

PEARSON MEMORIAL HOSPITAL
VISVA-BHARATI
SANTINIKETAN
Tender Notice No: 3

Notice Inviting Tender (NIT) for procurement of Semi-Auto Analyser with Allied Equipments

The Chief Medical Officer (CMO), Pearson Memorial Hospital (P.M. Hospital), Visva-Bharati, Santiniketan-731235, West Bengal, intend to purchase the following equipment as per the specification enclosed in **Annexure-A**. Approx quantity is 1 No. each respectively.

Sealed bidding documents (**Technical Bid and Price/Financial Bid along with Tender Free of Rs. 500/- and EMD of Rs. 15,000/-**) duly filled in as per the instructions of the Tender Document should be addressed to the CMO, P.M. Hospital, Visva-Bharati, Santiniketan-731235, West Bengal and must reach latest by 1.30 P.M. on 18.03.2017.

The sealed bidding documents should be delivered to the CMO, P.M. Hospital, Visva-Bharati, Santiniketan-731235, West Bengal by the stipulated date and time. Tender Documents may be collected P.M. Hospital Office, Visva-Bharati, Santiniketan on payment of **Tender Fee of 500/- through Bank Draft/Pay Order in favour of Accounts Officer, Visva-Bharati payable at Santiniketan on any working day between 10.30 am to 1.30 p.m.**

The Tender documents can also be downloaded from this office website www.visva-bharati.ac.in. Those bidders who wish to download the tender documents from the office website should furnish the tender fee of 500/- through Bank Draft/Pay Order along with the Bidding Documents and EMD.

The Technical Bids shall be open in the P.M. Hospital premises at 11.am. on 20.03.2017 and 21.03.2017, by the Committee authorized by the competent authority of Visva-Bharati in the presence of such bidders who may like to be present. The financial bids of only those bidders who's Technical Bids are accepted, shall be opened by the Committee authorized for the purpose. The financial bids of the technically qualified bidders will be opened at 11 a.m. on 20.03.2017 & 21.03.2017.

The Competent Authority reserves the right to reject any or all the bids without assigning any reason and the decision of the competent authority of Visva-Bharati shall be final and binding.



Chief Medical Officer
Pearson Memorial Hospital
Visva-Bharati

TECHNICAL PROPOSAL SUBMISSION FORM

LETTER OF BID

Date

To
The Chief Medical Officer
P.M. Hospital
Visva-Bharati
Santiniketan-731235

Ref: Invitation for Bid No.....dated

We, the undersigned, declare that:

1. We have examined and have no reservations to the Bidding Documents.
2. We offer to execute the supply order for equipment in conformity with the Bidding Documents.
3. Our bid shall be valid for a period of 60 days from the date fixed for the bid submission deadline in accordance with the Bidding Documents and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
4. If our bid is accepted, we commit to submit a performance security in accordance with the Bidding Documents.
5. We also declare that Government of India or any other Government body has not declared us ineligible or black listed us on charges of engaging in corrupt, fraudulent, collusive or coercive practices or any failure/lapses of serious nature.
6. We also accept all the terms and conditions of this bidding document and undertake to abide by them, including the condition that you are not bound to accept the lowest bid or any other bid that you may receive.

