

REQUEST FOR PROPOSAL

Invitation of Bids

Request for Proposal (RFP) No 4604/AFMRC/01/2015 dated 30 Jan 2016

1. Bids in sealed cover are invited for supply of items listed in Part III of this RFP. Please super scribe the above mentioned Title, RFP number and date of opening of the Bids on the sealed cover to avoid the Bid being declared invalid.

2. The address and contact numbers for sending Bids or seeking clarifications regarding this RFP are given below:-

(a) Bids/queries to be addressed to: **The Commandant, AFMC, Pune**

(b) Postal address for sending the Bids:

Dept of Pharmacology, AFMC, Pune – 411040.

Tele: 02026026054

(c) Name/designation of the contact personnel:

Lt Col N Dahiya, Dept of Pharmacology,

AFMC, Pune

(d) Telephone numbers of the contact personnel: 9765088248

3. This RFP is being issued with no financial commitment and the Buyer reserves the right to change or vary any part thereof at any stage. Buyer also reserves the right to withdraw the RFP, should it become necessary at any stage.

Part I – General information

1. **Last date and time for depositing the Bids: 1430h on 16 Feb 2016**

2. **Manner of depositing the Bids:** Sealed Bids should be either dropped in the Tender Box marked as “ **AFMRC tender Box**” at HQ Coord AFMC Pune or sent by registered post at the address given above so as to reach by the due date and time. **Technical and Financial bids will be submitted at the same time in two different sealed envelopes and it will be clearly mentioned on envelop. Financial bid will be opened after Technical evaluation board.** Late tenders will not be considered. No responsibility will be taken for postal delay or non-delivery/non-receipt of Bid documents. Bids sent by FAX or e-mail will not be considered.

3. **Time and date for opening of Bids: 1500h on 16 Feb 2016**

4. **Location of the Tender Box: HQ Coord , AFMC, Pune – 411040**

5. **Place of opening of the Bids: HQ Coord , AFMC, Pune – 411040**

The Bidders may depute their representatives, duly authorized in writing, to attend the opening of Bids on the due date and time. This event will not be postponed due to non- presence of your representative.

6. **Forwarding of Bids** : Bids should be forwarded by Bidders under their original memo / letter pad inter alia furnishing details like TIN number, VAT/CST number, Bank address with EFP Account if applicable, etc and complete postal & e-mail address of their office.
7. **Clarification regarding contents of the RFP** : A prospective bidder who requires clarification regarding the contents of the bidding documents shall notify to the Buyer in writing about the clarification sought not later than 05 (five) days prior to the opening of the Bids. Copies of the query and clarification by the purchases will be sent to all prospective bidders who have received the bidding documents.
8. **Modification and Withdrawal of Bids** : A bidder may modify or withdraw his bid after submission provided that the written notice of modification or withdrawal is received by the Buyer prior to deadline prescribed for submission of bids. No bid shall be modified after the deadline for submission of bids. No bid may be withdrawn in the interval between the deadline for submission of bids and expiration of the period of bid validity specified.
9. **Clarification regarding contents of the Bids** : During evaluation and comparison of bids, the Buyer may at its discretion, ask the bidder for clarification of this bid. The requests for clarification will be given in writing and no change in prices or substance of the bill will sought, offered or permitted. No post-bid clarification on the initiative of the bidder will be entertained.
10. **Rejection of Bids** : Canvassing by the Bidder in any form, unsolicited letter and post-tender correction may invoke summary rejection with deposition of bid security or recovery from performance guarantee. Conditional tenders will be rejected.
11. **Unwillingness to quote** : Bidders unwilling to quote should ensure that intimation to this effect reaches before the due date and time of opening of the Bid, failing which the defaulting Bidder may be delisted for the given range of items as mentioned in his RFP.
12. **Validity of Bids** : The Bids should remain valid till **three months** from the opening of / last date of submission of the Bids.
13. **Earnest Money Deposit** : **Amount Rs 72000** are required to be submitted along with their bids. The EMD may be submitted in the form of an Account Payee Demand Draft, Fixed Deposit Receipt, Banker's Cheque or Bank Guarantee from any public sector bank or a private sector bank authorized to conduct government business as per Form DPM-16 (Available in MoD website and can be provided on request).EMD is to remain valid for a period of forty-five days beyond the final bid validity period. EMD of the unsuccessful bidders will be returned to them at the earliest after expiry of the final bid validity and latest on or before the 30th day after the award of the contract. The Bid Security of the successful bidder would be returned, without any interest whatsoever, after the receipt of Performance Security from them as called for in the contract.

