GURU GOBIND SINGH MEDICAL COLLEGE & HOSPITAL, FARIDKOT - 151203

Tender No. GGSMCH/EQUIPMENTS – MRU/2015/5 due on 30.3.2015

TENDER DOCUMENT FOR PROCUREMENT OF EQUIPMENTS FOR MULTI-DISCIPLINARY RESEARCH UNIT (MRU)

IMPORTANT INSTRUCTIONS

1. All the instructions contained in the Tender Form are important and require to be complied with.

2. Please ensure that Technical Bid, Price Bid and Earnest Money Deposit (EMD) is submitted in the office of the Principal, Guru Gobind Singh Medical College & Hospital, Faridkot on or before the last date & time of receipt of tender.

3. The Earnest Money Deposit (EMD) @ 2% of the quoted amount is acceptable only in the form of Demand Draft in favour of Principal, Guru Gobind Singh Medical College & Hospital, Faridkot, from any commercial/nationalized bank, payable at Faridkot. The Earnest money in any other form will not be accepted and the tender shall be rejected straightway.

CHECK LIST DULY FILLED IN TO BE ATTACHED WITH THE TENDER

Sr. No.	Particulars	Remarks
1.	Whether the Earnest Money Deposit (EMD) @ 2% of the quoted amount in the form of Demand Draft from any commercial/nationalized bank, drawn in the name of Principal, Guru Gobind Singh Medical College & Hospital, Faridkot has been submitted?	Yes/No
2.	Whether the Technical bid and Price bid with EMD have been submitted?	Yes/No
3.	Whether a DD for Rs.2000/- on account of Tender Fee in the name of Principal, Guru Gobind Singh Medical College & Hospital, Faridkot has been submitted?	Yes/No
4.	Whether an affidavit on the non-judicial stamp paper, duly attested by the Executive Magistrate/Notary, regarding non-black listing/ non-prosecution of firm has been submitted?	Yes/No
5.	Whether each page of the tender document and other enclosures as well as cutting(s)/ overwriting(s) have been signed/ initialed by the tenderer and also the forwarding letter duly signed by the authorized signatory, has been submitted?	Yes/No

6.	Details of registration as Company / Shop / Establishment attached.	Yes/No
7.	In case of Authorized Supplier/Agency, the Authorization Certificate as per the Format given at Annexure-'V' is attached.	Yes/No
8.	In case the Tenderer is authorized dealer/supplier an undertaking/certificate issued by their Principle Manufacturer/Supplier that in case dealership/distributorship is withdrawn after supply then the Principle Manufacturer/Supplier will be responsible for after sales service till the date of guarantee/warranty of the equipment and afterwards for a period of 10 years as per the Format given at Annexure – VI is attached.	Yes/No
9.	Copy of Certificate of Registration for service Tax/TIN/TAN/PAN attached.	Yes/No
10.	A certificate from C.A. regarding Annual Turnover of at least Rs.50.00 lacs with Balance Sheet for the last 3 (three) financial years i.e. 2011-12, 2012-13 & 2013-14 attached.	Yes/No
11.	Copy of the IT Returns for three financial years, 2011-12, 2012-13 & 2013-2014 attached.	Yes/No
12.	ISI/ISO/CE/US FDA/TUV Certificate regarding Standard of Quality attached.	Yes/No

Note: Non compliance to any of the above conditions will render the offer/ tender to be rejected out-rightly and Price bid of the firm will not be opened.

Place:_____ Signature of Tenderer:_____

Dated:_____ Full name of the Tenderer: _____

Address: _____

GURU GOBIND SINGH MEDICAL COLLEGE & HOSPITAL, FARIDKOT

TENDER DOCUMENT FOR PROCUREMENT OF EQUIPMENTS FOR MULTI-DISCIPLINARY RESEARCH UNIT (MRU)

INSTRUCTIONS/ GUIDELINES TO THE TENDERERS

1. Attach a copy of the tender notice **(Annexure-I)**.

2. Attach an affidavit regarding Non-Black listing as per proforma given at **Annexure-II** duly attested by an Executive Magistrate or a Notary Public, along with technical bid proforma at **Annexure-III**.

3. Attach a signed copy of the terms and conditions **(Annexure-IV)**.

   In addition to this, following documents are to be attached with Technical Bid:-

   i) A Demand Draft for Rs.2000/- on account of **Tender Fee** in the name of Principal, Guru Gobind Singh Medical College & Hospital, Faridkot.
   ii) Details of registration as Company / Shop / Establishment.
   iii) In case the Tenderer is Authorized Supplier/Agency, the Authorization Certificate as per the Format given at **Annexure-'V'.**
   iv) In case the Tenderer is Authorized Supplier/Agency, an undertaking/certificate issued by their Principle Manufacturer/Supplier that in case dealership/distributorship is withdrawn after supply then the Principle Manufacturer/Supplier will be responsible for after sales service till the date of guarantee/warranty of the equipment and afterwards for a period of 10 years as per the Format given at **Annexure – 'VI'** is attached.
   v) Copy of Certificate of Registration for service Tax/TIN/TAN/PAN.
   vi) A certificate from C.A. regarding Annual Turnover of at least Rs.50.00 lacs with Balance Sheet for the last 3 (three) financial years i.e. 2011-12, 2012-13 & 2013-14.
   vii) Copy of the IT Returns for three financial years, 2011-12, 2012-13 & 2013-2014.
   viii) ISI/ISO/CE/US FDA/TUV Certificate regarding Standard of Quality.

4. Price should be quoted only in proforma at **Annexure-'VII'**.

5. Please ensure that Technical Bid, Price Bid and Earnest Money Deposit (EMD) are submitted in three separate envelopes and these should be put in an outer envelope, super-scribing, as "**TENDER DOCUMENT FOR SUPPLY OF EQUIPMENTS FOR MULTI-DISCIPLINARY RESEARCH UNIT (MRU)**", due on 30.3.2015 at 2:00 PM:-

   (a) Earnest Money Deposit **(EMD)** @ 2% of quoted amount in **envelope No.1**
   (b) **Technical Bid** i.e. Annexures I, II, III, IV, V & VI with other documents as indicated in Clause 3 above, in **envelope No.2**
   (c) **Price Bid** duly filled (Annexure-VII) in **envelope No.3.**

   Note: Name of the firm, e-mail ID and Mobile Number must be indicated on the outer envelope.