Yours sincerely,

Authorised Signatory
Full Name and Designation

To be printed on Bidder's letterhead

**Authorised person shall attach a copy of Authorisation
for signing on behalf of Bidding firm/company**

INSTRUCTIONS TO THE BIDDERS AND GENERAL TERMS & CONDITIONS

- 1.1 For the Bidding/Tender Document Purposes, the CMO, P.M.Hospital, Visva-Bharati be referred to as Purchaser and the Bidder/Successful Bidder shall be referred to as Supplier and/or Bidder or interchangeably.
- 1.2 The sealed bidding documents should be delivered to the CMO, P.M.Hospital, Visva-Bharati, Santiniketan by the stipulated date and time. Tender Documents may be collected CMO, P.M.Hospital, Visva-Bharati, Santiniketan of Visva-Bharati on payment of Tender Fee of 500/- (five hundred only), through Bank Draft/Pay Order in favour of Accounts Officer, Visva-Bharati payable at Santiniketan on any working day.
- 1.3 The tender documents may also be downloaded from this office website www.visva-bharati.ac.in. Those bidders who wish to download the tender documents from the office website should furnish the Tender cost of 500/- through Bank Draft/Pay Order along with the Bidding Documents and EMD of Rs. 15,000/-
- 1.4 **While all efforts have been made to avoid errors in the drafting of the tender documents, the Bidder is advised to check the same carefully.** No claim on account of any errors detected in the tender documents shall be entertained.
- 1.5 Each page of the Tender documents must be stamped and signed by the person or persons submitting the Tender in token of his/their having acquainted himself/ themselves and accepted the entire tender documents including various conditions of contract. Any Bid with any of the Documents not so signed is liable to be rejected at the discretion of the Purchaser. No page should be removed/ detached from this bidding document.
- 1.6 The bidder shall attach the copy of the authorization letter/power of Attorney as the proof of authorization for signing on behalf of the Bidder.
- 1.7 All Bidders are hereby explicitly informed that conditional offers or offers with deviations from the conditions of Contract, the bids not meeting the essential qualification requirements, Technical Bids not accompanied with Tender Fee and EMD of requisite amount, or any other requirements, stipulated in the tender document are **liable to the rejected**.
- 2.1 You are requested to submit the bid for equipment latest by 18/03/2017 up to 01.30 pm in the form of sealed bid under **Two Bid systems-(Technical Bid & Price Bid)**. Technical Bid should consist of all the technical details along with commercial Terms & conditions, and Price Bid should indicate the price of the item mentioned in technical bid.
- 2.2 Technical Bid & Price Bid must be sealed by the bidder in separate envelope duly super-scribed "Technical bid for (Name of equipment / Tender name)" and "Price bid for (Name of equipment/ Tender name)" Both the sealed envelopes are to be put in the bigger envelope which should also be sealed & duly super scribed, "Bid for "(Name of equipment / Tender name)" Bid may be dropped in the tender box in the Medical Stores at P.M. Hospital, Visva-Bharati, Santiniketan, room upto 1.30 p.m. on 18/03/2017. Bids received late will not be considered. All the bids received will be opened on the next day at 11 a.m. Bidders or their authorized representative may be present if they wish to be.

2.3 The Chief Medical Officer, Pearson Memorial Hospital, Visva-Bharati, Santiniketan-731235, West Bengal, does not pledge himself to accept the lowest or any tender and reserve the right of accepting the whole or any part of the tender or portion of the quantity offered and you shall supply the same/execute the supply at the rate quoted by you.

2.4 Acceptance by the purchaser shall be communicated in due course.

2.5 Period for which the offer will remain open:

All tenders should valid for acceptance for a period of 60 days from the date of opening of the tender.

Quotation qualified by such vague and indefinite expression such as "subject to immediate acceptance "Subject to prior sale" etc. will not be considered.

3.1 **Tender Fee and Earnest Money:** The tenderer shall have to deposit tender fee and earnest money as mentioned in the NIT failing with the tender is liable to be rejected. The earnest money is to be paid by **Demand Draft drawn** in favour of Accounts Officer, Visva-Bharati payable at Santiniketan. **No cheques will be accepted.** In the event of the withdrawal/revocation of tender before the date specified for acceptance, the earnest money shall stand forfeited. The earnest money will however, be returned without interest to the tenderer, whose tender is not accepted.

3.2 **Performance Security: Successful bidder will have to deposit Performance Security @10% of the total cost** of equipment immediately after receipt of the Purchase Order, which will be refunded within one month of expiry of warranty period after satisfactory performance of the Air Conditioner Machines within the warranty period. There will be no accrued interest of such deposit.

