have at least 180° upwards and 130° downwards angulations. 5. Should have a working length of 600mm. 6. Should have an instrument channel of at least 2.2mm inner diameter. 7. Should have a light guide illuminating system. 8. Should be supplied with all standard accessories including different type of biopsy forceps, cleaning brushes and storage box. <p>DIGITAL CAMERA SYSTEM</p> <ol style="list-style-type: none"> 1. Should be a single chip camera technology. 2. Should have two composite video outputs and one S-video output. 3. Should have anti-moister filter for fiber scopes. 4. Should have fully automatic exposure control. 5. Should have automatic white balance with memory function. 6. Should have horizontal resolution of more than 450 lines. 7. Should provide compatible optical interface for the fiber bronchoscope supplied. 8. Should be supplied with 15” CRT flat TV monitor. 9. Should work with input 200 to 240Vac 50 Hz supply. <p>LIGHT SOURCE</p> <ul style="list-style-type: none"> • Should be a halogen light source with minimum 150W light output. • Should have manual light intensity control. • Should have dual fan cooling system. • Should have two lamps of 150W and should have provision to change over in the event of failure from one lamp to another. • Should work with input 200 to 240Vac 50 Hz supply. <p>OTHERS</p> <ol style="list-style-type: none"> 1. Should be supplied with suitable trolley 2. Trolley should have at least 5 power sockets to connect the camera,monitor etc. 	
71.	Anaes-EQ-05	NERVE STIMULATOR	<ul style="list-style-type: none"> • RECHARGEABLE ACCUMULATOR • BUILT-IN BATTERY CHARGER • Should be able to Stimulate Motor Cerebral Nerves and Peripheral Nerves, during the Intra Cranial Operation and Peripheral Nerve or Plexus Injuries. • The Unit Can be applied on fresh Nerve Injuries to locate the peripheral stump of the nerve as long as the wallerian degeneration has not taken place. • The Unit Can be used On Old injuries showing considerable scars • The Unit can also be used to locate those motor nerves with only a partial loss. • TECHNICAL DATA • Portable ,preferably hand held 	

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			<ul style="list-style-type: none"> • Light Weight, 500g -1 kg • Working time: Atleast 48hrs after full charging • Mains Voltage 240Volts.(compatible with Indian standards) • Electrical mains cord for Charging -2(one backup) • Accumulator • Extra battery backup free of cost • Stimulator Cable – 2 in number • Coagulation and stimulator Forceps • Insulation with Connector, Total Length: 200mm, TIP: 0.9mm and finer • Facility for temporary replacement of instrument by same model for next three years during repairs at no extra cost. • Carrying case for storage of equipment. 	
72.	Anaes-EQ-06	Nerve Locator with mapper		
73.	Anaes-EQ-07	Combitube		
74.	Anaes-EQ-07	Mac-coy Laryngoscope		
75.	Anaes-EQ-07	Defibrillator (AED)		
76.	Anaes-EQ-08	Mobile X-ray Machine	<p>Mobile X-Ray Unit is required to perform X-Ray studies in Emergency and trauma departments and at bedside in wards and ICU.</p> <p>Eligibility Criteria:</p> <p>a) Should be US FDA / CE of the quoted model</p> <p>b) Manufacturer should be ISO certified for quality standards.</p> <p>Technical Specification :</p> <p>Compact, lightweight, easily transportable mobile radiographic unit suitable for Bedside x-ray for intensive care units. Operation theatres and also in the Radiology department for conventional radiography.</p> <p>The unit must have an effective braking system for parking, transport and emergency braking. The tube stand must be fully counterbalanced with rotation in all directions It must have an articulated arm for maximum positioning flexibility in any patient position.</p> <p>All cables should be concealed in the arm system</p> <p>The unit must have cassette storage facility for all size of cassettes</p> <p>X-ray Generator with digital display of mAs and kV</p> <ol style="list-style-type: none"> 1. Output Power : <10 kW 2. Output Waveform : High Frequency 3. kV :40- 125 kV, 4. mA : <160 mA 5. mAs range : 6mAs-200 mAs 6. Cable length : not less than 2 m <p>X-ray Tube</p> <ol style="list-style-type: none"> 1. Rotating Anode (atleast 2500-rev/min) 2. Focal Spot : within 0.6 x 0.6 mm to 1.3 x 1.3 mm 3. Total filtration : minimum 2.5 mm Al 4. Tube angulations : horizontal movement at least 45 cm vertical movement at least 100 cm z-axis rotation at least ± 90 degrees x-axis rotation at least ± 90 degrees <p>Accessories: 1-Grid(stationary)</p>	

Catalogue of Items

			<p>Accreditation 1. The unit / Model must have type approval or No objection certificate from the Atomic Energy Regulatory Board (AERB), Government of India, Mumbai (enclose copy).</p> <p>Environmental factors Operating Temperature 10- + 40 deg.C Storage Temperature - 20 to +55 deg C Operating Humidity- 30%- 80% Storage humidity 10 % to 100%</p> <p>Power supply Power input to be 220-240VAC, 50Hz fitted with appropriate Indian plug Resettable overcurrent breaker shall be fitted for protection</p> <p>Documentation <input type="checkbox"/> User manual & Service manual in English <input type="checkbox"/> Compliance reports to be submitted in a tabulated and point wise manner clearly mentioning the page/Para number of original catalogue/data sheet. any point, if not substantiated with authenticated catalogue/manual ,will not be considered</p> <p>Turnkey: (refer clause 10) 1. The purchaser will only provide the external power supply. 2. All other accessories will be provided by the supplier so that the equipment can be installed and commissioned immediately. 3. The supplier must visit the site of installation.</p>	
Department of Physical Medicine & Rehabilitation				
77.	PMR-Eq-01	ULTRASOUND THERAPY	Microprocessor based input=150-260V,Ph50Hz(SMPS based) Output Mode= Continuous,20 pulsed and 50 pulsed. Output=21W (at Pulsed),18 at cont, adjustable.	4
78.	PMR-Eq-02	SHORTWAVE DIATHERMY	Fully solid state fan cooled with count down. Digital timer, intensity cooled, tuning control, timing indicator lamp. Input=150-260V,SMPS Based, Output=100 Wmax.	4
79.	PMR-Eq-03	INTERFERENTIAL THERAPY SET (IFT)	Input 160-260V,1Ph, 50Hz(SMPS based), Output =60maRMS at 500 ohms. Microprocessorbased,with four major models, three waves shapes, base and sweep frequency individually stable. Control for intensity balance.	4
80.	PMR-Eq-04	TENS, FOUR CHANNEL	Input=230V AC Output modes=Continuous, modulated and burst. All the four channels have individual intensity control	4
81.	PMR-Eq-05	DIAGNOSTIC STIMULATOR	Input=150-260 V AC SMPH based. Separate outputs for (1) Faradic & surged faradic with individual controls for intensity, surging duration and surging interval, Bar graph to show output. (2) Galvanic & interrupted galvanic with individual control for rate and duration, with digital meter to read output	4
82.	PMR-Eq-06	Wax bath chamber	Auto temperature control (size: 20" L x 14" W x 10" H). Latest oval shaped tank, power coated corrosion free tank. Latest technology immersion heater, automatic adjustable temperature control for power saving, mounted on castor wheel for mobility	1
83.	PMR-Eq-07	Cervical traction (manual)		
84.	PMR-Eq-08	Lumbar traction (manual and		

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		automatic with digital traction unit)		
85.	PMR-Eq-09	Swiss balls	Size: 40-45 cm Size: 60-65 cm	1 each
86.	PMR-Eq-10	Shoulder wheel (Bar type)		1
87.	PMR-Eq-11	Finger ladder		1
88.	PMR-Eq-12	Finger exerciser		1
89.	PMR-Eq-13	Graded square Peg board	(20-25 pegs)	1
90.	PMR-Eq-14	Wobble board		1
91.	PMR-Eq-15	Four point walker	(adult and child size)	1 each
92.	PMR-Eq-16	Wheel chair	(adult and child size)	1 each
93.	PMR-Eq-17	Exercise mattress	(6-7' x 6-7') with 2 inches thick foam	1
Department of Community Medicine				
94.	Commed-Eq-01	FORTIN BAROMETER	<p style="text-align: center;">PRECISION FORTIN BAROMETER</p> <p>The instrument should consist of Scale, Mercury-filled glass tube and Cistern. Scale should be graduated in hPa (mb) and mmHg on a brass tube marking apex of a pointer as cardinal point and should be read by the vernier in 0.1 mm graduation.</p> <p>SPECIFICATIONS</p> <p>Measuring method: Mercury column</p> <p>Measuring range:900 to 1,000hPa700 to 800mmHg</p> <p>Min. graduation: 1hPa/1mmHg</p> <p>Vernier readings: 0.1hPa/0.1mmHg Accuracy: ±0.5hPa</p> <p>Thermometer: Mercury-filled glass thermometer; Measuring range: -20 to 50°C; Min. graduation: 0.5°C</p> <p>Dimensions: 1,130 (H) x 100 (W) x 100 (D) mm</p> <p>Weight: Barometer: approx. 2 to 3 kg</p> <p>Mounting board: approx. 1.8 kg For the safety of shipping, mercury is separately packed in a glass container.</p>	
95.	Commed-Eq-02	HARPENDEN SKINFOLD CALIPER	<p>Harpenden Skinfold Calliper should be made from high quality stainless steel with a rubber gripped handle. The supplied Harpenden Skinfold Calipers should comply with the industry standard for quality and accuracy</p> <p>Features:</p> <ul style="list-style-type: none"> • Dial Graduation: 0.2mm • Measuring Range: 0mm to 80mm • Measuring Pressure: 10gms/mm² (constant over range) • Accuracy: 99.00% - Repeatability: 0.20mm. 	

