



GOVERNMENT COLLEGE OF ENGINEERING, KALAHANDI
AT: KandBandopala, PO: Risigaon, Dist: Kalahandi,
Bhawanipatna-PIN 766002, ODISHA.

No: GCEK/TEQIP/365

Date: 20/02/2019

TENDER CALL NOTICE (TWO BID SYSTEM)

Sealed tenders are invited from the reputed firms/ISO 9001 certified companies/Authorized Dealers/Manufactures with valid documents and GSTIN for supply of Laboratory Equipments/Components/Items for the Dept. of Civil Engg. Interested parties may apply in the prescribed tender document which can be downloaded from the website (<http://www.gcekbpatna.ac.in>) and the filled-in application form along with a non-refundable fees of **Rs.1, 500/-** (Rupees one thousand & five hundred) only per package in shape of demand draft in favour of **“Principal, Government College of Engineering, Kalahandi”** payable at **Bhawanipatna** on or before 14/03/2019 at **5.00 PM**. The Technical Bids will be opened on 15/03/2019 at **3.00 PM** and the Price Bids will be opened on 23/03/2019 at **3.00PM**. The sealed tenders super-scribing the package number should be submitted to “The Principal, Govt. College of Engineering, Kalahandi, Bhawanipatna, At: Bandopala, Po:Risigaon, Bhawanipatna-766002.” through speed post/registered post only. Tenders received beyond the scheduled date and time will be summarily rejected.

The undersigned reserves the right to extend the date and accept or reject any or all tenders without assigning any reason thereof.

Sd/-
PRINCIPAL

BIDDING DATA SHEET

A. GENERAL INFORMATIONS:

Sl. No.	Item	Details
1	Bid Identification No.	
2	Name of the Work	PROCUREMENT OF Lab EQUIPMENT/ MACHINERIES CIVIL ENGINEERING DEPARTMENT
3	Officer inviting tender	HOD, CIVIL ENGINEERING DEPARTMENT
4	Accepting Authority	PRINCIPAL, GOVERNMENT COLLEGE OF ENGINEERING KALAHANDI.

B. BID INFORMATION:

1	Time period assigned for Completion of supply.	30 (thirty) days from the date of issue of supply order.
2	Last Date & time of submission of Bid	Time: 5.00PM Date:14/03/2019
3	Cost of Tender Paper (Clause No.6.1of DTCN.)	
	i	Bank draft for Tender Paper Cost
	ii.	in favour of
	iii.	payable at
		Rs.1500/- per package inclusive GST PRINCIPAL , GOVERNMENT COLLEGE OF ENGINEERING KALAHANDI Bhawanipatna
4	Bid Security (Clause No.5.1 of DTCN.)	
	i	Amount
	ii	Pledged in favour of
	iii	payable at
	iv	Type of instrument
		1% (One Percentage) of the tender value Package Wise Principal , Government College of Engineering Kalahandi Bhawanipatna As specified in the Bid document in Clause No.5.1 of DTCN
5	Bid validity period (Clause No.16.1 of DTCN)	90 days from the date of opening of Technical bid.
6	Currency of Contract	Indian Rupees
7	Language of Contract	English
8	Date of opening of Technical bid	Dt.15/03/2019 at 3 PM
9	Date of opening of Price bid/ BOQ	Dt.23/03/2019 at 3 PM

DETAILED TENDER CALL NOTIC **(DTCN)**

The tender document is available in the official website of the college i.e. <http://www.gcekbpatna.ac.in>. All bids must be accompanied by cost of tender paper (i.e. Rs1500/- per package) and Bid Security (i.e. of 1% tendered value Package wise) in shape of Account Payee demand draft in favor of “Principal, Government College of Engineering, Kalahandi” payable at Bhawanipatna from any nationalized bank with copies of relevant documents of the bidder, failing which the bid will be liable for rejection. The bid security in other form like cash, personal cheque etc. will not be accepted and in such case bid will be rejected. Interested parties may submit the tender documents on or before **14/03/2019** at **5.00pm**. The Technical Bids will be opened on **15/03/2019** at **3 PM** and the Price Bids will be opened on **23/03/2019** at **3 PM**.