6. The last date and time for receipt of tenders is 30.03.2015 at 2:00 P.M. Tenders which are received after 2:00 P.M., on the due date shall not be considered. The tender shall be opened on the same day i.e. 30.03.2015 at 03:00 PM.

7. The date & time for opening of Price bids of technically qualified bidders will be intimated later on.

8. Unsealed tender (s) will be rejected.

9. The Earnest Money Deposit @ 2% of the quoted amount is acceptable only in the form of Demand Draft in favour of Principal, Guru Gobind Singh Medical College & Hospital, Faridkot, from any commercial/nationalized bank, payable at Faridkot. The Earnest money in any other form is not acceptable and the tender shall be rejected straightway.

10. Tenders without earnest money or short of it or not in the form specified above will not be entertained and shall be rejected straightway.

11. Offer in the Price Bid should be mentioned both in figures as well as in words and offer should be preferably typed or written in neat/ legible hand.

12. No tenderer shall be exempted from furnishing Earnest Money Deposit (EMD) under any circumstances.

13. Earnest Money/ Security Deposit and/or any other sum of the tenderer(s) lying with the Guru Gobind Singh Medical College & Hospital, Faridkot in connection with any other tender/case shall not be considered against this tender.

14. EMDs of unsuccessful tenderer(s) will be discharged within three months after opening of the Technical Bids.

15. The bids received after the specified date and time for receipt of bids will not be considered under any circumstance. GGSMCH shall not be responsible postal delay.

16. Minimum delivery period must be quoted clearly in the offer. **Price of AMC/CMC should be quoted & it will be optional for institute to opt for any**. The rates quoted should be F.O.R. destination and should also include packing and forwarding charges, taxes and other levies.

17. The tenderer should keep his/her offer valid for acceptance for a period of six months from the date of opening of price bid. (In case, the Tenderer is unable to keep his/her offer open for the above said period, his/her tender shall be treated as invalid.)

18. The tenderer will be responsible to ensure that the tender is submitted on or before the due date and time in the office of the Principal, Guru Gobind Singh Medical College & Hospital, Faridkot.

19. Each page of the tender document should be signed in full by the tenderer(s) and should bear the rubber stamp/seal of the firm affixed/ scanned, if applicable, on each

page. Any cutting(s)/overwriting(s) etc. should also be initiated. In case of any infringement of these conditions, the tender is liable to be rejected.

20. In the event of the date of receipt or opening of tender being declared a holiday for the Guru Gobind Singh Medical College & Hospital, Faridkot, the last date of receipt/opening of the tender shall be the next working day at the same time and venue. **The Price Bid shall be opened only in respect of those individual/ firms, who technically qualify. EMD will be opened with the Price Bid.**

21. Any conditional, telegraphic tenders, fax tenders, tenders without earnest money, and not in the prescribed form or in any deviation from the terms and conditions of the tender notice shall not be entertained and rejected outrightly.

22. The tenderer(s) shall be at liberty to be present, in person or through their authorized representative(s) at the time of opening of the tender as specified in the Tender Notice. In case the authorized representatives are to be present, they must furnish the authority letter from the tenderer, on whose behalf they are representing otherwise they will not be allowed to participate in the process of opening of tender.

23. In case of violation of any of the terms and conditions as mentioned above, EMD/ Security Deposit of the successful tenderer(s) shall be forfeited in full by the Principal & his/ her order shall be cancelled.

24. Any attempt direct or indirect, to cast influence, negotiation on the part of the tenderer with the official/authority to whom he will submit the tender or the tender accepting official/ authority before the finalization of tenders will render the tenderer liable for rejection.

25. The Principal reserves all the rights to accept or reject any tender without assigning any reason and also to impose/relax any term and condition of the tender.

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Annexure-I

GURU GOBIND SINGH MEDICAL COLLEGE & HOSPITAL, FARIDKOT

PURCHASE BRANCH

Tender No. GGSMCH/EQUIPMENTS – MRU/2015/5 due on 30.3.2015

TENDER NOTICE

Sealed tenders are invited from manufacturers or their authorized agents/distributors for supply and installation of following equipments for Multi-disciplinary Research Unit (MRU). The tender document containing detailed terms & conditions may be downloaded from the website of Baba Farid University of Health Sciences, Faridkot (www.bfuhs.ac.in) and Guru Gobind Singh Medical College & Hospital, Faridkot (www.ggsmch.org).

EQUIPMENTS REQUIRED FOR MULTI-DISCIPLINARY RESEARCH UNIT

Sr. No.	Name of Item	Qty. Required
1.	Microbillirubinometer with Microcentrifuge and Hematocrit Reader	1
2.	Real Time PCR	1
3.	Biosafety Cabinet	1
4.	-20 Degree Deep Freezer	1
5.	-80 Degree Ultralow Deep Freezer	1
6.	Bacteriological Incubator	2
7.	CO2 Incubator	1
8.	Ice Flaking Machine	1
9.	Ultra pure water purification system	1
10.	Liquid Nitrogen Container	2
11.	Refrigerated Centrifuge	1
12.	Dry Bath	1
13.	Elisa Reader/Washer	1
14.	Analytical Balance	1
15.	Rotary Evaporator	1
16.	Atomic Absorption Spectrophotometer	1

Separate tender should be quoted for each item

The detailed specifications are available at Page No.19 to 36

* The quantity may increase /decrease as per actual requirement.

CONDITIONS:-

1. The sole manufacturers of equipments or their authorized agents/distributors may quote their rates.

2. The firm should have been in existence for at-least three years and it should have annual turnover of at least Rs.50,00,000/- (Rupees fifty lacs only).

3. The tenders must reach in the Office of the Principal, Guru Gobind Singh Medical College & Hospital, Faridkot on or before 30.03.2015 upto 2:00 PM along with a DD for Rs.2000/- on account of **Tender Fee** in the name of Principal, Guru Gobind Singh Medical College & Hospital, Faridkot.

4. The tenders will be opened on 30.03.2015 at 3:00 PM in the office of the Principal, Guru Gobind Singh Medical College & Hospital, Faridkot in the presence of intending tenderer(s).

5. The date & time for opening of Price bids of technically qualified bidders will be intimated later on.

6. The Earnest Money Deposit (EMD) @ 2% of the quoted amount shall be deposited along with the tender document in the shape of Demand Draft from any commercial/nationalized bank in favour of Principal, Guru Gobind Singh Medical College & Hospital, Faridkot.