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96.	Commed-Eq-03	ICE-LINED REFRIGERATOR	<p>General: For ice-lined refrigerator or combined refrigerator-icepack freezer compression cycle with one or two compressors. Power source is alternating current electricity.</p> <p>PERFORMANCE</p> <p>Temperature control: Refrigerator temperature throughout the area of a full or empty vaccine load must remain in acceptable range +2°C and +8°C throughout the vaccine load at any continuous ambient temperature test(s) or day/night cycling temperature test(s).</p> <p>Holdover time: Minimum 20 hours.</p> <p>Compressor starting voltage: At 22% below manufacturer's stated voltage, 10 out of 10 cold starts and 10 out of 10 hot starts must all be successful.</p> <p>PHYSICAL CHARACTERISTICS</p> <p>Refrigerant type: Must be CFC-free (chlorofluorocarbon-free) with HFC (hydro fluorocarbon) or HC (hydrocarbon) refrigerant. The acceptability of alternative refrigerant gases will however continue to be assessed.</p> <p>Thermal insulation foaming agent: Can be any gas complying with the limitations and deadlines set by the Montreal Protocol on the ban of CFC gases.</p> <p>Corrosion resistance: Internal and external cabinet, lid and frame protected against corrosion.</p>
97.	Commed-Eq-04	PLASMA TELEVISION	<p>Power source</p> <ul style="list-style-type: none"> • AC- 110-240 V, 50/60 Hz <p>Specifications</p> <ul style="list-style-type: none"> • Screen 50 inches • Active Shutter Progressive 3D • 600Hz Sub-field Drive • Web Smoother • 2D-3D Conversion • 3D 24p Smooth Film • 3D Real Sound • V-Audio Surround sound • 2 HDMI Terminals with cables • 2 USB Terminals with cables • Remote with batteries <p>Connectivity</p> <ul style="list-style-type: none"> • Web Browser • WiFi Ready • Media Player <p>Eco-friendliness</p> <ul style="list-style-type: none"> • Mercury and Lead Free Panel • Long Panel Life, Up to 100,000 Hours • Energy-Saving Functions
Department of Chest Medicine			
98.	CHE-Eq-01	Fiberoptic Bronchoscope (Adult)	<p>Broncho – Fiberscope for adults Instruments channel : 2.6mm, direction of view : 0°, angle of view : 110°, working length: 54cm, Distal OD: 5.6mm, distal deflection: 180° / 100°, with</p> <p>Following accessories required:</p> <p>Forceps, oval for biopsy, flexible double action jaws (length 120cm, diameter: 1.7mm)-2; grasping forceps, alligator, serrated, 2 x 3 teeth, flexible, double action jaws (length – 120cm, diameter – 1.7mm)-1; forceps spoon shaped, oval, for biopsy, flexible, double action jaws (length 120cm, diameter- 1.7mm)-1; forceps spoon shaped, oval with tooth, flexible, double action jaws (length 120cm, diameter- 1.7mm)-1; Brush for cytology, outer diameter 1.7mm, working length 80cm, cleaning brush; mouth piece; cleaning adapter for valve housing, suction valve, disposable package of 20; pressure compensation cap, leakage tester with bulb and pressure gauge</p>

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99.	CHE-EQ-02	Fiberoptic Bronchoscope (paediatric)	<p>Paediatric Broncho fiberscope instrument channel:1.5mm, direction of view:0⁰, angle of view: 90⁰, working length 54cm, distal OD: 3.7mm,</p> <p>Following accessories required: Cleaning brush; mouth piece; cleaning adapter for valve housing, suction valve, disposable package of 20; pressure compensation cap, leakage tester with bulb and pressure gauge (length 110cm, diameter-1mm).</p>	
100.	CHE-EQ-03	Videobronchoscope (Adult)	<p>1• Latest color CCD chip technology. 2• Compatible Xenon light source with Back up Halogen source 3• Compatible RGB Color monitor (At least 14") 4• Compatible image capturing device with adequate detachable and storage memory devices (CD Writer) 5• Field of View: 120 degree or more 6• Depth of field: 3 mm to 100 mm or better 7• Direction of View: Forward viewing 8• Distal end Dia.: At least 6 mm 9• Insertion tube Dia.: At least 6 mm 10• Working Length: 580 m to 600 mm 11• Min. Visible distance: 3 mm from distal end 12• Instrumental Channel Dia.: more than 3 mm 13• Bending range: Up-180 deg. & Down-130 deg</p> <p>Following accessories required Standard set should include biopsy forceps (Fenestrated & Alligator type) I no. each, Grasping Forceps (Shark Tooth type) 1 no., Cytology Brush Set (10-12 Brushes) with Reusable sheath, Canutae (1 no.), Coagulation Electrode with cord 1 no., 99.cleaning and maintenance kit.</p> <p>Separate Instrument channel for therapeutics: • It should be compatible with the above mentioned video processor unit, Xenon light source, RGB color monitor and image capturing device.</p> <p>Standard set should include Biopsy forceps (Ellipsoid) 1 no. each, Cytology Brush set (6 pieces, disposable type), cleaning and maintenance kit.</p>	
101.	CHE-EQ-04	NON-INVASIVE VENTILATOR	<p>The ventilator should have the following specifications: The ventilator should have the following specifications: 1. Modes : CPAP, Spontaneous/Timed/Bilevel positive pressure ventilator. 2. Pressures : IPAP:30 cm. EPAP : 20 cm. 3. Monitoring mode with full screen real time graphics showing pressure, volume and flow graphs, . Should display respiratory parameters like set and delivered pressures, respiratory rates, exhaled tidal volumes, I:E: rations, minute volumes, machine delivered breaths, leak details, patient breath trigger details</p> <p>1. Alarms package should be comprehensive indicating High-Low pressure, Apneas, High –Low respiratory rate and minute volume. 2. In built oxygen blender module to control FiO2 (21% to 100%)</p> <p>Following accessories required Accessories: masks –nasal and full face, invasive circuits, exhalation ports.</p>	
102.	CHE-EQ-05	Pulmonary Function Test (PFT) Machine (Advanced)	<p>1. The following tests should be performed by the PFT Equipment. a. It should measure FEV , FVC, PEF, SVC,FEV %, MMEF, PIF, MVV,FRC, I I RV, TLC, FET, ERV, IRV, PiMAX/PeMAX b. DLCO, BRONCHIAL PROVOCATION TEST</p> <p>2. Predicted value- depends upon national preference 3. Multi window lay out 4. Configurable print out format</p>	

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			<ul style="list-style-type: none"> 5. Real time flow volume and volume time traces 6. Overlaying of previous test curves for comparison 7. Open & Closed flow/volume loop test technique possible 8. Powerful search capability 9. Storage- 1000 patients' tests including flow/volume loops and volume time curves. 10. Should have networking support 	
Department of Pathology				
103.	PATH_EQ 1	Automated haematology analyser 5-part with reticulocyte count with auto smear maker and stainer	<p>Essential</p> <ul style="list-style-type: none"> 1. Twenty six (26) parameters with results for abnormal immature cells 2. Should display and print parameters including histogram. 3. Sixty (60) samples per hour. 4. Stat sampling on open or closed tubes. 5. CBC and CBC +diff/26 parameters 6. Micro sampling. 7. Should have prediction mode for paediatric sample 8. Customized dilution ratio (CDR). 9. Cyanide free reagent for Hb estimation 10. Electrical impedance for RBC, Platelets, WBC 11. Should have enhanced WBC/platelet measuring range to accommodate high WBC/platelet counts in case of leukaemia/blood bank samples. 12. Should have memory for maximum test results 13. Internal and external bar code readers. 14. Integrated validation station 15. Delta check 16. Unidirectional and bidirectional connections 17. Power requirement: AC 100-240V/50-60Hz 18. Operating environment: Temp – 15 – 30 degree C, Humidity – 30 – 85% 19. On board quality control management. 20. Contextual help (on board user manual) 21. User certification 22. Interphase 23. Instrument should be new 24. After-sales service should be best in industry with service engineer/ application specialist based in Kolkata. 25. AMC should be available, calibration certificate to be given every 6 months. 26. Should be supplied with sample mixer, internal or externally attachable printer and UPS. 27. NABL certificate requirement to be provided at their own cost. 28. Demo kit reagents to be provided. <p>Desirable</p> <ul style="list-style-type: none"> 1. High speed auto sampling. 2. Eighty (80) samples per hour. 3. LCD colour touch screen monitor 4. Automated sample re-run. 5. Manual differential entry plus abnormal cells, options to turn off WBC differential analysis with resistant reagent saving. 6. Flowcytometry (FCM) principle. 7. Reticulocyte count. <p>Accessories</p> <ul style="list-style-type: none"> 1. Auto Smear Maker 2. Stainer 	1
104.	PATH_EQ 2	Automated tissue processor	<p>Essential</p> <ul style="list-style-type: none"> One basic instrument consisting of 10 reagent containers each 	1

