

# OFFICE OF THE DIRECTOR, DIRECTORATE OF FORENSIC SCIENCE, HIMACHAL PRADESH, SHIMLA HILLS, JUNGA, INDIA, 171218 Tel/Fax: 0177-2752521/27, email: sfsl-hp@nic.in

# "Global/Open Tender"

No.FSL(Plan-Equipt.)/2017 - 605

Dated:- 03-02-2017

Director, Directorate of Forensic Science, Himachal Pradesh invites tenders in closed/sealed covers with wax/cello tape/ company seal under two bid systems from the reputed Indian/Foreign Manufacturers or Sole Authorized Dealers/Distributors/Agents for the supply of the following item(s):

Sr.No.	Items	Quantity	EMD (In Rs.)
1.	Gas Chromatograph with FID, ECD, NPD detectors.	01 No.	50,000/-
2.	Gas Chromatograph with FID & ECD detectors.	02 No.	50,000/-
3.	FTIR	01 No.	50,000/-
4.	Multi-Wavelength Digital Abbe Refractometer	01 No.	10,000/-
5.	Universal Forensic Extraction Device (UFED)	01 No.	25,000/-
6.	Digital Distillation range apparatus.	01 No.	50,000/-
7.	Automatic Flash point apparatus.	01 No.	50,000/-
8.	Facial Reconstruction and Analysis Software	01 Nos.	50,000/-

Tender Document with complete terms & conditions, technical specifications etc. can be downloaded from DFS website <u>http://www.himachal.gov.in/home/forensics</u> and be deposited with tender fee along with the bid. Alternatively, the same can be obtained from this office against a request letter along with the non refundable & non-transferable tender fee of Rs. 500/- by Demand Draft in favour of Director, Directorate of Forensic Science, Shimla Hills, Junga. Last date of receipt of complete tender(s) is **Feb 20**, **2017** upto 11:30 am (IST). The date of opening of technical bid(s) is **Feb 20**, **2017** at 12.30 pm (IST) onwards in the presence of tenderers' who wish to be present.

(Director)

#### WHILE FILLING UP OF THIS SCHEDULE THE TENDERERS ARE REQUESTED TO GO THROUGH THE COLUMNS OF THE TENDER FORM CONDITIONS DETAILED THEREIN AND THE TERMS AND CONDITIONS OF THE NIT.

Tender Notice No. FSL(Plan Equip.)/2017-605Dated: - 03-02-2017Date and time of receipt of technical/financial.<br/>Bids.**20.02.2017 upto 11.30 A.M.** 

Date and Time of opening of technical bids.

**20.02.2017 at 12.30 P.M.** (In the Office of the Director, Directorate of Forensic Science, HP, Junga.

Earnest Money.

As under:-

Sr.No.	Items	Quantity	EMD (In Rs.)
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Sr. No.	Name of Equipment.	Specification.
1.	Gas Chromatograph with FID, ECD, NPD detectors.	Annexure-A Page 25-27
2.	Gas Chromatograph with FID & ECD detectors.	Page 28-29
3.	FTIR	Page 30-31
4.	Multi-Wavelength Digital Abbe Refractometer	Page 32
5.	Universal Forensic Extraction Device (UFED)	Page 33-35
6.	Digital Distillation range apparatus.	Page 36
7.	Automatic Flash point apparatus.	Page 37
8.	Facial Reconstruction and Analysis Software	Page 38

#### DIRECTORATE OF FORENSIC SCIENCE, HIMACHAL PRADESH, SHIMLA HILLS, JUNGA.

#### TENDER DOCUMENT FOR OPEN/ GLOBAL TENDER (TERMS & CONDITIONS INCLUDING INSTRUCTION TO BIDDERS AND CONDITIONS OF CONTRACT)

**GENERAL:** Quotations in closed cover under two bid system are invited on behalf of the Director, Directorate of Forensic Science, Shimla Hills, Junga, Distt. Shimla from the reputed Indian and foreign manufacturer. <u>The offer/quotation must be</u> <u>strictly as per required specifications and the tender terms & conditions.</u>

**ELIGIBILITY CRETERIA:** *The Bidders should comply fully with the Technical Specifications in the tender document.* 

#### **Instructions to Bidders**

- 1.1 Bids are invited, for and on behalf of Director, Directorate of Forensic Science, Himachal Pradesh, Shimla Hills, Junga from established, reputed and experienced manufacturers or their authorized dealers/representatives for purchase of machinery and equipments for Directorate of Forensic Science, Himachal Pradesh, Shimla Hills, Junga as per the enclosed Technical Specifications. (Annexure-A).
- 1.2 Bidders are requested to study the tender document and terms & conditions carefully. Submission of tender shall be deemed to have been done after careful study and examination of the tender document with full understanding of its implications.
- 1.3 The scope of work shall include Supply, Installation, Commissioning, & Satisfactory Demonstration. This will also include testing, packing, transportation, scheduling of transportation, transit insurance, delivery at sites, unloading, storage, job site storage, insurance, installation and any other services associated with the delivery of the equipment and materials providing warranty of services and operation and maintenance of other related equipment/items required for complete installation. The successful bidder will assume full responsibility of the complete system until final acceptance.
- 1.4 It will be imperative on each bidder to fully acquaint himself with all the local conditions and factors which would have any effect on the performance of the System. No request for the change of price, or time, schedule of delivery of stores shall be entertained after the purchase on account of any local condition or factor.
- 1.5 The bidders may have a survey including a site visit before furnishing the quotations. They have to apply for permission in this regard to the Director, Directorate of Forensic Science, Himachal Pradesh, Shimla Hills, Junga. The

Director, Directorate of Forensic Science, Himachal Pradesh, Shimla Hills, Junga will give such permission in writing, but the expenses, in connection with the visit and surveys etc., shall be borne by the bidders themselves.

- 1.6 The bidders will not form a part of the cartel and put in supporting quotations for some other company. This will debar the company for participating in other tenders floated or to be floated in by the purchaser. The authorities can compare the prices of other Bidders L2, L3 etc. also with the prices quoted in other tenders for same products and in case of discrepancy suitable action will be initiated.
- 1.7 No Gratification Clause: The bidders will give an undertaking that they will not try to gratify any person or use any other unfair means involved in the purchase of the quoted equipment. This will also debar the company for participating in other tenders floated or to be floated in by the purchaser and suitable action will be initiated against such defaulters.
- 1.8 Non Blacklisting Certificate: All the bidders will give an undertaking on non judicial Stamp paper duly attested / self attested that neither they nor their principals or the manufacturers have been blacklisted by any State / Central Government Departments/other organizations.
- 1.9 The bidders shall also be required to submit the copies of PAN and income tax returns for the last three year along with the copy of TIN/ copy of registration of their firms with appropriate authority.
- 1.10 All the correspondences shall be addressed to the Director, Directorate of Forensic Science, Himachal Pradesh, Shimla Hills, Junga.
- 1.11 The Bid Documents are not transferable and the cost of the documents is not refundable under any circumstances.
- 1.12 Information regarding installations in Government & Premier institutions in India and satisfactory service and maintenance may be forwarded with all the details for verification

### 2. <u>Bid Security/Earnest Money</u>

2.1 Bid Security/EMD amount should be enclosed along with the Technical Bid for an amount mentioned in Schedule-A for each equipment in the shape of FDR/D.D. duly pledged in the name of "Director, Directorate of Forensic Science, Himachal Pradesh, Shimla Hills, Junga", failing which the tenders will be out rightly rejected. Bid Security/EMD, if already deposited against other tenders, shall not be adjusted against this tender.

