



INSTITUTE OF TECHNOLOGY, KORBA (C.G.)

BALCO - URGARING ROAD, VILL- JHAGARHA,
POST - RISDI, KORBA, DISTRICT- KORBA (C.G.)
PHONE NO. 098939-05053, 094241-44099, 99814-43708
E-mail: korbait@rediffmail.com, Website: www.itkorba.com

Tender No. ITK/ Pur/2016/1960....

Korba, Dated: 24/09/2016


NOTICE INVITING TENDER


Institute of Technology, Korba, Chhattisgarh invites sealed tender from eligible bidders (Manufactures, or their authorized dealers) for procurement of Laboratory Equipments, Materials, Library Books, Services i.e 1.Civil Engg Lab Equipments 2.Civil Maintenance Work 3. EEE Lab Equipments 4. Electrical Maintenance Work 5.Computer Lab Equipments/ Software 6.Mechanical Lab Equipments 7. Science & Humanities Lab (Physics & Chemistry) 8.Library Books 9.Hostel Related Materials & Utensils 10. Canteen of I.T. Korba (C.G.)

The tender form (Complete set of bidding documents including details of item with quantity for purchase) is available on the website www.itkorba.com from...24/9/16..

A complete set of bidding documents may be purchased by any interested eligible bidder.

The sealed tender should reach Office of the Principal, Institute of Technology, Korba, Balco-Urga Ring Road, Village-Jhagarha, Post-Risdi, Korba, District-Korba (C.G.) 495683 on or before 25/10/2016 by 17.00 hours and will be opened on 26/10/2016 at 12.00 hours. Any bid received after the deadline for submission of bids as prescribed above will be rejected and returned to the bidder. The undersigned has all the rights pertaining to the tender. For any information please contact the I.T. Korba (C.G.).


Principal
Institute of Technology
Korba (C.G.)





INSTITUTE OF TECHNOLOGY, KORBA (C.G.)

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PHONE NO: 098939-05053, 094241-44099, 99814-43708
E-mail: korbait@rediffmail.com, Website: www.itkorba.com

Tender No. ITK/PUR/ PUR/2016/11960

Korba, Dated: 24/09/2016

Last date of selling tender document: 25/10/2016 at 15:00 hrs
Last date of submission of sealed tender document: 25/10/2016 at 17:00 hrs
Date of opening of technical bid of tender document: 26/10/2016 at 12:00 hrs
Tender Document Fee (for each Department/Category) Rs.1,000.00

TERMS & CONDITION OF THE TENDER

Tender documents/Qualification requirements should be submitted in Main envelope as give below:

Tender details:-

1. The tender contains 11 categories/departments i.e 1.Civil Engg Lab Equipments 2.Civil Maintenance Work 3. EEE Lab Equipments 4. Electrical Maintenance Work 5.Computer Lab Equipments/ Software 6.Mechanical Lab Equipments 7. Science & Humanities Lab(Physics, Chemistry) 8.Library Books 9.Hostel Related Materials & Utensils 10. Canteen.

| Sr .No | Category/ Department | Approx Cost(Rs) in lakh | Remark |
|--------|-------------------------------------|-------------------------|--|
| 1 | Civil Engg Lab Equipments | 69.0 | Separate tender document fee and separate EMD department wise to be submitted along with the tender document |
| 2 | Civil Maintenance Work | 6.5 | |
| 3 | EEE Lab Equipments | 44.54 | |
| 4 | Electrical Maintenance Work | 2.0 | |
| 5 | Computer Lab Equipments/ Software | 68.0 | |
| 6 | Mechanical Lab Equipments | 40.0 | |
| 7 | Science & Humanities Lab | 0.3505 | |
| 8 | Library Books | 15.0 | |
| 9 | Hostel Related Materials & Utensils | 3.06 | |
| 10 | Canteen | ---- | |

If the bidder is interested to apply for more than one category/department then they must apply for each and every category separately i.e they should submit separate tender cost, emd amount, tender bid form etc for each and every category. In case if the firm has quoted for more than one department/section but submitted only one tender fee then the specifications submitted for the first department/section will be considered and the remaining specifications will be ignored Each part of the tender contains two stage bidding: Technical and Commercial bids.

2. In addition to the terms & conditions mentioned below, there are special terms & conditions applied for the category of Library Books & Services.

Tender Document Procurement:-

3. Tender document can be obtained by the prospective tenderer on payment of Rs.1000/- (Rs. One thousand only) through demand draft only in favour of "Principal Institute of Technology, Korba" payable at Korba in person from the college or can be downloaded from our website www.itkorba.com. The DD of Rs.1000/- (Rs. One thousand only) or copy of receipt through e-payment as tender document fee must be submitted with downloaded tender document. The Tender

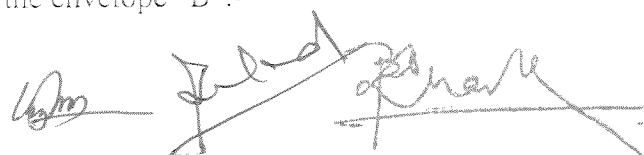
J. A. G.

form is non transferable. Any department laboratory items/software/material etc may be quoted only by those firms who have registered TIN in that particular area for sale.