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			<p>having a capacity of 1.8 liters, 2 wax baths of 1.8 liter capacity, one standard metallic tissue basket containing 80 cassettes, 2 sets of replacement fuses, one set of power cord.</p> <ul style="list-style-type: none"> • Carousel type construction with 12 station (10 reagent station, 2 wax bath) • Membrane keypad and LCD screen. • Audible alarm warning in case of error message and completion of tissue processing cycle. • Power failure indication including station number and time lapsed in excess of programmed infiltration time. • Voltage 100 – 240V/50-60Hz • Infiltration time of up to 99 hr 59 minutes & should be separately programmable, for each station. • Preferably 1 minute drain time between stations for reduced carry over. • Temperature range of wax baths 45°C to 65°C. Excess temperature cut out 75°C. • Automatic reheating of wax before basket transfer to a wax bath. • Easy editing and changing of programmes even during a processing run. • Should have Kolkata based excellent service back-up with readily available spares and certificate from manufacturers for availability of spares for a minimum period of 5 years from the date of installation. <p>Desirable</p> <ul style="list-style-type: none"> • Safety feature for automatic immersion of tissue basket in a station in case of mains power failure. • Option for manual raising and rotation of carousel for immediate tissue basket removal or transfer to the next station – using crank. • Both immediate and delayed start option (up to 7 days or more) must be available. 	
105.	PATH_EQ 3	Manual Rotary Microtome with disposable blades	<p>Essential</p> <ul style="list-style-type: none"> • Manual Rotary Microtome (imported model) with Clockwise coarse feed. • Knife holder base with lateral displacement features, including locking lever. • Standard specimen clamp with adapter should be provided with standard delivery. • Sectioning thickness selection should be selectable from 0.5 to 60 µm with Sectioning thickness increments range from 0 to 2 µm in 0.5 µm increments, from 2 to 10 µm in 1 µm increments, from 10 to 20 µm in 2 µm increments, from 20 to 60 µm in 5 µm increments • Vertical Stroke Length SHOULD BE ATLEAST 58 mm ALONG WITH Horizontal Specimen Feed of approx.25 mm • Specimen orientation facility must be available 8° (through X, Y axis) • System should come with high profile disposable blade system • System should come with 1 pack of high profile disposable blade (at least 50 pcs. / pack) • Suppliers should have a good number of installations in East / North-East region & suppliers should have very good after sales service-support with proven track record. 	1

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			<ul style="list-style-type: none"> Should have Kolkata based excellent service back-up with readily available spares and certificate from manufacturers for availability of spares for a minimum period of 5 years from the date of installation. <p>Desirable</p> <ul style="list-style-type: none"> Specimen Retraction preferably with provision of switching On/Off Trimming thickness selection preferably with 2 different steps (preferably at 10 µm and 50 µm) Quick exchange specimen clamp Both clock-wise and anticlock-wise coarse feeds 	
106.	PATH_EQ 4	Trinocular microscope with accessories (camera, image analysis software, LCD TV and laptop)	Specification follows	1
107.	PATH_EQ 5	Band saw		1
108.	PATH_EQ 6	Centrifuge machine electric		1
109.	PATH_EQ 7	Incubator	<p>Essential</p> <ul style="list-style-type: none"> Double walled construction, inner chamber stainless steel (capacity 12-18 liters) inner glass/transparent door. Facility for adjustable shelves to convenient heights, 4 removable shelves of stainless steel/anodized aluminium to be supplied. Interior lighting facility, insulated door fitted with heavy hinges handle locking Mechanical door lock. Temperature range 10 -80°C with accuracy +/- 0.50°C, high quality environment friendly refrigerant Independent temperature measuring through appropriate sensor with indicator Recovery time short, precise regulation of temperature and acoustic alarm. Digital safety thermostat class-3 The unit shall be capable of operating continuously in ambient temperature of 10-80°C and relative humidity of 15-90%. Power input to be 220-240V AC, 50 Hz fitted with Indian plug. Resettable over current breaker shall be fitted for protection. Suitable stabilizer. <p>Desirable</p> <ul style="list-style-type: none"> LCD display Adjustable ventilation rate 10-100% with uniform air circulation system as specified. 	1
110.	PATH_EQ 8	Water bath electric (Tissue Floatation)		1
111.	PATH_EQ 9	Hot plate tissue embedding station	<p>Essential</p> <ul style="list-style-type: none"> Operating temperature range for the hot plate should be ranging from 20°C to 40°C. Working temperature should be ranging from 55°C to 70°C with provision of adjustment in 5K increments. Paraffin reservoir capacity should be at least 3 liters. Cassette tray/warming tray must be capable of accommodating 100 cassettes. The hot plate should be height adjustable, rotary & 	1

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			<p>fold back clip for activating the paraffin flow with the embedding mold, manually or via foot switch.</p> <ul style="list-style-type: none"> • The system should have two heated removable paraffin collection trays. • Spacious & heated work surface with paraffin drain system for interim storage of molds and cassettes. • Suppliers should confirm direct after sales service with manufacturer's factory trained engineers and proven track record. <p>Desirable</p> <ul style="list-style-type: none"> • Micro-processor controlled bench-top tissue embedder (imported model – excluding china) with modular hot and cold plate. 	
112.	PATH_EQ 10	Cold plate tissue embedding station	<ul style="list-style-type: none"> • Micro-processor controlled bench-top tissue embedder (imported model – excluding china) with cold plate. • Constant temperature of the cold plate must be maintained at -5°C. • Cold plate capacity should be of at least 70 cassette molds. • The work surface area should be large. • Membrane keypad and LCD screen. • The system must be able to operate at maximum of 60% of relative air humidity. • Suppliers should confirm direct after sales service with manufacturer's factory trained engineers and proven track record. 	1
113.	PATH_EQ 14	Digital USB camera 5.0 MP with measurement software	<ul style="list-style-type: none"> • Type: 1/ 2.5" CMOS • Valid pixel: 2592X1944 • Pixel size: 2.2µm X 2.2µm • Digital output: 24 bit (color) • Frame rate: <ul style="list-style-type: none"> ○ 2592X1944 3f/s ○ 1296X972 12f/s • Sensitivity 1.0V@550µm/lux/s • Exposure Manual/auto exposure; Exposure time adjustable • SNR 41dB • Connecting mode: insert into eyepiece tube of microscope directly or using standard C mount • Output mode: plug and play, power supply by USB 2.0 and automatic power controlling 	1
Department of Microbiology				
114.	MICRO/EQ IP/01	CHEMICAL BALANCE	Specification Follows	
115.	MICRO/EQ IP/02	LCD PROJECTOR	<p>Brightness (Lumens) : 1600 ANSI Contrast (Full On/Off) : 100000:1 Variable Iris: Yes High Brightness: ANSI Lumens: ** Contrast Ratio: ** High Contrast: ANSI Lumens: ** Contrast Ratio: 100000:1 Audible Noise: ** Eco-Mode: 22.0 dB Weight: 7.3 kg Size (cm) (HxWxD) : 13 x 46 x 30 Std. Lens: Focus:</p>	

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			<p>Power Zoom: Power, 2.00:1 Throw Dist (m) : 3.5 - 6.0 Image Size (cm) : 152 - 508 Optional Lenses: No Digital Zoom: ** Digital Keystone: Vertical Lens Shift: Horz&Vert Warranty: 1 Year Performance: H-Sync Range: 30.0 - 70.0kHz V-Sync Range: 50 - 87Hz Compatibility: HDTV: 720p, 1080i, 1080p/60 1080p/24, 1080p/50, 576i 576p, 625i, 625p 1125i EDTV/480p: Yes SDTV/480i: Yes Component Video: Yes Video: Yes Digital Input: HDMI Computers: Yes Display: Type: 2 cm 3 LCD Native: 1920x1080 Pixels Maximum: 1920x1080 Pixels Aspect Ratio: 16:9 (HD) Light Source: Type: 170W UHM Life: ** Eco-Mode Life: 3000 hours Quantity: 1 Speakers: n/a Max Power: 240W Voltage: 100V - 240V FCC Class: B Special: Special Warranty RS232 Port 2:3 Pulldown</p>	
116.	MICRO/IN ST/03	DIGITAL COLONY COUNTER		
117.	MICRO/IN ST/04	Mc INTOSH FLIDES' JAR		
118.	MICRO/IN ST/05	GASPAK JAR	<p>Anaerobic Systems</p> <ul style="list-style-type: none"> • One Jar, polycarbonate, 2.5 L • One Lid, non-vented with O-ring Gasket • or vented with O-ring Gasket • One Clamp and Clamp Screw • One Wire Rack One Tube Holder • One Rubber Tubing and Tubing Clamp • GasPak Plus hydrogen and carbon dioxide envelopes • CampyPak Plus hydrogen and carbon dioxide envelope • GasPak Anaerobic Indicator. • Materials required for operation of a vented system; • Manometer, gas source and vacuum source. 	
119.	MICRO/IN ST/06	ELISA READER, DISPENSOR, WASHER	Specification Follows	

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120.	MICRO/EQ IP/07	BIOSAFETY CABINET LEVEL- 2	Specification Follows	
121.	MICRO/EQ IP/08	DEEP FREEZER (ILR -70°C)	<ol style="list-style-type: none"> 1. Vertical type with twin door and adjustable shelves. Capacity: 250 to 300 liter. Temperature: -70 °C Celsius Accuracy +/- 1 degree Celsius {Must be able to perform at an ambient temperature of 40°C Celsius, user friendly, non-CFC refrigerant.} 2. Temperature: For recording temperature-Tolerance limit (-) 8 ° C to (-)20°C 3. Lower Supply 230+/- 10 volts; 50 Hz. 4. Voltage Stabilizer Microprocessor control, digital display with battery backup and alarm signal should be there. CE, ISO 9001, IS 13485 marked or equivalent. 5. General User/Technical/Maintenance manuals to be supplied. 6. Requirements: List of important spare parts and accessories with their part, number and costing. Certificate of calibration and inspection from factory. Attach original manufacture's product catalogue and specification sheet. Photocopy/ computer print will not be accepted. All technical data to be supported with original product data sheet. Satisfactory working of quoted model from institutes of repute. 	
122.	MICRO/IN ST/09	PCR (THERMAL CYCLER & GEL DOCUMENTATIO N SYSTEM)	<ul style="list-style-type: none"> • To Come with a heated lid; • At least two-year warranty; • power: 230 V/50 Hz • To Include one personal card; chip-based memory cards enable simple and reliable transfer of your individual protocols between different Thermal cyler workstations and ensure unlimited memory expansion • Features simple programming: gradient function of up to 20 degrees C, adjustable ramp rates, time and temperature increments, incubation mode, in situ mode, link function, pause function. • The universal block to incorporate an expansive range of different tube types in both the thermal cyler and thermal cyler gradient: use 96 x 0.2mL tubes, 44 x 0.5mL tubes (77 possible with special small capped PCR tubes) or one multiwell PCR plate—without having to change the block. • Software-supported in situ Adapter; RS-232 and printer interface; auto-restart option in the event of a power failure. • Gel Documentation system • 5.1 mega pixel high resolution CCD digital color camera for clear, high quality images with low light capability. Auto and manual focus and exposure control • Focal length: 12.5", automatic; Lens: 4 x optical zoom • Image Resolution: 1024x768, 1280x960, 2048x1536, 2592x1944 • Zoom: 15x with 3x optical zoom; 7.1-21.3mm (35-105mm 35mm equivalent) • Exposure: 1/800 to 16 seconds • Lightweight compact hood with viewport and easy access door • Interface: USB • Software included 	