- 2.2 The "Bid Security/Earnest Money", in case of successful Bidders, shall be retained by the Purchaser, up-to a maximum period of One year from the date of opening of the Bids or till the finalization of the tender, whichever is later. The Bid security shall be refunded to the unsuccessful tenderers on their written request. No interest will be payable by the Purchaser on the Bid Security/EMD.
- 2.3 The Bid Security/Earnest Money shall be forfeited;
  - a) If a Bidder withdraws his bid during the period of bid validity specified by the Bidder in the Bid; or
  - b) In the case of the finally selected Bidder, if the Bidder fails;
    - i) to sign the Contract in accordance with Clause 13; or
    - ii) if, at any stage, any of the information/declaration is found false.
- 2.4 Bid security/Earnest Money in respect of the finally selected Bidder(s) will be discharged upon the Bidder(s) executing the Contract, and furnishing the Performance Guarantee, pursuant to Clause-5.8.

## 3. <u>Bidder's Qualification</u>

The "Bidder" as used in the tender document shall mean one who has signed the Bid Form. The Bidder may be the manufacturer of the equipment/machinery/material for which prices are quoted on the Price Schedule or his duly authorized representative, in which case, he shall submit a certificate of authority as per <u>Annexure- B.</u>

### 4. <u>Procurement and Submission of Tender Document</u>

- 4.1 The non-transferable Tender Document will be sold at counter on payment of tender fee of Rs. 500/- (Rupees Five Hundred only non refundable) through cash or MO/TMO or demand draft payable at Shimla drawn in favour of the "Director, Directorate of Forensic Science, Himachal Pradesh, Shimla Hills, Junga.
- 4.2 The non-transferable tender document can be obtained from the Office of Director, Directorate of Forensic Science, Himachal Pradesh, Shimla Hills, Junga any working day 10.00 AM to 05.00 PM or can be download from DFS website <u>http://www.himachal.gov.in/home/forensics</u>.
- 4.3 The sealed bids will be accepted upto 27.01.2017 till 11.00 a.m. in the office of the Director, Directorate of Forensic Science, Himachal Pradesh, Shimla Hills, Junga

- 4.4 The Technical Bids will be opened on 20-02-2017 at 12.30 p.m. in the office of the Director, Directorate of Forensic Science, Himachal Pradesh, Shimla Hills, Junga. The bidders or their authorized representatives may present, if they so desire.
- 4.5 After evaluation of the Technical Bids and the technical presentation, the short listed bidders will be intimated accordingly.
- 4.6 The Financial bids of the short listed bidders will be opened in the Office of the Director, Directorate of Forensic Science, Himachal Pradesh, Shimla Hills, Junga in the presence of prospective bidders/their authorized representatives, if any. (The date of opening of financial bids will be communicated to the technically successful bidders separately).

Note: - The forwarding letter as at <u>Annexure C</u> and other relevant documents as per check list duly signed should invariably be returned alongwith the quotation furnished, failing which the tender shall be rejected.

### 5. <u>Bid Requirements</u>

- 5.1 The Directorate invites two part Bids from eligible suppliers/bidders. The two part bid shall consist of Part-I Technical Bid and Part-II Financial Bid. Technical and Financial Bids for each Machinery/Equipment at Annexure-A should be submitted in two separate sealed envelopes super scribed "Technical Bid" and "Financial Bid" respectively. The technical bid would be opened first. The Financial bid would be opened only in the case of those bidders who qualify and meet requisite parameters for technical evaluation. Further the
  - **a**) Technical Bid shall comprise the following and to be submitted alongwith following documents
    - i) Manufacturers' Authorization Form (Annexure -B)
    - ii) Forwarding letter (Annexure-C)
    - iii) Bidders particulars (Annexure-E)
    - iv) Bid Form (Annexure -F)
    - v) Earnest Money Deposit
    - vi)Proforma of Guarantee for supply of spares during the post warranty period (Annexure -G)
    - vii) Bidder's profile (Annexure-H)
    - viii) Any other certificates/undertaking as per check list

- **b**) Financial Bid in one cover. (**Annexure-D**). Separate Financial Bid shall be submitted in respect of each equipment.
- 5.2 Bidders are required to submit all relevant documents as per check list, brochures, authority letters etc. with the technical offer of the concerned equipment and separate sealed envelope for each equipment should be submitted.
- 5.3 Both the Technical Bid cover and Financial Bid cover prepared as above are to be kept in a single sealed cover super-scribed with Tender Number.
- 5.4 The cover thus prepared should also indicate clearly the name and address of the Bidder.
- 5.5 Each copy of the tender should be a complete document and should be bound as a volume. Different copies must be bound separately.
- 5.6 The sealed cover as mentioned at Clause 5.3 above shall be deposited with the Director, Directorate of Forensic Science, Himachal Pradesh, Shimla Hills, Junga Distt. Shimla-171218.
- 5.7 The Bidder must quote for the equipment with all items and quantities as listed in Annexure-A.
- 5.8 The finally selected Bidder(s) will be required to furnish Security amount for Contract Performance equal to 10% of the Contract Price, on award of Contract as per the prescribed Performa, in the shape of Bank Guarantee from any scheduled Indian Bank or FDR duly pledged in favour of the Director, Directorate of Forensic Science, Himachal Pradesh, Shimla Hills, Junga which shall be valid till warranty period. Failure to furnish security for the performance of contract, in time, would also entail forfeiture of EMD.
- 5.9 Bids not accompanied by EMD and Bids from representatives without letter of Authority from the manufacturers will be summarily rejected.
- 5.10 Telex/Fax bids, bids received through e-mail and incomplete bids will be summarily rejected.
- 5.11 Bidders should enclose, alongwith the Technical Bid of their offers, the full details including proposed configuration of offers with full documentation, descriptive literature/leaflets supplementing the description and point out any special feature of their system. All documentation is required to be in English.
- 5.12 The bid shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by the Bidder, in which case such corrections shall be initialed by the person or persons signing the bid.
- 5.13 All pages of the Bid being submitted must be signed

- 5.14 All information in the offer must be in English. Information in any other language must be accompanied by its authenticated translation in English. Failure to comply with this may render the offer liable to be rejected. In the event of any discrepancy between the offer in a language other than English and its English translation, the English translation will prevail.
- 5.15 The bidder must give an undertaking that the offered equipment's have not been supplied anywhere at a less rate than offered rate in this tender.
- 5.16 The bidder must submit the list of installation of similar nature of equipment's and also submit the copy of latest supply order alongwith satisfactory performance report.

## 6. <u>Period of Validity of Bids</u>

Bids shall remain valid for at least one year from the date of bid opening (price bid) prescribed by the Purchaser unless otherwise prescribed in other terms and conditions of this tender document. The Purchaser may reject a bid valid for a shorter period.

## 7. <u>Purchaser's Right to accept any Bid and to reject any or all bids</u>

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

## 8. <u>Opening of Bids by Purchaser</u>

8.1 The bids will be opened in the presence of Bidders/representatives who choose to attend on the scheduled date and time as mentioned. The Bidders/ representatives who are present shall sign a register evidencing their attendance. The Bidder's representatives shall furnish letter of authority from their principal to attend the bid opening. Financial bids of only those Bidders, whose bids are found technically suitable/qualified (after the presentation, demonstration etc., if any) will be opened. The decision of the sub-committee on technical suitability shall be final and shall not be open for discussion.

