Tender

For

Laboratory Work Tables and Fume Hood

At

All India Institute of Medical Sciences, Jodhpur

NIT No. : Admn/General/250/2013-AIIMS.JDH

NIT Issue Date : September 30, 2013.

Last Date of Submission: October 25, 2013 at 03:00 PM

Pre Bid Meeting : October 09, 2013 at 03:00 PM



All India Institute of Medical Sciences, Jodhpur

Basni Phase - II, Jodhpur, Rajasthan - 342005 Telefax: 0291- 2740532, email: <u>aoadmin@aiimsjodhpur.edu.in</u> <u>www.aiimsjodhpur.edu.in</u> All India Institute of Medical Sciences (AIIMS), Jodhpur, Rajasthan, an apex healthcare institute being established by Parliament of India under aegis of Ministry of Health & Family Welfare, Government of India, invites sealed tenders for supply & installation of the following items at the institute. You are requested to quote your best offer along with the complete details of specifications, terms & conditions.

Annexure - A

S.No.	Item Description	Quantity
1.	Laboratory Work Tables and Fume Hood	1 Complete Set

Quotation should be sealed and super-scribed with tender number and address to:

"Administrative Officer
All India Institute of Medical Sciences, Jodhpur
Basni, Phase-II
Jodhpur-342005, Rajasthan".

The sealed quotations should reach the Institute, latest by October 25, 2013 at 03:00 PM and it will be opened on same day at 05:00 PM in the Project Cell, Resident Complex, AIIMS, Jodhpur of the Institute in the presence of the bidder(s) or their authorized representative(s), who will present at the scheduled date and time.

Terms & Conditions:

1. Preparation and Submission of Tender: The tender should be submitted in two parts i.e. Technical Bid and Financial Bid. The Technical Bid and the Financial Bid should be sealed by the bidder in two separate covers "Technical Bid for Tender for Supply of Laboratory Work Tables and Fume Hood" and "Financial Bid for Tender for Supply of Laboratory Work Tables and Fume Hood". Both Sealed Envelopes should be kept in a main/ bigger envelope super-scribed as "Tender for Supply of Laboratory Work Tables and Fume Hood"

2. Earnest Money Deposit:

The bidder shall be required to submit the Earnest Money Deposit (EMD) for an amount of Rs. 70,000/- (Rupees Seventy Thousand only) by way of demand drafts only. The demand drafts shall be drawn in favour of "All India Institute of Medical Sciences, Jodhpur". The demand drafts for earnest money deposit must be enclosed in the envelope containing the technical bid.

The EMD of the successful bidder shall be returned after the successful completion of contract / order and for unsuccessful bidder(s) it would be returned after award of the contract. Bid(s) received without demand drafts of EMD will be rejected.

The EMD, in case of unsuccessful Bidders shall be retained by the Purchaser, upto a maximum period of 6 months 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 written request along with Original Cash Deposit Receipt issued by the institute. No interest will be payable by the AIIMS authorities on the EMD.

The firms who are registered with National Small Industries Corporation (NSIC) / OR Small Scale Industrial (SSI) are exempted to submit the EMD (copy of registration must be provide along with)

- 3. **Tender Fee:** Tender fee will be Non-refundable amount of one thousand (Rs. 1000/-).
- **4. Pre-Bid Meeting:** Pre-Bid Meeting for Tender for Laboratory Tables and Fume Hood will be held on 07th October, 2013 at 03:00 PM.
- **5. Rate:** Rate should be quoted in Indian Rupees (INR) on DOOR Delivery Basis at AIIMS, Jodhpur, Rajasthan, Inclusive of all the Charges, with break-ups as:
 - Basic Cost.
 - VAT /CST as applicable.
 - Total Cost (F.O.R at AIIMS Jodhpur).
- **6. Validity:** The quoted rates must be valid for a period for 180 days from the date of closing of the tender. The overall offer for the assignment and bidder(s) quoted price shall remain unchanged during the period of validity. If the bidder quoted the validity shorter than the required period, the same will be treated as unresponsive and it may be rejected.

In case the tenderer withdraws, modifies or change his offer during the validity period, bid is liable to be rejected and the earnest money deposit shall be forfeited without assigning any reason thereof. The tenderer should also be ready to extend the validity, if required, without changing any terms, conditions etc. of their original tender.

7. Warranty / Guarantee:

6.1 Guarantee / Warrantee Period: For the equipment value upto Rs. 5 Lakh

The Tenderers must quote for 2 years comprehensive warranty (Including all Spares, Accessories and Labour) from the date of completion of the satisfactory installation. The warranty charges shall not be quoted separately otherwise the offer shall be summarily rejected. Also the bidders are requested to submit their quote (Rates) for subsequent 3 years Comprehensive Maintenance Contract (CMC) (Including All Spares, Accessories and Labour). Failure to comply this condition will entail the rejection of the bids. The price comparison shall be taking into account on basic price and post warranty CMC.

6.2 Guarantee / Warrantee Period: For the equipment value above Rs. 5 Lakh

The Tenderers must quote for 5 years comprehensive warranty (Including all Spares, Accessories and Labour) from the date of completion of the satisfactory installation. The warranty charges shall not be quoted separately otherwise the offer shall be summarily

rejected. Also the bidders are requested to submit their quote (Rates) for subsequent 5 years Comprehensive Maintenance Contract (CMC) (Including All Spares, Accessories and Labour). Failure to comply this condition will entail the rejection of the bids. The price comparison shall be taking into account on basic price and post warranty CMC.

8. Uptime guarantee: The firm should provide uptime guarantee of 95%

9. Downtime penalty Clause

- 2.1. During the comprehensive warranty period, the guarantee uptime of 95% of 365 days will be ensured. In case the down time exceeds the 5% limit penalty of extension of guaranty period by two days for each additional day of down time will be enforced. The vendor must undertake to supply all spares for optimal upkeep of the equipment for at least FIVE YEARS after handling over the unit to the Institute. If accessories / other attachment of the system are procured from the third party, then the vendor must produce cost of accessory / other attachment and the CMC from the third party separately along with the main offer and the third party will have to sign the CMC with the Institute if required.
- 2.2. The principals or their authorized service providers are required to submit a certificate that they have satisfactory service arrangements and fully trained staff available to support the uptime guarantee.

10. Certifications

- 10.1 The manufacturer (bidder or the bidder's representative) should have its own in house testing facility complying with EN 14175 and ASHRAE 110 standards for the Lab Furniture & Fume Hood, Quality Management System as per International Standards. The Bidder shall furnish all such certificates as and when required
- 10.2 The manufacturer should be an official member of SEFA.
- 10.3 The manufacturer should be an official member of BIFMA.

11. Commitment to Environment

- 11.1 The original manufacturer should demonstrate conformity to overall environmental performance by:
- 11.2 Offering KD (Knock Down) furniture which has minimum transportation volume and thus generates lesser carbon footprint
- 11.3 Should follow Environmental Management Systems like ISO 14001:2004 consistent with the Bidder's Environmental Policy
- 11.4 Compliance to Quality Management Systems like ISO 9001:2008 to function effectively by adopting a process approach
- 11.5 Should have adopted Quality, Environment, Health and Safety Policy to meet changing expectations of customers, to use resources in environment friendly manner and to minimize hazards/risks in compliance with occupational health and safety practices.
- 11.6 The Bidder / original manufacturer should also have a Service center in the state.

12. Scope of work:

The scope of work shall include Supply, Installation & Commissioning. This will also include testing, packing, transportation, scheduling of transportation, transit insurance,

delivery at sites, unloading, storage, job site storage, insurance, installation 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.

13. Manufacturing Facilities

The original manufacturer should have own manufacturing/fabrication, machinery & infrastructure facilities, which should preferably have automated cutting machines, bending machines, power presses, spot welding machines, antirust treatment facilities, powder coating facilities etc. in sufficient numbers

Production capacity shall be an important factor for evaluating the capability of the bidder

Precision metal forming machineries capable of mass manufacturing using PLC for consistency and infrastructure for manufacturing, inspection, storage and dispatch shall be an added advantage and shall be evaluated higher accordingly

14. Delivery & Installation:

(i) For goods supplied from India:

All the goods ordered shall be delivered and Installed at AIIMS, Jodhpur within the delivery period mentioned in Annexure 'A' from the date of issue of purchase order.

(ii) For goods imported directly from abroad:

All the goods ordered shall be delivered and Installed at AIIMS, Jodhpur within the delivery period mentioned in Annexure 'A' from the date of opening of Letter of Credit for shipment.