7. The Principal reserves all rights to accept or reject any or all the tenders without assigning any reason.

Principal

Dated: Faridkot
Place: 27/2/15

Annexure-II

(To be submitted in envelop no.2)

(To be furnished on non-judicial stamp paper worth Rs.15/- duly attested by Executive Magistrate or Notary Public).

AFFIDAVIT

I/We _____

partner/sole proprietor (Strike out whichever is not applicable) of (Name & Address of Firm) _____ do hereby declare and solemnly affirm:-

a) That the individual/firm/ company is **not debarred or black- listed** by any department of Union/ State Government or any autonomous institute.

b) That no partner or shareholder, directly or indirectly connected with the applicant, has been debarred or blacklisted by any department of Union Govt./State Govt./Autonomous Institute.

c) And that the terms and conditions for supply and installation of equipments for Multidisciplinary Research Unit (MRU) at GGSMCH, Faridkot, are acceptable to me/us. I/We will abide by them in letter and spirit.

Date:

Place:

DEPONENT

VERIFICATION

I/We do hereby solemnly declare and affirm that the above declarations are true and correct to the best of my/our knowledge and belief. No part of it is false and nothing has been concealed therein.

Date:

Place:

DEPONENT

Annexure-III

(To be submitted in envelope No.3)

TECHNICAL BID

(To be utilized by the bidders for quoting their prices)

Name and Address of the applicant / firm_____

Specify whether Manufacturer/Dealer/Distributor: _____

We hereby quote for supply & installation of _____ (name of equipment)

Sr. No.	Description of Items (complete specifications)	Qty

Signature & seal of bidder

Place:
Date :

Note: Please enclose Catalogue/Brochure/Pamphlets with specifications.

Annexure-IV

TERMS AND CONDTIONS FOR SUPPLY AND INSTALLATION OF EQUIPMENTS FOR MULTIDISCIPLINARY RESEARCH UNIT (MRU)

1. SCOPE OF SUPPLY

Supply and installation of the following equipments required at Multidisciplinary Research Unit (MRU) at Guru Gobind Singh Medical College & Hospital, Faridkot:-

Sr. No.	Name of Item	Qty. Required
1.	Microbillirubinometer with Microcentrifuge and Hematocrit Reader	1
2.	Real Time PCR	1
3.	Biosafety Cabinet	1
4.	-20 Degree Deep Freezer	1
5.	-80 Degree Ultralow Deep Freezer	1
6.	Bacteriological Incubator	2
7.	CO2 Incubator	1
8.	Ice Flaking Machine	1
9.	Ultra pure water purification system	1
10.	Liquid Nitrogen Container	2
11.	Refrigerated Centrifuge	1
12.	Dry Bath	1
13.	Elisa Reader/Washer	1
14.	Analytical Balance	1
15.	Rotary Evaporator	1
16.	Atomic Absorption Spectrophotometer	1

The detailed specifications are available at Page No.14 to 31

2. ELIGIBILITY

8. The sole manufacturers of equipments or their authorized agents/distributors may quote their rates.
9. In case of Authorized Supplier/Agency/Distributor, the Authorization Certificate as per the Format given at Annexure-'V' should be attached.
10. In case the Tenderer is authorized dealer/supplier an undertaking/certificate issued by their Principle Manufacturer/Supplier that in case dealership/distributorship is withdrawn after supply then the Principle Manufacturer/Supplier will be responsible for after sales service till the date of guarantee/warranty of the equipment and afterwards for a period of 10 years as per the Format given at Annexure – 'VI' is attached.
11. The firm should have been in existence for at-least three years and it should have annual turnover of at least Rs.50,00,000/- (Rupees fifty lacs only).

3. The Tender Biding Company will make arrangements for inspection of equipment by the Committee at their own expenses.

4. The tender should certify unequivocally that the articles or items offered conform strictly to the specifications given by him. Any accessories, as may be required, should form part of the machine The Tender Biding Company will make arrangements for inspection of equipment by the Committee at their own expenses.

5. The firm should have service center either in Punjab, Chandigarh, Delhi and Haryana. Acceptance of supply order implies acceptance of all the terms & conditions of tender/delivery.

6. Minimum delivery and installation period must be quoted clearly. The rates quoted should be F.O.R. destination i.e. GGS Medical College & Hospital, Faridkot and should also include packing and forwarding charges, taxes and other levies.

7. Price of AMC/CMC should be quoted & it will be optional for institute to opt for any.

8. **CRITERIA FOR EVALUATION OF PRICE BID**

The Price Bids of technically qualified bidders shall be evaluated on the basis of lowest bid criteria without compromising on the quality of material. Rates of all types of taxes as applicable should be quoted clearly.

9. **SECURITY DEPOSIT:**

i) The successful bidder shall be required to deposit a security of an amount equal to 10% of the final bid in the shape of Demand Draft in favour of Principal, Guru Gobind Singh Medical College & Hospital, Faridkot drawn on any commercial/nationalized bank, payable at Faridkot, immediately after the installation of equipment.

ii) The EMD will be refunded on receipt of Security Deposit.

iii) The Earnest Money Deposit will be refunded to the unsuccessful bidders within three months of opening of Technical Bid.

10. **PAYMENT TERMS**

The 80% payment will be made after delivery, Inspection and successful installation/commissioning of machinery at the destination and on receipt of Security Deposit. The remaining 20% payment will be released after 60 days of successfully running of the machinery/instrument and satisfactory performance. The material will be accepted only if it is found as per approved specifications.

11. **PENALTY CLAUSE**

If the supply is not made within the stipulated period then late delivery charges @2% will be imposed on the total amount of Supply Order up to delay of 30 days and thereafter @ 4% for another 30 days after which Supply Order will be deemed cancelled & security forfeited and company will be black-listed for future.

12. **ARBITRATION**

i) In the event of any dispute or differences arising between the parties with regard to the terms and conditions of the agreement/contract and/or with regard to the breach or interpretation thereof including all rights and liabilities there under on any matter whatsoever touching upon the terms and conditions of the agreement/contract whether in course of or after its termination the parties will settle the same at the first instance by mutual discussions/conciliation which would be conducted by the Principal, GGSMCH, Faridkot.

ii) In the event the said mutual discussions/conciliation fails, the aggrieved party shall initiate arbitration proceedings for resolution of differences/disputes etc., mentioned above by appointing a sole arbitrator, who shall be the Registrar, BFUHS, Faridkot in which event the said proceeding shall be conducted in accordance with the provisions of the arbitration and conciliation.

iii) The venue of such arbitration proceeding shall be at Faridkot and the court in Faridkot alone will have jurisdiction in respect of all proceedings connected there with.