The bidders who do not qualify the technical evaluation shall be informed separately and their EMD and unopened financial bid shall be returned after award of the contract.

## 9. <u>Scrutiny of Bids</u>

9.1 The Directorate will examine the bids to determine whether they are complete, whether any computational errors have been made, whether required EMD has

been furnished, whether the documents have been properly signed, and whether the bids are generally in order.

The institute may waive any minor infirmity, nonconformity or irregularity in a bid that does not constitute a material deviation and that does not prejudice or affect the relative ranking of any Bidder as a result of the technical and financial evaluation.

- 9.2 Prior to the detailed evaluation, the institute will determine whether each Bid is acceptable qualitatively, is generally complete and is substantially responsive to the Bid Documents. For the purposes of this determination, a substantially responsive Bid is one that conforms to all the terms, conditions and specifications of the Bid Documents without material deviations, objections, conditional ties or reservations. A material deviation, objection, conditionality or reservation is one (i) that affects in any substantial way the scope, quality of performance of the Contract; (ii) that limits in any substantial way and /or is inconsistent with the Bid Documents or the college's rights or the successful Bidder's obligations under the Contract; or (iii) whose rectification would unfairly affect the competitive position of other Bidder's who are presenting substantially responsive Bids.
- 9.3 Arithmetical errors, if any, will be rectified on the following basis: If there is a discrepancy between the unit price and the total unit price as declared in the Price Schedule the unit price shall prevail and the total price shall be corrected. If there is a discrepancy between words and figures, the amount in words will prevail. If the supplier does not accept the correction of the errors, its bid will be rejected.

#### 10. Price Bid

The prices may be quoted in **INR** only for Indian Products and may quote in foreign currency for imported products.. All prices mentioned should be FOR destination at Directorate of Forensic Science, Himachal Pradesh, RFSL Dharamsala or RFSL Mandi. Prices shall be quoted separately for each equipment and in a separate envelope. The bidders are required to quote the following prices:

- a) Cost of core equipment including accessories as detailed in the specifications with 3 years warranty;
- b) Cost of turnkey job, if required in the technical specifications.
- c) Buyback offer wherever applicable.
- d) Cost of Consumables wherever applicable.

The price comparison shall be made on the basis of cost of main machinery/equipment/material alongwith its accessories, cost of Turnkey job and buyback offer and cost of consumables, wherever applicable.

- 10.1 The bidder shall indicate the prices on prescribed PRICE BID PROFORMA at <u>Annexure-D</u> of the tender document. The Proforma should be duly signed & sealed by their authorized signatory/ies. Financial Bids not given in Proforma will be rejected out rightly.
- 10.2 The prices of machinery/equipment quoted by the Bidder and accepted by Directorate of Forensic Science, Himachal Pradesh, Shimla Hills, Junga shall hold good till the completion of the works or satisfactory installation of Machinery/equipment and no additional claims will be admissible on account of any price variation or fluctuation in market rates.
- 10.3 Payments made consequent to any notified change in sales tax and other statutory levies (both increase and decrease) shall be to the Purchaser's account. For such claims of variation, the Bidder shall produce the Government notification as documentary evidence. Price variation due to any other cause shall be on Bidder's account.
- 10.4 The finally selected Bidder will have to apply to the proper Government Authority for grant of requisite License for such items as required and the purchaser will only tender such assistance, as considered necessary.
- 10.5 The firm has to provide the break-up of expenditure of different quoted items as well as total expenditure clearly for the whole items.
- 10.6 Excise/Custom Duty, VAT, Entry Tax and any other levy/surcharge in any shape or by whatever nomenclature may be included in the quoted amount unless it is specially mentioned separately.
- 10.7 The warranty charges shall not be quoted separately otherwise the offer shall be summarily rejected.

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

The Purchaser reserves the right to vary the quantities and/or services.

### 12. <u>Negotiation/Award of Contract</u>

Prior to the expiry of the period of bid validity, the Purchaser will notify the finally selected Bidder(s) in writing by registered letter or by cable or telex or fax, to be confirmed in writing by registered letter or by Hand in person, that its bid has been accepted. If need for extension of the bid validity period arises, it should be extended by mutual agreement. Before the award of contract, the Directorate may hold negotiations with the bidder, whose bid has been determined to be substantially responsive to the bid documents and whose offers are lowest one. The aim is to reach agreement on all points and sign a contract.

## 13. <u>Signing of Contract</u>

- 13.1 At the same time as the Purchaser notifies the finally selected Bidder(s) that its bid has been accepted, the finally selected Bidder(s) shall collect the supply order, agreement/ Contract proforma from the office of the Director, Directorate of Forensic Science, Himachal Pradesh, Shimla Hills, Junga.
- 13.2 Without prejudice to any legal remedy, failure of the finally selected Bidder(s) to comply with the requirement of Clause 2.3 (a) or Clause 2.3 (b) shall constitute sufficient grounds for the annulment of the award and forfeiture of the EMD, in which event the Purchaser may make the award to the next lowest evaluated Bidder or call for fresh bids.

## 14. Payment:

Payment of machinery/equipment will be released in one installment as under:-

- 100% after the satisfactory installation & functioning of the Machinery/Equipment/material in the Lab/department and receiving of certificate to that effect from the concerned division/Lab.

## 15. <u>Other Terms and Conditions of Tendering Firms</u>

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

### 16. <u>Inspection and Tests</u>

The Purchaser shall have the right to inspect and/or test the machinery/equipment for its conformity with the given Specifications.

- 16.1 In case any inspected or tested equipments fail to conform to the specifications, the Purchaser may reject them and the supplier shall either replace the rejected machinery/equipment's or make all alterations necessary to meet specification requirements free of cost to the Purchaser.
- 16.2 The supplier shall provide installation and standard tests for the individual equipment before the delivery of the system at site.
- 16.3 The supplier shall test each individual equipment and the complete system after installation at site and prepare a test report. This shall be compared with the factory test report to ensure that there is no deterioration in the equipment parameters during storage, transportation and installation.
- 16.4 Leaflets and literature should invariably be attached for ready references alongwith complete documentation of all the measurements conducted during installation period which shall be submitted by the supplier for future reference.

- 16.5 The technical problems faced during installation, testing and commissioning period and their solutions shall be submitted by the supplier at the time of handing over the completed works.
- 16.6 For the purpose of taking over the equipment/system supplied pursuant to this contract, an acceptance test shall be carried out at the Purchaser/Consignees destination site. The equipment which meets the acceptance test shall only be accepted by the Purchaser.
- 16.7 (a) Acceptance Test at site shall be conducted of individual equipment and complete system to ensure that individual equipment and complete system meets the technical specifications and other operational and technical requirements of tender.

(b) The Purchaser shall have the right to reject any individual equipment or complete system, if in its opinion the same does not meet technical specifications, operational or technical requirements. The decision of the purchaser in this regard shall be final.

(c) The delivery, installation or commissioning shall not be deemed to have been completed unless all the equipments and systems are accepted by the purchaser.