The Performance Security shall be in one of the following forms and valid till 60 days after the warranty period.

- a. A Bank Guarantee by a Nationalized / Scheduled bank located in India **or**
- b. A Banker's Cheque or Account Payee demand draft in favour of the Accounts Officer, Visva-Bharati, Santiniketan or C.M.O. H, Visva-Bharati, Santiniketan.
- c. A Fixed Deposit Receipt pledged in favour of Accounts Officer, Visva-Bharati.

4.1 **Responsibility for executing supply:** The supplier is to be entirely responsible for the execution of supply order in all respect in accordance with the terms & conditions as specified in the acceptance of tender.

4.2 Supplier shall not sublet, transfer; assign the contract or any part thereof without the written permission of the CMO, P.M. Hospital, Visva-Bharati, Santiniketan. In the event of the contractor/supplier contravening the condition, the CMO, P.M. Hospital, Visva-Bharati, Santiniketan be entitled to place the contract elsewhere on the contractor/supplier account at his risk and contractor/supplier shall be liable for any loss and damage, which the CMO, P.M. Hospital, Visva-Bharati, Santiniketan may sustain in consequence for arising out of such replacing of the contract.

4.3 If the supplier fails in fulfilling above mentioned terms & conditions, such failure will constitute a breach of the contract and the CMO, P.M. Hospital, Visva-Bharati, Santiniketan shall be entitled to make other arrangement at the risk and expense of the supplier.

5.0 Essential Qualification Requirements:

The following shall be the minimum eligibility criteria for selection of bidders technically.

- 5.1 Bids from Original Equipment Manufacturer (**OEM**) or their authorized distributor/dealer are preferred. If the firm is not OEM, it should have sufficient expertise and experience in the subject tender with sound warranty/technical and manpower service support capability (Enclose supporting documents). **A valid authorization stating dealership / distributorship certificate from OEM must be enclosed** along with the Technical Bid. The authorization should be on the letterhead of the OEM and should be signed by a competent person of the manufacturer.
- 5.2 Submission of duly filled in and signed **Compliance Certificate (as per Annexure-D)** are must with the Technical Bid.
- 5.3 Credential for dealing with medical equipment for at least three years along with list of clients to whom such equipment were supplied (Government Organisations preferable). The firm must have an **Annual turnover for at least Rs.2 Cr.** during last three consecutive years supported by the Audited Balance Sheet/Audited Statement (2013-14 to 2015-16).
- 5.4 Self attested copy of Registration Certificate of the firm/company and **PAN** should be submitted. Copies regarding **recent tax clearance certificate** of VAT, CST, Service Tax, P.Tax, etc. as applicable should also be provided.
- 5.5 Technical Bid should accompany necessary Tender Fee and EMD/ as per tender document.
- 6.1 **Right to accept/reject:** The hospital authority reserves the right to reject any or all tender without assigning any reason whatsoever. Also, the hospital authority reserves the right to award any or part or full contract to any successful agency at its discretion and this will be binding on the tenderer.

7.1 Warranty:

The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.

The Supplier further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in India.

Unless otherwise specified, the warranty shall remain valid for twelve (12) months after the equipment has been delivered and successfully installed at the final destination.

The Purchaser shall give notice to the Supplier stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof. The Purchaser shall afford all reasonable opportunity for the Supplier to inspect such defects.

Upon receipt of such notice, the Supplier shall, within a reasonable period of time, expeditiously repair or replace the defective Goods or parts thereof, at no cost to the Purchaser.

If having been notified, the Supplier fails to remedy the defect within a reasonable period of time; the Purchaser may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.

Goods requiring warranty replacements must be replaced on free of cost basis to the purchaser.

7.2 Comprehensive Annual Maintenance Contract (CAMC):

The bidders should quote year-wise CAMC (labour and spares) charges for three years after completion of warranty to cover complete system.