All the aspects of safe delivery, installation and commissioning shall be the exclusive responsibility of the supplier. If the supplier fails to deliver, install and commission the goods on or before the stipulated date, then a penalty at the rate of 2% per week of the total order value shall be levied subject to maximum of 10% of the total order value. The successful tenderer will also provide required training for supplied items at AIIMS Jodhpur. The goods should be manufactured after adoption of latest technology

If at any time during the currency of the contract, the supplier encounters conditions hindering timely delivery of the goods and performance of services, the supplier shall promptly inform AIIMS, Jodhpur in writing about the same and its likely duration and make a request to AIIMS, Jodhpur for extension of the delivery schedule accordingly. On receiving the supplier's communication, the AIIMS, Jodhpur shall examine the situation as soon as possible and, at its discretion, may agree to extend the delivery schedule, with or without liquidated damages for completion of supplier's contractual obligations by issuing an amendment to the contract.

15. Incidental Services:

The supplier shall be required to perform the following services:-

i) Installation & Commissioning, Supervision and Demonstration of the goods.

- ii) Providing required jigs and tools for assembly, minor civil works required for the completion of the installation.
- iii) On Site training to Doctors/ Technicians/ Staff is to be provided by Supplier for operation and maintenance of the equipment to the satisfaction of the user department.
- iv) Supplying required number of operation & maintenance manual for the goods.

16. Accessories & Consumables:

The separate price list of all accessories and consumables, if any, must be attached/ enclosed along with the Financial Bid.

17. After Sales Service:

After sales service centre should be available on 24 (hrs.) X 7 (days) X 365 (days) basis. Complaints should be attended properly, maximum within 24 hrs to ensure an uptime of minimum 95%, wherever applicable, failing which the necessary penalty measures shall be enforced.

18. Inspection:

- AIIMS, Jodhpur shall have the right to inspect and/or to test the goods to confirm their conformity to the NIT Specifications at no extra cost to the AIIMS, Jodhpur.
- II. AIIMS, Jodhpur right to inspect, test and, where necessary, reject the Goods after the goods arrival at the final destination shall in no way be limited or waived by reason of the Goods having previously been inspected, tested and passed by AIIMS, Jodhpur prior to the goods shipment.
- III. The Director, AIIMS Jodhpur shall be the final authority to reject full or any part of the supply which is not confirming to the specification and other terms and conditions.
- No payment shall be made for rejected Stores. Rejected items must be removed IV. by the Bidders within two weeks of the date of rejection at their own cost and replaced immediately. In case these are not removed, these will be auctioned at the risk and responsibility of the suppliers without any further notice.

19. Documents:

- i) All pages of the Tender should be numbered and indexed.
- ii) The bidder shall provide in its tender the required as well as the relevant documents like technical data, literature, drawings etc. to establish that the goods and services offered in the tender fully confirm to the goods and services specified by the AIIMS. Jodhpur in the tender documents. For this purpose the bidder shall also provide a clause-by-clause commentary on the technical specifications and other technical details incorporated by the AIIMS, Jodhpur in the tender documents to establish technical responsiveness of the goods and services offered in its tender duly indicating relevant page numbers in the product literature.
- iii) The bidder shall provide a list of major Government and Private Institutions where its relevant bid item has been supplied during last one year.

20. Insurance:

The supplier shall make arrangements for insuring the goods against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery.

If the equipment is not commissioned and handed over to AIIMS, Jodhpur within specified period, the insurance will have to be extended by the supplier at their cost till the successful installation, testing, commissioning and handing over of the goods to the AIIMS, Jodhpur.

21. Tender Currencies:

- (i) The bidder supplying indigenous goods or already imported goods shall quote only in Indian Rupees. Further, imported goods to be imported and supplied by the bidder are also required to be quoted in Indian Rupees.
- (ii) For imported goods if supplied directly from abroad, prices shall be quoted in any freely convertible currency say US Dollar, Euro, GBP or Yen. As regards price(s) for allied services, if any, required with the goods, the same shall be quoted in Indian Rupees only, if such services are to be performed /undertaken in India.
- (iii) Tenders, where prices are quoted in any other way shall be treated as non responsive and rejected.

22. Tender Prices:

Financial Bid Performa given earlier in Annexure D of NIT.

While filling up the columns of the Financial Bid, the following aspects should be noted for compliance:

For domestic goods or goods of foreign origin located within India, the prices in the corresponding Financial Bid shall be entered separately in the following manner:

- (i) The price of the goods, quoted ex-factory/ ex-showroom/ ex-warehouse/ off-the-shelf, as applicable, including all taxes and duties like sales tax, CST/ VAT, CENVAT, Custom Duty, Excise Duty etc. already paid or payable on the components and raw material used in the manufacture or assembly of the goods quoted ex-factory etc. or on the previously imported goods of foreign origin quoted ex-showroom etc;
- (ii) Any sales tax or other taxes and any duties including excise duty, which will be payable on the goods in India if the contract is awarded;
- (iii) Charges towards Packing & Forwarding, Inland Transportation, Insurance, Loading/Unloading and other local costs incidental to delivery of the goods to their final destination as specified in the List of Requirements and Financial Bid;
- (iv) The price of Incidental Services, as mentioned in List of Requirements and Financial Bid;
- (v) The prices of Turnkey (if any), as mentioned in List of Requirements, Technical Specification and Financial Bid; and
- (vi) The price of annual CMC, as mentioned in List of Requirements, Technical Specification and Financial Bid.

For goods offered from abroad, the prices in the corresponding Financial Bid shall be entered separately in the following manner:

- (i) The price of goods quoted FOB port of shipment, as indicated in the List of Requirements and Financial Bid;
- (ii) The price of goods quoted CIF port of entry in India as indicated in the List of Requirements and Financial Bid;
- (iii) The price of goods quoted for delivery at AIIMS, Jodhpur as indicated in the List of Requirements, Financial Bid and Consignee List;
- (iv) Wherever applicable, the amount of custom duty with CDEC applicable on CIF value on the goods to be imported;
- (v) The charges for Loading/Unloading, Inland transportation, Insurance and other local costs, Incidental cost to delivery of the goods from the port of entry in India to AIIMS, Jodhpur, as specified in the List of Requirements and Financial Bid;
- (vi) The charges for Incidental Services, as in the List of Requirements and Financial Bid; (vii) the prices of Turnkey (if any), as mentioned in List of Requirements, Technical Specification and Financial Bid; and
- (vii) The price of annual CMC, as mentioned in List of Requirements, Technical Specification and Financial Bid.

23. Additional information and instruction on Duties and Taxes:

If the Bidder desires to ask for excise duty, sales tax/CST / VAT/ CENVAT, Custom Duty, Service Tax, Works Contract Tax etc. to be paid extra, the same must be specifically stated. In the absence of any such stipulation the price will be taken inclusive of such duties and taxes and no claim for the same will be entertained later.

24. Excise Duty:

- (i) If reimbursement of excise duty is intended as extra over the quoted prices, the supplier must specifically say so also indicating the rate, quantum and nature of the duty applicable. In the absence of any such stipulation it will be presumed that the prices quoted are firm and final and no claim on account of excise duty will be entertained after the opening of tenders.
- (ii) If a Bidder chooses to quote a price inclusive of excise duty and also desires to be reimbursed for variation, if any, in the excise duty during the time of supply, the Bidder must clearly mention the same and also indicate the rate and quantum of excise duty included in its price. Failure to indicate all such details in clear terms may result in rejection of that tender.
- (iii) Subject to sub clauses (i) & (ii) above, any change in excise duty upward/downward as a result of any statutory variation in excise duty taking place within contract term shall be allowed to the extent of actual quantum of excise duty paid by the supplier. In case of downward revision in excise duty, the actual quantum of reduction of excise duty shall be reimbursed to the AIIMS, Jodhpur by the supplier. All such adjustments shall include all reliefs, exemptions, rebates, concession etc. if any obtained by the supplier.

25. Sales Tax:

If a bidder asks for sales tax/CST / VAT/CENVAT, Service Tax and Works Contract Tax to be paid extra, the rate and nature of sales tax applicable should be shown separately. The CST / VAT/CENVAT, Service Tax and Works Contract Tax will be paid as per 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/ CST / VAT/CENVAT, Service Tax and Works Contract Tax and is payable as per the terms of the contract.

26. Octroi Duty and Local Duties & Taxes:

Normally, goods 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. However, on some occasions, the local bodies (like town body, municipal body etc.) as per their regulations allow such exemptions only on production of certificate to this effect from the concerned Government department.

Keeping this in view, the supplier shall ensure that the goods to be supplied by the supplier against the contract placed by the AIIMS, Jodhpur are exempted from levy of any such duty or tax and, wherever necessary, obtain the exemption certificate from the AIIMS, Jodhpur.

However, if a local body still insists upon payment of such local duties and taxes, the same should be paid by the supplier to the local body to avoid delay in supplies and possible demurrage charges and obtain a receipt for the same. The supplier should forward the receipt obtained for such payment to the AIIMS, Jodhpur to enable the AIIMS, Jodhpur reimburse the supplier and take other necessary action in the matter.

27. Customs Duty:

In respect of imported goods offered from abroad, the bidder shall specify the rate as well as the total amount of customs duty payable with Custom Duty Exemption Certificate, if applicable, on the quoted goods in the Financial Bid. The bidder shall also indicate the corresponding Indian Customs Tariff Number applicable for the goods.