The authority reserves the right to extend the date and accept or reject any or all tenders without assigning any reason thereof.

GENERAL TERMS & CONDITIONS OF CONTRACT

ADDENDUM

The bid is to be submitted in two covers separately if otherwise eligible.

(i) Cover-I -Technical bid

(ii) Cover-II- Financial bid

The Bidders shall furnish as part of the Bid the following Documents in cover-I (Technical bid) establishing Bidders eligibility and qualification to perform the contract to the Purchaser's satisfaction.

1. Eligible Goods and Services

- 1.1 The Bidders shall quote the articles of reputed make as per list of equipments enclosed in this tender document at the end with make/brand and model names as per the Bid technical specifications (in **Annexure-III**) in **Annexure-IV** and may quote alternative standards in the Bid. The articles quoted should have adequate service facilities.

2. Documents Establishing Bidder's Eligibility & Qualification

- 2.1 The Bidders shall furnish as part of the Bid the following Documents in cover-I (Technical bid) establishing Bidder's eligibility and qualification to perform the contract to the Purchaser's satisfaction.

- a) **FOR ORIGINAL MANUFACTURER:**
- i) **Company Registration Certificate** (in case of Company registered under Company Act 1956), **Partnership deed**, duly registered before competent authority (in case of Partnership firm) and **documents from appropriate authority depicting the authority/license** to manufacture laboratory testing equipment That the Bidder, who is not a manufacturer / producer, has been duly authorized by the manufacturer/ producer to supply the goods.
 - ii) Valid ISO certificate.
 - iii) EMD/ Bid security in proper shape as mentioned at clause 5.1 of DTCN.
 - iv) Cost of Tender paper as mentioned at clause 6.1 of DTCN.
 - v) GST registration certificate.
 - vi) Valid GST clearance certificate.
 - vii) PAN card (in the name of Company in case of Company/Partnership firm and in the name of the Proprietor in case of Proprietary firm).
 - viii) Bid Declaration Form / Verification & Undertaking in affidavit form on stamp paper of Rs 100/- duly signed before Notary or any appropriate Authority as per format in Annexure-II.

NOTE:

- a) If the bid is made by a Proprietary firm, the bid declaration form shall be signed by the Proprietor & the bidder shall furnish **type-written full name and name of his/her address** in declaration form.
- b) If the bid is made by a firm in partnership, the bid declaration form shall be signed by the managing partner or any other partner holding the Power of Attorney for the firm (**with type-written full name and name of his/her firm with its current address**), in which case a certified copy of the power of attorney in affidavit form shall accompany the tender.
- c) If the bid is made by a Company or a Corporation, the bid declaration form shall be signed by the managing director or a duly authorized person holding Power of Attorney on behalf of the company for signing the bid (**with type-written full name and name of his/her firm with its current address**), in which case a certified copy of the Power of Attorney shall also be submitted.
- ix. Details of make/brand with specification & logo etc. of the machineries & equipment package wise duly filled in as per format in **Annexure-IV**
- x. Performance statement as per format in **Annexure-V** with documentary proof for each item of the package.
- xii. No Relation Certificate as per Format in **Annexure-VIII**.
- xiii. Details of the bidder's service center as per format in **Annexure-IX**.
- xiv. Proof of Annual average turnover of Minimum of Rupees Ten Lakh for Package Four and thirty Lakh for remaining Packages in last 3(three) financial years certified by the Chartered Accountant as per format (**Annexure-VI**).
- xv. Checklist duly filled in as per details in **Annexure-IA**.

- b) **FOR AUTHORISED DEALER/ DISTRIBUTOR:**
- i. Manufacturer's authorization as per Format in **Annexure-VII**.
 - ii. Valid Documents of the manufacturer as applicable.
 - iii. Valid ISO certificate of the manufacturer.
 - iv. EMD/ Bid security in proper shape as mentioned at clause 5.1 of DTCN.
 - v. Cost of Tender paper as mentioned at clause 6.1 of DTCN.
 - vi. GST registration certificate.
 - vii. Valid GST clearance certificate.
 - viii. PAN card (in the name of Company in case of Company/Partnership firm and in the name of the Proprietor in case of Proprietary firm).
 - ix. Bid Declaration Form / Verification & Undertaking in affidavit form on stamp paper of Rs 100/- duly signed before Notary or any appropriate Authority as per Format in **Annexure-II**.