Accepted

(Signature of Tenderer)
With seal and full address

Dated:
Place:

Annexure- V

MANUFACTURER'S/PRINCIPLE'S AUTHORIZATION FORM

TO

The Principal
Guru Gobind Singh Medical College
Faridkot -151203

Ref. No..... **Dated:**

Sub: Authorization Certificate in favour of M/s..... for supply of .....(name of equipment) for MRU

We, M/s....., who are established and reputable manufacturer of .....(name of equipment) having factory(ies) at ..... and ....., hereby authorize M/s.....(name and address) to bid, negotiate and conclude the Tender formalities with you against Tender No..... for the above equipment(s) manufactured by us.

No company or firm or individual other than M/s..... are authorized to bid, negotiate and conclude the tender formalities in regard to this business against this specific tender.

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

Yours faithfully,

(Name)
For and on behalf of M/s_____
(name of manufacturer/Principle)

Note: This letter should be signed by a person competent and having authority to sign on behalf of manufacturer, and should be on manufacturer's Letter Head and same will be kept in the Technical Bid Envelope.

Annexure - VI

UNDERTAKING BY MANUFACTURER'S/PRINCIPLE'S

TO

The Principal
Guru Gobind Singh Medical College
Faridkot -151203

Ref. No..... **Dated:**

Sub: Undertaking for after sales service till the date of warranty

We, M/s....., who are established and reputable manufacturer of .....(name of equipment) have authorized M/s.....(name and address) to bid, negotiate and conclude the Tender formalities with you against Tender No..... for the above equipment(s).

Further, we undertake that in case dealership/distributorship is withdrawn after supply of equipment then we be responsible for after sales service till the date of guarantee/warranty of the equipment and afterwards for a period of 10 years.

Yours faithfully,

(Name)
For and on behalf of M/s_____
(name of manufacturer/Principle)

Annexure- VII

(To be submitted in envelope No.3)

PRIC BID

(ON LETTER HEAD)

Name and Address of the applicant / firm_____

Specify whether Manufacturer/Dealer/Distributor: _____

We hereby quote for supply & installation of _____(Name of equipment) as under:-

Sr. No.	Description of Items (complete specifications)	Qty	Price

Signature
(Name & Address)
Date & Place

Note: Minimum delivery period must be quoted clearly in the offer. **Price of AMC/CMC should be quoted & it will be optional for institute to opt for any**. The rates quoted should be F.O.R. destination and should also include packing and forwarding charges, taxes and other levies. Any taxes, if applicable, should also be quoted clearly.

(This letter along with Earnest Money Deposit be submitted in the ENVELOPE NO.1)

From:

M/s _____

_____

_____

To

Principal
Guru Gobind Singh Medical College & Hospital,
Faridkot -151203.

Sub: Tender for supply of _____(name of equipment) for Multidisciplinary Research Unit (MRU) at Guru Gobind Singh Medical College & Hospital, Faridkot - EMD

Sir/Madam,

Please find enclosed herewith Earnest Money Deposit (EMD) @ 2% of the quoted amount in shape of Demand Draft No._____ dated_____ issued by _____ (Name of the Bank) drawn in favour of the Guru Gobind Singh Medical College & Hospital, Faridkot**[PLEASE DON'T MENTION THE AMOUNT].**

It is certified that all documents/ pages of the tender documents have been signed and are being put in one big envelope containing three separate sealed packets/envelopes. The first envelope contains EMD in the shape of Demand Draft drawn in favour of the Principal, Guru Gobind Singh Medical College & Hospital, Faridkot. The 2nd envelope contains Technical bid along with tender documents complete with its Annexure I, II, III, IV, V & VI. The 3rd envelope contains only Price Bid, which is duly signed. The terms and conditions mentioned in the tender documents are acceptable to me/us.

Thanking you.

Yours faithfully,

(SIGNATURE)
With seal & full address

(This letter along with Technical bid and Tender documents to be submitted in the ENVELOPE NO.2)

From:

M/s _____

_____

_____

To

The Principal
Guru Gobind Singh Medical College & Hospital,
Faridkot - 151203

Sub: Tender for supply of _____(name of equipment) for Multidisciplinary Research Unit (MRU) at Guru Gobind Singh Medical College & Hospital, Faridkot - (TECHNICAL BID)

Sir/Madam,

With reference to your Tender Notice for procurement of medical equipments for Multidisciplinary Research Unit (MRU) at Guru Gobind Singh Medical College & Hospital, Faridkot, we enclose herewith our **Technical Bid** duly filled, along with tender documents Annexures I, II, III, IV,V & VI

It is certified that all documents /pages of the tender documents have been signed and are being put in big envelope containing three separate sealed packets/ envelopes. The first envelope contains EMD in the shape of Demand draft drawn in favour of the Principal, Guru Gobind Singh Medical College & Hospital. The 2nd envelope contains Technical Bid along with tender documents complete with its annexure I, II, III, IV, V & VI. The 3rd envelope contains only Price Bid, which is duly signed. The term and conditions mentioned in the tender documents are acceptable to me/us.

Thanking you.

Yours faithfully,

(Signature)
With seal and full address.

Enclosed:

1. Tender Notice.
2. Affidavit.
3. Annexure I, II, III, IV, V & VI duly signed
4. Any other document.

(This letter along with Price Bid be submitted in the ENVELOPE NO. 3)

From:

M/s_____

_____

_____

To

The Principal
Guru Gobind Singh Medical college
Faridkot - 151203

Sub: **Tender for supply of _____(name of equipment) for Multidisciplinary Research Unit (MRU) at Guru Gobind Singh Medical College & Hospital, Faridkot - (PRIC BID)**

Sir/Madam

Please find enclosed herewith Price Bid duly filled and signed for **supply _____(name of equipment) for Multidisciplinary Research Unit (MRU) at Guru Gobind Singh Medical College & Hospital, Faridkot.**

Thanking you.