## 18. <u>Warranty/CMC (AFTER SALES SERVICES)</u>

- 18.1 The equipment shall be quoted with 3 years warranty. The warranty shall also cover the accessories supplied with the main equipment. However, it shall be noted that the warranty charges shall not be quoted separately otherwise the offer shall be summarily rejected. CMC shall be applicable to the post warranty period for 5 years and shall be quoted on yearly basis.
- 18.2 Incremental Cost (if any) for up-gradation, if required, should form part of the contract for the Warranty and Post Warranty period.
- 18.3 The Supplier (manufacturer) shall set-up a maintenance base to provide maintenance service, of the entire system being offered, at short notice during the warranty and post warranty period. The technical maintenance personnel of the supplier, responsible for supervision and maintenance, shall be available to reach the site(s) within 48 hours' notice.
- 18.4 If the performance of any individual equipment or system is not satisfactory, the same shall be replaced by the supplier free of cost.
- 18.5 If it is found that to meet the performance criteria, any extra equipment is required the same will be provided free of cost by the supplier.
- 18.6 Any lacuna or lacunae noticed in the functioning of the installation as a result of any design feature shall be rectified by the supplier free of cost.

- 18.7 The Supplier shall fully associate the engineers and technicians of the Institute during installation, testing, commissioning, operation and maintenance period.
- 18.8 The bidder shall attach an undertaking on affidavit from the original manufacturer that the AMC after warranty period shall be provided by the manufacturer OR his sole All India distributor directly on the rates and terms finalized with the bidder. The manufacturer shall be liable for the aforesaid service in case the dealership is changed/back out.

## 19. Spare Parts

- 19.1 The Bidder will undertake that supplies of necessary maintenance equipment and spare parts will be made available for all items/equipments and for the complete system for at least twelve years on a continuing basis. An undertaking in this regard should be made available from the original manufacturer. However, this does not relieve the supplier of any warranty obligations under the Contract.
- 19.2 The Bidder shall include in his tender, the details of essential spares, and their quantity and unit prices as per schedule of requirements.
- 19.3 In addition to the essential spares, Bidder shall indicate additional recommended quantities of spares for efficient maintenance of the equipment and the systems for a period of 9 years, after the completion of warranty period, to ensure that the quality and reliability objective is achieved. The details on which unit price and the total cost or recommended spares is based shall be included in the tender as an option. However, the cost of such recommended spares shall not be considered for tender evaluation.

### 20. <u>Previous Installations</u>

- 20.1 The names and address of the institutions/hospitals where the supplier has already installed/supplied the equipment indicating the dates of installations may be given (in India and abroad). He should also attach performance certificates to indicate his prompt after sales service.
- 20.2 On site functional assessment of the similar installation and equipment of the short listed Bidders will be undertaken, if necessary, by the Committee duly constituted by the Directorate.

### 21. Delivery, Installation and Commissioning

21.1 Delivery of the goods at the Institute premises shall be completed by the Supplier within 08-12 weeks from the date of Supply Order.

21.2 The installation, testing and commissioning of the proposed system shall be completed within 12 weeks from the date of Supply Order, failing which necessary action as deemed fit under rules, will be taken against the defaulter.

### 22. <u>Site Preparation</u>

- 22.1 The site for installation of the equipment shall be provided by the purchaser as per the required specification and environmental conditions before the installation of System/equipment/machinery.
- 22.2 Any civil/electrical work or other related works if specified/detailed in the technical specification shall be prepared by the supplier keeping in view the actual condition of site.

## 23. <u>Incidental Services</u>

- 23.1 The supplier is required to provide at free of cost to purchaser all hardware and software up gradation from time to time, during warranty and CMC period.
- 23.2 Further, any bugs/shortcomings detected by the purchaser/user as well as the supplier himself shall be rectified at free of cost to purchaser even beyond warranty period

## 25. <u>Arbitration</u>

Disputes, if any, shall be subjected to the sole arbitration of Principal Secretary/Secretary(Home) to the Government of Himachal Pradesh, whose decision shall be final and binding on the parties.

### 26. Jurisdiction

The courts at Shimla will have the jurisdiction for trial of any matter, dispute or reference between the parties arising out of the contract. It is specifically provided that no court outside and other than Courts at Shimla shall have jurisdiction in the matter.

## 27. <u>Force Majeure</u>

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

#### 28. <u>Termination for default</u>

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

i) If the supplier fails to deliver or install system within the time period(s) specified in the contract, OR

ii) If the supplier fails to perform any other obligation(s) under the contract.

### 29. <u>Termination for Insolvency</u>

The purchaser may at any time terminate the contract by giving written notice to the supplier, without compensation to the suppliers, if the supplier becomes bankrupts or otherwise insolvent (which shall be a breach of the contract on the part of the supplier), provided such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the purchaser.

### **30.** <u>Termination for Convenience</u>

The purchaser may by written notice sent to the supplier terminate the contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Purchaser's convenience.

### 31. <u>Up time guarantee:</u>

The firm should provide uptime guarantee of 95%.

### 32. <u>Downtime penalty Clause</u>

32.1 During the comprehensive warranty period, the guarantee uptime as prescribed in Tender document/technical specification shall have to be ensured otherwise the penalty as specified shall be enforced. No discount will be given on account of public holidays/Sundays. The vendor must undertake to supply all spares for optimal upkeep of the equipment for at least Ten Years after handing over the unit to the Institute.

If accessories/other attachment of the system are procured from the third party, in such case the responsibility to keep the items/equipment's in working condition shall be the sole responsibility of the vendor and the bidder itself will have to sign the CMC with the Institute if required.

32.2 The principals or their agents are required to submit a certificate that they have satisfactory service arrangements and fully trained staff available to support the uptime guarantee.

### **33. PRICE FALL CLAUSE**

The offer of rates by the tenderer will be subject to the price fall clause i.e. if any item is offered at a lower rate by the tenderer in any other State/Place in India to any other person/Org./Institution, he shall forthwith notify such reduction or sale to the Director, Directorate of Forensic Science, Himachal Pradesh, Shimla Hills, Junga and the price payable for the Stores supplied to Directorate of Forensic Science after the date of coming into force the such reduction or sale, shall stand correspondingly reduced even to Directorate of Forensic Science .

**34.** The supplier shall furnish the following certificate alongwith each bill for payment for supplies made against in Rate Contract Tender.

"I/We certify that the Stores of description identical to the Stores supplied to the Government under the contract against Tender herein have not been offered/sold by me/us to any other person/organization/Institution upto date of bill/the date of completion of supplies against all supply orders placed during the currency of the tender/rate contract at the price lower than that of prices offered to the institute UNDER THIS CONTRACT/AGAINST TENDER".

The bidders must attach copies of their existing rate contracts, if any, with DGS&D or any other State Government/Institution.

NOTE :- BIDDER must go through these terms and conditions very carefully and put his signature alongwith stamp in token of acceptance of these terms and conditions. It shall also be noted that any further change in the tender documents shall be intimated/published only through website of this institute.

> Director, Directorate of Forensic Science, Himachal Pradesh, Shimla Hills, Junga

## CHECK List duly filled in to be attached with the Technical Bid

S.N.	Particulars	
1.	Undertaking for No gratification as per clause 1.7	Yes/No
2.	Non-blacklisting certificate as per Clause 1.8	Yes/No
3.	Undertaking on affidavit from the original manufacture as per Clause 18.8	Yes/No
4.	Undertaking for the supply of spare part as per clause 19.1	Yes/No
5.	Whether a list of institution/organizations where your firm has supplied this item recently, is attached alongwith satisfactory performance certificate from those institution/ organizations. As per clause 20	
6.	Certificate of having satisfactory service arrangement and fully trained staff as per clause 32.2	Yes/No
7.	In case you are manufacturer, have you enclosed the certificate.	Yes/No
8.	Whether the prices has been quoted on the prescribed proforma.	Yes/No
9.	Whether all the undertakings as required in the tender document are enclosed	Yes/No
8.	Whether EMD as asked has been attached.	Yes/No
10.	Whether Tender Document duly signed by the authorized signatory attached.	Yes/No
11.	Whether the technical specification of the material are attached.	Yes/No
12.	PAN and copies of Income Tax Returns for the last three years.	Yes/No
13.	Copies of TIN issued/certificate of registration.	Yes/No
14.	Undertaking for supply of spare part during the subsequent twelve years(form G)	Yes/No
15.	Any other certificate/undertaking as prescribed in the tender	Yes/No

Authorized Signatory:

Name of the firm/bidder:

#### ANNEXURE-B

#### PROFORMA FOR AUTHORITY FROM MANUFACTURERS

No.....