NOTE:

a) If the bid is made by a Proprietary firm, the bid declaration form shall be signed by the Proprietor & the bidder shall furnish **type-written full name and name of his/her firm with its current address** in declaration form.

b) If the bid is made by a firm in partnership, the bid declaration form shall be signed by the managing partner or any other partner holding Power of Attorney for the firm (**with type-written full name and name of his/her firm with its current address**), in which case a certified copy of the power of attorney in affidavit form shall accompany the bid.

c) If the bid is made by a Company or a Corporation, the bid declaration form shall be signed by the managing director or a duly authorized person holding Power of Attorney on behalf of the company for signing the bid

(**with type-written full name and name of his/her firm with its current address**), in which case a certified copy of the Power of Attorney shall also be submitted.

x. The bidder has to mention make/brand specification & logo etc. of original manufacturer only for the equipment/machineries of the packages to be supplied in **Annexure-IV**

xi. Performance statement as per **Annexure-V** with documentary proof.

xii. Proof of Annual average turnover Minimum of Rupees Five Lakh for Package Four and Twenty Lakh for remaining Packages 3(three) financial years certified by the Chartered Accountant as per format (**Annexure-VI**).

xiii. No Relation Certificate as per Format in **Annexure-VIII**.

xiv. Details of the bidder's service center as per format in **Annexure-IX**.

xv. Checklist duly filled in as per details in **Annexure-IB**.

- 2.2 Copies of valid GSTIN/STCC and ITCC/Non-Assessment Certificates shall be furnished by the Bidder and the originals of the above certificates shall be produced to the purchaser before placement of notification of award. In case of outside State Bidders, the concerned firm is required to submit copy of the Non- Assessment Sales Tax Clearance Certificate issued by competent Sales Tax authority of the State of Orissa in favour of their firm along with copy of the GSTIN & Income Tax Clearance Certificate. Any Bidder failing to submit the above documents the Bid of the firm may be rejected.

3. Documents Establishing Goods Eligibility

- 3.1 The goods offered against the schedule of requirement of goods should be in accordance with the stipulated specifications.

TECHNICAL SPECIFICATIONS:-The machinery/ equipment to be supplied should be genuine **IS/ISI standard** and also strictly as per the detailed technical specifications attached at the end of the bid document (**Annexure-III**).The bidder has to specify the name of manufacturer, make/brand with detail specification and model in **Annexure-IV**.

In case of authorized dealer/ distributor, the bidder has to mention make, brand, specification & logo etc. of original manufacturer only. If the authorized dealer of a manufacturing company proposes to supply any brand or make other than that of the original manufacturer, then the same shall not be acceptable.

- 3.2 The documentary evidence may be in the form of Literature, pamphlets, manuals, drawing, circuit diagram etc. and shall furnish :

- a) Detailed description of goods with essential technical and performance characteristics.
- b) A list giving full particulars, including available source and current price of spare parts, special tools etc. necessary for proper and continuing function of the goods for a period of two years following the commencement of the use of the goods by the Purchaser.

4. **Bid Price**

- 4.1 The Bidder shall quote their lowest possible price (in **Annexure-XIV**) (as per list of equipments for different categories enclosed in this tender document) & prices quoted by the Bidder shall be fixed during the Bidder's performance of the contract and not subject to any variation.
- 4.2 The contract price shall include the cost of the Goods, Charges towards Packing, forwarding, handling, insurance, freight, incidental service, installation & commissioning of the goods and training to the consignee's personnel at site.
- 4.3 The Bidder shall furnish the breakup of cost as follows solely for the purpose of facilitating the comparison of Bids only. The price must be stated separately for each item. (**Annexure-XII**)
- a) Ex-Factory/ Ex-Warehouse/ Ex-Showroom/ off the self price
 - b) Packing, Forwarding and Handling charges
 - c) Insurance charges
 - d) Freight up to destination Institution.
 - e) Erection, Assembly, commissioning, incidental service, including testing, training charges.
 - f) Tax component (i.e Excise Duty, Sales Tax, GSTIN other levies) payable by the Consignee.
 - g) Delivery cost at site (including Tax Component)