Tender Submission details:-

4. Tender documents should be submitted separately for technical bidding (only the technical specification) and commercial bidding .The sealed tender should be clearly marked as technical bid and commercial bid on the top of the envelope. for each category/department of the tender. The envelope should be marked with the category/department number for which it meant.
5. Tender should be submitted in Duplicate. They should be tagged separately and marked as original and duplicate. Complete tender document must be duly signed, stamped, paged & indexed by the bidder. Unsigned or unpagged bids shall be straightway rejected.
6. Tender document will be prepared in following manner-
 - a. Main envelop "A"- Contains following two envelops "B" & "C".
 - b. Technical Bid envelop "B"- Contains Technical Bid with hard and soft copy (CD). Annexure I. Following should be kept in envelope "B" along with all mentioned documents as per clause 7 of this tender document.
 - I. Technical Bid (Annexure I) with catalogue and brochure.
 - II. Firm registration TAN/PAN/TIN/Turn Over and experience
 - III. Income Tax Clearance
Sales Tax Clearance
CST/VAT Clearance
 - IV Tender Document Fee Receipt/DD/Proof of e-payment
 - V EMD/DD
 - VI Form A(Annexure III A) and Section XII(Annexure-IV) as per Tender Document
 - c. Financial bid "C"- Contains financial bid for the tender with hard and soft copy(CD). Annexure II.
 - d. On the top of each envelope of Commercial bid, bidder should clearly mention Tender No., Due Date, Category/department, and Item Name with seal & sign of bidder.
 - e. Item no. and page no. of the tender form should be arranged strictly in chronological order.
 - f. There should be no alternations/corrections made in the quoted rates. Rates should always be in figures and words.
 - g. Tender should be valid for at least twelve months from the date of opening the commercial bid of the tender. The price should be firm without variations of any kind.
 - h. Bidders should compulsorily quote the minimum delivery period required for the supply of items if the tender is awarded.
7. Following documents should be kept inside the envelope "B":-





- a. Covering letter for submission of bid which should indicate- Index for all the submitted documents for the tender all particulars of bidders via address, phone no., e-mail, name of the authorized person(s), TIN/TAN/ Service Tax No. etc. for correspondence. Category/department, Item & Name for which bid is submitted, etc.
 - b. Completely filled Form - "A" with signature & seal of authorized person which includes Earnest Money/ Bid security details - @ 5% of total tendered value. Tender received without form "A" duly signed (As token of acceptance of tender conditions by the tenderer) will not be accepted (Annexure-III a).
 - c. The contents of the form "A" should not be changed or amended otherwise will not be acceptable by this office.
 - d. Demand Draft/ copy of e-Pay Receipt for earnest money/ bid security. Bank Guarantee will not be accepted against EMD amount in any condition.
 - e. Valid certificates related to TIN / TAN / Service Tax No. etc. issued by competent Govt. authority pertaining to tender.
 - f. Undertaking for "After Sales Services" on the letter head of bidder.
 - g. Affidavit in prescribed format as given in Annexure-V on non judicial stamp paper of Rs. 50/- certified by Notary.
 - h. Manufacturer's Company Profile showing its product range, turn over, web-address and certifications like ISO/ ISI etc. along with the documentary proof of such certificates if company/ products bear such certificate.
 - i. All relevant particulars, illustrative catalogue/ brochures etc. which should indicate the products technical specifications for all packages which is submitted in the bid.
 - j. Filled Manufacturer's Authorization Form as given in SECTION XII (Annexure-IV) for all the quoted items.
 - k. The bidder should submit the Manufacturer's Make/ Brand name being used for marketing and registration no. of Commercial Tax Department.
 - l. Category/department, Item wise Commercial Bid in prescribed format (i.e. Annexure-II) should be submitted (Separately for each item) in individual envelope along with the soft copy in CD (MS- Excel).
8. The fact that the tenderer has signed the form "A" will mean that the tenderer has completely accepted Terms & Conditions of the tender and that the tenderer agrees to abide by these Terms & Conditions of the tender. No deviation from

[Handwritten initials]

[Handwritten signatures and marks]

Terms & Conditions of the tender will be accepted under any circumstances. The Terms & Conditions of the tender and clause usually printed on the party's tenders or bills will not be binding on this department.

Tender opening details:-

9. Complete Tender Documents will be opened on the prescribed date and time in the presence of Purchase Committee/ related department members and Bidders (who choose to attend) / representatives who choose to attend. The Bidders / representatives willing to attend the bid opening event should submit authorization to attend and shall sign in a register evidencing their attendance.
10. Commercial bid opening dates will be finalized after opening of technical bids and shall be informed to the technically qualified tenderers separately.
11. Commercial bids of those tenders, which are found technically suitable, will only be opened and considered for the items technically approved.