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			<ul style="list-style-type: none"> • Filters: 46 mm ethidium bromide and +3 diopter • Dimensions: 17.75"W x 12"D x 16.6"H (451x305x422mm) 	
Department of Gynaecology				
123.	Gynae-EQ-01	Video-Colposcope	<ol style="list-style-type: none"> 1) 1/6" Micro lens Super HAD Sony Digital CCD. 2) 1/3 Type CMOS with high speed digital signal processing. 3) Imaging system from Sony Original. 4) Image resolution >850 lines. 5) Automatic Gamma processor to enhance vascular structure, hence to eliminate the need of manual Gamma. 6) Effective 15 to 16.2 Megapixels with 1-52 zooming. 7) Corner to corner uniform brightness with Automatic Screening, Diagnosis and Reporting. 8) Minimum Illumination of 0.1 to 0.2 Lux and color temperature >6500K 9) Focus Mode – Advance fast auto focus & Manual Focus facility with facility for fast focusing, zooming, and image freeze using the hand held unit only. 10) Light source should be LED cold light source. 11) Recommended lamp life to be of 20000 to 25000 hours. 12) Output interface – S- Video Pal /NTSC mode. 13) Magnification indicator and real time cock facility onscreen Real time magnification and timing of Acetic acid and Iodine reaction tests 14) Card for Lap-Top and computer connectivity. 15) Image capture freezing, saving and print out. 16) Statistic mode and automatic flow chart facility. 	
124.	Gynae-EQ-02	Hysteroscope	<p>4.0mm 30 deg Autoclavable Telescope 4.0mm Hysteroscope Operative Inner Sheath 4.0mm Hysteroscope Operative Outer Sheath 4.0mm Hysteroscope Diagnostic Inner Sheath 4.0mm Hysteroscope Diagnostic Outer Sheath Operative Obturator, 4.0mm Diagnostic Obturator, 4.0mm Semi-Flexible Double action Grasper, 7Fr, 41 cm Length. Semi-Flexible Biopsy Punch, 7Fr, 41cm Length Semi-Flexible Scissors, 7Fr, 41cm length Port Seal (10 / box) Reusable Stopcock</p> <p style="text-align: center;"><u>Resection Products</u></p> <p>4mm 30 deg Telescopescope 24Fr Standard Flow Resectoscope Sheath 24/26Fr Continuous Flow Inner/Outer Sheath Working Element - Passive 24/26Fr Resectoscope Standard Obturator 24/26Fr Resectoscope Visual Obturator 24Fr 90 deg Cutting Loop Electrode (6 / box) 24Fr Roller Ball Electrode (6 / Box) Collings Knife Electrode (6 / Box) Ellik Evacuator Ellik Adapter, Inner Sheath Ellik Adapter, Outer Sheath</p> <p style="text-align: center;"><u>Fluid Management System</u></p> <p>Fluid management system include: Pre-set pressure and flow rates Adjustable audible and visual deficit warnings Automatic exchange of fluid bag exchanges Customized flow rate up to 500 ml/min and pressure up to 200mmHg Bright LCD pump display with intuitive controls Canister</p>	

Catalogue of Items

			<p>Integrated tubing Monitor Pump console Wheel Balance</p>	
125.	Gynae-EQ-03	Laparoscope & Accessories	Specification follows	
126	Gynae-EQ-04	Delivery/Labour Table	<p>a. Trendelenburg position adjustable by gear box mechanism / gas spring mechanism (gearbox/gas spring assisted Trendelenburg 10-15 degree dn), b. Height adjustable a pair of lithotomic crutches with straps – low/ up position by screw and lever mechanism for height adjustment and angulation, c. Step stool (two steps with length of 500-600mm and depth of each step 250-300mm d. Integrated IV stand may be added.</p>	

Catalogue of Items

Statement showing Specification of Different Items

Sl. No. 01 Bio-Eq-01 Plate Elisa Reader

Catalogue of Items

SPECIFICATIONS:

1. The system should be 8-channel optical measuring system and able to read 96-well plate.
2. Warranty period: Minimum 5 years
3. The photometer should be filter wheel based.
4. The System should have capability for Mono and Bi chromatic measurements.
5. The entire Microwell plate should be measured within 5 seconds in the Monochromatic measurement mode.
6. The Results i.e. Abs, Sample No. and interpretation must be seen on the screen in matrix form. Graphs should be displayed on the screen.
7. System should be provided with 405nm, 450nm, 492nm, and 630nm standard filters There should be at least 3 extra blank filter positions.
8. System should have variable speed linear shaking facility for the Microwell plates for removal of microbubbles and mixing of the well solution. The time and speed should be user definable.
9. It should have the measurement range up to 2.5 Abs.
10. It should have ports for external printer.

Elisa Washer:

SPECIFICATIONS:

1. It should have 4 bottles connected to it. One Rinse, 2 Wash and One Waste bottle.
2. It should have two options for dispensing Low, and High.
3. The System must offer choice to use any of the 2 wash buffers while running.
4. The system must perform Top wash, bottom wash and in case of Flat wells, cross-wise washing. It should have soak facility for 1- 250 seconds.
5. The Microplate must be docked in a removable Plate Carrier, whose decontamination can be performed.

SI No. 19. Radio-Eq-01 Specification of Ultrasound

Should be a multi-purpose, high performance color Doppler imaging system designed for abdominal, vascular, urology, Small parts and superficial applications.

Catalogue of Items

Technical Points System Architecture

1. Beam former Universal Digital Beam former accepting routine Intra-operative, Convex, Linear and micro Curved array probes.
2. Display Should have a High-resolution 17" medical grade Flat Panel monitor with articulating arm and IPS.
3. Digital Processing Channels Should be 20000 or more
4. Gray Scale 256 gray levels with system dynamic range of more than 200dB
5. Display modes With B, 2B, 4B, Compounding, M, PW, HPRF and Color Doppler with Power Doppler. Phase inversion Tissue Harmonics should be available on Convex and Phased Array probes. steering on Color / PW modes on Linear probe should be available. Trapezoidal Image. Triplex mode with atleast 15 frames per sec.
6. Cine Review Standard cine memory providing upto 2500 frames on 2D mode and up to 30 seconds Doppler Cine
7. Transducer technology
8. Speckle Reduction Technology System capable to handle 2 – 13 MHz Multifrequency imaging with independent selection of 2D / Color / Spectral doppler frequency. The system should have softwares for speckle and noise reduction. It should provide tissue contrast enhancement software.
9. Exam Presets Atleast 30 user specific Image presets.
10. Image Optimisation on B and M modes. System should at least have the following
 - 5 Selectable frequency on Convex probe
 - 30 – 70 dB of Dynamic Range.
 - Up / Down & Right / Left Image rotation
 - 4 steps of Edge Enhancement settings
 - Atleast 30 cm depth.
 - 8 maps of B color
 - 5 levels of persistence
 - 5 levels of Resolution mode.
11. Color and Spectral Doppler Optimisation. System should atleast have the following
 - Selectable frequency on all probes
 - 1 – 20 mm Gate adjustments on Spectral modes.
 - Filter adjustments should be specified.
 - Base line adjustments
 - Sweep speed adjustments
 - 5 levels of color line density adjustments
 - 3 levels of Color priority selections
12. Zoom function When a more detailed view is needed, the system should reoptimises and rescans the selected region to actually increase the acoustic information content of the image upto at least 7 times.
13. Frame rate Maximum achievable frame rate should be atleast 1000 frames/second or more
14. Deep Doppler and color performance
HPRF performance at depth
15. Image Management System should have facilities to store atleast 80,000 images and 2 minutes of Clip store, should have the facility of performing calculations and annotations on stored images. System should have inbuilt CD / DVD/ USB Flash Drive writer for image transfer. The system should have at least 150 GB hard disk for image storage.
16. User Interface PC – based operating principles. System should have on screen menu for easy and immediate access to imaging controls. Live image should be supported with side by side reference / stored images on the Flat panel monitor.
System should have wrist support to help reduce operator repetitive stress injuries.
17. Power requirements Unit should function with 200-240Vac, 50/60 Hz input power supply.
18. Transducer Should have three active ports.
 - Convex Probe 2.0 – 5.0 MHz (Compounding and Harmonic Imaging should be available)
 - Linear Probe 5.0 – 10.0 MHz (Compounding and Harmonic Imaging should be available)
 - Micro Curved Array Probe 5.0 – 8.0 MHz (Compounding and Harmonic Imaging should be available)
19. Optional Accessories
 - Should be supplied with compatible thermal printer with the unit.
 - Should have an option to connect external printer.

Catalogue of Items

☐ Should have safety certificate from a competent authority CE / FDA (US) certificate or valid detailed electrical and functional safety test report from IEC. Copy of the certificate / test report shall be produced along with the technical bid.