Your faithfully,

(Signature)
With seal and full address

Enclosed:

Price Bid (Annexure VII

TECHNICAL SPECIFICATIONS

1. Microbilirubinometer with Microcentrifuge and Hematocrit Reader

Technical specifications

1. Single/one Beam analysis for precise measurement of bilirubin by eliminating the interference of the Hemoglobin automatically.
2. Scale range 4 to 30 mg/ dl or 68/ 510 µmol/ Liter.
3. Display on LCD.
4. Use Disposable Capillary Tubes of all sizes and specifications.
5. It should give total Bilirubin in serum or plasma form a Micro value of blood.
6. Total error should be less than 1% of reading.
7. Should display date & hour.
8. Should be ISO 9001 2000; EN 46001-96, CE 0051 certified.
9. System to include Hematocrit centrifuge and Hematocrit reader with the following specifications:
   a. **Rotating head for 24 capillaries (should be compatible with any type of micro capillaries).**
   b. Electronic timer up to 15 minutes
   c. Speed 12000 rpm.
   d. Safety-cover with lock
   e. Supply hematocrit-reader one with each equipment
10. Power supply 220 ± 20 AC for both micro bilirubinometer as well as microcentrifuge.
11. CVT 1KVA of standard company with two years warranty.
12. List of essential spares & accessories should be provided and quoted separately. Prices so quoted to be frozen for 5 years.
13. Warranty period : 2 years.
14. CAMC for 3 years after warranty inclusive of spares/ accessories.
15. Original literature, and not the photocopy, to be supplied with the quotation, otherwise quotations will not be considered.
16. Company should certify that model quoted is latest and not obsolete, and spares are available for minimum 5 years after warranty

****

2. REAL TIME PCR

Technical Specification Sheet

- It should be an open system compatible with reagents/ kits/ all standard makes PCR tubes.
- Applications: provide specialized application specific software that collects and analyzes the fluorescence data for the applications of Absolute quantification, Relative quantification, Melt curve analysis, Allelic discrimination, genotyping, SNP detection and HRM
- The format of the PCR Block should be 96 well with the temperature Range of 4 to 99.9°C
- Fast System : Heating and cooling Ramp rate : >5°C/sec (heating) and 4.5°C/sec (cooling)
- Temperature accuracy should be ± 0.2°C and uniformity at 95°C should be ± 0.3°C.
- Should have controllable lid temperature from 30 – 110°C, with control on automatic temperature and pressure settings.
- The Real time PCR should have 5 detection channel s with 5 LED's has a Light source for excitation , 5 excitation filters as well as 5 emission filters or better.
- Excitation range should be 475- 640nm and for emission it should be 520 -740nm for running the different tests/assays.
- System should have excitation filters of 475-500nm, 515-535nm, 570-590nm, 600-640nm and 475-500nm.
- System should have emission filters of 520-550nm, 557-590nm, 615-650nm, 666-740nm and 520-590nm.
- Multiplexing up to 4 targets should be possible.
- Scan time for 4 multiplexing channels should be < 10 sec.
- Very sensitive system : Sensitivity should be as low as 1 copy number with Dynamic range of 10 order of magnitude
- The data analysis software and computer should be supplied with the instrument with operating system either windows XP and windows 7
- Compact system, saves lab space: Instrument dimensions (W x D x H) should be 300 x 230 x 310 mm and weight of approx. 10-14 kg.
- Power usage should be 200W maximum.
- Warranty for 5 year.
- ONLINE UPS FOR 2½ to 3 hrs back up.
- Required Consumable Should Be Quoted Separately as an unit price.
- Computer and Printer should be quoted.
- CE marked.

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3. BIOSAFETY CABINET

Technical Specification Sheet

- Class II Biosafety Cabinet Type A2 design.
- Should include a germicidal UV lamp, set of arm rest, an electrical outlet, and a support stand provided with leveling bases.
- Size 4 feet width; Single Piece stainless steel.
- Motor should be Dual DC & must automatically adjust the airflow speed (balancing inflow and down flow) without the use of a damper to ensure continuous safe working conditions.
- 30-40% Exhaust and 60-70% recirculation should be achievable through HEPA filters.
- The microprocessor must display the inflow and down flow air velocities in real-time on an LED/LCD display.
- The front window must be a 10" sash opening and be made of laminated safety glass to ensure containment of potentially hazardous samples in the case of accidental glass breakage.
- Separatorless Minipleat anti-microbial UltraKlenz^{TM} HEPA filters of EU 13 grade with an efficiency of 99.97% on monodisperse, 0.3 micron challenge for supply.
- Separatorless Minipleat anti-microbial UltraKlenz^{TM} HEPA filters of EU 13 grade with an efficiency of 99.99% on monodisperse, 0.3 micron challenge for exhaust.
- Interlocking of supply & exhaust motor blower with logic control to ensure the system stops if either motor stops. This is for additional operator safety.
- The front of the cabinet must be angled 10° to help minimize glare on the window to the user.
- The cabinet must automatically reduce fan/blower motor speed to 30% when the front window sash is in closed position to ensure reduced energy consumption when the cabinet is not is use.
- UV light must be programmable to allow for specific exposure times from 0 to 24 hours. The automatic shut off feature on the UV light saves money on replacement of the bulbs.
- Lightening power should >1100 lux(100fc).
- The cabinet noise level must be less than 65 dB(A).
- Alarm to trigger in case blower trips as a safety measure.
- Cabinet should be NSF (National Sanitation Foundation) standard no 49, EN certified and certificate of the quoted model should be attached.
- Energy saving mode should be there; Power Consumption Normal mode :200W ±10%
- CE and UL model only to be quoted.
- Warranty: 5 years

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4. -20 Degree DEEP FREEZER

Technical specifications:

- Finish: interior and exterior: hips & pre painted steel
- Anti-corrosive interior liner, clean & convenient to use.
- Insulation: hcfc and cfc free, polyethylene insulation.
- Upright Vertical Deep Freezer Capacity: 200-250 lit with temperature:-20 deg C at room temp.
- Door: solid door
- Microprocessor controlled with digital display for all functions.
- Storing configuration: multi level design to store: solid flaps and solid baskets
- Defrost: manual defrost/ frost free
- Door gasket type: magnetic
- Control: electronic controller
- Set point: -20 c
- Settable range: -19 to -21 c
- Alarm: high temp alarm (-15 deg c) , low temp alarm (-30 deg c)
- Electrical circuit breaker, time delay for compressor switch on, overload cut off relay for compressor.
- Refrigerant : r600a
- Compressor hp: high energy & efficient
- Access port (16mm)
- Pre-wired cord and plug type: European
- Full load amperes: 1
- Voltage: 220-230v 50hz
- Temperature variation inside the cabinet: -18 ~ -25 °c
- Operating ambient temperature - min/nom/max (c) : 15c/25c/32c
- Supplied with compatible serve controlled stabilizer of the same brand of the freezer for better compatibility.
- Supplied with minimum two mini coolers with gel filled so that the samples kept in coolers can maintain the temperature of 0 to -20 deg C in case of power failure.
- Efficient back-up system in case of power failure.
- CE mark certified
- Warranty – 24 MONTHS