- For transportation of imported goods offered from abroad, relevant instructions as incorporated shall be followed.
- (ii) For insurance of goods to be supplied, relevant instructions as provided shall be followed.
- (iii) Unless otherwise specifically indicated in this NIT document, the terms FCA, FOB, FAS, CIF, CIP etc. for imported goods offered from abroad, shall be governed by the rules & regulations prescribed in the current edition of INCOTERMS, published by the International Chamber of Commerce, Paris.
- (iv) The need for indication of all such price components by the bidders, as required in this clause is for the purpose of comparison of the tenders by the AIIMS, Jodhpur and will no way restrict the AIIMS, Jodhpur right to award the contract on the selected bidder on any of the terms offered.

28. Indian Agent

If a foreign bidder has engaged an agent in India in connection with its bid, the foreign bidder, in addition to indicating Indian agent's commission, if any, shall also furnish the following information:

- (i) The complete name and address of the Indian Agent and its Permanent Account Number as allotted by the Indian Income Tax authority.
- (ii) The details of the services to be rendered by the agent for the subject requirement.
- (iii) Details of Service outlets in India, nearest to the AIIMS, Jodhpur to render services during Warranty and CMC period.

29. Firm Price

- (i) Unless otherwise specified in the NIT, prices quoted by the bidder shall remain firm and fixed during the currency of the contract and not subject to variation on any
- (ii) However, as regards taxes and duties, if any, chargeable on the goods and payable, the conditions stipulated will apply.

30. Conversion of tender currencies to Indian Rupees

In case the bid document permits the bidders to quote their prices in different currencies, all such quoted prices of the responsive bidders will be converted to a single currency viz., Indian Rupees for the purpose of equitable comparison and evaluation, as per the closing exchange rates established by the Reserve Bank of India for similar transactions, as on the date of 'Last Date of Submission of Tender'.

31. Payment Terms:

Payment for goods supplied from India:

- (i) 90% payment of the total order value shall be released after the successful installation/ commissioning of the ordered goods against the submission of the inspection report.
- (ii) Balance 10% of the order value shall be released after the submission of the performance security.

Payment for Imported goods:

For imported goods payment shall be made in the following manner:

a) On shipment:

- 75 % payment of the contract price shall be paid 60 days after presentation of shipping documents {goods shipped shall be paid through irrevocable, non-transferable Letter of Credit (LC) opened in favour of the supplier in a bank in his country} and upon the submission of the following documents:
- (i) Four copies of Supplier's invoice showing contract number, goods description, quantity, unit price and total amount;
- (ii) Original and four copies of the clean, on-board Bill of Lading/ Airway bill, marked freight prepaid and four copies of non-negotiable Bill of Lading/Airway bill.
- (iii) Insurance Certificate;
- (iv) Certificate of origin by the chamber of commerce of the concerned country; (iv) Certificate of country of origin;
- (v) Manufacture's / Supplier's warranty certificate; (vi) Manufacturer's own factory inspection report.

b) On Acceptance:

- 15 % payment would be made after satisfactory installation & commissioning on issuance of Inspection certificate by the AIIMS, Jodhpur.
- c) Balance 10% will be paid on submission of Performance Bank Guarantee issued by any Nationalised Bank/ Scheduled Bank.
- The supplier shall not claim any interest or any other payment under the contract.

32. Custom Clearance:

For the Goods to be imported and supplied, the Institute will provide Custom Duty Exemption Certificate (CDEC) to successful bidder for availing concessional rate of duty as per prevailing Custom Tariff. In case, the bidder requires CDEC certificate, then the same should be specifically mentioned in the bid.

The supplier is solely responsible for getting the material clearance from customs. Institute will provide all custom documents for custom clearance on the demand of supplier. Transportation of goods up to AIIMS, Jodhpur and its successful installation and commissioning is also the responsibility of the supplier. All charges/expenses incurred in this process will be borne by the supplier. NO DEMURRAGE / WHARFAGE CHARGES WILL BE PAYBALE BY THE INSTITUTE UNDER ANY CIRCUMSTANCES. NO ADVANCE PAYMENT WILL BE PAYABLE FOR CUSTOM CLEARANCE/FREIGHT/INSURANCE ETC.

- **33. Performance Security:** The supplier shall require to submit the performance security in the form of irrevocable Bank Guarantee (BG) / or Fixed Deposit Receipt (FDR) issued by any Nationalised/Scheduled Bank for an amount of which is equal to the 10% of the order value and should be kept valid for a period of 60 day beyond completion of all the contractual obligation, Including CMC period.
- **34. Arbitration:** If any difference arises concerning this agreement, its interpretation on payment to the made there-under, the same shall be settled out by mutual consultation and negotiation. If attempts for conciliation do not yield any result within a period of 30 days, either of the parties may make a request to the other party for submission of the dispute for decision by an Arbitral Tribunal containing Sole Arbitrator to be appointed by the Secretary, Department of Legal Affairs. Such requests shall be accompanied with a panel of names of three persons to act as the sole arbitrator. In case of such arbitrator refusing, unwilling or becoming incapable to act or his mandate having been terminated under law, another arbitrator shall be appointed in the same manner from among the panel of three persons to be submitted by the claimant. The provision of Arbitration and

Conciliation Act, 1990 and the rule framed there under and in force shall be applicable to such proceedings.

- **35. Breach of Terms and Conditions:** In case of breach of any terms and conditions as mentioned above, the Competent Authority, will have the right to cancel the work order/job without assigning any reason thereof and nothing will be payable by AIIMS, Jodhpur in that event the security deposit shall also stands forfeited.
- **36. Insolvency etc:** In the event of the firm being adjudged insolvent or having a receiver appointed for it by a court or any other order under the Insolvency Act made against them or in the case of a company the passing any resolution or making of any order for winding up, whether voluntary or otherwise, or in the event of the firm failing to comply with any of the conditions herein specified AIIMS, Jodhpur shall have the power to terminate the contract without any prior notice.
- **37. Force Majeure:** If, at any time during the subsistence of this contract, the performance in whole or in part by either party of any obligation under this contract is prevented or delayed by reasons of any war or hostility, act of public enemy, civil commotion, sabotage, fire, floods, explosion, epidemics, quarantine restriction, strikers lockout or act of God (hereinafter referred to as events) provided notice of happening of any such eventuality is given by party to other within 21 days from the date of occurrence thereof, neither party hall by reason of such event be entitled to terminate this contract nor shall either party have any claim for damages against other in respect of such non-performance or delay in performance, and deliveries have been so resumed or not shall be final and conclusive.

Further, that if the performance in whole or in part of any obligation under this contract is prevented or delayed by reason of any such event for a period exceeding 60 days, either party may, at least option to terminate the contract.

38. Liquidated Damages

- (i) The date of delivery of the store, stipulated in the acceptance of the tender should be deemed to be the essence of the contract and delivery must be completed not later than the dates specified therein. Extension will not be given except in exceptional circumstances. Should, however, deliveries be made after the expiry of contracted delivery period, without prior concurrence of the purchaser and be accepted by the consignee, such delivery will not deprive the purchaser of this right to recover liquidated damages under clause (ii) below.
- (ii) If the supplier fails to delivered, installation and commissioning of the goods on or before the stipulated date, then a penalty at the rate of 2% per week of the total order value shall be levied subject to maximum of 10% of the total order value. In the case of package supply where the delayed portion of supply materially hampers installation and commissioning of the systems, liquidated damages charges shall be levied as above on the total value of the concerned package of the purchase order. Quantum of liquidated damages assessed and levied by the purchaser shall be final and not challengeable by the supplier.

39. Site Preparation for installation:

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.

Site plan and System layout plan including civil/electrical work or other related works shall be prepared by the supplier.

Earthling arrangements for all the equipment shall be completed as per standard practice.

- **40.** The prices quoted by the Bidder and accepted by the committee duly constituted by AIIMS Jodhpur shall hold good till the completion of the works and no additional claims will be admissible on account of any price variation or fluctuation in market rates.
- **41.** The original manufacturer/bidder shall provide a Fume Hood Training/Care & Maintenance manual detailing the various do's and don'ts for fume hood usage, criteria for selecting a hood and other location & maintenance instructions
- **42.** The Bidder shall visit project site to understand the requirements of the site. The Bidder shall study the scope in detail and make presentation to the committee about his understanding of the total scope under this contract
- **43.** In case of qualification of a single bidder from the Technical bid process, the committee reserves the right to decide the Bidder purely based on the technical qualifications required by the institute
- **44.** The samples will be tested through third party recognised LAB for various technical aspects at bidder cost before opening of financial bid.
- **45.** Payment made consequent to any notified change in custom duties, excise duties and sales tax (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.
- **46.** Bidder must submit User list and at least 5 Performance Satisfaction report of similar type of work, within last 5 years from major government hospitals/institution.
- **47.** Bidder shall submit a copy of the tender document and addenda thereto, if any, with each page of this document should be signed and stamped to confirm the acceptance of the entire terms & conditions as mentioned in the tender enquiry document.
- **48.** Yearly business turnover of over Rs. 80 Lakhs for last 3 year. Company's annual reports should be provided in support of this.
- **49.** AIIMS Jodhpur shall have the right to inspect and / or test the equipment for conformity to the Contract Specifications.