EMD Details:-

12. The bid should be accompanied by Earnest Money/ bid security @ 5% of total tendered value (for all quoted materials/ services) as part of the bid, in the form of Demand Draft of Schedule Bank/ copy of receipt by internet. Payment/ Draft should be in favour of "Principal, Institute of Technology, Korba" payable at Korba, Chhattisgarh. The EMD has to be deposited department wise and then laboratory wise to avoid ambiguity in future. Earnest Money submitted in any other form will not be accepted and the tender will be rejected. Unsuccessful bidder's earnest money will be discharged/ returned as promptly as possible.
13. The EMD will be treated as security deposit in case of selected tenders. EMD/Security deposit will be forfeited in case of breach of agreement of supply by the tenderer (supplier). If purchase order is issued, the Security Deposit will only be returned after warranty period of supply (which will be as per point No.28 mentioned in terms & conditions of this Tender document), if the machine/ equipment/ material/ services will found satisfactory at that time.
14. The supplier can quote part or full tender requirements of the department (applicable to all tender categories except Library/ services) and proportionately the EMD may be submitted as mentioned in respective laboratory/department.
15. If any document given by the bidder is found fake/manipulated, then the entire EMD deposited by the bidder in the tender will be forfeited without assigning any reason and such bidder will not be entitled for future biddings.

Award of Tender:-

16. Contracts will be awarded only for those items which have minimum 3(Three) valid rates.
17. Contracts for procurement will be awarded as per the priority and availability of budget. Suppliers have to deliver the specified items within stipulated time. One time extension for two months may be granted on request for one month at 2% penalty.





18. The undersigned reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time without assigning any reason prior to contract award, without thereby incurring any liability to the affected bidder(s).

19. The undersigned reserves the right at the time of Contract award to increase or decrease the quantity of goods originally specified without any change in unit price or other terms and conditions.

20. As per State Government policy, Vendors registered within the State will be given advantage in price bid limited to the applicable VAT compared to the price quoted by the vendors registered outside CG State.

Supply & Payment Terms & Conditions:-

21. The rates quoted by the bidder must be inclusive of all the charges (like – transportation, installation charges, delivery charges, inspection charges, training charges, charges for services, excise duty, customs duty etc.) except VAT. The VAT should be mentioned separately. Loading/ Unloading charges shall be borne by the supplier.

22. The tender matter including prices should be typed neat- corrections/ overtyping in prices will not be accepted. However if correction/ overtyping is there, it should be attested by the tenderer with signature, date and their seal. Hand written and Xerox tender will not be accepted.

23. If the Supplier fails to deliver any or all of the Goods or to perform the services within the stipulated delivery period(s) specified in the Contract, then Principal, Institute of Technology, Korba (C.G.) shall, without prejudice to its other remedies under the Contract, forfeit the Bid Security and the order is liable to cancel.

24. If the supplier/ dealer fails to supply the items as per the specifications, items will not be received by the consignee and supplier/ dealer has to take them back on his/ her own cost. The supplier / dealer may supply the items of higher specifications (due to manufacturing obligations) if accepted by consignee after examination and testing.

25. The undersigned may get, the items supplied by the successful tenderer, inspected on receipt of the same by such person or persons he deems fit or may reject the items as in his opinion do not come up to the specification. The decision of the under signed will be final in such cases.

26. The one time extension (if application received within specified time) may be granted at the discretion of the undersigned. The liquidated damage at a rate of 2% per month of the contract price of the full cost of the tool/equipment/machine is liable to be charged for the extension of the delivery period(which includes the date of demonstration). Exemption in penalty may be given in a particular case of default by the institute side for the period of delay. Once the maximum (two months) is reached, the Purchaser may consider termination of the Contract. Equipment received after the delivery period or dispatched after the delivery period mentioned in the order will also be subjected to this liquidated damage or termination of contract. Power to extend delivery period would remain reserved with Principal, Institute of Technology, Korba (C.G.).







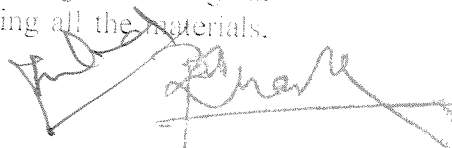
27. The rates quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account. All items will come under warranty of two years which will cover free servicing/spares if any.
28. 80% payment will be released after the safe receipt of goods, as per the specifications given in purchase order & and after ensuring successful installation, commissioning and performance of supplied items etc. Bills will be submitted in triplicate for payment. 5 % of the payment will be released at every six month interval till two years subjected to successful training/demo of the equipment/software to staff/students and satisfactory report by users.
29. Items should strictly comply the standards/norms as prescribed in BIS specifications.
30. The tenderer will have to submit samples on demand before the technical team at the purchaser end, in the prescribed time limit. In case the samples are not produced in the prescribed time it shall be open to the undersigned to forfeit Earnest Money Deposited by the tenderers.
31. Prices shall be quoted in Indian Rupees only. All quoted rates should be for new and unused items unless and otherwise specified so.