5. **Bid Security Deposit :**

- 5.1 All bids must be accompanied by the bid security @ not less than 1% (One Percentage) of the tender value in shape of demand draft in favour of "Principal, Govt. College of Engineering ,Kalahandi payable at Bhawanipatna" enclosed in sealed envelope, failing which the tender will be rejected.
- 5.2 The bid security is required to protect the Purchaser against the risk of Malfunctioning of the equipment within the Guarantee period.
- 5.3 Bidder's conduct which would warrant the security's forfeiture. Unsuccessful bidders' bid security will be discharged or returned as promptly as possible but not later than thirty (30) days after the expiration of the period of bid validity prescribed by the Purchaser.
- 5.4 The successful Bidder's bid security will be discharged upon the Bidder signing the contract.
- 5.5 The bid security may be forfeited if a Bidder withdraws its bid during the period of bid validity.

6. **Tender paper Cost**
6.1 The cost of Bid documents (non-refundable) in shape of demand drafts issued by any Nationalized Bank shall be drawn in favour of **Principal, Government College of Engineering Kalahandi** payable at Bhawanipatna for **Rs1500/- towards cost of tender paper & inclusive GST.**
7. **Delivery of Goods**
7.1 The delivery of goods shall be made by the supplier in accordance to the order placed/ Notification of Award to the Consignee as shall be detailed in the Schedule of Requirement of Goods.
8. **Inspection/ Test**
8.1 The Purchaser or his representative shall have the right to inspect/ Examine/ test the goods in conformity to contract awarded.
8.2 The inspection/examination/ test may be conducted in the premises of the Supplier or at the goods final destination at the premises of the Consignee, as will be decided by the Purchaser.
8.3 The purchaser's right to inspect/ examine/test & where necessary to reject the goods after the goods arrival at the final destination, shall in No way be limited or waived by the reason of the goods having been inspected and tested by the manufacturer previously.
8.4 In case of any inspected/ tested goods fail to confirm to the specification/ working condition, the purchaser may reject them and the supplier shall replace/ repair the same free of cost to the purchaser.
- 8.5 **INSTALLATION & COMMISSIONING:-**
The successful bidder shall visit the schedule place and recommend pre-installation requirements at each place to the Consignee ahead of delivery. The electrical power supply will be provided by the purchaser at the room where the equipment will be installed but the wiring, electrical fittings and accessories, if any, required for installation & commissioning of the equipment from the power supply point to the point of actual installation will be provided by the supplier without any extra cost.
- 8.6 **DEMONSTRATION/QUALIFIED AND TRAINED CUSTOMER SUPPORT STAFF:**
The bidder should possess qualified and trained customer support staff with ample experience in the required field, who shall impart necessary training/ demonstration to Purchaser's personnel for operation of equipment supplied.