Part II – Essential Details of Items Required

1. Schedule of Requirements – High performance liquid chromatography (Fully automated complete system)
2. **Technical Details:** Technical details attd as Appx ‘A’
3. **Two-Bid System-** In respect of Two-bid system, Bidders are required to furnish clause by clause compliance of specifications bringing out clearly the deviations from specification, if any. The Bidders are advised to submit the compliance statement along with Technical Bid.
4. **Delivery Period** - Delivery period for supply of items would be **21 days** from the effective date of contract.
5. Delivery will be made at AFMC, Pune
6. **Consignee details** - **The Commandant, AFMC, Pune**

Part III – Standard Conditions of RFP

The Bidder is required to give confirmation of their acceptance of the Standard Conditions of the Request for Proposal mentioned below which will automatically be considered as part of the Contract concluded with the successful Bidder (i.e. Seller in the Contract) as selected by the Buyer. Failure to do so may result in rejection of the Bid submitted by the Bidder.

1. **Law:** The Contract shall be considered and made in accordance with the laws of the Republic of India. The contract shall be governed by and interpreted in accordance with the laws of the Republic of India.
2. **Effective Date of the Contract:** The contract shall come into effect on the date of signatures of both the parties on the contract (Effective Date) and shall remain valid until the completion of the obligations of the parties under the contract. The deliveries and supplies and performance of the services shall commence from the effective date of the contract.
3. **Arbitration:** All disputes or differences arising out of or in connection with the Contract shall be settled by bilateral discussions. Any dispute, disagreement or question arising out of or relating to the Contract or relating to construction or performance, which cannot be settled amicably, may be resolved through arbitration. The standard clause of arbitration is as per Forms DPM-7, DPM-8 and DPM-9 (Available in MoD website and can be provided on request).
4. **Penalty for use of Undue influence:**The Seller undertakes that he has not given, offered or promised to give, directly or indirectly, any gift, consideration, reward, commission, fees, brokerage or inducement to any person in service of the Buyer or otherwise in procuring the Contracts or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of the present Contract or any other Contract with the Government of India for showing or forbearing to show favour or disfavour to any person in relation to the present Contract or any other Contract with the Government of India. Any breach of the aforesaid undertaking by the Seller or any one employed by him or acting on his behalf (whether with or without the knowledge of the Seller) or the commission of any offers by the Seller or anyone employed by him or acting on his behalf, as defined in Chapter IX of the Indian Penal Code, 1860 or the Prevention of

Corruption Act, 1986 or any other Act enacted for the prevention of corruption shall entitle the Buyer to cancel the contract and all or any other contracts with the Seller and recover from the Seller the amount of any loss arising from such cancellation. A decision of the Buyer or his nominee to the effect that a breach of the undertaking had been committed shall be final and binding on the Seller. Giving or offering of any gift, bribe or inducement or any attempt at any such act on behalf of the Seller towards any officer/employee of the Buyer or to any other person in a position to influence any officer/employee of the Buyer for showing any favour in relation to this or any other contract, shall render the Seller to such liability/ penalty as the Buyer may deem proper, including but not limited to termination of the contract, imposition of penal

damages, forfeiture of the Bank Guarantee and refund of the amounts paid by the Buyer.

5. Agents / Agency Commission : The Seller confirms and declares to the Buyer that the Seller is the original manufacturer of the stores/provider of the services referred to in this Contract and has not engaged any individual or firm, whether Indian or foreign whatsoever, to intercede, facilitate or in any way to recommend to the Government of India or any of its functionaries, whether officially or unofficially, to the award of the contract to the Seller; nor has any amount been paid, promised or intended to be paid to any such individual or firm in respect of any such intercession, facilitation or recommendation. The Seller agrees that if it is established at any time to the satisfaction of the Buyer that the present declaration is in any way incorrect or if at a later stage it is discovered by the Buyer that the Seller has engaged any such individual/firm, and paid or intended to pay any amount, gift, reward, fees, commission or consideration to such person, party, firm or institution, whether before or after the signing of this contract, the Seller will be liable to refund that amount to the Buyer. The Seller will also be debarred from entering into any supply Contract with the Government of India for a minimum period of five years. The Buyer will also have a right to consider cancellation of the Contract either wholly or in part, without any entitlement or compensation to the Seller who shall in such an event be liable to refund all payments made by the Buyer in terms of the Contract along with interest at the rate of 2% per annum above LIBOR rate. The Buyer will also have the right to recover any such amount from any contracts concluded earlier with the Government of India.