Other Terms & Conditions:-

32. Request for the supply of any details regarding quotation or comparative chart or any other enquiry in respect of the tenders received will not be entertained. Exact and earliest possible time of delivery should be indicated in the tender against each item. Other things, being equal, the tenders who give earliest delivery period will be preferred while comparing the rates. The delivery period given in the order will be the date of receipt of the equipment in the institute and not the date of dispatch of the equipment by the supplier.
33. Either a manufacturer or their authorized dealer can bid for the items. For each of the quoted items, appropriate documentary evidence for being a Manufacturer or their authorized dealer (Manufacturer's Authorization Form given in SECTION XII as Annexure-IV) must be submitted necessarily. In absence of above the bid will be treated non- responsive & likely may be rejected.
34. Vague expression such as "complete with standard accessories" or "as per your specification" will not be accepted. The tenderers must specifically indicate all specification of the items and should mention clearly what item will be supplied under "accessories" with the Equipment/ Machinery in price schedule enclosed as Annexure-I. Any ambiguity or vagueness in tender for item concerned will be liable for rejection.
35. The bids will be examined to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the bids are in order.
36. Samples sent by the party and the approved samples will be adjusted in regular supply and in the case of rejection, they will be returned back to the party at his cost.
37. The rejected items will be returned on the tenderer's cost.
38. All the equipments shall be suitably protected, coated, covered or boxed and crated to prevent damage or deterioration during transit/ handling and storage at site till the time of installation/ commissioning. While packing all the materials.




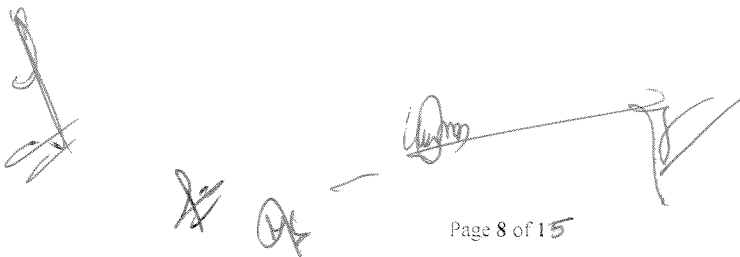




the limitations from the point of view of availability of railway wagon sizes. in India should be taken into account. The contractor shall be responsible for any loss or damage during transportation, handling and storage due to improper packing.

39. It must be noted that normally all correspondence and transactions will be made only with the parties whose tenders have been accepted and not with anybody else.
40. At any time prior to the deadline for submission of bids, the Purchaser may modify the bidding documents by amendment. All prospective bidders who have purchased the bidding documents will be notified of the amendment by uploading in the website www.itkorba.com or by E-mail, letter or by fax and will be binding on them.
41. No offer should be made for imported item for which import license has to be arranged by the undersigned. The entire imported item will have to be delivered in the institute and payment will be made in Rupees only.
42. Quality and price of the product will be the decisive factors for the award of tender. Merely quoting the lowest price without desired quality may lead to the consideration of next suitable tenderer.
43. Other terms and condition (if not specified in this tender document) will be as per C.G. State Government store purchase rule. Any dispute arising out of this tender or supply of any other matter will fall under the civil jurisdiction of Korba district only.


Principal
Institute of Technology
Korba (C.G.)



TECHNICAL SPECIFICATION SCHEDULE

Department/Section.....,
 Laboratory Name/Work.....
 Name of Bidder.....

| Item serial no | Item Code | Specification of items, which bidder offers | Name of Accessories with specification (if any) | Make/ Brand of item | Manufacturer's Name | Catalogue/ Brochure Page No. (as indexed by you) | Mention the deviations from the required specifications (if any) | Whether higher of lower side (if higher specifications or shortfall if any) |
|----------------|-----------|---|---|---------------------|---------------------|--|--|---|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

Note:-

- Specifications quoted should strictly comply the asked ones. However with valid justification the higher/lower specifications may be quoted (Column 8). Consideration of such deviated specifications will be purely at the discretion of the concerned department & Principal I.T.Korba.
- Vendor has to specify if the specifications quoted by him are extra and more modernized than the asked ones (Column 9)
- Specifications of the item which bidder offers as per the catalogue / brochure / Technical details etc. will be considered for comparison and selection. Incomplete details will not be considered for comparison.

J *to* *of*

400 *Sheet* *Chavla*

FORM - A

(To be signed and returned along with the tender)

I/We (Full name).....

Address.....

.....

.....

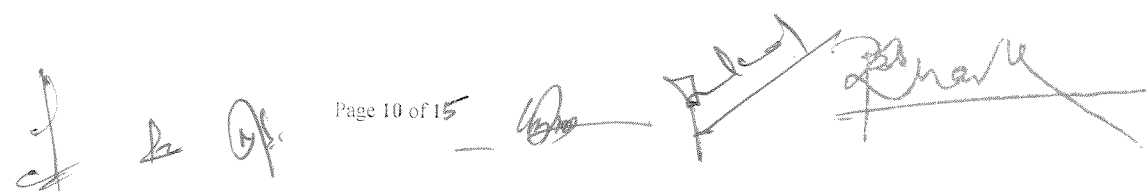
have read the Term and Condition of the tender for the supply of various stores
as per your tender notice for supply _____ for

_____ Chhattisgarh due on _____ and I/We

fully accept the Term and Condition of the Bid supplier to me / us with the
Bidding Documents.