7.3 Installation:

The bidder should have installed same model successfully in India, preferably in the government hospital or government medical/ Educational institute. Copy of satisfactory performance certificate of the same model is to be enclosed along-with the bid.

7.4 Firm should give an undertaking that they have not supplied the quoted equipment at lower than to this in other institutions.

7.5 Service:

Details of registered service centre(s) located at Bolpur/Kolkata along with address and their telephone numbers to be provided in the technical bid.

7.6 Spare parts availability:

Principal, Manufacturer should give an undertaking regarding the spare parts availability for next 10 years.

8.1 Price of the equipment:

- a. The prices should be as per description given in the Financial Bid (**Annexure-C**). The price of CAMC for three years after expiry of warranty/guarantee period should be given in the price bid only.
- b. The tender will not be considered without the offer of CAMC for quoted equipment. Rates of CAMC will be considered for ranking purpose. In case of CAMC, the rates should be quoted inclusive of spares. **Only technical bid shall be opened first and shall be referred for the technical evaluation. The price bid of only those bidders whose technical bid is found acceptable by the Technical Evaluation Committee will be opened by the purchase Committee for further action.**
- c. Rates quoted should be inclusive of the cost of the equipment, freight, insurance, packaging, forwarding, excise duty/custom duty etc. as well as charges for installation and commissioning with all the men and material required for the same. No other charges in addition will be payable on any account over and above the lump sum price quoted. Price variation clause will not be acceptable.
- d. The rates quoted in ambiguous terms such as “freight on actual and exemption eligibility applicable to the Hospital and shall advise the purchaser and quote accordingly basis” or “packaging/forwarding extra” will render the bid for rejection irrespective of its gradation in respect of lump sum prices quoted. Bidders in their own interest shall ascertain **the eligibility of whatsoever concession is available. Visva-Bharati can provide DSIR Certificate, if applicable.**

9.1 Delivery terms:

- a. The delivery of the stores / execution of order etc are required **within a period of four weeks from the date of issue of purchase order.**
- b. The tenderer shall deliver the stores / execute the order at the P.M. Hospital, Visva-Bharati, Santiniketan.
- c. **Time for and date of delivery:** The time for and the date of delivery of the stores / date of execution of work as stipulated shall be deemed to be the essence of contract and delivery / execution must be completed not later than the date(s) specified.
- d. The CMO, P.M. Hospital, Visva-Bharati, Santiniketan may allow additional time under special circumstances such as strikes, lockouts, fire accidents, riots, etc.

10. Payment terms:

100% payment within 30 days from the date of delivery, installation and acceptance subject to submission of Performance Security.

11. Arbitration:

In the event of any dispute or difference arising out of the terms and conditions laid down in this tender, the same shall be referred to the Arbitrator appointed by the competent authority of Visva-Bharati. The procedure of Arbitration will be governed by provisions Arbitration Act 1996.

12. Governing language:

The contract shall be written in English language which shall govern its interpretation. All correspondence and other documents pertaining to the Contract, which are exchanged by the parties, shall be written in the English language only.

13. Applicable law:

The Contract shall be interpreted in accordance with the laws of the Union of India and all disputes shall be subject to place of jurisdiction as indicated below.

14. Jurisdiction:

The place of jurisdiction is Bolpur / Suri Court and the Calcutta High Court.