- 8.6 **REJECTED ITEMS:**
No payment shall be made for rejected supplied items. Rejected items must be removed by the bidders within two weeks of the date of rejection at their own cost and replaced immediately. In case these are not removed, the same will be auctioned by the purchaser (at the risk and responsibility of the suppliers) without any further notice.
- 8.7 **TRAINING:** - Supplier is required to impart training to operate Equipment/ machineries to minimum 2 persons (one Laboratory staff and one faculty) for 7 days for each machinery/ equipment within 15 days of installation at site where the Equipment is installed. The bid price includes the Training & Demonstration charges.
9. **PAYMENTTERMS & PERFORMANCE SECURITY (SECURITY DEPOSIT)**
- 9.1 No advance payment is allowed by the Purchaser to the supplier for any deal.
- 9.2 The standard payment terms(subject to recoveries, if any) upon submission of required documents shall be as follows :
- 9.3 Payment to the successful bidder shall be made only after items are received in good and serviceable condition as per conditions stipulated in the bid documents along with required documents in support of Bills. Ninety percent (90%) of the bill amount will be released after successful commissioning, demonstration & operation of the machineries / equipment & Ten percent (10%) of the Bill amount shall be retained towards "Performance Security" as security deposit which will be released without any interest after three months beyond the Guarantee/ Warranty period subject to fulfillment of all contractual obligations. The proceeds of the Performance Security (security deposit) shall be payable to the Purchaser as Compensations for any loss resulting from the Supplier"s failure to complete its obligations under the contract. The payment of the bill shall be made after deducting Government dues, statutory recoveries and other deductions, if any. The prevailing rate of income tax and rate of GST on the gross amount of the bill will be deducted from the supplier"s bills. Under no circumstances, interest is payable by the purchaser for any dues to the supplier. The bidder shall be responsible for payment of any charges due to any statutory authorities such as **Income Tax @2% will be deducted at source from the contract value above of 50 Lakhs**, GST as applicable.
The supplier shall not raise any claim in any manner after the Bill amounts are cleared against the purchase order.
- 9.4 **PAYING AUTHORITY:** - The Principal, Government College of Engineering, Kalahandi shall be the paying authority. Payment will be released by the Principal after receipt of Installation/ Supply certificate in prescribed Format (Annexure-XII) from the consignee.

- 9.5 **The Bills / Invoices are to be submitted by the supplier(s) specifying the following minimum details.**
- a) No. & date of Bills/ Invoices.
 - b) No. & date of Supply Order.
 - c) Name & Specification of Item.
 - d) Name of Manufacturer, Model, make/ brand.
 - e) Item-wise quantity, rate & bill amount of that item.
 - f) Total bill amount along with break-up of taxes & duties.

10. **Guarantee / Warranty for supply of tools, equipments and furniture.**

- 10.1 The Supplier warrants that the Goods supplied under the contract are new, unused, of the most recent or current models and incorporate all recent improvements in design and materials unless provided otherwise in the contract. The goods shall be covered with warranty /guarantee for a minimum period of **24 months** from the date of completion of supply including installation & commissioning. The warranty also includes all accessories related to instruments & equipment quoted for. The firm/ bidder shall provide prompt after-sales services & attend to the complaints/ repair/ breakdown and shall replace all defective parts within a week to prevent disruption of work in the laboratory and the firm shall visit at least three times for preventive maintenance during the warranty/guarantee period. The supplier has to rectify the defects in the items supplied within **7 (seven) days of issue of intimation during the Warranty/ Guarantee period**, failing which an amount of one percent (1%) of Performance Security will be forfeited per week of delay. In case of any breakdown during warranty/ guarantee period, the period of warranty/ guarantee shall get extended for the period for which Instrument/ Machinery/Equipment remained out of service (downtime). Guarantee/Warranty Bond shall be furnished in the Format **Annexure –XI in Affidavit form** at the time of execution of Agreement. The cost of spare parts for all replacements has to be borne by the successful bidder during the period of Warranty /guarantee.

11. **Packing**

- 11.1 The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods, final destination and the absence of suitable handling facilities at all points in transit.

12. **Insurance**

- 12.1 The Purchaser will not pay separately for transit Insurance. The supplier is completely responsible for delivery of goods in perfect condition and shall replace/ rectify the missing / defective parts if any at his own cost.

12.2 The goods to be supplied under the Contract shall be fully insured (110% of the Ex-Factory/ Ex-shop value of the goods) against loss or damage incidental to manufacture or acquisition, transportation, storage & delivery of the goods from Warehouse / Factory / Ex-shop of the supplier to the delivery on "All Risk" basis including war Risks and Strike causes.

13. **Transportation**

13.1 The Supplier shall be required to meet all transport and storage expenses until delivery of the Goods covered in the contract to the Consignee.