- **50.** AIIMS Jodhpur reserves the right to ask the tenderers for submitting the sample of the item for which rates have been quoted Technically Qualified Bidders may be asked to submit samples along with their quoted items no. and their firm name without indicating any prices before opening of Financial Bid to AIIMS, Jodhpur for Inspection.
- **51.** The quantity of item given in the tender is tentative, which may be increased or decreased as per the institute's requirement.
- **52.** Signed & stamped compliance sheet of the technical specification of the goods with technical printed literature must be enclosed with the bid.
- **53.** Conditional bid will be treated as unresponsive and it may be rejected.
- **54.** The Institute reserves the right to accept in part or in full or reject any or more tender(s) without assigning any reasons or cancel the tendering process and reject all tender(s) at any time prior to award of contract, without incurring any liability, whatsoever to the affected bidder or bidder(s).

55. Applicable Law:

- The contract shall be governed by the laws and procedures established by Govt. of India, within the framework of applicable legislation and enactment made from time to time concerning such Commercial dealings / processing.
- Any disputes are subject to exclusive jurisdiction of Competent Court and Forum in Jodhpur, Rajasthan, India only.

Annexure-B

Technical Specification

S.No	Item	Specifications			
1.	Laboratory Work Tables	It is recommended that the bidders stick to the Makes and Dimensions mentioned in the document. In case of dimensions, a tolerance level of 5% or 150mm (whichever is smaller) will be acceptable.			
		1. Laboratory Furniture Scope of Work			
		 Supply and Installation of Laboratory Workbenches/Storage units including granite worktops and other supporting structures/hardware based on the specified Make List. This includes delivery to AIIMS College, unloading the consignment and transporting it from the place of storage to the installation site 			
		 Supply & Installation of all utility service outlets and accessory fittings, electrical receptacles, plumbing and electrical switches & fittings identified on drawings as mounted on the laboratory furniture Supply & Installation of all laboratory sinks, bottle traps, drain troughs etc. 			
		 Supply & Installation of service structures where specified and setting in place reagent shelves of the type shown in the drawings Removal of debris, dirt and rubbish accumulated as a result of installation/commissioning of the laboratory furniture and accessories and leaving the premises room clean and orderly 			
		 1.1. Basis of Work It is the intent of this specification to use specified make list as the standard of construction for steel laboratory furniture. The construction standards of this product line shall provide the basis for quality and functional installation. AIIMS reserves the right to reject qualified or alternate proposals and to award based on product value where such action assures the owner greater integrity of product. 			
		1.2. Quality Assurance			
		The steel laboratory furniture manufacturer shall provide work tops and casework all manufactured & shipped with proper packing & should take the full responsibility of the entire Scope of Works as specified in			

the tender.

1.3 Submittals

- Manufacturer's Data: Submit installation instructions for each type of casework
- Samples: Samples if called for will be reviewed for design, colour, texture, and pattern only
- Shop Drawings: Submit shop drawings for furniture assemblies showing the required details

1.4 Products/Manufacturers

- The selected manufacturer must warrant for a period of one-year starting (date of acceptance or occupancy, whichever comes first) that all products sold under the contract referenced above shall be free from defects in material and workmanship
- AIIMS will retain the above samples of the successful manufacturer or owner to ensure that material delivered to jobsite conforms in every respect to the samples submitted if need be

1.5 Technical Specifications of Floor Units

General Description – The steel frames, panels & shutters should be made from Prime Quality CRCA (Cold Rolled Close Annealed) Steel. All cabinet bodies should be of over closing design with fully knock down construction and having a main and add on construction to avoid any gaps in between two units. All units should be interlocking type construction to form a rigid integral structure. These units should be supported on wide base high grade plastic legs of diameter 40 mm. These legs should be height adjustable with a range of +/- 50 mm. Each unit should have a locking facility with 180° and 10 lever cam lock mechanism.

Features

- **Surface Treatment:** The complete M.S. material of cabinet to be pre treated (degreased, Zinc Phosphated) and epoxy powder coated for better corrosion resistance. The thickness of powder coat to be 50 microns, which passes the test of Salt Spray for 1000 hours and having the Scratch Hardness of 3Kgs.
- **Cabinet frame:** Frame is a combination of 1.2 mm horizontal stiffeners and 0.8 mm vertical panel of CRCA MS sheet.
- **Cover panels:** End side panel, false panel and back panel of 0.8 mm thick CRCA MS sheet.
- Shelves and Drawers: CRCA shelves should have a load carrying capacity of 40 kg. The overall load carrying capacity of cabinet should be 80 Kg of UDL (40 kgs. on each shelf and 40 kgs. on bottom). The overall load carrying capacity of drawer should be 40 kgs. of UDL for a pair of ball slide.

• **Door Pulls:** Flush pulls for doors shall be of PVC, providing a

- recessed finger grip. Finger holes or slots machined into doors will not be acceptable.
- **Drawers:** The outer drawer and door head shall have plastic inserts with half round post forming to eliminate sharp raw edges of steel. Drawer and door, when closed, shall be over closing on the cabinets.
- **Slides:** High precision Double Extension Ball slides which enable the drawer to open fully. They should have passed more than 55000 cycles of Drawer Cycle test (forward & backward movements) with a 15kg load in the drawer.
- **Shutters:** Metal Shutters should be double walled and made up of 0.8mm thick CRCA MS sheet with profil inserts and 40-50 microns pure epoxy powder coated. It should have good scratch resistance, reasonable chemical resistance to acids, alkalis, organic solvents and heat resistance properties.
- **Hinges:** Hinges shall be made of MS with Cathode electrode deposition for better corrosion resistance. The hinges should be spring loaded with 105 degree opening. Welding of hinges to door or case will not be accepted. Doors less than 36" in height shall be hung on one pair of hinges, and doors over 36" high shall be hung on 3 hinges in case of under storage cabinets.
- Positive Catch: All units to be with self-closing type spring loaded hinges. The hinge should close the doors once left at certain angles. No additional catch will be allowed in the units.
- **Shelf supports:** Shelf support clips shall be of nickel-plated steel.
- **Legs:** All Legs to be made of plastic with a load carrying capacity of 450 kg/each. All units to be on plastic legs for better clean ability of the lab area. Fully enclosed flush design will not be acceptable. Leg should be able take evenness of the floor. It should have at least 50mm adjustability.
- **Support Bracket:** Granite /Reagent Support Brackets serve the purpose of supporting the granite with carrying the service lines. It should be made of 2 mm CRCA MS sheet with epoxy powder coating.
- **Configuration of Storage Units:** The storage units should be available in three configurations:
 - ✓ Storage unit with one/two shutters and one adjustable shelf
 - ✓ Storage unit with one drawer, one/ two shutters and one adjustable shelf
 - ✓ Storage unit with 4 drawers (only with 450 mm width unit).

All storages are with locks when not specified.

• **Sink Units** – The sink unit should consist of a base cabinet, PP Sink, a faucet and an SS Pegboard. The raw material used for a base cabinet should be 0.8 mm thick CRCA M.S. Sheet. The complete M.S. material of cabinet should be pre-treated (degreased, Zinc Phosphated) and epoxy powder coated (Ivory colour) for better corrosion resistance. The thickness

of powder coat should be 45-50 microns, which passes the test of Salt Spray for 1000 Hours and having scratch hardness of 3 kg. Sinks should be Polypropylene Molded Sinks - Made up of 5 mm thick high density and elastic poly propylene with good resistance to organic solvents. Standard bowl size (L x W x D) is $500 \times 400 \times 300$ mm.

Sink unit should also have 3-way (2 Straight + 1 Swan Neck) water faucet made up of Brass and with Epoxy powder coatings.

1.6. Reagent Shelves – Reagent Shelves to be of complete modular design consisting of horizontal 2 stage storage shelves. The end vertical support should be 0.9mm & horizontal shelves of 0.8mm thick CRCA M.S. Sheet surface to be PP Laminated 1 mm thick of approved shade. Each shelf should have a load carrying capacity of 30 kgs. of UDL for the length of 1000 mm. Each vertical panel shall be assembled with horizontal shelf with M6 fasteners having Zinc-Cobalt coating for better corrosion resistance. The complete M.S. material of cabinet to be pretreated (degreased, Zinc phosphated) and epoxy powder coated for better corrosion resistance. The thickness of powder coat to be 45-50 microns, which passes the test of Salt Spray for 1000 hours and having the Scratch Hardness of 3Kgs.

1.7. Top Units

The unit to be of the same construction as that of the base storage cabinets and shall have a completely finished interior same as exterior. The shutters should have glass in a metal framework.