Chief Medical Officer
Pearson Memorial Hospital
Visva-Bharati

Special Terms and Conditions

1. Only Manufacturers or their Authorized Distributor/Dealer whose item is being quoted will be considered.
2. Only appropriate model as per specifications should be quoted. **Alternate offer(s), if any, must accompany with the additional requisite EMD, failing which only first offer will be considered for evaluation.**
3. The firm should provide the complete address along with telephone no., e-mail and fax no. of the Service Centre from where after sales service would be provided.
4. The equipment must be warranted for a minimum period of 12 months from the date of satisfactory Installation or 14 months from the date of delivery.
5. A certificate about satisfactory performance and quality of after sale services of the equipment duly authenticated by the HOD of the institution must be furnished. **Installation or users list will not be considered as performance certificate.**
6. **While calculating the lowest price of equipment, the unit cost of equipment with taxes and 3 years CAMC will be considered. However, work order for CAMC will be issued separately in due course.**
7. **Delivery period will be four weeks** from the date of supply order. The date of delivery will be the date of delivery at consignee site i.e. P.M. Hospital, Visva-Bharati, Santiniketan.
8. If at any time during the currency of the contract, the supplier encounters conditions hindering timely delivery of the goods, the supplier shall inform the consignee in writing about the same and it's likely duration and makes a request to the consignee for extension of the delivery schedule accordingly with no increase in price at any account. The consignee, at its discretion, may agree to extend the delivery schedule with or without late delivery charges. In case the supplier dispatches the goods without obtaining an extension, it would be doing so at its own risk and no claim for payment for such supply and/or any other expense related to such supply shall lie against the consignee.
9. **If the supplier fails to deliver the goods within the time frame, the consignee shall, without prejudice, deduct from the contract price, a sum equivalent to 0.5% per week of delay or part thereof, subject to a maximum of 10% of the awarded value. Once the maximum is reached, the EMD may be forfeited.**
10. **The tenderer must enclose an undertaking by the manufacturer of the equipment for servicing the equipment & supply of spare parts whenever required at least for 10 years, or as mentioned in the specifications, after completion of warranty.**
11. The firm must ensure to keep the equipment in working order throughout the year.
12. In the event of equipment, covered under CAMC, going out of order, the fault shall have to be attended within 48 hours of lodging the complaint. In case the equipment is not restored in functional order within a week, a penalty of 0.5% of total cost of CAMC of the equipment per day for the period of equipment remaining out of order will be levied during CAMC.
13. During the warranty period, in the event of equipment remaining out of order beyond a period of 48 hours of lodging the complaint, a penalty to extent of 0.25% of purchase value of the equipment shall be levied for each day of the equipment remaining non functional beyond permissible limit.

14. Either the authorized distributor/dealer on behalf of the Principal/OEM or Principal/ OEM itself can bid, but both cannot bid simultaneously for the same item in the same tender.
15. If an agent submits bid on behalf of the Principal/ OEM, the same agent shall not submit a bid on behalf of another Principal/OEM in the same tender for the same item.
16. Compliance certificate to any standard, if any, as mentioned in the specification must also be enclosed with the technical bid.
17. The CMO, P.M. Hospital, Visva-Bharati, Santiniketan reserves the right to decrease/increase the quantity of any item or reject/accept any or all tenders without assigning any reason thereof. No correspondence will be entertained in this regard.

Chief Medical Officer
Pearson Memorial Hospital
Visva-Bharati

Annexure-A**Tender Notice No:****Name of the equipment with specifications****Annexure-B****Tender Notice No:****Tender for procurement of****Technical Bid**

1.	Name of firm and type of firm		
2.	a.	Full postal address	
	b.	Cell phone No.	
	c.	Telephone No.	
	d.	Fax No.	
	e.	Email ID	
3.	Name and address of your Bankers stating the name in which the account stands.		Name of Bank
			Name of Branch
			A/C No. & Type
			IFSC code no.
			MICR Number
4.	Are you in the list of approved vendors of any other government organisations/institutions, if any give details?		
5.	Any other information which you consider necessary to furnish		

List of documents to be submitted mandatorily.