I/We also undertake to permit the inspection our accounts and records
and other documents related to the bid submission and contract performance
and to have them audited by auditors appointed by the society.

It is further noted that if any manipulation is found at any stage, the
tender / Contract / Supply order shall be rejected and the Principal, I. T. Korba,
Chhattisgarh may take any action against me/ us, as she/ he deems appropriate.

Handwritten signatures and initials at the bottom of the page, including a large signature on the right and several smaller ones on the left.

Details of Earnest Money/ bid security in the form DD/BG @ 5% of the total tender value for which bid is submitted) :

(a) DD/BG No.-----

(b) Values `-----

(c) Name of Bank-----

Date:-----

Signature
(Name & full Address of the firm)

[Handwritten marks and signatures]

On Non Judicial Stamp Paper of Rs. 50/-

निविदाकर्ता द्वारा निविदा प्रपत्र के साथ दिये जाने वाला

शपथ-पत्र

निविदाकर्ता फर्म मेसर्सकी ओर से मुझे/हमें अधिकृत किया गया है और मैं/हम निम्नलिखित कथन शपथपूर्वक करता हूँ/करते हैं कि :-

1. मैंने/हमने निविदा की सारी शर्तें ध्यानपूर्वक पढ़ी हैं और उनसे सहमत हैं तथा उन्हें मानने के लिये वचनबद्ध हैं।
2. मेरे/हमारे द्वारा संलग्न किये गये सभी दस्तावेज सही है और उनमें किसी प्रकार की कांट-छांट नहीं किया गया है एवं गलत जानकारी नहीं दी गई है।
3. मेरे/हमारे द्वारा कमर्शियल बिड में सामग्रियों के लिये जो स्पेशिफिकेशन दिया गया है और उनके सपोर्ट में जो भी संबधित दस्तावेज, कैटलॉग/ब्रोशर्स आदि संलग्न किये गये हैं उनमें लिखा विवरण निर्माता द्वारा जारी किया गया है एवं मूल रूप में हैं और उनमें कोई फेरबदल या कांट-छांट नहीं किया गया है।
4. मेरे/हमारे द्वारा निर्माता से मुझे/हमें जारी आर्थोराइजेशन प्रमाण पत्र जो कि बिड के साथ संलग्न किये गये हैं वे सही एवं मूल रूप में हैं और उनमें कोई फेरबदल नहीं किया गया है।
5. यदि हमें क्रय आदेश आपूर्ति का अवसर दिया जाता है तो, मैं/हम दिये गये क्रयादेशानुसार सामग्रियों को निर्धारित समय सीमा में स्पेशिफिकेशन के अनुसार सप्लाय करने के लिये बाध्य हैं। देर होने या सामग्रियों के स्पेशिफिकेशन में अन्तर होने पर मुझे/हमें दिये गये क्रयादेश को निरस्त किया जा सकता है एवं संस्था को होने वाले नुकसान की भरपाई मेरे/हमारे द्वारा की जायेगी।
6. मेरे/हमारे द्वारा दी गई जानकारी असत्य पाये जाने पर मुझे/हमें एवं हमारी फर्म को निविदा में भाग लेने से वंचित किया जा सकता है।

दिनांक

हस्ताक्षर :

नाम :

धारित पद :

फर्म का नाम :

EARNEST MONEY / BID SECURITY FORM

To:
The Principal,
Institute of Technology,
Korba (C.G.)

WHEREAS.....(Name of Supplier) hereinafter called "the bidder" has undertaken, in pursuance of Tender No.....Date..... to bid in the said tender.

AND WHEREAS it has been stipulated by you in the said Tender notification that the Supplier shall furnish you with a Bank Guarantee by a schedule bank for the sum specified therein as Earnest Money/ Bid Security for compliance with the Bidders obligations in accordance with the Tender terms and conditions.

AND WHEREAS we have agreed to give the Bidder a Guarantee:

THEREFORE WE hereby affirm that we are Guarantors and responsible to you, on behalf of the Bidder, up to a total of.....(Amount of the Guarantee in words and figures) and we undertake to pay , upon your first written demand declaring the bidder to be in default under the Terms and Condition and without cavil or argument, any sum of sums within the limit of(Amount of Guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specification therein.

This guarantee is valid until-----day of-----20----

Signature and Seal of Guarantors

.....
.....
.....

Date.....20.....

Address.....

.....
.....

.....
(Signature of the Bank)

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[Handwritten signatures and marks]

SECTION XII

MANUFACTURERS' AUTHORIZATION FORM*

No. _____ Dated _____

To
Principal,
Institute of Technology,
Korba (C.G.)

Dear Sir:

Tender no _____ Dated _____

We.....who are established and reputable manufacturers of (name and description of goods offered) having factories at(address of factory) do hereby authorize M/s(Name and address of Agent) to submit a bid, and sign the contract with you for the goods manufactured by us against the above IFB.