6. Access to Books of Accounts : In case it is found to the satisfaction of the Buyer that the Seller has engaged an Agent or paid commission or influenced any person to obtain the contract as described in clauses relating to Agents/Agency Commission and penalty for use of undue influence, the Seller, on a specific request of the Buyer, shall provide necessary information/ inspection of the relevant financial documents/information.

7. Non-disclosure of Contract documents: Except with the written consent of the Buyer/ Seller, other party shall not disclose the contract or any provision, specification, plan, design, pattern, sample or information thereof to any third party.

8. Liquidated Damages: In the event of the Seller's failure to submit the Bonds, Guarantees and Documents, supply the stores/goods and conduct trials, installation of equipment, training, etc as specified in this contract, the Buyer may, at his discretion, withhold any payment until the completion of the contract. The BUYER may also deduct from the SELLER as agreed, liquidated damages to the sum of 0.5% of the contract price of the delayed/undelivered stores/services mentioned above for every week of delay or part of a week, subject to the maximum value of the Liquidated Damages being not higher than 10% of the value of delayed stores.

9. Termination of Contract: The Buyer shall have the right to terminate this Contract in part or in full in any of the following cases :-

- (a) The delivery of the material is delayed for causes not attributable to Force Majeure for more than **01** months after the scheduled date of delivery.
- (b) The Seller is declared bankrupt or becomes insolvent.
- (c) The delivery of material is delayed due to causes of Force Majeure by more than **02** months provided Force Majeure clause is included in contract.
- (d) The Buyer has noticed that the Seller has utilised the services of any Indian/ Foreign agent in getting this contract and paid any commission to such individual/ company etc.
- (e) As per decision of the Arbitration Tribunal.

10. Notices: Any notice required or permitted by the contract shall be written in the English language and may be delivered personally or may be sent by FAX or registered pre-paid mail/airmail, addressed to the last known address of the party to whom it is sent.

11. Transfer and Sub-letting: The Seller has no right to give, bargain, sell, assign or sublet or otherwise dispose of the Contract or any part thereof, as well as to give or to let a third party take benefit or advantage of the present Contract or any part thereof.

12. Patents and other Industrial Property Rights: The prices stated in the present Contract shall be deemed to include all amounts payable for the use of patents, copyrights, registered charges, trademarks and payments for any other industrial property rights. The Seller shall indemnify the Buyer against all claims from a third party at any time on account of the infringement of any or all the rights mentioned in the previous paragraphs, whether such claims arise in respect of manufacture or use. The Seller shall be responsible for the completion of the supplies including spares, tools, technical literature and training aggregates irrespective of the fact of infringement of the supplies, irrespective of the fact of infringement of any or all the rights mentioned above.

13. Amendments: No provision of present Contract shall be changed or modified in any way (including this provision) either in whole or in part except by an instrument in writing made after the date of this Contract and signed on behalf of both the parties and which expressly states to amend the present Contract.

14. Taxes and Duties

a) In respect of Foreign Bidders: All taxes, duties, levies and charges which are to be paid for the delivery of goods, including advance samples, shall be paid by the parties under the present contract in their respective countries.

b) In respect of Indigenous bidders:

i) General

- 1. Bidder must indicate separately the relevant taxes / duties likely to be paid in connection with delivery of completed goods specified in RFP. In absence of

this, the total cost quoted by them in their bids will be taken into account in the ranking of bids.