Sl. No.	Document	Submitted (Yes/No)
1.	Authority letter from the competent authority with respect to name, designation and specimen signature of the representative signing the tender document/authority letter.	
2.	Copy of self attested Registration certificate, PAN, VAT Registration etc.	
3.	Undertaking indicating that they have not supplied the said equipment to any individual, Govt. or Private Institution at the rate lower than the quoted rate.	
4.	Authorization certificate from Principal / Manufacturer that spares and any other miscellaneous items (as applicable) equipment quoted will be freely available for at least ten (10) years after expiry of warranty/guarantee period.	
5.	Undertaking from the manufacturer certifying that they will provide the CAMC even when agent is changed.	
6.	A certificate about satisfactory performance report of the equipment & quality of after sales service duly authenticated from existing users of the equipment.	
7.	Compliance certificate to any standard if any, as mentioned in the specification.	
8.	Technical comparative statement of quoted model with the specifications mentioned in the Annexure-A .	

9.	Catalogue of quoted equipment with basic features/specifications.	
10.	Self-attested copy of other documents in proof of having fully adhered to minimum eligibility criteria as referred to under General Terms and Conditions.	

Note: All documents may be enclosed serially as mentioned above.

Place: Santiniketan

Date:

CMOH,
P.M. Hopistal,
Visva-Bharati, Santiniketan

Annexure-C

Tender Notice No.

Price schedule for supply of

Financial Bid

S.No.	Particulars of quoted equipment	Rates per unit	Quantity	Total Amount
1.	Name of equipment			
	Model of quoted equipment			
	Make of quoted equipment			
2.	Taxes/duties as or if applicable @			
3.	CAMC for 3 years after expiry of warranty			

Total amount (in words)

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Visva-Bharati can provide DSIR Certificate, if applicable.

Place:Santiniketan

Date: -

CMOH,
P.M. Hopistal,
Visva-Bharati, Santiniketan

Annexure-D**Compliance certificate (Check List)
(To be enclosed in the Technical Bid)**

The firm is requested to follow the check list at the time of submission of tender document without which the offer is liable to be cancelled.

S.N.	Document	Submitted (Yes/No)
1.	Tender Fee and Earnest money deposit by demand draft only.	
2.	Copy of Registration certificate of the firm/company, self attested PAN, VAT Registration etc.	
3.	Undertaking indicating that they have not supplied the said equipment to any individual, Government or Private Institution at the rate lower than the quoted rate.	
4.	Authorization certificate from Principal / Manufacturer that spares and any other miscellaneous items (as applicable) of the equipment quoted will be freely available for at least ten (10) years after expiry of warranty/guarantee period.	
5.	Undertaking from the manufacturer certifying that they will provide the CAMC even when agent is changed.	
6.	A certificate about satisfactory performance report of the equipment & quality of after sales service duly authenticated from existing users of the Air Conditioner Machines.	
7.	Compliance certificate to any standard as mentioned in the specification, if any.	
8.	Technical comparative statement of quoted model with the specifications mentioned in the Annexure-A .	
9.	Catalogue of quoted equipment with basic features/specifications.	
10.	Warranty period mentioned.	
11.	Submission of other documents in proof of having fully adhered to minimum eligibility criteria as referred to under General Terms and Conditions.	

Place: Santiniketan
Date:

CMOH,
P.M. Hopistal,
Visva-Bharati, Santiniketan

1. SEMI AUTO ANALYSER :-

Technical Specification (in details)

Optical Module	: Static Photometer with Photometric range (340-670) 8 interference filters, 340, 405, 450, 505, 546, 578, 600 and 670nm, Silicon Photodiode detectors, Photometric Range from 0 to 3.0. OD, Quartz Halogen Lamp of 12V, 20W
Measuring Module	: Unique Triple Cuvette System I. 18 ul Flow cell II. 10mm Square cuvette III. 6 mm Round Glass Tube with Adaptor – Peltier Temperature Control : 20 C – 40 C in steps of 1 C
Analysis Modes	: 1-point liner 2- point liner 1- point non-linear 2-point non-linear - Rate A Linear - Rate A non-linear - 1- point sample blank linear -1-point sample blank non-linear - Absorbance - Coagulation
Memory	: 200 User Defined Test Programs 1000 Test Result, Reagent Blank 3 Levels of QC
Result Recall	: Collated Reports by Date, ID, Dates & ID Rest & Date wise and Patient Demographics
Built-in QC	: Daily and Monthly monitoring for 3 Levels Levy-Jenning QC Graphs
Display	: High Resolution Graphics LCD with backlight, View Area : 120 x 92 mm
Keyboard	: 41 Multifunction Keys and 6 dynamic keys
Printer	: In Built High Resolution Graphic Thermal Printer
Interface	: USB connectivity to PC, Direct printer connectivity through USB port, Port for External keyboard
Power	: External Universal SMPS adapter, 18V DC, 70W, 100-240V, 50/60 Hz.
Size (mm)	: 205 (H) x 450 (W) x 300(D)
Weight	: Approx. 7 Kg.
Optional Accessories	: External 16 Position Dry Block Incubator