Dated.....

To, Director, Directorate of Forensic Science , Himachal Pradesh, Shimla Hills, Junga

Dear Sir,

Sub: Tender No.....

We	an established and reputed manufacturers of
having factories at	and office at M/s

(Name and Address of the Authorized representative) hereby authorise to represent us, to tender, negotiate and conclude the contract on our behalf with you against Tender no.....

Yours faithfully,

Signature and seal

Name.....

For & on behalf of M/s

.....

(Name of Manufacturers)

#### **ANNEXURE-H**

#### **BIDDER PROFILE**

(A) General Information

(i) Location of Corporate Headquarters

(ii) Date and Country of Incorporation

(iii) Manufacturing facility(ies)

Location Size Capacity

(iv) No. of service Facilities in India

Location

Strength

Area covered

(v) Average yearly turnover for last three years

(Attach copy of proof)

(vi) Geographical Distribution of the supplier

No. of offices

Locations

Staff Strength

(vii) Total No. of installations of the system offered

(viii) No. of employees

R&D

Total No.

Manufacturing

Hardware Maintenance

Software Any Other(Pl. Specify)

(B). Reference of Major installation with similar products

(Attach documents in support, if available)

Customer Name, Address Product Description,

Telephone/Fax No.

Signature

Name

Designation

Company

Company Seal

Date

#### BID FORM

Dated:

**ANNEXURE-F** 

To,

Sir,

Having examined the Bidding Documents of Tender No.\_\_\_\_\_

undersigned offer supply, install, commission, to operate maintain\_\_\_ \_\_\_\_ and we undertake, if our bid is accepted, to delivery of the complete all items specified in the contract within \_\_weeks calculated from the date of receipt of your Notification of Award and the installation, to complete testing commissioning...... We also undertake to supply the CMC and consumables on the rates offered/negotiated (in case our bid is accepted) for the entire period of \_\_\_\_\_\_ years from the date of satisfactory installation.

Signature and Seal

(In the capacity of) Only Authorized to sign bid for and on behalf of.....

#### **ANNEXURE-G**

### PROFORMA OF GUARANTEE FOR SUPPLY OF SPARES DURING POST WARRANTY PERIOD

То

Dear Sir,

We the supplier hereby give a guarantee for the supply of all necessary spares demanded for the routine and emergency maintenance of being supplied by us to for a period of not less than \_\_\_\_\_\_ years after the warranty period of 3 years and life time spares thereafter in case asked for by the purchaser.

We further clarify that for the first \_\_\_\_\_\_ years i.e. warranty period of \_\_\_\_\_\_ years, we are covered by the warranty clause as mentioned. For the remaining period of \_\_\_\_\_\_ Years and thereafter for the life time, a detailed list of spares will be supplied to the purchaser for the purpose of enabling him to decide spares needed for routine and emergency maintenance.

Dated...... day of......20.....

Witness :

(Name of manufacturers)

Signature and Seal

(Signature)

Name : For & on behalf of M/s

#### PRICE BID PROFORMA

#### ANNEXURE-D

Sr. No.	Name of the equipment	Price Quoted
1.	Cost of Core Equipment. (Manufacturer/model/ make etc be specified) including all accessories as required in the technical specification with 3 years warranty.	
2.	Taxes/Duties :-     i) Custom Duties	
	ii) CST/VAT iii) Service Tax	
	iv) Entry Tax v) Others(Pl. specify)	
3.	Cost of Turn Key Job if any	
4.	Less : Buy back offer, wherever applicable.	
5.	Net Price	

It is certified that the cost of equipment and reagents shown above, has included all taxes/ duties etc. and nothing above shall be charged over and above this cost.

**Authorized Signatory:** 

Name of the firm/bidder:

#### **ANNEXURE-E**

#### **BIDDER PARTICULARS**

Bidder Serial Number Allotted on Tender Document:

1. Name of the Bidder :

2. Address of the Bidder :

3. Name of the Manufacturer (s) :

4. Address(es) of the Manufacturer :

5. Name and address of the person :

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

Telephone :

Telex :

Fax :

e-mail address :

Witness :

Signature

Name

Address

Date

Signature
Name
Designation
Company
Date
Company Seal

# **Technical Specifications**

# GAS CHROMATOGRAPH WITH ECD, FID & NPD DETECTORS

GC should have the following features to deliver high performance operation, maximum sensitivity, maximum uptime and maximum productivity.

#### **Gas Chromatograph**

- Electronic pneumatic control (EPC/PPC) control on both inlet and detector
- Pressure set points : 0.01 psi or better with typical control ± 0.01 for the range 0.000 to 99.999 psi
- One-button access to routine maintenance information.
- Two inlets and three detectors.
- User list of the quoted model should be given.

#### **Column Oven:**

- Accommodates up to two 105 m  $\times$  0.530 mm id capillary columns
- Operating temperature range: suitable for all columns and chromatographic separations. Ambient temperature +10 °C to 450 °C or better.
- Oven cool down 250 to 50 °C in 5.0 min or better.
- Maximum achievable temperature ramp rate: 40°C-120°C/min or better

#### Injectors: 2 No.

- Split/Splitless Capillary Injector & PTV/Programmable Split/Splitless capillary injector.
- Suitable for all capillary columns (50 µm to 530 µm id).
- Split ratios up to 5,000:1 or better to avoid column overload.
- Splitless mode for trace analysis.
- Manual large volume injection of upto 150 micro liter or better
- Maximum temperature: 400 °C or better.
- PPC/EPC/AFC/EFC pneumatics include automatic control of split vent by split flow or split ratio
- Pressure range: 0 to 100 psi or better

### Flame Ionization Detector with EPC/PPC

- Detection Limits 1.5pgC/s or better for dodecane or equivalent
- Linearity  $-10^6$  or better, Temp. Range up to 400 degree C or more
- Flameout detection & automatic re-ignition of FID should be possible
- Detector should work with both Packed/Capillary Column

### **Electron Capture Detector with EPC/PPC**

- Minimum Detectable limit should be 6 fg/ml or better with lindane or equivalent
- Linear Dynamic Range should be  $5.0 \times 10^4$  or better with lindane or equivalent
- Data Acquisition rate should be 50 Hz or better.
- Maximum operating temperature should be 400 ° C or better.

#### Nitrogen Phosphorus Detector with EPC/PPC

- Detection Limit: < 0.4 pg N/s, < 0.2 pg P/s with azobenzene/malathion/ octadecane mixture
- Dynamic range:  $> 10^5$ N,  $> 10^5$ P with azobenzene/malathion mixture or equivalent
- Selectivity: 25,000 to 1 g N/g C, 75,000 to 1 g P/g C with azobenzene/ malathion/octadecane mixture
- Data acquisition rate: up to 200 Hz
- Standard EPC for three gases:
  - Air: 0 to 200 mL/min
  - H2: 0 to 30 mL/min
  - Makeup gas: 0 to 100 mL/min
- Maximum operating temperature should be 400° C or better.