14. **Incidental Services**

14.1 The Supplier shall be required to provide any or all of the following

- a) Furnishing of detailed literature/pamphlets/ circuit diagram/ operation & maintenance manual / drawings (as applicable) for each appropriate unit of supplied goods.
- b) Furnishing of tools required for assembly and / or maintenance of the supplied Goods.
- c) Performance or supervision of on-site assembly and / or Maintenance of the supplied goods.
- d) Performance or supervision or maintenance and/ or repair of the supplied goods, for a period of time agreed by the parties, provided that this service shall not relieve the supplier of any warranty/ guarantee obligations under the contract:
- e) Training of the Purchaser's personnel at the Supplier's plant and / or on site, in assembly, start up, operation, maintenance and/ or repair of the supplied Goods.
- f) A maintenance contract for the goods supplied, if required by the user beyond the warranty period shall be executed on mutually agreed terms between the user and supplier. The cost of such maintenance contract shall not be included in the Bid cost.

15. **Taxes and Duties**

15.1 The Supplier shall entirely responsible for all Government Taxes, Duties etc. incurred until delivery of the contract goods to the Consignee subject to recovery after words in the bill as claimed in the Bid offer.

15.2 The Excise Duty is payable to Manufacturer quoting excisable items, on production of proof thereof, if claimed in the Bid Offer.

15.3 GSTIN as applicable is payable, to the suppliers of the State of Orissa if claimed in the Bid offer

15.4 C.S.T will be paid to the Suppliers of the outside State other than Odisha , if claimed in the Bid offer

15.5 Entry Tax, if paid by the Supplier, at the local (destination head) Corporation / Municipality / NAC is allowed once only on production of money receipt for such payment, if claimed in the Bid offer.

16. **Period of Validity of Bid**

16.1 The bid shall remain valid for a period of minimum 90 days for acceptance, from the date of opening of bid as prescribed by the Purchaser.

16.2 A bid valid for a shorter period may be rejected, as non-responsive.

16.3 In absence of any indication of the date of validity in the bid, it will be presumed that the offer will remain valid for a minimum period as prescribed.

16.4 In exceptional circumstances the purchaser may solicit the bidders consent for extension of the period of validity. If agreed upon, the bid security so deposited shall also be suitably extended.

17. **Standards**

17.1 The Goods supplied under this Contract shall conform to the standards mentioned in the Technical Specifications and when no applicable standard is mentioned, the Goods shall conform to the latest National/ International standards.

18. **Sealing and Marking of Bids**

18.1 The bidders shall submit bids in sealed covers. **The bid security in shape of draft shall be enclosed along with bid, failing which the tender will be rejected.**

18.2 **The sealed bid envelope shall be:-**

a Addressed to the Purchaser at the following address:

To the Principal, Government College of Engineering, Kalahandi, At:Bandopal, Po:Risigaon, Bhawanipatna-766002

b Bear 'PROCUREMENT OF(as mentioned in the tender notice)

) 'DO NOT OPEN BEFORE'(the last date & time of opening as indicated in tender notice)

19. **Deadline for Submission of Bids.**

19.1 Bids must be received by the Purchaser at the address specified no later than the date and time mentioned in the tender notice.

19.2 The Purchaser may, at its discretion, extend this deadline for the submission of bids.

20. **Late Bids**

20.1 Any bid received by the Purchaser after the deadline for submission of bids prescribed by the Purchaser, will be rejected and / or returned unopened to the Bidder.