SI No. 39. OPH-Eq-13 Synoptophore

Technical Specification:

Pupil Adjusting Distance	Hemispherical projection perimeter	
Chinrest Height(from eyepiece tube)	90 degrees (temporal) / 70 degrees (superior/inferior)	
Slides	300 mm (spherical radius)	
Automatic Flashing Device	31.5 asb	
Manual Flashing Device	1000asb	
Stepless Diaphragm	Variable in 4 steps at 0.0315, 0.10, 0.315 and 1.00	
Haidinger's brushes' device	1/16, 1/4, 1, 4, 16 and 64 mm ²	
Target Illuminating Lamp	0 to 2,000 asb	
After Image Lamp	6V, 4.35A (stimulus)	
Power	100VA	
Power Consumption	See below	
Fuse	41 kg (main unit only)	
Weight	41 kg (main unit only)	
Half Mirror Heads	41 kg (main unit only)	
Slides Complete 13 Sets		
Simultaneous perception Red Bind 3 Sets		
R1 Car 5.5°V 8.5°H	R2 Garage 11°V 13°H	
R3 Butterfly 4°V 6°H	R4 Net 7°Ø	
R5 X 1°S	R6 Square 1°S	
Fusion White Bind 4 Sets		
W1.2 Rabbit 11°S		
W3.4 Elephant 6°S		
W5.6 Bear 7°S		
W7.8 Bubble Car 4°V 8°H		
Stereopsis Yellow Bind 3 Sets		
Y1.2 Wicket, Ball 10°V 3°H		
Y3.4 Seal, Balanced Balls 6°V 5°H		
Y5.6 Airplane and Four Parachutes 17°V 15°H		
Maddox Green Bind 2 Sets		
G1 Red Circle 3.5°Ø	G2 Green Square 6.5°S	
G3 γ Angle	G4 Arrow	
Special Blue Bind 1 Set		
B1 After Image (Vertical Lines)	B2 After Image (Horizontal Lines)	

SI. No.48 OPH-EQ-22 Phacoemulsification

Technical Specification of Phacoemulsification Unit:

1.Ultrasound		
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Catalogue of Items

	Phacohandpiece	6 crystal, Frequency-28KHz with auto tuning
	Power	1 to 100%, in steps of 1%, max. deflexation 1.2µm
	Vacuum	0-600 mmHg, 5mmHg increments
	Flow rate	1-50 ml/min, 1ml/min increments
	Vacuum rise time	Less than 0.6sec. at 600mmHg vacuum and 50ml/min flow rate
	Power modulations	Continuous/Linear, Pulse, Burst, CMP(Cool micro Pulse)
	Pulse mode	Pulse frequency:0.5 to 40 Hz Pulse duration: 0.25 to 1800 ms
	Burst Mode	Duration: 10ms to 500ms Pause: 2 sec to continuous
	Occlusion Mode	Both flow rate and power can be regulated based on vacuum level of occlusion
	Phaco tip sizes	2.8mm,2.2mm & 1.6mm(optional)
	Effective phaco time(EPT)	Shows in increments of 0.1sec
	Phaco programme memories	3 nos.
2.I/A Function		
	Vacuum	0-600mm.of Hg, 5mm of Hg increments
	Flow rate	1 to 50 ml/min,1ml/min increments
	Vacuum rise time	Less than 0.6sec at 500mmHg vacuum and 50ml/min flow rate
	Over ride function	Allowing to increase the vacuum level over and above the set limit
	I/A program memories	2 nos.
3.Vitrectomy function		
	Vitrectomyhandpiece	Titanium, Electrically driven guillotine cutter
	Cut rate	Linear 30 to 1200cuts/min and single cuts
	Vacuum	0-600mmHg,5mmHg increments
	Flow rate	1 to 50ml/min,1 ml/min increments
	Control	Irrigation/Aspiration/Cut, Or Irrigation/Cut/Aspiration
	Cutter tip sizes	20G, 23G(optional)
	Vitrectomy Program memories	3 nos.
4.Fluidics		
	Pump system	Peristaltic pump with venturi like rise time
	Cassette & tubing	Fully autoclavable with integrated closed pressure sensor for fluidics control
	Reflux	From bottle, by pedal deflection backwards or sideways
	Safety features	Auto venting, integrated pressure sensor in cassette
5.Diathermy & Bipolar Function		
	Frequency	500KHz, pulsed
	Power	Max.8Watt at 50 Ohm(Bipolar), Max.9.9Watts at 50 Ohm(RF Capsulotomy)
	Functions	1.Bipolar Diathermy 2.RF Capsulotomy-machine assisted capsulorhexis facility

Catalogue of Items

		3.STT(GlcomaScleroThalamotomy)- optional 4.IDK(IntrastromalDiathermalKeratostomy)- optional
6.Footpedal		
	Type	Linear multifunctional
	Phaco control	Irrigation/Aspiration/Power with vertical linear power
	I/A control	Irrigation/Aspiration/Over-ride
	Vitrectomy control	I/A/C or I/C/A
	Other controls	Switch from Linear to Pulse/Burst, Changing programs of Phaco or I/A or Vitrectomy preset memories, Reflux ON/OFF by Heel switch
7.Other Features		
	Control Panel	LED luminous display, silicon soft touch buttons, glass covering
	Surgeon memories	9 surgeon memories, each having separate programs for Phaco, I/A, and Vitrectomy
	Others	Audio signals, Phacohandpiece Self-testing function, I/A tubing auto-priming and auto-cleaning function, Continuous irrigation function

Sl. No. 68 Anaes-EQ-02 Ventilator-High End (I.C.U)- Technical Specification

Microprocessor Controlled ventilator with integrated facility for Ventilation monitoring suitable for New born to adult ventilation.

Eligibility Criteria:

- a) Should be USFDA and CE of the quoted model
- b) Manufacturer should be ISO certified for quality standards.
- c) Shall meet IEC-60601-1-2: 2001 General Requirements of Safety for Electromagnetic Compatibility or should comply with 89/366/EEC; EMC-directive

Technical Specifications:

Standard hinged arm holder for holding the circuit

Colored TFT screen, 12 Inch or more

Facility to measure and display

- a) 3 waves- Pressure and Time, Volume and Time and Flow and Time.
- b) 3 loops- P-V, F-V, P-F with facility of saving of 3 Loops for reference.
- c) Graphic display to have automatic scaling facility for waves
- d) Status indicator for Ventilator mode, Battery life, patient data, alarm settings, clock etc
- e) Trending facility for 24-72 hours with minimum 5 minutes resolution for recent 24 hours.
- f) Automatic compliance & Leakage compensation for circuit and ET Tube

Following settings for all age groups.

- a) Tidal Volume
- b) Pressure (insp)
- c) Pressure Ramp
- d) Respiratory Rate
- e) SIMV Respiratory Rate
- f) CPAP/PEEP
- g) Pressure support
- h) FIO₂
- i) Pause Time
- j) Pressure & Flow Trigger

Monitoring of the following parameters

- a) Airway Pressure (Peak & plateau)
- b) Tidal volume (Inspired & Expired)
- c) Minute volume (Inspired and Expired)
- d) Spontaneous Minute Volume

Catalogue of Items

- e) Total Frequency
- f) FIO₂ dynamic
- g) Use selector Alarms for all measured & monitored parameters

Modes of ventilation

- a) Volume controlled
- b) Pressure Controlled
- c) Pressure Support
- d) SIMV (Pressure Control and volume control) with pressure support
- e) CPAP/PEEP
- f) Inverse Ratio Ventilation
- g) Non Invasive ventilation

Apnea /backup ventilation

Expiratory block should be autoclavable and no routine calibration Required

Nebuliser with capability to deliver particle size of < 3 micron & to be used in both Off and

On line Automatic Patient Detection facility preferable

Medical Air Compressor.

- a) Stand-alone Medical Air compressor
- b) Snap fit with the Ventilator module to provide an oil free Medical air.
- c) Peak output flow should be minimum 160 LPM.
- d) Air quality should comply with ISO compressed air purity class.
- e) Medical Air Compressor should automatically activate in the event of wall air supply loss.
- f) Replacement of internal filters should be performed without removing the compressor
- g) Should have washable air filter.

Technical Specifications for reusable face mask & nasal mask.

Reusable face & nasal mask with textured dual flap silicone cushion flap for easy fit.

Removable forehead support and pad to match the angle of patient's forehead Stability

Selector for easy fit and angle. headgear attachments. Should be autoclavable. Battery back up for minimum 1 hour.

System Configuration Accessories, spares and consumables

ICU Ventilator – 01

Adult and Paediatric autoclavable silicone breathing circuits – 01 Each

(a) Reusable Masks (Small, Medium, Large) with each machine. - 01 sets each

(b) All Accessories for non invasive ventilation – 1 sets Medical Air Compressor.

Humidifier -Servo controlled with digital monitoring of inspired gas temperature complete with heating wire – 01 Filter paper for humidifier for 100 uses – 01

Power Supply

Should work on 220-240V AC as well as batteries. Mains adaptor to be supplied

Suitable Servo controlled Stabilizer/CVT

Resettable over current breaker shall be fitted for protection.

Suitable UPS with maintenance free batteries for minimum one hour back up should be supplied with the system.

Documentation

- User manual in English
- Service manual in English
- Compliance reports to be submitted in a tabulated and point wise manner clearly mentioning the page/Para number of original catalogue/data sheet. any point, if not substantiated with authenticated catalogue/manual, will not be considered

Sl. No. 69 Anaes-EQ-02

ETO STERILIZERS

Description of Function

"Ethylene oxide sterilizer" is defined as equipment which uses ethylene oxide as a biocide to destroy bacteria, viruses, fungus and other unwanted organisms. Ethylene oxide is used in sterilization of items that are heat and moisture sensitive

Operational Requirements

Catalogue of Items

The ETO gas sterilizer should be fully automatic type for sterilization of heat sensitive goods such as anesthetic tubing and other plastic disposable materials etc.

Eligibility Criteria:

- a) Should be US FDA or CE of the quoted model.
- b) Manufacturer should be ISO certified for quality standards.
- c) Should have local service facility. The service provider should have the necessary equipments recommended by the manufacturer to carry out preventive maintenance test as per guidelines provided in the service/maintenance manual.

Technical Specifications

The sterilization chamber should be double walled, corrosion and gas resistant of suitable alloy. The inner surface should be smoothly finished to minimize gas deposits. The chamber shall be insulated against heat emission and the jacket shall be connected to the warm water circulation arrangement.