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5. -80 degree ULTRA LOW DEEP FREEZERS

Technical specifications

- Ultra-Low Temperature Freezer -50 to -86 degree, 230V/50Hz
- Ambient working Temp.: 15° C - 32° C
- Capacity: 540-600 lit Approx
- 2" Box Capacity: 400 or more
- Vial Capacity: 2mL vials: 40,000 or more
- Safety and Security: feature an innovative, touch-screen control panel that allows 24/7 monitoring of the freezer's health provides access to a detailed event log—built-in USB port enables easy downloading of event log reports to a portable drive
- Cabinet with Vacuum Insulation Panel Technology
- Consist of two 1 HP Hermetic Compressor
- Sound Pressure Level (dBA): <= 66
- Choice of Refrigeration Environmentally-friendly, CFC/HCFC free refrigerants
- Brazed plate heat exchanger for more efficient heat transfer.
- Power management system: protects against a wide range of voltage variation and is easily accessible through the touch-screen display.
  Two Modes: High Performance or Energy Savings
- Remote alarm contacts: with 4-20 milliamp output compatible with external alarm and monitoring systems (high temperature, power failure, filter check, part replacement notification).
- On-board data storage: Store up to 15 years worth of temperature and event data on our on-board computer
- Easily exchange data: Use the new USB port to download freezer temperature and event log data, or freezer settings from one freezer to another.
- Easy-to-remove, washable filter
- Outer door gaskets: 4x7 heated gasket provides four touch points of security and seven zones of protection, maximizing cabinet temperature and eliminating frost build-up
- Inner doors: at least 4 polystyrene insulated inner doors
- Several optional features including: LN2 and CO2 back-up systems, chart recorder, stainless steel inventory racking solutions and hands-free, proximity-card access system
- Certifications: UL, CE certified.
- Warranty: 2 year; 3 years additional on compressor.

5KV servo stabilizer should be supplied.

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6. BACTERIOLOGICAL INCUBATOR

Technical specifications

- Dual convection for versatility of application: forced air circulation by quite air turbine and fan speed adjustable from 0 to 100% @ 10% steps for each segment individually.
- Advanced digital timer for daily or weekly on / off cycles
- Stainless steel interior (1.4301) is easy to clean and corrosion resistant
- Broad temperatures range from 5 °C above ambient to 105 °C – even suitable for drying application
- Temperature uniformity as good as ± 0.2 °C
- Temperature stability at ± 0.1 °C
- Chamber volume L / 100 lit -150 lit
- Intuitive user interface for setting temperature
- Large, easy to read vacuum fluorescent display
- Internal glass door allows sample viewing without impacting temperature
- Number of shelves supplied / max:2/19
- Self diagnostics function for fault analysis
- Incl. work calibration certificate for +37 °C.
- Audible and visual alarm.
- Rated Voltage/Frequency; Rated Power; Max. Current; Plug: 230VAC 50/60Hz; 1100w; 4.8A
- Interior (atleast) w x h x d: 450 x 605 x 368 MM
- Wt: 56 kg Approx CE (230V, 50Hz models)
- Warranty: 5 Years

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7. CO2 incubator

Technical specifications

1. Working volume: Approx. 150- 180 liters.
2. CO_2 Control range: 0 to 20%
3. CO_2 Control accuracy: + 0.1%
4. Temperature control range: Ambient + 3 to 55° C
5. Should be air-jacketed with heat resistant TCD sensor.
6. System should have options for multi-gas operation.
7. System should have 3 gas tight inner doors
8. System should incorporate exclusive touch screen with event logging details.
9. System should alarm to indicate low water level.
10. Interior should be made up of Stainless steel and should not have nuts or bolts for shelve supports..
11. System should have features to ensure fast humidity recovery.
12. System should have built in decontamination feature for complete elimination of bacteria, fungi, spores, mycoplasma etc. The vital parts like sensor, fan etc should not be taken out during the process of decontamination. The system should have the decontamination routine of humid air decontamination at minimum 90° C.
13. System must include an independent over temperature function with independent temperature sensor to protect valuable culture from potential damage in the event of unexpected failure in primary temperature control system.
14. Incubator must a fully automatic start routine function.
15. Incubator must offer direct access port on the interior incubator door to enable comparative CO_2 measurement by external device
16. Incubator must have CE & FDA 510k certification.

CO_2 Cylinder and Regulator with stabilizer should be quoted.
Warranty: 5 years

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8. ICE FLAKING MACHINE

Technical specifications

- Hygienic ice with maximum cooling capacity
- Lowest power consumption
- Hermetically sealed air cooled refrigeration system
- Eco Friendly refrigerant
- Fully Automatic control system
- Corrosion free stainless steel interiors
- Rounded corners of the interiors for easy cleaning
- Geared Motor with thermal protection

Capacity

- 50Kg. /24Hr.

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9. ULTRAPURE WATER PURIFICATION SYSTEM

Technical specifications
Pretreatment system :

- Three stage pretreatment system with 10, 5 & 1 micron spun filters 10" long for removal of suspended particles and to take care of F.I. and Chlorine in feed water.
- The system should respond favourably to feed water having Fouling Index (FI) approx 10, total Free Chlorine <0.5 ppm and Feed Water Conductivity upto 2000 µs/cm; maximum silica 30 ppm.
- Three stage purification process; primary purification by a Prefilteration secondary purification through RO membrane, DI bacteria counts are low and provide Type II water. System should have unique integral recirculation ensures optimum water quality at point of dispense.
- System should be GLP compliance documentation.
- System should have option to connect printer through RS 232 for data recording and traceability.
- System should be supplied with 50 to 75L reservoir with vent filter and recirculation facility.

Product Water Type II Quality :

Resistivity	:	10 to 15 mΩ at 25 deg. C (megaohm C).
TOC	:	<30 ppb
Removal, bacteria and particle, % 99.		
Silica removal, %	:	>99.9%
Bacteria	:	<1 cfu/ml
Flow rate	:	6 - 10 liters / Hr at 25 deg. C.