STANDARD SAFETY AND TRAINING

- i. Should have FDA or CE approved product.
- ii. Manufacture should have ISO Certification.
- iii. Comprehensive warranty for two years and next 5 years CMC charges after warranty.
- iv. Comprehensive training for technical staff and proper support services till familiarity with the system.

DOCUMENTATION

- i. User/ Technical/ maintenance manuals to be supplied in English.
- ii. Log book with instructions for daily, weekly, monthly maintenance. The job description of the hospital technician and company service engineer should clearly spelt out.
- iii. List of important spare parts and accessories with costing.
- iv. Compliance report 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 will not be considered.

2. ELECTROLYTE ANALYSER :-

Technical Specification (in details)

CLIA Classification	: Moderate Complexity								
Sample Type	: Whole Blood, Serum, Plasma or Urine								
Sample Size	: 100 µL Whole Blood, Serum, Plasma, 60 µL capillary or 400 µL diluted (1:10) Urine								
Method	: Direct measurement by ion Selective Electrode (ISE)								
Measurement Range	<table border="1"> <thead> <tr> <th>Blood</th><th>Urine</th></tr> </thead> <tbody> <tr> <td>Na⁺ : 20 – 200 mmol /L</td><td>Na⁺ : 25 – 1000 mmol/L</td></tr> <tr> <td>K⁺ : 0.2 – 40 mmol /L</td><td>K⁺ : 0.2 – 40 mmol/L</td></tr> <tr> <td>Cl⁻ : 25-200 mmol /L</td><td>Cl⁻ : 25-500 mmol/L</td></tr> </tbody> </table>	Blood	Urine	Na ⁺ : 20 – 200 mmol /L	Na ⁺ : 25 – 1000 mmol/L	K ⁺ : 0.2 – 40 mmol /L	K ⁺ : 0.2 – 40 mmol/L	Cl ⁻ : 25-200 mmol /L	Cl ⁻ : 25-500 mmol/L
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Cl ⁻ : 25-200 mmol /L	Cl ⁻ : 25-500 mmol/L								
Display Resolution	: Na ⁺ : 0.1 mmol/L K ⁺ : 0.01mmol /L Cl ⁻ : 0.1 mmol/L								
Data Storage	: Patient results- up to 128 sample, QC results – up to 20 each Normal, Low and High								
Calibration	: Automatic or On-Demand								
Output	: 128 x 64 pixel graphic display, 24 column thermal printer, Serial port (RS-232), Easy Sampler port								
Ambient Conditions	: 15°-32° C (60-90° F) < 85% humidity								
Power	: 100-240 VAC 50/60 Hz, 0.8A								
Size & weight	: 9.5"W x 16.5"H x 8.0"D (24 cm W x 42 cm H x 20 cm D) 13 lbs. (5.8 kg)								

- Should be supplied with offline power size wave UPS of sufficient capacity for a minimum back-up of 60 minutes
- Should be provided with calibration certificate issued by the manufacturer at the time of installation and calibration certificate should be issued for the machine by the supplier during preventive maintenance visit in the warranty/ AMC provide if demanded by the end user.
- Should have safety certificate from a compliant authority CE/FDA (USA)/ STQC CB certificate/ STQC S certificate.