The sterilizer door shall have a quick release locking arrangement with door opening.

Suitable safety interlocking arrangement shall be provided for the door so that the sterilization process does not start unless the door is properly locked in position and during the program run it should not open.

The sterilizer shall be provided with a suitable vacuum pump and gas trap to separate and evacuate the gas.

The sterilizer shall be provided with an automatic programmable panel with memory for preset operating sequence of all programs of operation. Monitoring instruments should be provided with the ETO for proper operation and monitoring of sterilizing process such as pressure manometer, thermometer, limit selector for temperature and pressure etc.

The ETO sterilizer should be able to operate for the minimum essential following cycles programmes:

- a. Sterilization cycle for heat sensitive objects that ensure temperature from 40-75 C with subsequent aeration for protection of the operating personnel.
- b. Aeration cycle/program to extract residual gas out of the sterilized objects after each sterilization cycle.
- c. Automatic chamber evacuation cycle with subsequent venting before releasing the door lock for opening, thereby prohibiting exposure of the operating personnel by as dissolving from the chamber walls during shutdown period.
- d. Gas disposal arrangement / catalytic converter.

Capacity: 7 -10 cubic feet/per cycle with capacity to process 18-20 cubic feet/24 hr.

Firm should clearly state cycle time (Time from start to finish including aeration time) so that capacity to process total load in 24 hr can be calculated.

Technical Data:

- a. Sterilization gas: Ethylene oxide.
- b. Sterilization method: Cold sterilization of heat sensitive materials.
- c. Operating temp. Range: 40 to 75 oC
- d. No. of doors: One.

System Configuration Accessories, spares and consumables

System as specified-

Sterilization basket of suitable size 1 No.

ETO gas cartridges 25 Nos.

Compressed Air Plant

Packing Material with Chemical Indicator of all sizes one roll each

Sealing Machine Heavy Duty - 1 No.

Power Supply

Power input to be 180-270VAC, 50Hz

UPS of suitable rating with voltage regulation and spike protection for 60 minutes back up

Sl. No. 106 PATH_EQ 4 Specification for Trinocular Microscope with Accessories (camera, image analysis software, LCD TV and laptop)

Trinocular Microscope

Essential

- Microscope should have Infinity Corrected Optical system for Bright field applications.
- Microscope should have right hand stage Stand with koehler illumination, 4 positions Nosepiece, Universal Power Supply, Mechanical stage with non-extending rack and slide holder, built in handle and cord wrap. Dust cover, Manual.
- Trinocular tube with 30° inclination for easy viewing.
- Magnification from 40X to 1000X with 10 X eyepieces with PLAN phase & Hi PLAN/EF-N PLAN objectives of 4x,10x,40x & 100x (OIL)
- FOV should be 20mm
- IPD should range from 52mm – 75mm
- Should have integrated vertical handle for easy carrying & easy lifting with integrated cord wrap to eliminate damage to microscope components.
- Slide holder should be student friendly to avoid slide chipping.

Catalogue of Items

- Stage should maintain its dimension with round edges eliminating chance of injury with additional protection from friction damage.
- Should have Kolkata based excellent service back-up with readily available spares and certificate from manufacturers for availability of spares for a minimum period of 5 years from the date of installation.

Desirable

1. Should have transmitted LED illumination, at least 10,000hrs. bulb lifespan at full-intensity-providing cool white light.
2. Abbe Condenser 1.25NA focusable with iris diaphragm and filter holder.
3. Should have time delay shut off automatically to save energy with disabled & enabled option also.
4. Ag Treat (anti microbial) to be incorporated for eliminating growth of bacteria.

Accessories

1. Scientific Digital Camera:

○ Essential:

- Sensor Type: CMOS
- Sensor Resolution: 5.0MP
- Optical Calculation 1/2.5"
- Focusable Lens: 12mm
- Eyepiece adapters
- C-mount adapter for camera attachment
- Desirable:
- 4 dot calibration slide with micrometer cross hair for accurate calibration
- Output Possibilities: HDMI (1080p), SD Card (5.0MP), USB (640x480), Analog Video

2. Image Analysis Software:

○ Essential

- Instant Image Capturing
- Real time full screen image
- Programmed Interval Captures
- Video Capture by Time Settings
- Easy Measurement Calibration
- Measurement in microns, inches, millimeters, Length Measurements
- Ellipse, Rectangle, Irregular Shape Measurements
- Perimeter, Radius, Circumference Measurements, Angle Measurements
- Magnifier (zoom) function
- Image amalgamation
- Image Adjustment Effects
- Cell Counting
- Data Export
- Report Generating and Print Out
- Interactive File Format

○ Desirable

- Distant Image Sharing
- On-line files sending / receiving

3. 50" LCD TV for projection

4. Laptop with latest configuration

Microscopy Digital Camera with Image Analysis Software should be compatible with LCD TV and Laptop

SI. No. 114 MICRO/EQIP/54 Chemical Balance-Technical Specification

Capacity x Readability	320 g x 0.001 g
Repeatability (std deviation)	± 0.001 g

Catalogue of Items

Linearity	± 0.002 g
Response Time (average)	1 seconds
Tare Range	FULL to Capacity
Selectable Weight Units	g, kg, mg,
Selectable Application Programs	Toggle between 5 weight units, weigh average, calculation, dynamic animal weighing/averaging, net-total formulation, percent weighing, totalizing, density determination and counting
Display Update	0.05 – 0.4 seconds
Display	LCD with backlit
Operating Temperature Range	50° F to 86° F (+10° C to +30° C)
Allowable Ambient Operating Temperature	41° F to 104° F (+5° C to +40° C)
Sensitivity Drift	±2 ppm / °C
Motorized Internal Calibration	OPTIONAL
External Calibration	200 g Optional
Pan Size	ø4.5 in / ø115 mm
Dimensions (entire balance) W x D x H	9" x 11.9" x 5.35" inches 230 x 303 x 136 mm
Built-in RS-232 Interface	YES
Power Source	AC adapter 120 VAC
Power Consumption	maximum 16; typical 8
Standard Equipment	AC Adapter, Round glass draft shield with cover
Desired Accessories	RS-232 cable, USB interface kit, external calibration weights, weigh below hook, printer, external rechargeable battery pack, Standard Operating Procedure
Warranty	36 months

Sl. No. 119 MICRO/EQIP/63 Biological Safety Cabinet LEVEL 2 -Technical Specification

- **Technical Specifications for Biological Safety Cabinet based on**

Class II Type B-2 for BSL-III work

Body & Dimension

1. Main body should be made of stainless steel [(304 grade)- Heavy gauge- 16 G]
2. Table top and working zone should be made of stainless steel [(304 grade)- Heavy gauge- 14 G &16 G]
3. Table top should be in two parts:
 - a) Front perforated portion 4" in size
 - b) Non perforated working zone: Table sunken type (trough type) for spillage management that can be lifted easily for cleaning below the table.
4. Work Area should be approximately 48" x 24" x 27" (4 feet) in size with shutter opening of 489 mm
5. Overall Size of the cabinet should be approximately 52" x 35" x 74".
6. Air Flow should be vertical down flow with 100% exhaust.
7. Cleanliness level should be less than 3.5 particles/ litre of 0.5 µm and larger (ISO 14644-1).
8. Noise Level should be less than 65 db.
9. Vibration level: Less than 2.3 µm.
10. Average air flow should be 90±20 fpm (down flow).

Standard Accessories:

Catalogue of Items

1. HEPA filters should be MINIPLEAT with 99.99% efficiency for 0.3 micron with integral metal guards & filter frame gaskets and manufactured in class 1000 super clean air conditioned environment for longer life.
2. Air pressurization system should be statically and dynamically balanced, fitted with special vibration reducing system to suit low noise and vibrations.
3. Front door should be made of polycarbonate/ toughened glass (6 mm), adjustable as per lab requirement, vertical sliding (one piece with counter weight arrangement for finger tip control).
4. Side walls should be made of stainless steel [(304 grade) - Heavy gauge- 14 G].
5. Should have Fluorescent light with low energy choke less to withstand larger fluctuations in voltage, should be placed outside working zone to avoid turbulence.
6. Should have support stand with leveling screws adjustable from 55-85 mm.
7. UV lamp should be in working zone (40 micro watts/ square cm at 254 nm or better) and placed so that the operator cannot see directly i.e. eyes should be always protected.
8. Universal Service fittings for gas and air should be provided with gas burner along with gas cylinder which can be refilled on requirement.
9. Should have Rehabitable pre filters should have efficiency of more than 80%.
10. Should have Switches & Electrical sockets outlets for 15/5 amp.
11. Should have Pressure Monitors like Magnehelic gauge are required to indicate pressure drop across HEPA filter.
12. Should have DOP Port
13. Should have current leakage circuit breaker
14. Should have air tight duct exhaust extension
15. Should have Contaminated plenum in negative pressure to prevent leakage into the environment. Exhaust blower should be placed outside at roof top level.
16. Exhaust blower should be capable for 100% exhaust interconnected with supply air blower; system should only start when the negative pressure is developed.
17. Special provisions should be there, If, by chance the exhaust blower is not working properly, the operator will get a buzzer.
18. Should have Audible alarm to warn the operator if the window is raised above the recommended height of 203 mm (8 inches)
19. Should have Air short circuiting or the bye pass arrangement: By chance there is ingress of fresh air from the top of front shutter, this ingress should not percolate into the working zone: but will be short circuited to return duct at the back. Safety suction points near the upper portion of the front shutter transfer short circuit dirty air into the exhaust/ return duct.
20. Should have Adjustable zero leak proof damper at supply air intake & exhaust ducting.
21. Should have Special provision for system which gives alarm to stop supply air in case the negative pressure goes beyond certain limit to stop contamination egress to laboratory.
22. Should have Spillage trough below the working table of 16G heavy duty stainless steel. This trough should have drain cock.
23. Back holes should be there on vertical walls to provide more work area on table top.
24. Should have Exhaust Ducting at the roof top (approx. 30 feet) from the cabinet site.