- The system should have facility to remove Ionic and organic impurities by the ultrapure polisher cartridge, sterile 0.2um filter, pressure regulator, UV lamp and Ultra filter.
- The water within the unit should be recirculated through the purification technologies to maintain purity. To reduce heat build up the recirculation is at reduced flow rate.
- The system should have recirculation of the purified water to maintain consistent peak quality.
- System should have dual wavelength UV lamp – UV photo oxidation 185/254nm.

ULTRAPURE WATER Output Details:

- **Inorganic : 18.2M Ω -cm @ 25°C**
- TOC : 1-5 ppb with RO water feed
- Bacteria : < 1 CFU/ml
- Bacteria endotoxin: <0.001EU/ml
- Flow Rate : 1 Ltr./min.
- RNase : <0.003 ng/ml
- DNase : <0.4 pg/ml
- Conductivity : 0.055uS/cm
- Particle,0.22 um/ml : <1

System should have facility to validate at site from time to time as and when required.

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10. Liquid Nitrogen container

Technical specifications

- LN2 Capacity: 70- 100 lit
- Vial storage capacity (2ml):2000 or above
- Neck Diameter: 8.5 in. / 21.5 cm
- Static Evaporation Rate: Not more than 0.8 lit/day
- Static Holding time: 80 days or more
- Outstanding temperature uniformity: samples are stored below -180°C, even when less than 2 in. (5cm) of liquid nitrogen remains in the vessel
- With Ultrasonic Level Monitor safeguards irreplaceable samples with minimal liquid nitrogen evaporation and conduction
- Monitor should provides continuous LED readout of liquid nitrogen level in 1/8 increments;
- Audible alarm sounds when nitrogen level falls below safe range; dry remote alarm contact for remote monitoring
- Advanced vacuum insulation minimizes liquid nitrogen evaporation and reduces operating costs
- Secure locking hasp prevents unauthorized entry
- Regulatory Listing: CE
- System should be supplied with full capacity of 2ml Racks
- Warranty: 5 years

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11. Refrigerated Centrifuge

Temperature Range:-10 TO +40 Degree C

Technical Specification

Bench top refrigerated Centrifuge.

Max RCF: 30200 x g or better
Max Rpm: 17800 RPM or better
Control System: Microprocessor
Drive System: Direct, brushless induction low profile motor
Rotor Locking System: Push Button Auto Lock Rotor System should not require any tool for exchange of rotors.
Imbalance Detection System: Continuous vibration measurement, with rotor mass correction
Programs: 3 direct program buttons, plus 96 additional programs accessible
Pre-Cooling Function Yes, with direct button
Refrigeration System CFC free
Pulse (Short) Run Yes
Imbalance detection system
Acceleration / Deceleration Rates 2
Centrifugation Chamber Stainless Steel
Max Timer Range 9h, 99min + continuous
Certifications CE marked, IVD compliant, Certified Biosafety (Please attach certificates)
Machine should be supplied with following rotor:
Fixed angle rotor 6 x 50 ml with 15 ml tubes adaptors RPM: 9000 or more
Fixed Angle Rotor 24 x1.5/2 ml RPM: 17800 & RCF 30000Xg or more
Adapter for 0.5 & 0.2 PCR tubes.

Warranty: 5 years

Special RPM/RCF convertor button
Automated rotor recognition with speed limitation for safety, automated imbalance detection and cut off.
Power supply upto 230V/50 HZ.
Swinging bucket rotor with speed of 4000 rpm or above for 96-well cell culture plates and cell culture flasks.

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12. Dry Bath

Technical specifications

- Double Block Digital Dry Bath Heater
- Microprocessor control with large digital display
- Temperature accuracy of ±0.3°C, and uniformity of ±0.2°C
- Wide temperature set range from ambient +5 to 150°C
- Stainless steel block cavity for corrosion resistance
- Voltage 230V/50/60Hz
- Accessories
- Single Block, 20 x 2.0 mL tubes
- Single Block, 48 x 0.2 mL PCR tubes or 6 x 0.2 mL strips
- Single Block, 12 x 15 mL centrifuge tubes
- CE Certified
- Should Be ISO certified
- Should have inbuilt Shaking System .
- Heating Time <20 Min
- Accuracy :0.1 degree C
- Should Have Peltier Heating & cooling System .
- Shaking Speed : 200-1500 RPM
- Should have beep –Signal / Stop Program Completion .

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13. ELISA READER

Technical specifications

1. Should be True Monochromator based dual beam spectrophotometer Elisa Reader for absorbance and turbidity measurements using 96 or 384 –well microplates using halogen lamp as light source and silicon photo detectors.
2. The system should have a linear measurement range of 0 to 6 Abs. with a photometric accuracy of ± 2% or better and resolution of 0.001 Abs.
3. Able to read Plate, Strip and have automated wavelength selection option.
4. Measurement wavelength range covers both UV and VIS wavelengths (from 200 nm to 1000 nm).
5. Reading speed for 96 well plates less than six seconds, capable of doing multi standard tests and controls.
6. It should have variable speed plate shaking capability in 3 different mode
7. Internal USB port for data transfer and storage using USB memory drives when internal user interface is used.
8. A reference channel system to compensate Xenon lamp flash to flash variations.
9. Possibility of upgradation to measure RNA, DNA & protein samples with very low volume (2-5µl) with specially designed low volume micro drop plate.
10. On- board pathlength correction for the correction of the variations in the photometric pathlength.
11. The instrument should be compatible for automation purposes. The instrument should have a power Save function for low energy consumption. The instrument should meet RoHS (Restriction of Hazardous Substances) directive
12. Low power consumption: Maximum 110 W, typical during operation <22W, in Power Save mode <2.5W
13. Measurement data stored in database without possibility to modify or accidentally delete any results.
14. The instrument should run in stand –alone mode and also with computer and software controlled.
15. Internal Software: The system should have inbuilt internal software for the measurement of samples with plates. The inbuilt software should be able to perform all calculations and save the data within the system. The data export should be through USB device.
16. Computer Controlled Software: The instrument should have the ability to choose free selection of plates from any manufacturer. The software should be able to display the results in the table or list format. The results can be exported in the excel or PDF format. The software should be able to perform parallel line assays.
17. The instrument should be provided with compatible branded computer and printer.
18. The company should provide training along with wet demonstration of the equipment at site & must provide consumable like Elisa Plates (at least 100 Plates with lids to be provided), for the initial wet demo & training.
19. Instrument should be quoted with standard warranty of 3 years.