1.8. Switches and Sockets – It should be made of High gloss virgin grade engineering thermoplastics to impart a defect free surface. It should also impart excellent electrical insulation properties i.e. should not melt on heating or catches fire. Owing to this all electrical switches and sockets should be capable of handling higher currents and operating temperatures. Front plates should be able to be changed at any time with ease without disturbing the wiring to quickly and economically match changes in the surroundings.

1.9. Worktop

Granite – It shall be 18mm thick jet black granite with edges having round profiles of 5 mm radius on top side. The overhang should be 25 mm at the front side. The backing material used for granite should be a neoprene mat of 6 mm thickness.

1.10. Gas Valves

All gas valves for regular lab gases should be made of powder-coated brass and should have standard needle valve and push and turn type arrangement for all burning gases to

		be supplied. All supplied valves to clear the following pressure test conditions: Gas Fittings – 7 bar		
2.	EXHAUST	2.1. FUME HOODS		
	SYSTEMS	Scope of Work	SET	
		• Supply and Installation of fume hoods (both superstructure and under structure cabinets) including worktops based on the specified Make List.		
		 Supply and Installation of fume hood accessories like service outlets/fittings, electrical switches as per the specified make list. Fittings attached to the fume hood superstructure shall be mounted on the front facia of the hood as per the drawings. Plumbing fixtures mounted on the fume hood super structures shall be pre – plumbed and electrical fixtures shall be pre – wired. All fume hoods to be fitted with electrical control box with motor starter and all the required electronic circuits. Removal of all debris, dirt and rubbish accumulated as a result of installation of the fume hoods leaving the premises 		
		clean and orderly. Related Publications		
		 ASHRAE 110-1995 (American Society of Heating, Refrigeration and Air Conditioning Engineers) - American Standards for Laboratory fume hood testing BS EN 14175 - European Standards for fume hood testing 		
		 Basis of Work It is the intent of this specification to use specified make list, 		
		 as the standard of construction for laboratory fume hoods. The construction standards of the Fume hood product line shall provide the basis for quality and functional installation. AIIMS College reserves the right to reject qualified or alternate proposals and to award based on product value where such action assures the owner greater integrity of product. 		
		 Submittals Manufacturer's Data: Submit manufacturer's data and installation instructions for each type of fume hood. Provide data indicating compliance with ASHRAE 110-1995 and BS EN-14175 standards. 		
		Samples: Samples if called for will be reviewed for design, colour, texture, and pattern only.		
		 Standard Fume Hood Performance Requirements Fume hoods shall be of complete airfoil design to insure maximum operating efficiency. Foil sections at the front facials of the hood shall minimize eddying of air currents at the hood face and the rear baffle system shall minimize turbulence in the upper portion of the hood interior. The purpose of this specification is to prequalify the 		

performance of the bidder's laboratory fume hood before award of contract. At his option, the owner or his representative may require the same tests to be performed and the same performance be achieved before acceptance of the hood after award of contract. The owner or his representative shall witness the tests. Failure to meet the performance specified shall be cause for rejection of the bidder.

- Test Method The hood shall be tested per the American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) Standard 110-1995 and BS EN-14175.
- The supplier for the instrument has to provide a type-test certificate for both EN and ASHRAE from a 3rd party inspection agency and face velocity test to be carried out on site.

2.2. Quality Assurance

- The laboratory fume hood manufacturer shall provide fume hood work tops and casework all **manufactured & shipped** with proper packing & should take the full responsibility of the entire scope of works as specified in the tender.
- **General Performance:** Provide certification that fume hoods meet the performance requirements tested by a 3rd party testing agencies. Self-certified fume hoods will not be acceptable.

2.3. Specifications

- **Superstructure Frame** A free-standing rigid panel structure of steel (G.I.)
- *Interior Walls* Double wall ends, not more than 6" wide, should be provided to maximize interior working area. The area between the double wall ends should be closed to house the remote control valves. Cutouts to be provide inside the fume hood for service line accessibility. The same to have a cover with a fastener free design. The vertical facias should contain the required service controls, electrical switches and receptacles.
- *Airfoil* A streamlined airfoil should be integral at the bottom of the hood opening on bench and distillation hoods. This foil should provide a nominal 20mm open space between the foil and the top front edge of the work surface to direct an air stream across the work surface to prevent back flow of air. The foil shall be of 1.2mm steel to resist denting and flexing.
- **Baffles** A stable, non-adjustable baffle with a single slot on the back baffle to aid in distributing the flow of air into and through the hood. The baffle shall be spaced out from the back liner and shall be removable for cleaning. There should be opening at the top and bottom to facilitate smooth exhaust of fumes
- **Duct Collar** A 8"-10" diameter polyethylene funnel shaped rectangular duct collar shall be located in the top of the hood plenum chamber.

- *Lighting* Two fluorescent light fixture (inclusive of CFL tubes) of 20 volts each to be provided in the fume hood. The lighting fixture to be completely outside the fume hood area.
- Sash Made of single glass panel of 5mm toughened glass mounted in a levelled channel with roller for smooth operation. The sash track should have minimum protrusion to avoid any kind of turbulence. The sash should be counterbalanced with a weights to prevent tilting and binding during operation.
- **Plumbing Services** Utility services like Nitrogen, Vacuum and Compressed Air should consist of remote control valves as selected located within the end panels, controlled by in and out facility with flexible hose passing through the side panels of the hood, with colour coded plastic handles. Interior fitting for gases and water shall be with powder coated brass. All gas valves for regular lab gases to have standard needle valve and push and turn type arrangement for all burning gases to be supplied. All supplied valves to clear the following pressure test conditions: Gas Fittings 7 bar, Water fittings 10 bar.
- *Electrical Services* The hood superstructure shall be fully wired and should have a control box with MCB blower starter all safety devices like trip etc. Inlet to be of 3 phase power supply and the whole electrical to be of plug and play type. It should have 4 nos. electrical sockets and switches of Northwest make (230V, 5/16 A, 50 Hz)
- *Liner* Interior liner panels shall be 6 mm thick Phenol resin based industrial laminate.
- Digital Panel- Fume hoods shall be provided with an alarm system to detect low and high hood face velocities. The alarm system shall indicate the actual face velocity of the hood regardless of sash position. The system shall have an air velocity sensor mounted on the interior side liner of the hood where it is easily accessible for cleaning. The velocity monitor shall have a digital display of the air velocity through the hood face in feet per minute. The alarm signals shall activate any time the face velocity falls below the low velocity alarm set point or rises above the high velocity alarm set point. There shall be both visual and audible alarm signals. The audible alarm shall have a mute. Low and high alarm contacts shall be provided for remote monitoring.
- *Lattice Rod Assemblies* 12mm dia solid SS rods should be clamped with the PP clamps to form a lattice arrangement to hold the test samples and rotors within the fume hood.
- *Centrifugal Blower* Silent high efficiency remote blower consisting of continuous rating motor and chemical resistant impeller. The blower is designed to give a face velocity at safe

working height as per the international safe velocity norms. (ANSI/AIHA Z9.5). The blower body is polypropylene UV treated high density and chemical (corrosion) resistant.

- **Ducting** Rigid Ducting of PP (Polypropylene) + FRP (Fibre Reinforced Polyester) and flexible ducting with flanges, bends, damper transitions, clamps etc. Flexible joint should be provided in the ducting in order to avoid transmitting the blower vibrations to the hood. A weather proof rain cowl should be provided at the outlet of blower.
- **Base Cabinets** Fume hoods should be designed to rest on a bench (high base stand, pedestal or a cabinet) which is a complete rigid steel structure. Gauge of steel used in its construction should be 0.8 mm GI.
- *Ceiling Enclosures* Used to enclose space between front top and ceiling of fume hood superstructure also provides enclosure for raised sash.
- *Transition* Used to connect fume hood with ducting. They are designed to reduce the static pressure and are made up of Poly-propylene of 6 mm thickness.
- Work Surface Standard hood work surface should be 18mm thick jet black granite made in the form of a watertight pan, not less than 7 mm deep to contain spillage. Worktop should have oval shaped 102 mm X 175 mm 'PP' Cup-Sink for drainage. Top should be manufactured at the same manufacturing location as the fume hood to assure proper cut-out alignment and coordinated shipping. The work surface and cup drain should be available in black.

2.4. Fume Hood Dimensions

Bench-top Fume hood dimensions

Criteria	6 feet (mm)
Overall dimensions	1800x900x2400
Working volume	1520x665x1180
Bed size	1520x665
Worktop height from ground	900

2.5. PP/FRP DUCTING

- PP means PPGL: One side smooth & glassy finish and other end is matt finish.
- The smooth surface should be the inner surface of the duct.
- On mat side, FRP lining to be done.
- 25 mm x 25 mm Stitch welding is done on inner surface and continuous welding on outer surface with 5 mm welding thickness.
- FRP Lining to be done on the outer surface of PPGL I.e. on mat

side.