No company or firm or individual other than M/s.....are authorized to bid, and conclude the contract for the above goods manufactured by us, against this specific Tender. (This para should be deleted in simple items where manufacturers sell the product through different stockiest.)

Yours faithfully,

(Name)
(Name of manufacturers)

Note: This letter of authority should be on the letterhead of the manufacturer and should be signed by a person competent and having the power of attorney to legally bind the manufacturer. It should be included by the Bidder in its bid.* Modify this format suitably in case where manufacturer's warranty and guarantee are not applicable for the items for which bids are invited

[Handwritten initials]

[Handwritten signature]

[Handwritten signature]

Note:- Give bid price item-wise in the following Performa only. Any deviation will not be accepted.

PRICE SCHEDULE

Department/Section....., Laboratory Name.....
Name of Bidder.....

(Amount in ₹)

| Item serial no. | Item Code | Specification of items, which bidder offers | Name of Accessories with specification (if any) | Make/ Brand of item | Manufacturer's Name | Catalogue/ Brochure Page No. (as indexed by you) | Quantity of item as per tender with unit (8) | Cost per unit (Inclusive of all charges except VAT (9)) | VAT (%) | Total value item wise (col 8 * col 9) (10) | Total Value in ₹ (col 10 * col 11) |
|------------------|-----------|---|---|---------------------|---------------------|--|--|---|---------|--|------------------------------------|
| | | | | | | | | | | | |
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| Total (in words) | | | | | | | | | | | |

Note:-

- The bidding prices shall be for F.O.R. Destination.
- Rates should be inclusive of all charges (such as charges for inspection / Demonstration / Installation/ Commissioning/ Transportation/ Excise / Custom / Services charges etc. except VAT. VAT should be mentioned separately.
- Conditional rates will not be accepted.
- Comparison will be done item wise on the basis of total values as mentioned in column 11.
- Rates will be finalized for purchase on the basis of individual items having 03 valid rates.
- Specifications of the item which bidder offers as per the catalogue / brochure / Technical details etc. will be considered for comparison and selection. Incomplete details will not be considered for comparison.
- Price schedule give in other form will not be accepted and bid will be rejected.

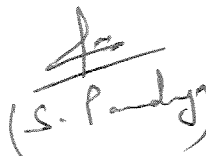
INSTITUTE OF TECHNOLOGY, KORBA (C. G.)

DEPARTMENT OF Science & Humanities

Labwise approximate cost of tender and EMD details

| S. No. | Name of Lab | Approx cost of Tender (Rs. In Lakh) | EMD Required |
|--------|---------------|--|--------------|
| 1 | Physics Lab | 2.90 | 0.145 Lakh |
| 2 | Chemistry Lab | 4.11 | 0.2055 Lakh |
| | Total | 7.01 | 0.3505 Lakh |

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(D. NK Tota)


(S. Pandey)


(R. N. Sahu)