2. If a Bidder is exempted from payment of any duty/tax upto any value of supplies from them, he should clearly state that no such duty/tax will be charged by him up to the limit of exemption which he may have. If any concession is available in regard to rate/quantum of any Duty/tax, it should be brought out clearly. In such cases relevant certificate will be issued by the buyer later to enable the seller to obtain exemptions from taxation authorities.
3. Any change in any levies, duties and taxes levied by central/state/local governments such as excise duty, VAT, service tax, octroi/ entry tax, etc. on final product upward as a result of any statutory variation taking place within the contract period shall be allowed reimbursement by the buyer, to the extent of actual quantum of such/ tax paid by the seller. Similarly, in case of downward revision in any such duty/ tax, actual quantum of such duty/ tax shall be reimbursed to the buyer. All such adjustments shall include all reliefs, exemptions, rebates, concession etc. if any obtained by the Seller. Section 64 –A of sales of goods act will be relevant in this situation.
4. Levies, taxes and duties levied by central/state/ local governments such as excise duty, VAT, service tax, octroi/ entry tax, etc. on final product will be paid by the buyer on actuals, based on relevant documentary evidence. Taxes and duties on input items will not be paid by the buyer and they may not be indicated separately in the bids. Bidders are required to include the same in the pricing of their product.

ii) Customs Duty –

1. For imported stores offered against forward delivery, the Bidder shall quote prices thereof exclusive of customs duty. The Bidder shall specify separately the C.I.F. prices and total amount of customs duty payable. They will also indicate correctly the rate of customs duty applicable along with Indian Customs Tariff Number. Customs duty as actually paid will be reimbursed on production of necessary documents i.e. (i) Triplicate copy of the bill of entry; (ii) copy of bill of lading; (iii) a copy of foreign principal's invoice. However, if the Bidder imports the stores in question against his own commercial quota Import Licences, he will also be required to submit in addition the triplicate copy of bills of entry etc. a certificate from his Internal Auditor on the bill itself, to the effect that the following items/quantity in the bill of entry related to the stores imported against Defence Buyer contract number..... dated.....
2. Subsequent to the reimbursement of customs duty, the Bidder will submit to the concerned Payment Authority a certificate to the effect that he has not

obtained any refund of customs duty subsequent to the payment of duty to the Customs authority by him. In addition, he shall also submit to the Paying Authority concerned a certificate immediately after a period of three months from the date of payment of the duty to customs authorities to the effect that he has not applied for refund of the customs duty subsequent to the payment of duty to the customs authorities by him.

3. In case the Bidder obtains any refund of customs duty, subsequently to the payment of the same by him to the customs authorities and reimbursement of the customs duty to him by the Payment Authority, he should forthwith furnish the details of the refund obtained and afford full credit of the same to the Buyer.

iii) Excise Duty

1. Where the excise duty is payable on advalorem basis, the Bidder should submit along with the tender, the relevant form and the Manufacturer's price list showing the actual assessable value of the stores as approved by the Excise authorities.
2. Bidders should note that in case any refund of excise duty is granted to them by Excise authorities in respect of Stores supplied under the contract, they will pass on the credit to the Buyer immediately along with a certificate that the credit so passed on relates to the Excise Duty, originally paid for the stores supplied under the contract. In case of their failure to do so, within 10 days of the issue of the excise duty refund orders to them by the Excise Authorities the Buyer would be empowered to deduct a sum equivalent to the amount refunded by the Excise Authorities without any further reference to them from any of their outstanding bills against the contract or any other pending Government Contract and that no disputes on this account would be raised by them.
3. The Seller is also required to furnish to the Paying Authority the following certificates:
 - (a) Certificate with each bill to the effect that no refund has been obtained in respect of the reimbursement of excise duty made to the Seller during three months immediately preceding the date of the claim covered by the relevant bill.
 - (b) Certificate as to whether refunds have been obtained or applied for by them or not in the preceding financial year after the annual Audit of their accounts also indicating details of such refunds/applications, if any.
 - (c) A certificate along with the final payment bills of the Seller to the effect whether or not they have any pending appeal/protest for refund or partial refund of excise duties already reimbursed to the Seller by the Government pending with the Excise authorities and if

so, the nature, the amount involved, and the position of such appeals.

(d) An undertaking to the effect that in case it is detected by the Government that any refund from Excise Authority was obtained by the Seller after obtaining reimbursement from the Paying Authority, and if the same is not immediately refunded by the Seller to the Paying Authority giving details and particulars of the transactions, Paying Authority will have full authority to recover such amounts from the Seller's outstanding bills against that particular contract or any other pending Government contracts and that no dispute on this account would be raised by the Seller.