- One layer FRP is one mm.
- The final layer should be with fine mat to have smooth and good finish.
- While making the lining, there should not be any air pockets or any sort of uneven finish.
- There should be time gap between the FRP layers, allowing each layer to be got dried.
- Isothelic resin to be used which is fire resistant for 20 seconds.
- The flange thickness should be 1.5 times of the duct thickness up to 750 mm and 2 times above 750 mm ducting. All flanges are to be matched with M8, GI fasteners and flat washers on both the sides. They should have fasteners at the 4 corners and the should be fixed at a pitch distance of between 125 mm to 150mm. The flanges should be properly ground and dressed. Duct support distance should not be more than 2500 mm.
- Any duct length should not be more than 3600 mm.
- **Duct Construction** The fabricated duct dimensions should be as per approved drawings and all connecting sections are dimensionally matched to avoid any gaps. All PP FRP to be 3+3 mm thick.

Installation

Tools and Tackles required for site work – For duct assembly and Installation the use of suitable tools and tackles should be used to give the required duct quality and speed of installation including.

- Drilling machine with drill bits for drilling holes on the PP/FRP flanges.
- Hammer drill machine with drill bits for drilling holes in building structure for anchors.
- Hoisting system for lifting the duct assembly up to mounting heights.

Installation Practice

- All necessary allowances and provision shall be made for beams, pipes, or other obstructions in the building whether or not the same are shown on the drawings. Where there is interference/ fouling with other beams, structural work, plumbing and conduits, the ducts shall be suitably as per actual site conditions.
- Ducting over false ceiling shall be supported from the slab or from beams. In no case shall any duct be supported from false ceilings hangers or be permitted to rest on false ceiling. All Sheet work in dead or furred down spaces shall be erected in time to occasion no delay to other contractor's work in the building.

All ducts shall be totally free from vibration under all

conditions of operation. Whenever ductwork is connected to fans that may cause vibration in the ducts, ducts shall be provided with a flexible connection, located at the unit discharge.

Documentation and Measurement – All ducts fabricated and installed should be accompanied and supported by following documentation:

- For each drawing, all supply of ductwork must be accompanied by computer generated detailed bill of materials indicating all relevant duct sizes, dimensions and quantities. In addition, summary sheets are also to be provided showing duct area in sq mts and duct size range as applicable.
- Measurement sheet covering each fabricated duct piece showing dimensions and external surface area along with summary of external surface area of duct in sq mts.

2.6 BLOWERS

- PP + FRP lined Blower with FRP-vinylester impeller and a motor
- 1200CFM, 1400RPM, 0.75H.P. Motor, 50mm W.G.

3. PERFORMANCE REQUIREMENTS

3.1. Steel Casework Construction Performance

- Base cabinets shall be constructed to support at least a uniformly distributed load of 250 kgs.
- Each leg should have a load carrying capacity of 450 kg
- Each adjustable and fixed shelf should support an evenly distributed load of 40 Kg.
- All drawers should operate smoothly, a minimum of 100,000 cycles with an evenly distributed load of 25 kg.
- Swinging doors on floor-mounted casework should support 45+45 Kg. suspended at a point 1 feet from hinged side, with door swung through an arc of 90 degrees. Weight load test should allow only a temporary deflection, without permanent distortion or twist. Door should operate freely after test and assume a flat plane in a closed position.
- **3.2. Steel Paint System Finish:** *A*ll steel coated surfaces to follow the following testing standards

					Standards
Į	S.No	Characteristic	Specification	Method Used	References
ĺ		DFT (DRY			ASTM-D: 1186
		FILM		ELCOMETER	(93),
	1		35 micron		IS –
				OR DFT	13871(1993), IS
l		THICKNESS		METER	- 101
I					ASTM-D 523-89
					Reapproved
					(1994)
	2	GLOSS AT 600	70 ±5 units	GLOSS METER	

 	•	T	T	,	
				ISO - 2813	
				DIN - 67530,	
				IS –	
				13871(1993), IS	
				- 101	
				BS - 3900 Part	
			SCRATCH	E2 1970	
	SCRATCH			IS - 101 (Part-	
3		3 kgs	HARDNESS	/Sec-2)	
	HARDNESS			1988, IS –	
			TESTER	13871:1993	
				ASTM-D: 2794-	
				93	
				BS - 3900 Part	
				E3 1979,	
	IMPACT		IMPACT		
4		275 Kg.cm	TESTER	IS – 101	
	RESISTANCE			JISK - 5400	
				(1979),	
				IS –	
				13871(1993)	
				DIN - 53151	
				ISO - 2409	
	CROSS CUT			ASTM - 3002	
		1x1 mm or			
5		GT=0			
	ADHESION			ASTM - 3359	
				JISK - 5400	
				´ (1979),	
				IS –	
				13871(1993)	
				DIN - 53152,	
				ISO - 1519	
			CYLINDERICAL		
				ASTM – D: 522	
			MANDREL	BS - 3900 PART	
6	FLEXIBILITY	3.25 mm		E1,	
			BENDING	IS – 101 (Part-5/	
			mno	Sec-2)	
			TESTERS	1000	
				1988	
				JISK - 5400	
	EDICHCEN		ERICHSEN	(1990)	
_	ERICHSEN		GUDDING	IS – 101 (Part	
7	CHEDING	8 mm	CUPPING	5/Sec 2)	
	CUPPING		mremen.	1988, IS -	
			TESTER	13871(1993)	
				IS – 101 (Part	
			SALT SPRAY	6/Sec	
	CALTICDDAY	1000 ha	SALI SPKAY	1)1988	
8	SALT SPRAY	1000 hours	CHAMPED	ASTM -	
			CHAMBER	B117(95),	
		<u> </u>		IS - 13871	1

(1993)

- 1. *Zinc Phosphate deposition rate:* 1.1 gm/mt. square, IS 3618 (1966) Reaffirmed in 1991 and IS 6005 (1998).
- 2. *Mild Steel (CRC)*: IS 513 (1994) Reaffirmed in 1998. GRADE is 'D' or 'DD' quality.
- 3. *Hoods:* GI
- 4. 3.3. Performance Test Results (Chemical Spot Tests)
- Testing Procedure: Chemical spot tests for non-volatile chemicals shall be made by applying 5 drops of each reagent to the surface to be tested and covering with a 1-1/4" dia. watch glass, convex side down to confine the reagent. Spot tests of volatile chemicals shall be tested by placing a cotton ball saturated with reagent on the surface to be tested and covering with an inverted 2ounce wide mouth bottle to retard evaporation. All spot tests shall be conducted in such a manner that the test surface is kept wet throughout the entire test period, and at a temperature of 77° ±3° F. For both methods, leave the reagents on the panel for a period of one hour. At the end of the test period, the reagents shall be flushed from the surface with water, and the surface scrubbed with a soft bristle brush under running water, rinsed and dried. Volatile solvent test areas shall be cleaned with a cotton swab soaked in the solvent used on the test area. Immediately prior to evaluation, 16 to 24 hours after the reagents are removed, the test surface shall be scrubbed with a damp paper towel and dried with paper towels.
- i. *Test Evaluation:* Evaluation shall be based on the following rating system.
 - 7. Level 0 No detectable change.
 - 8. Level 1 Slight change in color or gloss.
 - 9. Level 2 –Slight surface etching or severe staining.
 - 10. Level 3 –Pitting, catering, swelling, or erosion of coating (obvious and significant deterioration)
 - a. After testing, panel shall show no more than three (3) Level 3 conditions.
 - b. Test Reagents:

Test No	Chamical Doggant	Test Method
1 est No	Chemical Reagent	i est methou

1	Acetate, Amyl	Cotton ball & bottle
2	Acetate, Ethyl	Cotton ball & bottle
3	Acetic Acid, 98%	Watch glass
4	Acetone	Cotton ball & bottle
5	Acid Dichromate, 5%	Watch glass
6	Alcohol, Butyl	Cotton ball & bottle
7	Alcohol, Ethyl	Cotton ball & bottle
8	Alcohol, Methyl	Cotton ball & bottle
9	Ammonium Hydroxide, 28%	Watch glass
10	Benzene	Cotton ball & bottle
11	Carbon Tetrachloride	Cotton ball & bottle
12	Chloroform	Cotton ball & bottle
13	Chromic Acid, 60%	Watch glass
14	Cresol	Cotton ball & bottle
15	Dichlor Acetic Acid	Cotton ball & bottle
16	Dimethylformanide	Cotton ball & bottle
17	Dioxane	Cotton ball & bottle
18	Ethyl Ether	Cotton ball & bottle
19	Formaldehyde, 37%	Cotton ball & bottle
20	Formic Acid, 90%	Watch glass
21	Furfural	Cotton ball & bottle
22	Gasoline	Watch glass
23	Hydrochloric Acid, 37%	Cotton ball & bottle
24	Hydrofluoric Acid, 48%	Watch glass
25	Hydrogen Peroxide, 3%	Watch glass
26	Iodine, Tincture of	Watch glass
27	Methyl Ethyl Ketone	Cotton ball & bottle
28	Methylene Cloride	Cotton ball & bottle
29	Mono Chlorobenzene	Cotton ball & bottle
30	Naphthalene	Cotton ball & bottle
31	Nitric Acid, 20%	Watch glass
32	Nitric Acid, 30%	Watch glass
33	Nitric Acid, 70%	Watch glass
34	Phenol, 90%	Cotton ball & bottle
35	Phosphoric Acid, 85%	Watch glass
36	Silver Nitrate, Saturated	Watch glass
37	Sodium Hydroxide, 10%	Watch glass
38	Sodium Hydroxide, 20%	Watch glass
39	· · · · · · · · · · · · · · · · · · ·	<u> </u>
	Sodium Hydroxide, 40%	Watch glass
40	Sodium Hydroxide, Flake	Watch glass
41	Sodium Sulfide, Saturated	Watch glass
42	Sulfuric Acid, 33%	Watch glass
43	Sulfuric Acid, 77%	Watch glass
44	Sulfuric Acid, 96%	Watch glass
45	Sulfuric Acid, 77% and Nitric	Watch glass
	Acid, 70%, equal parts	0 1 11 2 1
46	Toluene	Cotton ball & bottle
47	Trichloroethylene	Cotton ball & bottle
48	Xylene	Cotton ball & bottle
49	Zinc Chloride, Saturated	Watch glass

3.4. Service Fittings and Accessories

- · Laboratory Service Fittings: Service fittings shall be laboratory grade, and water faucets and valve bodies should be cast red brass alloy or bronze forgings, All fittings should be powder plated unless specified otherwise.
- *Service Indexes:* Fittings should be identified with service indexes in the colour coding as per DIN 12920.
- · All ColorTech finishes meet the following performance tests and requirements: *Chemical Resistance:* Finish should meet the following tests for chemical resistance:
- *Fume Test:* Suspend coated samples in a container at least 6 cubic foot capacity, approximately 12" above open beakers, each containing 100 cc of 70% nitric acid, 94% sulfuric acid and 35% hydrochloric acid respectively. After exposure to these fumes for 150 hours, the finish on the samples should show no discoloration, disintegration or other defects.
- *Direct Application Test:* Subject coated samples to the direct action of the reagents and solvents listed below at a temperature of 25 degrees C dropping from a burette at the rate of 60 drops per minute for ten minutes. Finish on the samples shall not rupture, though slight discoloration or temporary softening is permissible.

Acetic Acid (98%)

Acetone

Ammonium Hydroxide (28%)

Amyl Acetate

Amyl Alcohol

Benzene

Butyl Alcohol

Calcium Hypochlorite

Carbon Disulfide

Carbon Tetrachloride

Chloroform

Chromic Trioxide Acid

Cresol

Crude Oil

Dioxane

Distilled Water

Ether

Ethyl Acetate

Ethyl Alcohol

Ethyl Ether

Formaldehyde (37%)

Formic Acid (90%)

Gasoline

Glacial Acetic Acid (99.5%)

Glycerine

Hydrochloric Acid (38%)

Hydrofluoric Acid (48%)

Hydrogen Peroxide (5%)

Isopropyl Alcohol

Kerosene

Lactic Acid (10%)

Methanol

Methyl Alcohol

Methyl Ethyl Ketone

Methylene Chloride

Mineral Oil

Monochlor Benzene

N-Hexane

Naphthalene

Nitric Acid (70%)

Perchloric Acid (70%)

Phenol

Phosphoric Acid (75%)

Sea Water

Silver Nitrate (30%)

Sodium Bichromate (Saturated)

Sodium Carbonate (10%)

Sodium Chloride (20%)

Sodium Hydroxide (50%)

Sodium Hypochlorite

Sodium Sulfide

Sulfuric Acid (87%)

Toluene

Trichlorethylene

Turpentine

Urea (Saturated)

Xvlene

Zinc Chloride (Saturated)

- *Mar and Abrasion Resistance:* Finishes shall a have pencil hardness of 2H-4H with adhesion substantial enough to withstand both direct and reverse impacts of 160 inch pounds. Finish shall have excellent mar resistance and be capable of withstanding scuffing, marring and other ordinary wear.
- Reparability: Finish shall be capable of surface repair in the
 event that a fitting is scratched or a surface rupture occurs.
 The service fitting manufacturer shall have available an airdrying aerosol coating, specially formulated to match the
 existing finish colour, which may be applied in the field to
 repair coated surfaces.

3.5. Installation

- Preparation: Prior to beginning installation of casework, check and verify that no irregularities exist that would affect quality of execution of work specified.
- Coordination: Coordinate the work of the Section with the schedule and other requirements of other work being prepared in the area at the same time both with regard to mechanical and electrical connections to and in the fume hoods and the general construction work.
- Adjust and Clean: Repair or remove and replace defective work,

as directed by owner and/or his representative upon completion of installation

- ✓ Adjust doors, drawers and other moving or operating parts to function smoothly.
- ✓ Clean shop finished casework; touch up as required.
- ✓ Clean work surfaces and leave them free of all grease and streaks
- ✓ Casework to be left broom clean and orderly
- ✓ Protection Provide reasonable protective measures to prevent casework and equipment from being exposed to other construction activity.

4. APPROVED MAKES

Sr.No.	Description	Approved Make
1.	Powder Coating	Asian Paints/ Kansai
		Nerolac
2.	Laboratory	Thermo
	Furniture and	Fisher/Godrej/Kotterman/
	Fume Hood	
3.	Water Faucets and	WATERSAVER
	Gas Valves	
4.	Laboratory Sinks	KL Labs
5.	Switches and	NORTHWEST
	Sockets	
6.	Hinges	HAFFLE
7.	Legs	HETTICH
8.	Locks and Double	Godrej/Hettich
	Extension Ball	
	Slides	
9.	Exhaust Blower	Almonard/SEAT/COLASIT
10.	Key Board Pullout	EBCO
	Tray	
11.	Motor Lawkim,	Lawkim, Crompton
		Greaves, Kirloskar
12.	Air Flow Monitor	TEL

Biochemistry Lab

А		Island Table Sized 26 ft. (W) x 5 ft (D) x 3 ft. (H) Qty. 3	Unit of Measurement	Qty.
1	Storage Units	2 ft width with 2 shutters and 1 drawer	Nos.	16
2	Sink Unit	2 feet width with 2 shutters	Nos.	10
3	Reagent Shelf	2-sided 2 level of shelves with 4 ft width and 1 ft depth	Nos.	4
4	Sink	PP Sink and essential accessories	Nos.	10
5	Water Faucet	3-way water faucet	Nos.	10
6	Peg Board	SS Peg board with PP Pegs	Nos.	5
7	Gas Valves	Double at 180 degree Laboratory Push/turn Gas Valve fitting	Nos.	8
8	Switches & Sockets	5/15A Switches and Sockets with Module Plates and other essential accessories of make specified in Tender	Nos.	32
9	Granite Worktop	Jet Black Granite worktop according to specified make with Neoprene Mat backing and other essential items	Sq. Mtr.	12.01

В		Wall Table-1 Sized 12 ft. (W) x 3 ft (D) x 3 ft. (H) Qty. 1	Unit of Measurement	Qty.
1	Storage Units	2 ft width with 2 shutters and 1 drawer	Nos.	4
2	Leg Spaces	2 ft width with slim drawer	Nos.	2
3	Granite Worktop	Jet Black Granite worktop according to specified make with Neoprene Mat backing and other essential items	Sq. Mtr.	3.28

С		Wall Table-2 Sized 12 ft. (W) x 3 ft (D) x 3 ft. (H) Qty. 1	Unit of Measurement	Qty.
1	Storage Units	2 ft width with 2 shutters and 1 drawer	Nos.	4
2	Leg Spaces	2 ft width with slim drawer	Nos.	2
3	Reagent Shelf	1-sided 2 level of shelves with approx. 4 ft width and 1 ft depth	Nos.	3

4	Switches & Sockets	5/15A Switches and Sockets with Module Plates and other essential accessories of make specified in Tender	Nos.	12
5	Granite Worktop	Jet Black Granite worktop according to specified make with Neoprene Mat backing and other essential items	Sq. Mtr.	3.28
D		WallTable-3 Sized 30 ft. (W) x 2.5 ft (D) x 3 ft. (H) Qty. 1	Unit of Measurement	Qty.
1	Storage Units	2.5 ft width with 2 shutters and 1 drawer	Nos.	8
2	Leg Spaces	2.5 ft width with slim drawer	Nos.	2
3	Sink Unit	2.5 feet width with 2 shutters	Nos.	2
4	Sink	PP Sink and essential accessories	Nos.	2
5	Water Faucet	3-way water faucet	Nos.	2
6	Granite Worktop	Jet Black Granite worktop according to specified make with Neoprene Mat backing and other essential items	Sq. Mtr.	6.84