ELISA READER (WASHER)

1. It should have capability to wash 96 well micro plates,option for interchangeable wash heads option 1x8 or 1x12 way wash heads with programmable washing time, volume and soaking time.It should use non-pressurized bottles to minimize the risk of spillage and also choice for user to substitute bottles of different sizes but should be provided with two 2 litre wash bottles & one 4 litre waste bottle.
2. Should provide aerosol cover to prevent aerosols of infectious diseases from spreading.
3. Should have residual volume less than 1.5 µl and dispensing volume should be 50-400 µl for 96 well.
4. Should have a USB port for easy data transfer and should have large color screen for easy set-up of wash protocols.
5. Should have the liquid level sensors in both the wash and waste bottles to guarantee safe performance. And should have plate sensor to recognize if a plate is present or not.
6. The automatic rinse feature can be setafter using the instrument, to operate in a specified time sequence to ensure that the liquid channels do not get clogged.
7. **Training and warranty**:-The company should provide training along with wet demonstration of the equipment at site.
8. Instrument should be quoted with standard warranty of 3 years.

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14. ANALYTICAL BALANCE

Technical specifications

1) Product should be on International Repute. (ISO & CE Certifed)
2) Max Capacity :220 gm Readability : 0.1 mg
3) Calibration: FACT Calibration.
4) Should Have MonoBloc Weighing Technology for Better repeatability &Stability.
5) Should Have LCD Back Light / HCD Display.
6) Should Have over Load protection in case of Accidental over Weight.
7) Should Have RS 232 Interface / GLP, GMP Compliant Model.
8) Should Have Other Features Like Piece Counting, Percentage Weighing , Dynamic Weighing & Totalization Functions .
9) Pan Size :90 mm
10) Should Have Smartrac.
11) Supplier should have Nearest Service Station.
12) Supplier should be able to perform test like Repeatability , Linearity , Eccentricity With Manufactures Original Weight box Duly Certified by NPL
13) Compliance should be submitted along with each product
14) Provided with AC adaptor.

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15. Rotary Evaporator

Technical specifications

- Should have easy to read large 3.5" digital LCD screen displays heating temperature, rotation speed and timing.
- Should have speed range from 20 to 280 rpm
- Should have water-oil heating bath with heating temperature range of RT to 180°C
- Should have heating bath with precise temperature control and adjustable safety circuit
- Should have condenser (cooling surface 1,500 cm^2) with excellent cooling effect
- Should have motorized lift with quick-action, automatic release evaporating flask to top position in case of power failure
- Should have adjustable final position recognition to protect operator and sample against breakage
- Should have evaporating flask with an ejector, convenient to remove
- Should have available with timer function to precise control processing
- Should have chemical-resistant double PTFE system and patented pressure spring provide excellent sealing.

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16. Atomic Absorption Spectrophotometer (AAS) for detection of trace elements upto ppb levels in human blood or urine

Technical specifications

Fully automated PC controlled true double beam multi element Atomic Absorption Spectrophotometer system with absorption and emission capability with deuterium and Zeeman background correction and should have the capability of measuring multielements in rapid sequence with following specifications

Operation:The instrument should have automatic operation and integrated, flame and furnace system, flame atomic absorption/emission measurement, true dual atomization, furnace vision system included as standard. The change of flame and furnace should be through software.

Optics and background:- The instrument should be provided with 6-8 lamp auto alignment turret with dedicated power supply for each lamp, double beam stockdale optics, high energy, silica coated, sealed optical system with self calibrating Echelle monochromator. It should have Reciprocal Linear Dispersion 0.5 nm/mm at 200 nm, Wavelength range 185-900 nm, Spectral band pass of 0.1, 0.2, 0.5 or 1.0 nm should be automatically selectable, Deuterium lamp background correction system upto 2.5 Abs at 2ms response time with electronic modulation and automatic attenuation. The optical gratings should be of minimum 1800 lines/mm.

Wavelength range:- 185 - 900 nm

Flame system:- Universal Finned Titanium 50mm burner suitable for air/acetylene and nitrous oxide/acetylene flame types supplied as standard, an inert fluoroplastic spray chamber incorporating an externally adjustable inert impact bead and flow spoiler, an inert over-pressure membrane should be housed in the rear of the spray chamber for maximum operator safety.

Automatic gas system using binary flow control and programmable array state logic for reliability

Fuel and oxidant flow rates should be software controllable, One spray chamber configuration and burner for all gas mixtures and sample types, automatic flame optimization should be provided. The burner height should be automatically optimized and there should be controls for the rotational and transverse position of the burner.

Graphite Furnace System:- The instrument should have choice of Deuterium and Zeeman background correction furnaces, Zeeman furnace should also have capability to use Deuterium background correction, Furnace should be mounted directly in dedicated compartment, Furnace head should be in all graphite containment with end loaded contacts. Furnace auto-sampler should also be included with furnace head and power supply. Graphite furnace atomizer temperature upto 3000^0 c

The system should be capable enough for the detection of trace elements upto ppb levels in human blood or urine samples so the sytem should also be quoted with Automated Mercury Hydride system: automated Continuous Flow Vapour Generation.It should have high sensitivity for determination of Mercury and Metalic hydride forming elements such as Bi, As, Sb, Sn, Se, and Hg.

Safety System:- Safety interlocks for burner, liquid trap, pressure relief bung, flame shield, flame operation, mains power, gas pressure, safety reservoir, spray chamber should be there

The Instrument should be with **suitable software** to control the complete system and virus protected.

The system should be supplied with hallow cathode lamps for detection of minimum 12 elements(Arsenic,lead,mercury,cadmium,copper,zinc,iron,aluminium,chromium,nickel, selenium and cobalt). All required accessories mentioned below should be either quoted or should be supplied along with the system :-

1) Fume hood
2) Suitable UPS with half an hour back up for entire system
3) Branded PC with lazer jet printer
4) Air acetylene , N2O and argon cylinder with regulator with preheater and oil free compressor
5) Chiller for graphite furnace
6) Graphite tubes 50 nos
7) Standard solutions for the desired elements

The instrument should be provided with 5 year warranty. Installation and training should be at the site of installation to the persons of concerned departments.

Rates for AMC/CMC should be quoted separately for 5 years after the expiry of warranty period.

Certificate of assurance should be provided that the spare parts are available for at least 10yrs.

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