4. Unless otherwise specifically agreed to in terms of the contract, the Buyer shall not be liable for any claim on account of fresh imposition and/or increase of Excise Duty on raw materials and/or components used directly in the manufacture of the contracted stores taking place during the pendency of the contract.

iv) Sales Tax / VAT

1. If it is desired by the Bidder to ask for Sales tax / VAT to be paid as extra, the same must be specifically stated. In the absence of any such stipulation in the bid, it will be presumed that the prices quoted by the Bidder are inclusive of sales tax and no liability of sales tax will be developed upon the Buyer.
2. On the Bids quoting sales tax extra, the rate and the nature of Sales Tax applicable at the time of supply should be shown separately. Sales tax will be paid to the Seller at the rate at which it is liable to be assessed or has actually been assessed provided the transaction of sale is legally liable to sales tax and the same is payable as per the terms of the contract.

v) Octroi Duty & Local Taxes

1. Normally, materials to be supplied to Government Departments against Government Contracts are exempted from levy of town duty, Octroi Duty, Terminal Tax and other levies of local bodies. The local Town/Municipal Body regulations at times, however, provide for such Exemption only on production of such exemption certificate from any authorized officer. Seller should ensure that stores ordered against contracts placed by this office are exempted from levy of Town Duty/Octroi Duty, Terminal Tax or other local taxes and duties. Wherever required, they should obtain the exemption certificate from the Buyer, to avoid payment of such local taxes or duties.

2. In case where the Municipality or other local body insists upon payment of these duties or taxes the same should be paid by the Seller to avoid delay in supplies and possible demurrage charges. The receipt obtained for such payment should be forwarded to the Buyer without delay together with a copy of the relevant act or bylaws/notifications of the

Municipality of the local body concerned to enable him to take up the question of refund with the concerned bodies if admissible under the said acts or rules.

Part IV – Special Conditions of RFP

1. Payment Terms for Indigenous Sellers - It will be mandatory for the Bidders to indicate their bank account numbers and other relevant e-payment details so that payments could be made through ECS/EFT mechanism instead of payment through cheques, wherever feasible. No advance payment(s) will be made.

2. Risk & Expense Clause – Should the stores or any installment thereof not be delivered within the time or times specified in the contract documents, or if defective delivery is made in respect of the stores or any installment thereof, the Buyer shall after granting the Seller 45 days to cure the breach, be at liberty, without prejudice to the right to recover liquidated damages as a remedy for breach of contract, to declare the contract as cancelled either wholly or to the extent of such default.

3. Inspection Authority: The Inspection will be carried out by **Board of Officers**. The mode of Inspection will be Departmental Inspection/User Inspection/Joint Inspection/Self-certification.

4. Product Support: The following Product Support clause will form part of the contract placed on successful Bidder –

(a) The Seller agrees to provide Product Support for the stores, assemblies/subassemblies, fitment items and consumables, Special Maintenance Tools(SMT)/Special Test Equipments (STE) subcontracted from other agencies/manufacturer by the Seller for a maximum period of **10** years including **01** years of warranty period after the delivery of HPLC (Fully automated complete system) at **medical stores**.

5. Annual Maintenance Contract (AMC) Clause - The Seller would provide **comprehensive AMC** for a period of **5 (FIVE) years incl one year warranty period**. The AMC services should cover the repair and maintenance of all the equipment and systems purchased under the present Contract. The AMC services would be provided in two distinct ways:

(i) **Preventive Maintenance Service:** The Seller will provide a minimum of four Preventive Maintenance Service visits during a year to the operating base to carry out functional checkups and minor adjustments/ tuning as may be required.

(ii) **Breakdown maintenance Service:** In case of any breakdown of the equipment/ system, on receiving a call from the Buyer, the Seller is-to provide maintenance service to make the equipment/system serviceable. **Seller will also provide replacement of any part of the eqpt if reqd free of cost during five years comprehensive annual maintenance contract.**

(b) Response time: The response time of the Seller should not exceed **72** hours from the time the breakdown intimation is provided by the Buyer.