Е		WallTable-4 Sized 25 ft. (W) x 3 ft (D) x 3 ft. (H) Qty. 1	Unit of Measurement	Qty.
1	Storage Units	2.5 ft width with 2 shutters and 1 drawer	Nos.	9
2	Sink Unit	2.5 feet width with 2 shutters	Nos.	1
3	Reagent Shelf	1-sided 2 level of shelves with approx. 5 ft width and 1 ft depth 1-sided 2 level of shelves with approx. 2.5 ft width and 1 ft depth	Nos. Nos.	2 1
4	Sink	PP Sink and essential accessories	Nos.	1
5	Water Faucet	3-way water faucet	Nos.	1
6	Switches & Sockets	5/15A Switches and Sockets with Module Plates and other essential accessories of make specified in Tender	Nos.	10

7	Granite Worktop	Jet Black Granite worktop according to specified make with Neoprene Mat backing and other	Sq. Mtr.	6.83
		essential items		

F		Wall Mounted Storage with Glass Shutters	Unit of Measurement	Qty.
1	Storage Units	2 ft width with 2 shutters, approx. 350mm depth 2.5 ft width with 2 shutters, approx. 350mm depth	Nos. Nos.	6 5

G		Fume Hood Qty. 1 (More details in Technical Specifications)	Unit of Measurement	Qty.
1	Fume hood	6 ft. wide Autobypass Mode	Nos.	1

Н		Centifugal Blower Qty 1 (More details in Technical Specifications)	Unit of Measurement	Qty.
1	Blower	PP-FRP Lined Blower 1200 CFM, 1400 RPM, 0.75HP	Nos.	1

I		Ducting (More details in Technical Specifications)	Unit of Measurement	Qty.
1	Ducting	According to the site layout	Work	1

PREPARATION ROOM

A		U-Shaped Wall Table Sized 2.5 ft (D) x 3 ft. (H) Qty. 1	Unit of Measurement	Qty.
1	Storage Units	2 ft width with 2 shutters and 1 drawer 1.5 ft. width with 1 shutter and 1 drawer	Nos.	8 1
2	Corner Sink Unit	Corner Unit 1 shutter	Nos.	2
3	Sink	PP Sink and essential accessories	Nos.	2
4	Water Faucet	3-way water faucet	Nos.	2
5	Switches & Sockets	5/15A Switches and Sockets with Module Plates and other essential accessories of make specified in Tender	Nos.	18
6	Granite Worktop	Jet Black Granite worktop according to specified make with Neoprene Mat backing and other essential items	Sq. Mtr.	6.4

В	Wall Mou	nted Storage with Glass Shutters	Unit of Measurement	Qty.
1	Storage Units	2 ft width with 2 shutters, approx. 350mm depth 1.5 ft width with 1 shutter, approx. 350mm depth	Nos. Nos.	7 1

Note:

- 1. The quantity of item given in the tender is tentative, which may be increased or decreased as per the institute's requirement.
 - 1. I/We have gone through the terms & conditions as stipulated in the tender enquiry document and confirm to accept and abide the same.
 - 2. No other charges would be payable by the Institute.

Authorized signatory of the bidder with seal.

Annexure-C

TECHNICAL BID

Name of Firm/Contractor/Supplier	
Complete Address &	
Telephone No.	
Name of Proprietor/Partner/Managing	
Director/Director.	
Phone & Mobile No.	
Name and address of service centre nearby	
Jodhpur.	
Whether the firm is a registered firm	
Yes/No (attached copy of certificate)	
PAN No.	
(enclose the attested copy of PAN Card)	
Service Tax No.	
(enclose the attested copy of Service Tax	
Certificate)	
VAT No.	
(enclose the attested copy of VAT	
Certificate) Whether the firm has enclosed the Bank	
Draft/Pay Order/Banker's cheque of	
Rs.70,000/- as Earnest Money Deposit. Whether the firm has enclosed the Bank	
· · / · · / · · · · · · · · · · · · · ·	
Earnest Money Deposit.	
Whether the Firm/Agency has signed each	
and every page of Tender/NIT	
Please provide full list of consumables.	
Any other information, if necessary	

Authorized signatory of the bidder with seal.

Annexure-D Financial Bid INANCIAL BID FOR DOMESTIC GOODS OR GOODS OF FOREIGN ORIG

A) FINANCIAL BID FOR DOMESTIC GOODS OR GOODS OF FOREIGN ORIGIN LOCATED WITHIN INDIA OR GOODS TO BE IMPORTED AND SUPPLIED AGAINST PAYMENT IN INDIAN RUPEES

1	2	3	4			5			6
Schedule	Brief Description of Goods	Origin	Quantity	Ex - factory/ Ex- warehou se /Ex- showroo m /Off- the shelf (a)	f any) ge & [%age & value]	Inland Transportation, Insurance, loading, unloading and Incidental costs till AIIMS- Jodhpur (e)	Incidental Services (including Installation & Commissioning, Supervision, Demonstration and Training) at the AIIMS- Jodhpur	Unit Price (at AIIMS- Jodhpur) basis (g)= (a+b+c+d+e +f)	Total Price (at AIIMS-Jodhpur) basis (Rs.) = {4 x 5(g)}
				(a)			(f)		

Total Tender price in Rupees:							
In words:							

Note: -

- 1. If there is a discrepancy between the unit price and total price THE UNIT PRICE shall prevail.
- 2. The charges for Annual CMC after warranty shall be quoted separately.
- 3. The Bidder must quote price for "GOODS TO BE IMPORTED AND SUPPLIED AGAINST PAYMENT IN INDIAN RUPEES" after having taken in to account, the provision of Custom Duty Exemption Certificate (CDEC) by the Purchaser, as per Customs Tariff Act.

Place:	Name:
Date:	Business Address:
Signature of Bidder: Seal of the Bidder:	

Financial Bid B) FINANCIAL BID FOR GOODS TO BE IMPORTED FROM ABROAD

1	2	3	4	5					
Schedule		Origin	Quantity FOB price at port/ airport of Lading (a)	Price per unit (Rs.) Carriage & Insurance Incidental Services (including Installation & Commissioning, Installation & Commiss					
				port of entry) and other Incidental costs**	Supervision, Demonstration and Training) at the AIIMS- Jodhpur **	storage)	+ Insurance (local transportati on and		
					(b)			storage)	

** To be paid in Indian Currency (Rs.)	
Total Tender price in foreign currency:	
In words:	
Note: -	
1. If there is a discrepancy between the unit price and total price	THE UNIT PRICE shall prevail.
2. The charges for Annual CMC after warranty shall be quoted.	
3. The Bidder will be fully responsible for the safe arrival of the g	goods AIIMS-Jodhpur in good condition as per terms of DDP as per INCOTERMS, if applicable.
Indian Agent:	
Indian Agency Commission% of FOB	
Place:	Name:
Date:	Business Address:
	Signature of Bidder:
	Seal of the Bidder:

Financial Bid C) FINANCIAL BID FOR ANNUAL COMPREHENSIVE MAINTENANCE CONTRACT AFTER WARRANTY PERIOD:

1. 2. DESCRIPTION OF		3. QUANTITY. (Nos.)	4. Annual Comprehensive Maintenance Contract Cost for Each Unit year wise*.					5. Total Annual Comprehensive Maintenance Contract Cost for 5
S.No.	GOODS		1 st	2 nd	3 rd	4 th	5 th	Years [3 x (4a+4b+4c+4d+4e)]
			а	b	С	d	е	

^{*} After completion of Warranty period.

Service Tax: Whether extra or inclusive, if extra, indicates the rate . .

NOTE:-.

- 1. In case of discrepancy between unit price and total prices, THE UNIT PRICE shall prevail.
- 2. The cost of Comprehensive Maintenance Contract (CMC) which includes preventive maintenance including testing & calibration as per technical/ service /operational manual, labour and spares, after satisfactory completion of Warranty period may be quoted as per NIT conditions on yearly basis for complete equipment and Turnkey (if any).
- 3. The cost of CMC may be quoted along with taxes applicable. The taxes to be paid extra, to be specifically stated. In the absence of any such stipulation the price will be taken inclusive of such taxes and no claim for the same will be entertained later.
- 4. Cost of CMC will be added for Ranking/Evaluation purpose.
- 5. All software updates should be provided free of cost during CMC period.
- 6. The stipulations in Technical Specification will supersede above provisions
- 7. The supplier shall keep sufficient stock of spares required during Annual Comprehensive Maintenance Contract period. In case the spares are required to be imported, it would be the responsibility of the supplier to import and get them custom cleared and pay all necessary duties.

	it would be the respondibility of the supplier to important get them suctem election and pay an necessary
Place:	Name:
Date:	Business Address:
	Signature of Bidde
	Seal of the Bidder:

Administrative Officer
AIIMS Jodhpur

AIIMS-Jodhpur