Other Features:

1. Installation, validation/ performance demonstration should be carried out at site with all ultra modern facilities like Velocity test, Laser based particle test etc.
 2. The cabinet should be based on NSF 49/ ANSI 49, ETL, CE certification.
 3. Suitable power supply/ UPS should be provided to continue, if the electricity goes off during the work.
- Guarantee: 3 years guarantee from the date of installation inclusive of one year spare replacements, if any.

Sl. No. 120 MICRO/INST/12 Elisa Reader, Dispensor & Washer -Technical Specification

1. Should have 8-12 measuring channel and 1 reference channel. Single & dual wavelength measurement with facility for kinetic measurement.
2. Grating/Inbuilt (Tunable) Filters: Narrow band interference filters. Should have wave length range of 340-750 nm 6 filter 340, 405, 450, 492, 540, 610, 620 nm with provision for fitting any additional filters
3. Should have an absorption range of 0-400

Catalogue of Items

4. Should have a resolution of 0.001; precision: 0.005 OD; Linearity/ Accuracy: 2%
5. Should read within 6-8 seconds
6. The control panel should have soft coloured touch screen display, capable of showing graph etc.
7. Should have external and internal programmable time and speed shaking
 8. Should be able to read all types of plates. Plate format: 96 well plate preferably with an option for 6-384 well plate
9. Should have a single halogen or Xenon lamp with save feature as a light source
10. Should have user defined programmes up to 300
11. Should have data memory of 300 plates
12. Should have data transfer facility to computer
13. should work on 220-230 volts AC
14. Should have in-built printer
15. Should have external printer capable of printing complete results and graphs etc. from Elisa System
16. Voltage stabilizer should be provided
17. Electrical connection: 220 volts 50 Hz
18. Firm should perform the calibration of the Elisa Reader and submit the certificate for the same every year ie during the initial 03 year warranty period & subsequently during 5 year CAMC period and also after any major repairs.
19. Accessories/spares/consumables:
 - a. lamp: 1 piece
 - b. Dust cover
 - c. 8 channel variable volume multi channel pipettes 5-50 μ L and 50-300 μ L
20. Documentation/Others:
 - a. Original Printed Technical Literature/ user maintenance manual to be provided Complying with the Specifications.
 - b. Support services till familiarity with the system.
 - c. Manufacturer's Authorization certificate in Original mentioning the tender ref. no. submitted with the offers.

Automatic Micro Plate Washer

1. Fully automated programmable micro plate washer with 8/12 manifold
2. The micro plate washer should offer the possibility of flexible programming of the desired washing procedures. It should have 1-4 liquid channels
3. It should be capable of storing up to 75 user defined washing procedure.
4. The dispensing volume well should be 50-370ul
5. Plate shaking should be programmable at any point of the washing procedure
6. Should have soak time of 1-999 sec.
7. Performance sequence should be either on whole plate "Plate Mode" or strip by strip "Strip Mode"
8. It should offer the possibility to present physical parameters and well shape (round or flat bottom) of the used micro palte (up to 10) and store this information under freely definable names.
9. Application aspiration should be performed at the edge of the well, alternating from one side to the other, or in the centre when using round bottom plates.
10. Residual volume/well should be less than 2 ul
11. The desired number of cycles as well as the interval time between the steps should be freely definable.
12. Necessary sequence should be defined as a combination of single steps, which are freely adjustable by setting the corresponding parameters.
13. The result of the washing procedure may be intensified by an optional wash cycle limited to the bottom area (bottom wash)
14. Aspiration should prevent an overflow of the well contents.
15. A variety of pre-programme washing procedures should cover the majority of standard applications.

Catalogue of Items

16. This should be able to be used as "COOMBS WASHER" with vertical and Horizontal movements performed with 0.1 mm steps
17. Voltage stabilizer should be provided
18. Electrical connection 220 volts 50 Hz

Sl. No. 125 Gynae-EQ-03 Laparoscope & Accessories -Technical Specification

Full High Definition Three Chip Camera System:

1. Camera should feature a 1280 X 1024 resolution
2. The camera should have nine specialty settings
3. The Camera Head should have 4 fully programmable buttons to control 6 functions
4. The system should have HD & HDTV outputs
5. Progressive Scan Technology.
6. 10 bit Digital processing for optimal clarity.
7. Should be IEC 601-1, CE according to MDD.
8. Should be US - FDA approved

High Resolution HDTV medical grade Monitor:

19" High Definition Medical grade Monitor, with DVI, VGA, HD/SD-SDI, COMPONENT, Fast response time: (<25ms Typ) Number of colors: 16 million, 1000:1 **Viewing Angle: +/- 89degree (L/R) X +/- 89 degree (U/D).**

XENON LIGHT SOURCE 300 WATTS:

- **Light outlets:** 1
 - **Light intensity adjustment:** continuously adjustable from 0 to 100 manually
 - It should have Standby mode which will reduce light output to a minimum, preventing the light cable from generating excessive heat
 - Simple user Interface with LCD screen
 - 300 watt xenon elliptical bulb
 - To be supplied with one spare bulb
 - It should be US/FDA approved
- Fiber Optic light cable - Light cable of actual bundle size: 5.0-6.5mm, length : 275-300cm – 2 NOS

CO2 Electronic Insufflator: 45 Ltrs

The system should have:

- Real time pressure sensing & multiple user mode
- Full color touch panel for better viewing angles
- Change mode with touch of the button
- Power supply inputs: 100-240 Vac; 3.15 A
- Power consumption: 150VA
- Operating condition: 50-104 F
- Heated with RTP for heated CO2
- Be able to continuously pump CO2 into abdomen while constantly measuring pressure
- Should have 3 stages of flow - 1.2 l/min, 6 l/min, 20 l/min
- Should have Gas flow in pulses, easily operatable pressure controls
- Should have Presetting of abdominal pressure & gas flow rate
- Should be US FDA approved.

Telescopes:

A. 10mm 30 degree length 135MM to 140MM

B. 10mm 0 degree length 135MM to 140MM

1. Should be Fully Autoclavable
2. Should be in both 0 and 30 degree
3. Should be Wide Angled distortion free view
4. Must be equipped with Universal Adaptor for other Light Sources
5. Should have Yellow Sapphire Glass Tip Index for Optimum Evenness of Focus & Contrast.
6. Should have blue eye piece

SUCTION & IRRIGATION DEVICE:

- The hybrid unit is able to perform the suction and irrigation related application required in Laparoscopic Surgical procedures. It possess the following specs
- Roller wheel for Irrigation
- Irrigation flow rate : Max 1.8/min
- Irrigation pressure : Max 400 mm Hg.
- Vacuum pump for suction.

Catalogue of Items

- Suction flow rate : Max 1.8l/min
- Suction Pressure : -60kPa
- Unit has Start/ Stop buttons to switch over from Suction & Irrigation modes.
- Includes accessories –Reusable Tube set 2 Nos., Out flow tube set reusable– 2 Nos., Vacuum tube set reusable – 2 Nos collection container, Coil & Single hand control & 5mm Cannula

Video Trolley:

Suitable Medical Grade video trolley to be supplied having minimum three self , with antistatic wheel casters with lock, Isolation transformer, front lockable, high grade of electrical insulation and earth protection. 5 Ampere socket, 8Nos, inbuilt with trolley to connect all electronic devices. CO2 tank bracket should be integrated with trolley. Potential equalization connection to be provided at least 8 points. With water ingress protection

UPS – 3KV – 1 No

Suitable UPS with One hour backup time with SMF Batteries with Shine control. Should be able to work on wide input range between 160-270 VAC at frequency between 50Hz \pm 2Hz, Should use PWM technology with power conversion with single transformer arrangements with an output of 220VAC \pm 5%, protection of overload, short circuit and low battery. Should have indication on front panel for mains load/battery load/ battery overload-low and MCB protection in case of short circuit. ISI/CE approved good quality Indian make

HIGH DEFINITION DATA RECORDING DEVICE:

1. **MAX CAPTURE RESOLUTION:** The device should be capable to capture progressive scan images of (a) 1920 X 1080p; (b) 1280 X 1024; (c) 1280 X 720 Resolution
2. **Archiving options:** Images or video files of not less than 250 GB. The same can be saved or print from the device.
3. **Video Inputs:** S-Video; Composite & DVI
4. **Video Output:** S-Video; Composite & DVI
5. **Remote Control:** Camera Head Triggering
6. **Recording Formats:** MPEG1; MPEG2;HD; Capable of recording 2 procedures at a time.
7. **Image Format:** TGA; Jpeg 2K; PNG; Bitmap; Jpeg;; TIFF.
8. **User Interface/Display:** Graphic User Interface Touch screen with features for recording patients details.
9. **Media Option:** CD/DVD,USB
10. **Safety Standards:** Should comply with IEC 60601-1-2:2001; IEC 60601-1:1988 + A1:1991 +A2:1995.
11. **The Equipments should have all cables** – Power cord, DVI, S-Video, Composite & Remote connections, etc.;
12. **Power consumption:** 115/230V- 50/60 Hz, 4A maximum

Laparoscopic Hand Instruments:

1. Veress needle 120mm
2. Trocar/Cannula size 11mm with pyramidal tip, multifunction automatic valve, stopcock for insufflation – 2 Nos
3. Trocar/Cannula size 5.5mm with pyramidal tip, multifunction automatic valve, stopcock for insufflation – 2 Nos
4. Reducer 11/5.5mm – 2nos
5. 5mm Rotating, Dissecting Alligator Grasper, double action, length 30 to 33 cm, with ratcheting handle – 2 Nos
6. 5mm Fenestrated schertl grasper without ratchet, length 30 – 33cm – 2 Nos
7. 5mm Curved Kelly dissectors, without ratchet, length 30 to 33cm – 2 Nos
8. 5mm curved Metzenbaun scissors, length 30 to 33 cm, without ratchet – 2 Nos
9. 5mm Hook Scissors, length 30 to 33cm, without ratchet – 1 No
10. 5mm dissecting & grasping forceps, fenestrated with monopolar handle without ratchet, length 30 to 33cm – 1 No
11. 5mm Maryland grasper with monopolar handle, length 30 to 33cm – 1 No
12. 10mm clip applying forceps – 1 No
13. L Tip Electrosurgical probe, length 30 – 33cm – 3 Nos
14. Spatula Tip Electrosurgical probe, length 30 – 33cm – 3 Nos
15. 10mm double action claw forceps – 1 No
16. 5mm Knot Pusher – 1 No
17. Port closure – 1 No
18. HF Monopolar cord – 1 No
19. 10mm Biopsy Spoon Grasper – 1 No
20. Double Action Atraumatic Grasper length 30 to 33cm, without ratchet – 1 No

Standards & Safety

1. Should be FDA & CE approved product
2. Manufacturer should have ISO certification for quality standards.
3. Comprehensive training for lab staff and support services to familiarize with the system.
4. Shall be certified to be meeting safety standard IEC 60601-2-18 part 2 Particular requirements for the safety of endoscopic equipment.