Applied Chemistry Lab

SCHEDULE OF REQUIREMENT

| S. No. | Name Of Equipment | Technical Specification | Quantity | Price (Inclusive of all Taxes) |
|--------|-----------------------------|---|----------|--------------------------------|
| 1 | Desicator | 8" neutral glass stoppered with cap | 5Pc | |
| 2 | Hot Plate round 8" | Round 8" dia, with energy Regulator & thermostatic control | 2Pc | |
| 3 | Lab Oven upto 250C | Upto 250C, 14'X14'X14' electric operated, double walled inside stainless steel, outside mild steel painted in epoxy powder coating. Two indicators and on/off switch. To work on 220/230 volts A.C. With one number air circulating fan & digital temperature controller cum indicator. | 1Pc | |
| 4 | Electronic Balance | Capacity 120 gm Readability .1mg or .0001gm, | 1Pc | |
| 5 | Centrifuge Machine | 6 tube, Electric operated, with 5 step speed regulator, 4000 rpm, heavy gauge spun aluminium guard bowl stoved enamel paint. | 5Pc | |
| 6 | PH meter | Microprocessor Based, range 0 to 14 ph, display 16x2 digit LCD Display, accuracy 0.01 ph +1 digit, resolution 0.01 ph, temp compensation auto 0 to 100 degree C auto buffer reco..4.00, 7.00, 9.20 ph, power 230V +10% AC. Size 285x 190x90 mm, storage upto 90 samples, ph electrode, buffer sol & manual, 8 soft touch membrane type touch. | 1Pc | |
| 7 | Bomb Calorimeter | Bomb calorimeter apparatus with digital thermometer 0.1°C Read Out. It consists of S.S. Body made out of corrosion resisting stainless steel Rod cap. 300ml., Calorimeter vessel, outer jacket with insulated Body, offset stirrer, S.S. Crucible, pellet press, ignition wire, pressure gauge with flexible pipes with electronic firing unit As per IP 12ASIMD complete with Oxygen Cylinder | 1Pc | |
| 8 | Abels point Apparatus | Abel Flash Point Apparatus Temp. Range -18°C to +70°C with REFRIGERATION SYSTEM as per IP-70 with Oil Test Jet system according to IP 33 & IP 170 and also IS 1448 (Part I) 1985 (P:20). It is suitable for oils whose flashes below 70°C. It is supplied with oil cup, cover fitted with stirrer, thermometer socket S.S. Water Bath, Stand. An electric heater is fitted at bottom for operation on 220 Volts AC Circuits. With digital temperature. Indicator and FHP motor stirrer. | 1Pc | |
| 9 | Pensky's Martyn's apparatus | Pensky Martens Flash Point Apparatus electrical heated with Energy Regulator Oil Test Jet as per IP 34, ASIMD-93 and IS 1448 (Part I) 1270 (P.21) and IS 1209-1953 method B. Used for finding out Flash Point above 70°C and below 300°C. The having Oil Test Jet / Gas Test Jet flammable device, stirrer with flexible shaft. The Assembly rests in Air Bath which is covered with Dome shape metal top. The cup is fitted with insulated Handle and locking arrangement near Cup flange. The assemble is kept on round shape electric heater with Separate temp. regulator. Suitable for operation on 220 Volts 50 cycles AC Circuits. | 1Pc | |
| 10 | Water bath | Rectangular, 6 holes, ISO Certified, electric operated. Double walled, top has 75 mm holes with concentric rings. Temp. upto 99 degree C. thermostatically controlled fitted with neon lamp, indicator, main switch and workable on 220V AC. SIZE 325X250X100 mm. | 2Pc | |
| 11 | Deep freezer (vertical) | 150 ltr, wheel on rear side, CFC Free heavy duty compressor, plastic body, solid door works on 220V AC/ temp. range -20 c, puff insulated to prevent thermal losses. Specially designed combination of pull out drawer system for storage. | 1Pc | |
| 12 | Dissolved oxygen meter | Microprocessor Based, display 16x2 line LCD, RANGE 0-20 ppm, accuracy 0.2ppm, resolution 0.1ppm, calibration automatic, storage upto 90 samples, with soft touch key. | 1pc | |
| 13 | Water and soil analysis kit | 7 parameters (ph,conductivity, temperature, TDS, DO, Turbidity, salinity,) Microprocessor Based, 3.5 digit LCD, Power supply 230V +10% AC OR 12V rechargeable battery. With accessories ph electrode, conductivity/TDS/salinity cell, temp probe, Do probe and dry cell container (161) main operational manual, bottles for ph sollution & tablets bottles (161) turbidity test set (191). | 1Pc | |

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APPLIED PHYSICS LAB
SCHEDULE OF REQUIREMENT

| S.N. | NAME OF EXPERIMENT | NAME OF EQUIPMENT | SPECIFICATION | QUANTITY | Price (Inclusive of all) |
|------|--|--|---|----------|--------------------------|
| 1 | To Verify Demorgans Theorm | Demorgans Kit | 1. Power supply requirement:230V AC, 50 Hz. 2.Built in IC based regulated Power supply:0-5V DC/200mA. 3. Following parts provided on single PCB with connecting terminals . NOT Gates:IC 7404-1 No. AND Gates :IC 7411-1 No. OR Gates:IC 4075 -1 No. 4. High /Low switches: 3. Nos provided to apply 0 and 1 level. 5. Logic output indicators: 4 LEDs provided for output level indication. | 2 | |
| 2 | To determine the forbidden energy gap of a semiconductor. | P-N diode. DC regulated power supply, Voltmeter, Milliammeter, 1 KW resistor, Beaker, Thermometer, Heater. | 1. Power supply requirement:230V AC, 50 Hz. 2.Built in IC based regulated Power supply:0-5V DC/200mA. 3. Following parts provided on single PCB with connecting terminals . NOT Gates:IC 7404-1 No. AND Gates :IC 7411-1 No. OR Gates:IC 4075 -1 No. 4. High /Low switches: 3. Nos provided to apply 0 and 1 level. 5. Logic output indicators: 4 LEDs provided for output level indication. | 2 | |
| 3 | To determine the wave length of sodium light with the help of Fresnel's Bi-prism | 1. Optical bench, 2. Fresnel's Biprism 3. Bi-prism holder 4.Double Convex lense 5.Lense Holder 6.Micrometer eye piece 7.Optical slit 8.Reading Lense 9.Sodium Light Source | 1. Optical bench: Two 150 cm long steel rods 3/4 dia. forming a bench with end supports having leveling screws. One of the steel rods is graduate in cm and mm. It has five riders, two with transvers motion. 2. Fresnel's Biprism : Optical worked made from Crown Glass, 50X40 mm size. 3. Bi-prism holder : It has fine radial motion operated by fine pitch screw. 4.Double Convex lense : 50mm diameter &F.L 10 cm. 5.Lense Holder: Spring action type having well ground stainless still jaws 6.Micrometer eye piece: A ramsden 10X eye piece carried on a slide which moves along a micrometer screw. The movement is read on a 30-0-30 mm steel scale and directly on micrometer head to .001cm No backless. 7.Optical slit: Optically true, prcision ground stainless steel jaws. 8 Reading Lense: 40/50 mm diameter with handle 9.Sodium Light Source: Sodium light source complete with sodium lamp 35 watt with vaccume jacket. Transformer & wooden box having 4holds with slide covers one each on every side at different hieght. 10. Incandescent lamp:with hous on stand: For white light | 2 | |