#### **Auto-Sampler:**

- Built-in syringe auto sampler with all controls accomplished through the key board or by the software.
- 100 vials or more capacity autosampler should be quoted with the system

#### **Data Communication :**

CFR 21 compliant, Single point control of all GC and its modules, customizable reports, GLP features should also have software for data acquisition, control, chromatographic data evaluation, reporting sequencing. IQ, OQ to be provided by vendor after successful installation.

#### Necessary Local items/ Hardware:

- Branded PC (i5), 19" LED Monitor, 500 GB HDD, 4 GB RAM windows 7 or better with Laser Printer.

-	Dual Stage Regulators –	3 No.
-	5 KVA online UPS with I hr backup-	01 no
-	Air, N <sub>2</sub> , H <sub>2</sub> -Cylinder	01 each
-	Gas Purification system with Traps	01
-	Columns: HP-5, SE-30 or equivalent	02 No. each
-	Columns: DBI-1 or equivalent	01 No.
-	Columns: DB-ALC1 or equivalent	01 No.
-	Injection Port Septa -	200 No's
-	Glass Insert for Split & Split less	(5 each)
-	Graphite Ferrule 0.5 mm	(30 No.)
-	Microliter Manual Syringes –	1 μL(2 No.),5 μL (2
		No.), 10 μL (2 No.)
-	Auto sampler syringes –	2 no.
-	500 Pcs of Auto sampler Vials with Caps	
	and Septa -	1 No's

The equipment should be provided with all necessary accessories and spare parts for a fully functional unit. List of consumables and spare parts along with operation and service manuals should be provided along with the instrument

- 1. All accessories and spare parts should be from the same manufacturer.
- 2. System should have at least three-year standard warranty.
- 3. All the modules should have GLP and GMP features like early maintenance feedback for continuous tracking of instrument.
- 4. Maintenance spares for fourth and fifth year after warranty to be quoted for each equipment.
- 5. On Site Commissioning and training of instrument for staff.
- 6. User certificate from minimum three users of R & D organizations in India.
- 7. The Vendor should provide technical compliance table addressing all the technical specifications, point by point supported with printed catalogue/literature.

# GAS CHROMATOGRAPH WITH FID & ECD DETECTORS

GC should have the following features to deliver high performance operation, maximum sensitivity, maximum uptime and maximum productivity.

### **Gas Chromatograph**

- Electronic pneumatic control (EPC/PPC) control on both inlet and detector
- Pressure set points : 0.01 psi or better with typical control  $\pm$  0.01 for the range 0.000 to 99.999 psi
- One-button access to routine maintenance information.
- Two inlets and two detectors.
- User list of the quoted model should be given.

## **Column Oven:**

- Accommodates up to two  $105 \text{ m} \times 0.530 \text{ mm}$  id capillary columns
- Operating temperature range: suitable for all columns and chromatographic separations. Ambient temperature +10 °C to 450 °C or better.
- Oven cool down 250 to 50 °C in 5.0 min or better.
- Maximum achievable temperature ramp rate: 40°C-120°C/min or better

## Injectors: 2 No.

- Split/Splitless Capillary Injector & PTV/Programmable Split/Splitless capillary injector.
- Suitable for all capillary columns (50 µm to 530 µm id).
- Split ratios up to 5,000:1 or better to avoid column overload.
- Splitless mode for trace analysis.
- Manual large volume injection of upto 150 micro liter or better
- Maximum temperature: 400 °C or better.
- PPC/EPC/AFC/EFC pneumatics include automatic control of split vent by split flow or split ratio
- Pressure range: 0 to 100 psi or better

### Flame Ionization Detector with EPC/PPC

- Detection Limits 1.5pgC/s or better for dodecane or equivalent
- Linearity  $-10^6$  or better, Temp. Range up to 400 degree C or more
- Flameout detection & automatic re-ignition of FID should be possible
- Detector should work with both Packed/Capillary Column

## **Electron Capture Detector with EPC/PPC**

- Minimum Detectable limit should be 6 fg/ml or better with lindane or equivalent
- Linear Dynamic Range should be  $5.0 \times 10^4$  or better with lindane or equivalent
- Data Acquisition rate should be 50 Hz or better.
- Maximum operating temperature should be 400 ° C or better.

#### Auto-Sampler:

- Built-in syringe auto sampler with all controls accomplished through the key board or by the software.
- 100 vials or more capacity autosampler should be quoted with the system

#### **Data Communication :**

CFR 21 compliant, Single point control of all GC and its modules, customizable reports, GLP features should also have software for data acquisition, control, chromatographic data evaluation, reporting sequencing. IQ, OQ to be provided by vendor after successful installation.

#### **Necessary Local items/ Hardware:**

- Branded PC (i5), 19" LED Monitor, 500 GB HDD, 4 GB RAM windows 7 or better with Laser Printer.

-	Dual Stage Regulators –	3 No.
-	5 KVA online UPS with I hr backup-	01 no
-	Air, N <sub>2</sub> , H <sub>2</sub> -Cylinder	01 each
-	Gas Purification system with Traps	01
-	Columns: HP-5, SE-30 or equivalent	02 No. each
-	Columns: DBI-1 or equivalent	01 No.
-	Columns: DB-ALC1 or equivalent	01 No.
-	Injection Port Septa -	200 No's
-	Glass Insert for Split & Split less	(5 each)
-	Graphite Ferrule 0.5 mm	(30 No.)
-	Microliter Manual Syringes –	1 μL(2 No.),5 μL (2
		No.), 10 μL (2 No.)
-	Auto sampler syringes –	2 no.
-	500 Pcs of Auto sampler Vials with Caps	
	and Septa -	1 No's

The equipment should be provided with all necessary accessories and spare parts for a fully functional unit. List of consumables and spare parts along with operation and service manuals should be provided along with the instrument

### NOTE:

- 8. All accessories and spare parts should be from the same manufacturer.
- 9. System should have at least three-year standard warranty.
- 10. All the modules should have GLP and GMP features like early maintenance feedback for continuous tracking of instrument.
- 11. Maintenance spares for fourth and fifth year after warranty to be quoted for each equipment.
- 12. On Site Commissioning and training of instrument for staff.
- 13. User certificate from minimum three users of R & D organizations in India.
- 14. The Vendor should provide technical compliance table addressing all the technical specifications, point by point supported with printed catalogue/literature.

# **Technical Specifications**

# FOURIER TRANSMISSION INFRA-RED SPECTROMETER

Optical Range	7500– 400 cm <sup>-1</sup> with KBr beam splitter/Ge-KBr beam Splitter	
	or better	
Spectral Resolution	0.8 cm <sup>-1</sup> or better at full range	
Wave Number	0.1cm <sup>-1</sup> or better	
Accuracy		
Detector	High performance, high sensitivity temperature controlled	
	DTGS/DLATGS detector to cover full range at below	
	mentioned sensitivity	
Interferometer	Permanently aligned Michelson interferometer with 10 Year	
	warranty or better	
Signal-to-noise	30,000:1 peak-peak, 1 minute or better	
Source	MID IR/High intensity, temperature stabilized, long life	
	ceramic source or equivalent.	
Beam splitter	KBr beam splitter/Ge-KBr beam splitter.	
Sample Compartment	Should be compatible with all type of sample accessories	
ATR accessory	Monolithic diamond ATR should be provided.	
Automatic validation	Standard internal validation to provide complete reassurance of	
of Hardware &	quality of measurement conforming ASTM with NIST traceable	
Software external polystyrene film		
Optical system	Sealed and desiccated enclosure must offer extended intervals	
	between desiccant replacements, at least 5 years or should	
provide the desiccant for 5 years from the date of installation		
Software	Suitable CFR 21 compliance software with validation for	
	Spectral collection, Quantitative analysis, baseline correction,	
smoothening, derivitazation, spectral deconvulation, libr		
	search etc.	
Cell	Universal Demountable Cell, Rectangular Spacers, Pellet holder	
	i.e. accessories for liquids & solids should be quoted in main	
	and original	