(g) The Buyer reserves its right to terminate the maintenance contract at any time without assigning any reason after giving a notice of **one** months. The Seller will not be entitled to claim any compensation against such termination. However,

while terminating the contract, if any payment is due to the Seller for maintenance services already performed in terms of the contract, the same would be paid to it as per the contract terms.

Part V – Evaluation Criteria & Price Bid issues

1. Evaluation Criteria - The broad guidelines for evaluation of Bids will be as follows:

(a) Only those Bids will be evaluated which are found to be fulfilling all the eligibility and qualifying requirements of the RFP, both technically and commercially.

b) In respect of Two-Bid system, the technical Bids forwarded by the Bidders will be evaluated by the Buyer with reference to the technical characteristics of the equipment as mentioned in the RFP. The compliance of Technical Bids would be determined on the basis of the parameters specified in the RFP. The Price Bids of only those Bidders will be opened whose Technical Bids would clear the technical evaluation.

c) The Lowest Bid will be decided upon the lowest price quoted by the particular Bidder as per the Price Format given at Para 2 below. The consideration of taxes and duties in evaluation process will be as follows:

i. In cases where only Indian Bidders are competing, L1 bidder will be determined by excluding levies, taxes and duties levied by central/ state/ local governments such as excise duty, VAT, service tax, octroi/ entry tax, etc. on final product, as by the Bidders.

ii. In cases where both foreign and indigenous Bidders are competing, following criteria would be followed –

1. In case of foreign Bidders, the basic cost (CIF) quoted by them would be the basis for the purpose of comparison of various tenders.

2. In case of indigenous Bidders, excise duty on fully formed equipment would be offloaded.

3. Sales tax and other local levies, i.e. octroi, entry tax etc would be ignored in case of indigenous Bidders.

2. Price Bid Format (to be used for L1 determination): The Price Bid Format in general is given below and Bidders are required to fill this up correctly with full details as required under Part II of RFP (The format indicated below is only as an illustration. This format should be filled up with items, requirements as mentioned in Part II of RFP) :

(a) Basic cost of the item/items:

| Sr No | Nomenclature of the stores | A/U | Manufactured By | Unit price (Rs) | Qty | Total Cost (Rs) |
|-------|----------------------------|-----|-----------------|-----------------|-----|-----------------|
|-------|----------------------------|-----|-----------------|-----------------|-----|-----------------|

- (b) Accessories:
- (c) Installation / Commissioning charges:
- (d) Training:
- (e) Technical literature:
- (f) Tools:
- (g) AMC
- (h) Any other requirement

Note: 1. Determination of L1 will be done based on total of basic prices (not including levies, taxes and duties levied by central/ state/ local governments such as excise duty, VAT, service tax, octroi/ entry tax, etc. on final product) of all items/ requirement as mentioned above.

3. Additional information in price bid on taxes and duties (not in scope of L1 determination)

- (a) Is Excise Duty extra?
- (b) If yes, mention the following –
 - (i) Total value of items on which Excise Duty is leviable:
 - (ii) Rate of Excise duty (item-wise if different ED is applicable):
 - (iii) Surcharge on Excise duty, if applicable?
 - (iv) Total value of excise duty payable:
- (c) Is Excise Duty Exemption (EDE) required:
- (d) If yes, then mention and enclose the following:
 - (i) Excise notification number under which EDE can be given:
- (e) Is VAT extra?
- (f) If yes, then mention the following:
 - (i) Total value on which VAT is livable:

- (ii) (ii) Rate of VAT:
 - (iii) Total value of VAT leviable:
- (g) Is Service Tax extra?
- (h) If yes, then mention the following:
 - (i) Total value of Services on which Service Tax is leviable:
 - (ii) Rate of Service Tax leviable:
 - (iii) Total value of Service Tax leviable:
- (j) Is Custom Duty Exemption (CDE) required: **No**
- (k) If yes, then mention the following:
 - (i) Custom notification number under which CDE can be given(Enclose a copy):
 - (ii) CIF value of stores to be imported:
 - (iii) Rate of Customs Duty payable:
 - (iv) Total amount of Customs Duty payable:
- (l) Octroi / Entry taxes:
- (m) Any other Taxes / Duties:

Place : Pune

Date : Jan 2016

OIC DGLP

Appx A to Para 2 of Part II of RFP

High Performance Liquid Chromatograph (Fully Automated Complete System)

An automated Liquid Chromatography system with quaternary gradient pump capable of pumping four solvents at a time with a wide range of flow rate and with minimum dead volume. The system should be designed for analyses of High speed and high resolution applications with, standard analytical HPLC applications & future upgradeable for high speed. It should also offer smooth transition from standard HPLC to fast HPLC technology. The proposed HPLC system shall also be upgradeable in future to Mass Spectrometer like single quadrupole, triple quadrupole, time-of-flight, quadrupole-time-of flight etc.