3. SPECTOPHOTO METER :-

Features

- Easy to change light source.
- Very Competitive price.
- Has FDA license.
- RS 232 computer interface.
- 4 nm bandwidth.
- Wide continuous wavelength.
- Can use a multiple cell holder to test cell from 10-100mm (optional).
- There is a switch on the bottom of the Spectro to choose 110V or 220V before stating.

Included Accessories

- 4 square glass cell 10mm.
- 2 square quartz cells 10mm.
- 1 multiple 4 cell holder.
- 1 Power Cable.
- 1 Instruction manual CD.
- 1 Dust cover.

Optional Accessories

- Set of performance testing filters (1 "E filter" for photometric accuracy test and 1 didymium filter for wavelength accuracy test).
- RS232 interface cable (optional).
- Optional Software for Windows XP includes RS232C cable, operator's manual (Specify: Spectro UV-Vis 2505).
- External printer (Attaches directly to the Spectro UV-2505).

Technical Specifications

Optical system : Single spectrophotometer, Diffraction grating

Bandwidth : 4nm

Wavelength range : 195-1050 nm

Photometric Range : 0-1000% T, 0-1.999A

Light source : Tungsten Halogen (12V/20W) and Deuterium lamp (DD2.5)

Detector : Silicon Photodiode

The largest allowable error of the wavelength (nm) : 2

Wavelength accuracy : ± 2 nm

Wavelength reproducibility : 1 nm

Spectral band pass : 4 nm

Stray light : $< 0.3\%$ T (at 220 nm, 360 nm)

Transmittance range : 0-100% T.

Multi cell hold : $< 0.001\%$ T

Absorption range 0-1.999 A
Concentration range 0-1999.

Direct-read Range: 0-1999.

The Largest allowable error of the transmittance (nm) : 0.5%

Photometric accuracy $\pm 0.5\%$ T.

Monochromator : 1200 Lines/ grating mirror

Noise 100 % Noise $\leq 0.3\%$ T/3 min, 0% Noise $< 0.2\%$

Resolution : 1 nm

Stability: bright current $\leq 0.5\%$ T/3 min, dark current, $\leq 0.2\%$ 3 min.

Transmittance reproducibility : 0.2 % T

Power : 220 V/ 110 V $\pm 10\%$ 50/60 Hz. (You can change the voltage by a switch on the bottom of the Spectro from 110V or 220V.)

Dimensions : 22" (W) x 14" (D) x 11.5" (H) inches, 450mm x 390mm x 210mm

Net Weight : 13 Kgs.

4. MICROSCOPE

Technical Specification (in details)

1. Body-Inter changeable, inclined Binocular body, 360 rotatable head.
2. Eyepieces – Highest quality 10 X wide angle anti fungus field eyepiece.
3. Objective-Parfocal, antifungus coated 4 x, 10x, 40x, 100x and 400x (Oil immersion) with plan achromatic correction.
4. Optical system-Infinity corrected.
5. Stage – Horizontal mechanical stage preferable 100 x 140 mm with fine vernier graduations designed with convenient coaxial adjustment for slide manipulation preferable through 30 x 70 mm.
6. Sub stage-Abbe condenser focusable, continuously variable iris diaphragm.
7. Finish-A durable textured acid resistant finish.
8. Other Features
 - i. Should provide with wooden storage box, dust cover, immersion oil
 - ii. Electrical safety certification.
 - iii. Should work with input 200 to 240Vac 50 Hz supply.
9. Highly efficient Halogen (approx 2, 000 hours bulb life) or CEU friendly LED (approx 1, 00,000 hrs bulb life) light sources promise a bright and even field of illumination.
10. Ergonomic hand rest.
11. A flier focus drive and low positioned X/Y slide staining controls user safety and maximum work Utility.