Library	<ul> <li>Dedicated Licensed libraries for forensic application should be provided. Pirated or copied Library will not be entertained. (With no. of spectra – approx.)</li> <li>1) OEM/Genuine Spectral Libraries compounds including below: <ul> <li>Georgia/Toronto State Crime Lab Drug - drugs and drug related compounds</li> <li>Narcotic Drugs &amp; Psychotropic Substance Canadian Forensics</li> <li>Pharmaceutical Library - OTC and prescription drugs</li> <li>EPA Library</li> <li>Pesticides &amp; Agricultural Chemicals - Bio-Rad Sadtler</li> </ul> </li> </ul>	
Accessory	The accessories should be automatically detected as soon as	
recognition	they are locked into the sampling area. Instrument parameters	
	should be optimized for the installed accessory. Accessories	
	information stored with spectral data.	
Pellet making accessories	Hydrolic 15 Ton Pellet Press, KBr Die set, mortal & pestle	
Warranty :	The warranty of the instrument should be at least 10 years on interferometer, beam splitter, laser and source. The warranty should be comprehensive (The conditions of system should be kept on when not in use, nitrogen purging and any defects on beam splitter due to atmospheric conditions should be covered under comprehensive warranty)	
Additional Items	Branded PC (i5), 19" LED Monitor, 500 GB HDD, 4 GB RAM windows 7 with Laser Printer & 5 KVA Online UPS with 2 Hr Backup & IQ OQ documents.	

Note:

- 1. System should have at least three-year standard warranty.
- 2. Maintenance spares for fourth and fifth year after warranty to be quoted for each equipment.
- 3. All the modules should have GLP and GMP features like early maintenance feedback for continuous tracking of instrument.
- 4. On Site Commissioning and training of instrument for staff.
- 5. User certificate from minimum three users of R & D organizations in India.
- 6. The Vendor should provide technical compliance table addressing all the technical specifications, point by point supported with printed catalogue/literature.

# **Technical specifications**

#### MULTI-WAVELENGTH DIGITAL ABBE REFRACTOMETER

#### Wavelength Measurement Range:

Range: 1.2500 to 1.8700, 1.30 to 1.72 or better.

**Resolution:**  $\pm 0.0001$  or better, 0.1 in Abbe Number or better.

Accuracy:  $\pm 0.0002$  or better

Light Source: LED light Source, average lifetime >100000 h or better

Wavelength: Upto 8 in the range 436 nm to 1100 nm

**Temperature Range:** 5 to 70 °C (at unit of 0.1 °C)

**Power Requirements:** 100-240 VAC, 50/60 Hz, Min. 10W, max 100W (depending on sample temperature settings)

Output Terminal: For attaching Computer or Printer or equipped with USB port

Sample Type: All type of Solid as well as Liquid substances

Display: LCD display of Refractive index and Abbe Number

Measuring time per sample: 15 sec. or better (after temp. equilibration/filter change)

Conformity: International Pharmacopoeia, ASTM or more

<u>Accessories</u>: Contact Liquid LJ (nD1.80), Contact Monobromonaphthalene, Contact Liquid Methyene Iodide containing Sulfur Soln. (nD=1.78), Interference Filter, Test Piece of different refractive index within range, Calibration Certificate.

NOTE:

- 1. System should have at least three-year standard warranty.
- 2. Maintenance spares for fourth and fifth year after warranty to be quoted for each equipment.
- 3. On Site Commissioning and training of instrument for staff.
- 4. User certificate from minimum three users of R & D organizations in India.
- 5. The Vendor should provide technical compliance table addressing all the technical specifications, point by point supported with printed catalogue/literature

# UFED (UNIVERSAL FORENSIC EXTRACTION DEVICE

- All-in-one mobile forensic Software solution adding flexibility and convenience to investigations
- Trusted technology providing users with all physical, file system and logical extraction capabilities
- Should come with specialized adaptor to connect mobile handset to mitigate driver issues for various mobile handsets.
- Physical extraction and decoding while bypassing pattern lock / password / PIN from Android devices including HTC, LG, Motorola, Samsung Galaxy S family (including Galaxy SIII and S4), and more
- Widest support for extraction and decoding from Apple devices running iOS3+
- Physical extraction from BlackBerry® devices running OS 4-7. Exclusive decoding: BBM data, apps, emails, Bluetooth and more.
- Physical extraction and decoding from locked Nokia BB5 devices password extraction from selected devices
- Should allow identification of mobile device by 8 visual elements selections
- Should be able to generate MD5 & SHA256 hash signatures for data authentication
- Should be able to generate Reports with the organization logo.
- Should have advanced image carving capability
- Should have entities and hex bookmarking capability
- Should have Python scripting facility to enhance decoding and add customized decoding functions according to specific needs
- Unrivalled access to locked devices by bypassing, revealing or disabling the user lock code
- File system extraction from any device running Windows phone 7.5 and 8 including Samsung, Nokia, HTC, Huawei and ZTE
- Should recover physical data from phones with Chinese chipsets. Enables the physical extraction of evidentiary data and passwords from phones manufactured with Chinese chipsets, such as MTK, Spreadtrum and Infineon using specialized proprietary tips at least 25+ tips for Chinese phones and connectors and alligator clips.
- TomTom® trip-log decryption, and data extraction from other portable GPS devices
- Rich set of decoding: application data, passwords, emails, call history, SMS, contacts, calendar, media #files, location information etc.
- Contains a unique, rich set of analysis features including timeline, project analytics, malware detection and watch list

- Generate and customize easy-to-read reports and customize reports in different formats e. g. PDF, HTML, XML and Excel
- Deploys custom boot loaders to ensure forensically sound extractions
- Frequent updates to ensure compatibility with new phones as they enter the market
- Exhibits multiple locations of a suspect on a single map
- Unique evidence verification engine enables validation of recovered artifacts
- User-friendly UI
- Case containing specialized Tip Set inbuilt with boot loaders & Proprietary Cable Set, SIM ID Cloning Cards, Micro SIM ID Cloning Cards, Nano SIM ID Cloning Cards, Multi SIM Card Adapter, Memory Card Reader.
- By using login credentials extracted from a mobile device, examiners can extract private user cloud data from key social media, webmail and cloud storage sources, within preapproved legal boundaries
- Mobile-based extraction -Access private-user cloud data utilizing login information extracted from the mobile device.
- Username-based extraction-Login to private-user cloud data using usernames and passwords provided by the investigated subject, retrieved from personal files, contacts or via other discovery means.
- Forensic data preservation-Extract information from cloud data sources while logging and tracing the entire process to maintain data authenticity. Each piece of extracted data is hashed separately and can be later compared against its origin.
- Visualize data in a unified format-Normalize different cloud services in a unified format and view in Timeline, File Thumbnails, Contacts or Maps format.
- Report, share & export-Generate and share easy-to read, PDF reports for entire data sets or filtered information. Export extracted data to other analytical tools for deeper analysis and cross source investigation with third party data.
- Product should be supplied with High End Acquisition & Analysis desktop Machine with minimum configuration of Intel i7 6th Generation, 32 GB RAM, 22" Full HD Display, 2 TB Hard Drive, 2GB Graphics Card, Windows 10 Professional Operating System, Minimum 3 USB Ports along with UPS for one hour
- Bidder should provide two faraday bags and Mobile Network Jammer for GSM and CDMA for network isolation
- Product Offered should be of International Repute & Brand and should not be customized/ assembled Product from various sources
- Bidder should be OEM or direct Authorized Distributor or Reseller in India. In case of Distributor/ Reseller; OEM/ Manufacturer's Authorization for Supply and Service should be attached with the Tender
- Bidder should have installed the product in different Central or State Government Organizations in India. Past Order copies to be attached for

supporting the same.