I. Solvent Delivery System (Pump):

| Sr no | Parameter | Specification |
|-------|--------------------------------|---|
| 1 | No of Channels | Quaternary gradient Pump able to deliver 4 Solvents with - dual piston in series pump -In line 4 channel degasser |
| 2 | Flow range | Total flow range of 0.2 – 10.0 ml/min or better |
| 3 | Flow Precision | :<= 0.07 % RSD or <=0.02 min SD, Whatever is greater, based on Retention time at constant Room temperature |
| 4 | Flow accuracy | ± 1% |
| 5 | Operating Pressure | At least 400 Bar (6000 psi) or better |
| 6 | Gradient composition Precision | :< 0.20% SD at 0.2 and 1 ml/min |
| 7 | Delay volume | Between 600- 900uL |
| 8 | pH range | - 1.0 - 12.5 |
| 9 | Active seal wash option | Must have active seal wash option, leak sensors in each module |
| 10 | Compressibility compensation | User selectable |

2. Column Thermostat

| Sr no | Parameter | Specification |
|-------|-------------------------|---|
| 1 | Method of cooling | Peltier |
| 2 | Temperature range | 10°C below ambient to 70°C or better. |
| 3 | Temperature stability | +/- 0.2°C or better |
| 4 | Temperature accuracy | +/- 0.1°C or better |
| 5 | Column holding capacity | 2 columns of 30 cm length simultaneously with guard columns or more |

High Throughput Autosampler

| | |
|---|---|
| Needle wash station | The well-plate sampler must offer an additional needle flush station with a peristaltic pump installed to wash the outside of the needle. |
| Carryover | Carryover must be below 40 ppm (specified conditions) |
| Autosampler injector design – flow through design | The autosampler design must offer a flow through design with variable injection volume |
| Draw and inject speed | The draw and eject speed must be user settable |
| Sample Capacity | 100 x 2-mL vials in 1 tray (Min 2000 pcs of sample vials should be provided along with vial inserts) |
| Operation pressure range | The instrument must have an operation pressure range of 0 – 40 MPa (0 – 400 bar, 0 – 6000 psi) or better. |
| Minimum accessible sample volume | The minimum sample volume needed when sampling 1 µl in 100 µl microvial must be from 5 µl sample, or from 10 µl sample in 300 µl microvial |
| Transport mechanism | Instrument must have a transport mechanism that uses an X-Z-Theta robot to optimize the positioning of the sampling arm on the well-plate and vial |
| Metering device | The metering device must have the capability to be always flushed after injection |
| Precision | precision must be better than 0.25% at 5uL to 100uL |
| injection volume range | Injection volume range from 0.1 uL to 1.5 mL without any loop change (multi-draw) |
| UHPLC capability | Metering device is located in high pressure environment |
| Automation Interface | The autosampler must have the option to be connectable to an external robotic device |
| Injector program | Injector must have the possibility to perform automated sample pretreatment as part of the method (injector program). This includes addition of standards, mixing, sandwich injection |
| Overlapped injection | Enables drawing samples prior to the end of the previous run |
| Rotor seals | Offer different choices of rotor seals |
| Thermostating | Must be upgradeable to a thermostatted version by adding a thermostating module to control the temperature of the sample in the vial/well-plate. Settable temperature range 4-40C |
| Accuracy | Accuracy must be better than 1% with UV detection under specified conditions |
| Needle wash station | The well-plate sampler must offer an additional needle flush station with a peristaltic pump installed to wash the outside of the needle. |