Catalogue of Items

The core Operating system like , Endovision Three chip HD camera, light source, HD Monitor, Suction Irrigation Device, fiber optic cable, Video monitor should be from single manufacturer for system compatibility.

SI No	Name of Item	Unit	Unit	Qty
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List of Chemicals & Reagents

Catalogue of Items

PATH_RE 1	Distilled Water I.P.	Jar of 5 liter	Jar of 5 liter	10
PATH_RE 2	Ethanol I.P. 95% (Rectified Spirit)	Bottle of 500 ml	Carton of 10 Bottles	1
PATH_RE 3	Sodium Chloride I.P.	Bottle of 500 gms	Carton of 20 Bottles	5 carton
PATH_RE 4	Trisodium Citrate I.P.	Packet of 500 gms	Carton of 20 Packets	1 carton
PATH_RE 5	Ammonium Chloride I.P.	Packet of 500 gms	Carton of 20 Packets	1 carton
PATH_RE 6	Leishman Stain	Container of 25 gm.	Carton of 10 cont.	1 carton
PATH_RE 7	Hydrogen Peroxide I.P.	Bottle of 500 ml	Carton of 10 Bottles	1 carton
PATH_RE 8	Coombs Fluid 10 ml.	Bottle of 10 ml.	Carton of 10 Bottles	1 carton
PATH_RE 9	E.D.T.A. Powder	packet of 500 gm.	Carton of 10 Packets	1 carton
PATH_RE 10	Immersion Oil	Bottle of 30 ml.	Carton of 10 Bottles	1 carton
PATH_RE 11	Acetone	Jar of 4 liters.	Jar of 4 liters.	5
PATH_RE 12	Paraffin Wax 60 c X 62 c	Packet of 60c X 62c.	Carton of 20 Packs.	1 carton
PATH_RE 13	Paraffin Wax 58 c to 60 c	Packet of 58c X 60c.	Carton of 20 Packs.	1 carton
PATH_RE 14	Enzymatic Detergent Solution	Bottle of 1 liter.	Carton of 10 Bottles	1 carton
PATH_RE 15	Acid Hydrochloric L.G.	Bottle of 2.5 litres	Bottle of 2.5 litres	5
PATH_RE 16	Methylene Blue	Bottle of 500 gms	Bottle of 500 gms	5
PATH_RE 17	Acid Nitric L.G.	Bottle of 2.5 litres	Bottle of 2.5 litres	2
PATH_RE 18	Acid Sulphuric L.G.	Bottle of 500ml	Bottle of 500ml	2
PATH_RE 19	Blood Group Anti "A" serum I.P.	Bottle of 10 ml.	Bottle of 10 ml.	5
PATH_RE 20	Blood Group Anti "B" serum I.P.	Bottle of 10 ml.	Bottle of 10 ml.	5
PATH_RE 21	Blood Group Anti "D" serum I.P.	Bottle of 10 ml.	Bottle of 10 ml.	5
PATH_RE 22	Disodium Hydrogen Phosphate A.G.	Bottle of 500 gms	Bottle of 500 gms	5
PATH_RE 23	Eosin (water and alcohol soluble)	Bottle of 10 gm	Bottle of 10 gm	10
PATH_RE 24	Ferric Chloride (anhydrous) A.G.	Bottle of 100 gms	Bottle of 100 gms	2
PATH_RE 25	Indicator-Paper (universal) strip	25 strip	25 strip	5
PATH_RE 26	Indicator-Paper (universal) strip	100 strip	100 strip	1
PATH_RE 27	Indicator-Paper (narrow range) pH 3.0 to 6.5	per roll	per roll	1
PATH_RE 28	Indicator-Paper (wide range) pH 5.5 to 10.5	per roll	per roll	1
PATH_RE 29	Methyl Alcohol	Bottle of 500 ml	Bottle of 500 ml	10
PATH_RE 30	Potassium Dichromate	Bottle of 500 gms	Bottle of 500 gms	1
PATH_RE 31	Potassium Oxalate A.G.	Bottle of 500 gms	Bottle of 500 gms	1
PATH_RE 32	Sodium Bicarbonate A.G.	Bottle of 500 gms	Bottle of 500 gms	1
PATH_RE 33	Sodium Carbonate (anhydrous) A.G.	Bottle of 500 gms	Bottle of 500 gms	1

Catalogue of Items

PATH_RE 34	Sodium fluoride	Bottle of 100 gms	Bottle of 100 gms	1
PATH_RE 35	Ammonia Oxalate	500gm	500gm	1
PATH_RE 36	Benedict Solution	30 x 500 ml	30 x 500 ml	1 carton
PATH_RE 37	Brain Thromboplastin	5 x 5 ml	5 x 5 ml	1 cartons
PATH_RE 38	D.P.X. Mount	10 x 250 ml	10 x 250 ml	1 carton
PATH_RE 39	Drabkin's Soln.	35 x 5 ltr	35 x 5 ltr	1 cartons
PATH_RE 40	E.A. 50	5 x 125 ml	5 x 125 ml	1 carton
PATH_RE 41	Glycerin	10 x 500 gm	10 x 500 gm	1 carton
PATH_RE 42	Glacial Acetic Acid	10 X 500 ml	10 X 500 ml	1 cartons
PATH_RE 43	Haematoxylin (Harris)	5x 5 gms	5x 5 gms	10
PATH_RE 44	Acetone free Methyl Alcohol	100 x 500ml	100 x 500ml	5
PATH_RE 45	Orange 'G'	5 x25 ml	5 x25 ml	1 carton
PATH_RE 46	Xylene	100 x 500ml	100 x 500ml	5
PATH_RE 47	Brilliant Cresyl Blue	2 x 25 gm	2 x 25 gm	1
PATH_RE 48	Sudan Black 'B'	2 x 25 gm	2 x 25 gm	2
PATH_RE 49	Per Iodic Acid	2 x 25 gm	2 x 25 gm	2
PATH_RE 50	Basic Fuchsin	2 x 25 gm	2 x 25 gm	2
PATH_RE 51	Acid Fuchsin	2 x 25 gm	2 x 25 gm	2
PATH_RE 52	Pot. Meta Bisulphate	2 x 500 gm	2 x 500 gm	2
PATH_RE 53	Activated Charcoal	2 x 500 gm	2 x 500 gm	2
PATH_RE 54	Pot. Ferro-cyanide	2 x 100 gm	2 x 100 gm	2
PATH_RE 55	Sodium Thiosulphate	1 x 500 gm	1 x 500 gm	2
PATH_RE 56	Conc. Ammonia	2 x 500 ml	2 x 500 ml	5
PATH_RE 57	Silver Nitrate	2 x 100 gm	2 x 100 gm	1
PATH_RE 58	Iron Alum	1 x 500 gm	1 x 500 gm	5
PATH_RE 59	Oxalic Acid	1 x 500 gm	1 x 500 gm	2
PATH_RE 60	Picric Acid	1 x 500ml	1 x 500ml	2
PATH_RE 61	Giemsa Powder	2 x 25 gm	2 x 25 gm	10
PATH_RE 62	Formic Acid	1 x 500 ml	1 x 500 ml	2
PATH_RE 63	Methyl Blue	1 x 500 ml	1 x 500 ml	1
PATH_RE 64	Tris Buffer	1 x 500 gm	1 x 500 gm	5
PATH_RE 65	APTT Kit (Action FSL-Dada Bchring)	Kit	Kit	50
PATH_RE 66	Multistix			200
PATH_RE 67	Urostix			200
PATH_RE 68	Papinocolaou Solution 1A	125 ml	125 ml	5
PATH_RE 69	Papinocolaou Solution 3B	125 ml	125 ml	5
PATH_RE 70	Papinocolaou Solution 2B	125 ml	125 ml	5
PATH_RE 71	Antiseptic Lotion 5-15% Cetrimide + 8% Chlorhexidine Combination	Bottle of 500 ml	Carton of 10 Bottles	1 carton
PATH_RE 72	Hand Disinfectant : Each 100 gm contains : 2-Propanol- 45g, 1-Propanol- 30g, Ethyl-Hexadecyl-Dimethyl - Ammonium Ethyl Sulphate - 0.2 g (Prop. INN Macetronium Ethyl Sulphate)	500 ml Bottle	Carton of 10 Bottles	2 cartons

Catalogue of Items

PATH_RE 73	Leishman stain (prepared)			
PATH_RE 74	Giemsa Stain (prepared)			
PATH_RE 75	Formaldehyde 40%,	5 lit bottle		8 such
PATH_RE 76	Potassium acetate extra pure	(500 gm)		20 such
PATH_RE 77	Sodium acetate extra pure	(500 gm)		20 such