- Bidder should have a minimum 03 years of existence in the field of Cyber/ Digital Forensics in India
- Bidder should provide minimum 03 years renewal and extended warranty.
- Bidder should provide online technical support for as and when required.
- Provide training at the time of installation and time to time

# NOTE:

- 1. System should have at least three-year standard warranty.
- 2. Maintenance spares for fourth and fifth year after warranty to be quoted for each equipment.
- 3. On Site Commissioning and training of instrument for staff.
- 4. User certificate from minimum three users of R & D organizations in India.
- 5. The Vendor should provide technical compliance table addressing all the technical specifications, point by point supported with printed catalogue/literature.

# **Technical Specifications**

# DIGITAL DISTILLATION RANGE APPARATUS

- The unit should meet highest safety standards in its class and the requirement of latest version of ASTM D86 test methods
- The instrument should test samples from 20°C to 450°C temperature.
- The unit should be built in computer controlled & fully automatic.
- It should have large Color Touch Screen Display.
- It should have built in compatible printer.
- The instrument should be capable to perform crude oil distillation without changing heater or by adding heater.
- Device should have automatic switch over facility from group 1 to group 4 during distillation.
- The unit should be stand-alone with self-contained condenser circuit, coolant bath and receiver system.
- The cooling bath should be CFC-free.
- The instrument must have provision for calibration of temperature and volume measuring system.
- It should have built-in automatic Nitrogen or Co<sub>2</sub> fire extinguishing system when connected to an external N<sub>2</sub> or Co<sub>2</sub> Cylinder.
- It should have receiver chamber cooling and heating system.
- Volume should be measured accurately with accuracy of + 0.1 ml
- It should have visual or automatic dry point detection.
- It should have forced air cooling by propeller fan for heater cooling system.
- Distillation Flask Heater must be low wattage, spiral type for longer life.
- The unit should be supplied with synthetic distillation standards for temperature range of group 1, 2, 3 and 4.
- It should have programmable distillation rate of 2 to 9% with 0.5% increment.
- It should have automatic barometric correction utility for barometric compensation.
- It should have memory capability of storing minimum 500 test results or better.
- It should be able to record at least 200 test modes or better.
- To be operable on 220-240 V, 50 Hz.
- To be supplied with all necessary accessories like Distillation Flask 125 ml, Receiver Flask 100 ml, Vapor tube, Ceramic Board and CRM (Petrol, Diesel & Kerosene).
- Safety features: Overheat protection, overflow protection, automated fire extinguishing system.
- Gas Supply: Nitrogen or Carbon Dioxide
- Online UPS with 30 minute backup

#### Note:

- 1. System should have at least three-year standard warranty.
- 2. Maintenance spares for fourth and fifth year after warranty to be quoted for each equipment.

- 4. On Site Commissioning and training of instrument for staff.
- 5. User certificate from minimum three Government organizations in India.

<sup>3.</sup> All the modules should have GLP and GMP features like early maintenance feedback for continuous tracking of instrument.

<sup>6.</sup> The Vendor should provide technical compliance table addressing all the technical specifications, point by point supported with printed catalogue/literature.

# AUTOMATIC FLASH POINT APPARATUS (ABEL)

- 1. The instrument should be designed in strict accordance with standard test method ISO13736/IP 170
- 2. Measuring Range: 10 degree to 110 degree Celsius at room temp ranging from 10 to 30 degree Celsius.
- 3. It should store atleast 200 test methods or better.
- 4. Microprocessor controlled unit with digital easy to read display of the results.
- 5. It should have built in Peltier thermoelectric temperature control.
- 6. Ignition:-Electric ignition.
- 7. Thermal detection (with metal sample temperature probe) of the flash to eliminate interference from water or silicone containing compound.
- 8. Cooling: Facility for built-in cooling connection.
- 9. Automatic correction for standard barometric pressure vis-à-vis with final result.
- 10. Unit should have diagnostic program to check every key component and assembly and calibration facility.
- 11. Unit should automatically determine flash point in strict compliance with the appropriate test method.
- 12. Heating should be microprocessor controlled at the specified rate; the igniter is activated and dipped at precisely the correct temperature and frequency.
- 13. Safety device for fire protection with alarm and display..
- 14. Resistance check box for temperature calibration with calibration certificate.
- 15. The unit should be operable on 230v / 50 Hz.
- 16. The system should be ISO 9001 quality standard and supplied with operation manual.
- 17. Calibration: The firm must ensure that the equipment supplied is fully calibrated as per specification requirements and also source of future calibration at Junga & their frequency of calibration needed.
- 18. The system should be quoted with online UPS of 30 minute backup.

Note:

- 1. System should have at least three-year standard warranty.
- 2. Maintenance spares for fourth and fifth year after warranty to be quoted.
- 3. All the modules should have GLP and GMP features like early maintenance feedback for continuous tracking of instrument.
- 4. On Site Commissioning and training of instrument for staff.
- 5. User certificate from minimum three users of R & D organizations in India.
- 6. The Vendor should provide technical compliance table addressing all the technical specifications, point by point supported with printed catalogue/literature.

# FACE RECONSTRUCTION AND ANALYSIS SOFTWARE

- The software should have features for forensic applications.
- It should use 3-D Data to build information about the shape of a face, to identify distinctive features (contour of eye sockets, nose and chin) on the face.
- Facial recognition should not be affected by changes in lighting, and should identify a face from a variety of angles, including profile view.
- It should have an efficient and accurate face recognition algorithm that is robust to facial expressions.
- It should be capable of Identification of Individuals, encode it and match it against a database or watch list locally or on a remote server.
- It should be capable of detection of Duplicates to match every facial image in a database against every other to detect possible duplicates, thus enabling instances to be found where an individual has multiple records under different names.
- It should be able to screen real-time or pre-recorded video to detect Faces and matched against appropriate databases (offenders, missing persons, etc),
- The system should be able to set to detect and recognize the dominant face or multiple faces in a frame.
- It should allow moving back and forward frame by frame to select the one with the best facial image.
- The system should include automatic enrolment of existing tattoo images, and automatic detection and encoding of new tattoos that are added to external databases. It should be in read-only mode so data integrity is assured.
- Should encode part of a face and match this against the same facial region for all records in a database.
- Should analyze images on suspicious web sites and associated links while automatically matching against an Enrolment Database
- Should have 2 years of warranty covering upgrades and updates
- A suitable high end hard-ware should be supplied with minimum or better specifications:
  - 1.7-GHz Core i7- Processor
  - Windows 7, 8.1, and 10,
  - NET Framework 4.0 or higher installed,
  - 8GB RAM, 2 TB 6400 rpm hard drive
  - Monitor
  - 2GB Nvidia graphic card
  - Colour laser printer
  - UPS with one 1 hr backup.