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| S.N. | NAME OF EXPERIMENT | NAME OF EQUIPMENT | SPECIFICATION | QUANTITY | Price (Inclusive of all) |
|------|--|--|---|----------|--------------------------|
| 4 | To determine wave length of Laser light by Diffraction Grating method | 1. Diode Laser with power supply. 2. Circular Table 3. Laser Detector 4. Diffraction Grating 5. Nanoammeter 6. Reading lense 7. Sprite level | 1. Spectrometer standard: 6" dia circle reading 30seconds, with a long arm in place of Telescope fitted with double convex lens 50mm dia, focal length 40cm on one end and photo voltaic cell with width adjustable slit on the other end. The distance between lens and photo voltaic cell can be adjusted for better focussing. Prism table is provided with three leveling screws and is engraved with concentric rings and lines. The scales and verniers are of stainless steel and are machine divided. 2. Digital Nanoammeter: Range : 100nA, 1mA, 10mA, 100mA. Accuracy : $\pm 0.25\%$ for all ranges Resolution : 0.1nA, 1.0nA, 10nA, 100nA. Input Resistance : 25W, 2.5W, 0.25W, 0.025W. Display : 3½ digit 7segment LED (12.5mm height) with auto polarity and decimal indication. 3. Prism : Optically work with two faces polished , size 38mm*38mm 4. Power supply: 0-6V Dc at 3A, IC regluted short circuit protected power supply & fine voltage circuit protected power supply & fine voltage control with two digital pannel meter of 31/2 digit one of 19.99 V DC & other of 19.99Amp DC . 5. Photo voltaic cell: with width adjustable slit | 2 | |
| 5 | e/m by Thomson's method | e/m Thomson Kit | High voltage Power Supply with One Meter provided to measure the deflection voltage. Complete with Intensity, Focus & Deflection controls. It is provided with accessories such as compass box, set of ELNICO magnets. Teak wood stand with CRT mounted. Teak wood U stand with scale on both the arms for placing magnets. | 2 | |
| 6 | Study Of Hall Effect | Hall Effect Apparatus | The set up consists of electromagnet of 7.5 Kg, Power supply for electromagnet 0-100V/4 Amp with meter. Germanium crystal mounted & its constant current power supply 0-20 mA fitted with two digital meters for Hall's voltage & crystal current. Gauss meter digital 0-20 K. Guass with Hall probe. | 2 | |
| 7 | Flywheel | Stop Clock, Vernier Calipers, Thred, Iron Fly Wheel, Weight 500kg, (3 piece) | Comprising of carefully machined and balanced cast iron wheel and steel spindle is supported on the ball bearings in strong iron brackets . The sides of wheel are smoothly red painted. The top of wheel is chrome plated and is marked with a thick red line. A pointer is fixed to one of the brackets. Diametric hole is drilled in the shaft to take a pin and cord the base is provided with four holes so that the apparatus can be fixed to wall complete with cord and hook. 15cm wheel dia. | 1 | |
| 8 | To determine the frequency of AC mains with Sonometer using an electromagnet and magnetic wire (steel wire). | 1. Sonometer 2. Tuning fork 3. Rubber pad for tuning fork Step down transformer Electromagnet Horse shoe magnet, Screw gauge, Retord stand with Clamp, Slotted weights: 1/2 Kg set of 5 including hanger i.e. 2½ kg total. Connecting wires | One metre long, made of soft wood and well polished. Fitted with two metre scale graduated in centimeter. It is provided with wire of two different material steel and brass, sliding knife edges and hook etc. Set of eight, small size, made of steel, nickle plated. Frequency is marked on the tuning forks. The frequencies are 256, 288, 320, 341, 384, 420, 480 and 512Hz. | 2 | |

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| S.N. | NAME OF EXPERIMENT | NAME OF EQUIPMENT | SPECIFICATION | QUANTITY | Price (Inclusive of all) |
|------|----------------------------|---|--|----------|--------------------------|
| 9 | Capillary / Jager's Method | 1. Jager's apparatus 2. Cappillary Tube 3. Beaker (250ml) 4.glass(250ml) 5. Plastic 500ml 6.Traveling Microscope 7 Rubber Tube 8.. One rod | Jaeger's surface tension having a mouth reagent bottle fitted with a cork having two holes. in one hole a dropping funnles is fitted. Complete with manometer, capillary tube. All mounted on suitable wooden stand.Without aspirator. | 2 | |
| 10 | Stock's Method. | Five steel balls of different sizes . Glass cylinder with glycerine . Two strong magnet .Stop watch, Micromer scale Thermometer gravity hydrometer | Stoke's Viscometer (Failing sphere viscometer), experimental liquid, steel balls of different sizes, stop watch digital, screw gauge, thermometer and meter scale | 2 | |
| 11 | | Vernier | 150mm | 10 | |
| 12 | | Screw Guage | 25 mm | 10 | |
| 13 | | Stop watch | Analog type | 5 | |

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