3. *UV VIS Detector (Multiple Wavelength):*

Should be able to monitor multiple wavelengths at a time

| Sr no. | Parameter | Specification |
|--------|---------------------|---|
| 1 | Wavelength range | 190-750nm with diode width of < 1nm |
| 2 | Light source | Deuterium lamp and Tungsten Lamp |
| 3 | Elements | 1024 diode array or better |
| 4 | Signal-Noise | < $\pm 0.7 \times 10^{-5}$ AU at 254/4 nm and at 750 nm, TC 2 sec. |
| 5 | Wavelength accuracy | ± 1 nm, self-calibration with Deuterium lines verification with holmium oxide filter |
| 6 | Slit width | Programmable 1,2,4,8, 16 nm |
| 7 | Diode width | - <1nm |
| 7 | Linearity | - 2 AU |
| 8 | Data rate | - 20 HZ or better |
| 9 | Flow cells | Flow cells must be provided for standard & fast mode analysis and semi prep analysis |
| 10 | Time programmable | Wavelength, polarity, peak width, lamp bandwidth, autobalance, wavelength range, threshold, spectra storage mod |
| 11 | Tags | It should have feature like tags for all flow cells and UV lamp to provide new levels of data traceability by recording parameters, cell dimensions, lamp usage, electronic |

V. GLP and Regulatory Conformity:

- Instrument manufacturer must be certified under ISO 9001.
- Instrument manufacturer must be able to provide at shipment a declaration of conformity to specification describing tests performed.
- The manufacturer must provide software for hardware performance verification with printed reports.

VI. Chromatography Data Station (HPLC Software):

Suitable latest Chromatography data station with original license software with all features like control of entire HPLC system including all modules, data acquisition, report generation, GLP features etc. should be supplied along with HPLC system.

- Licensed Software
- Power automation tools with smart sequence
- Extensive reporting capabilities with built-in calculations
- For increase productivity
- Powerful customization tool kits adopt software to dedicated Lab workflows
- Diagnostics/maintenance
- Parameter validation management.
- Compatibility with diode array
- Compatibility to import and export the data.
- Ability to acquire and analyses and store spectral library
- Flexible report publisher to make report in desired format.
- GLP compliance.

The computer-based control software for the diode array detector must have features such as:

- Iso-absorbance map
- Automated peak purity evaluation using peak spectra and peak signal information
- Automated spectra library searches
- Mathematical operations like normalize, subtract, smooth and derive.
- Signal definition parameters (wavelengths and bandwidths), attenuation, response time, zero offset, spectra definition and analog outputs must be user selectable.
- Must be able to modify set points and time-programs even during a run.
- For unattended system conditioning it must be possible to switch on the lamp automatically at a pre-selected time and date.
- It must be possible to switch off the lamp automatically at a pre-selected time and date.
- The instrument must provide extensive information for diagnostic purposes as, for example:
 - Counters for actual and total lamp on time (since last reset)
 - Memory buffers with information on for example the last instrument profile and the last holmium spectrum.
- It must be possible to reset certain counters, for example, after a repair. It must be possible to remotely access the instrument through a modem for control and diagnosis.

It will be supplied along with desktop and multifunction color laser printer.

Configuration of desktop :

- i. Monitor -17" Monitor
- ii. Processor-i 5
- iii. Hard disk- 1 TB
- iv. RAM -4GB
- v. UPS 1 KVA

3. Complete kits for estimation of phenytoin, carbamazepine, oxcarbazepine and valproic acid (Antiepileptic Drugs) in serum and saliva inclusive of analytical column, guard columns, reagents, standards, clinical calibrator, clinical serum

4. Solid Phase Extraction Manifold with vacuum pump for sample cleanup columns

X Miscellaneous:

Entire HPLC system should be under **comprehensive warranty including preventive maintenance for a period of 5 years** from the date of purchase. This warranty shall include all spares as & when required for entire HPLC system.

The vendor should also provide the following accessories:

Suitable HPLC columns should be quoted for above-mentioned samples with guard columns.

Installation/training of the complete HPLC system shall be done without any additional cost. Prompt after sales onsite service support & technical/application support shall be available as & when required.

Service/spares/consumables support for the complete HPLC system shall be guaranteed for a period of at least 10 years from the date of purchase.

Vendor will arrange 8 weeks on spot training

Detailed users list of HPLC preferably in government and defense institutes must be provided by the vendors