21. **Opening of Bids by Purchaser**

- 21.1 The Technical BID will be opened on 21/02/2019 at **03.00 P.M.** in the presence of Bidder's representatives who choose to attend at the date & time of opening mentioned in the tender Call Notice in the following location. **Principal, Government College of Engineering, Kalahandi, Bhawanipatna- 766002.** The Bidders' representatives who are present shall sign in a register evidencing their attendance.
- 21.2 The Bidders' name, bid prices, modifications, bid withdrawals and the presence or absence of the requisite bid security if any and such other details as the Purchaser, at its discretion, may consider appropriate will be announced at the opening.
22. **Preliminary Examination**
- 22.1 The Purchaser will examine the bids to determine whether they are complete, whether any computational errors have been made, whether required securities have been furnished, whether the documents have been properly signed, and whether the bids are generally in order.
- 22.2 Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If the supplier does not accept the correction of the errors, its bid will be rejected. If there is a discrepancy between words and figures, the amount in words will prevail.
- 22.3 Prior to the detailed evaluation, the Purchaser will determine the substantial responsiveness of each bid to the Bidding Documents. For purposes of these Clauses a substantially responsive bid is one which conforms to all the terms and conditions of the Bidding Documents without material deviations. The Purchaser's determination of a bid's responsiveness is to be based on the contents of the bids itself without recourse to extrinsic evidence.
- 22.4 Bids received without certified copies of ITCC & STCC/GSTIN valid upto current year issued by competent authority may be treated as non-responsive and liable for rejection
- 22.5 Bids received without the requisite Bid Security shall be treated as non-responsive and shall be rejected.
- 22.6 The Purchaser may waive any minor informality or non-conformity or irregularity in a bid which does not prejudice or affect the relative ranking of any Bidder.
23. **Evaluation and Comparison of Bids**
- 23.1 The comparison shall be of ex-factory/ ex-warehouse/ off-the shelf price of the goods offered from within the Purchaser's country, such price to include all costs as well as duties and taxes paid or payable on components and raw-material incorporated or to be incorporated in the goods, the CIF port-of-entry price of the goods offered from outside the Purchaser's Country.

- 23.2 The Purchaser's evaluation of a bid will take into account, in addition to the bid price and the price of incidental services, the following
- a) Cost of the inland transportation, insurance and other costs as per Clause 4 within the Purchaser's Country incidental to delivery of the goods to their final destination;
 - b) Delivery schedule offered in the bid;
 - c) Deviations in payment schedule from that specified in the General Terms & Conditions of Contract;
 - d) The cost of components, spare parts and service;
 - e) The availability in the Purchaser's country of spare parts and after-sales services for the goods offered in the bid;
 - f) The projected operating and maintenance costs during the life of the equipment / goods;
 - g) The performance and productivity of the equipment / goods offered;
 - h) The quality and adaptability of the equipment / goods offered;

24. **Award Criteria**

24.1 The Purchaser will award the Contract to the successful Bidder whose bid has been determined as the lowest evaluated bid, provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily.

24.2 Quality, durability and adaptability of the equipment/ goods offered suiting to use in Training Practice shall continue to be the overriding factor for selecting any goods and determining the lowest evaluated bid.

25. **Purchaser's Right to Accept any Bid and to Reject any Bid**

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

26. **Notification of Award**

26.1 Prior to the expiration of the period of bid validity, the Purchaser will notify the successful Bidder in writing by registered letter or by Fax, to be confirmed in writing by registered letter or by speed post, that its bid has been accepted.

26.2 The notification of award will constitute the formation of the Contract.

26.3 The Purchaser will promptly notify each unsuccessful Bidder and will discharge its bid security.

27. **Signing of Contract/Agreement**

The successful bidder shall have to sign an Agreement on stamp paper worth Rs.100/-(Rupees one hundred) only purchased in the name of the successful bidder with the Competent Authority of Department in the appropriate form (ANNEXURE-X) within 15 days from the date of issue of Letter of Acceptance(LOA) of bid. The bidder should sign on each page of bid document with seal as a token of acceptance of all terms & conditions of the bid documents. Following documents shall form part of the Agreement: - IFB (Invitation for Bids), terms & conditions of detailed Tender document, detailed technical specifications, Schedule of delivery of goods, price bid, letter of acceptance, Warrantee and Guarantee bond, conditions of contract and other relevant documents. Supply order will be issued after signing of the Agreement.

28.

Resolution of Disputes

- a) The Consignee & the Supplier should try to resolve the disputes (if any) amicably.
- b) Thereafter, it should be taken up with the Principal, Govt. College of Engineering, Kalahandi, Bhawanipatna.
- c) Thereafter, it may be taken to the proper Court of Law.

ANNEXURE-IA
CHECK LIST FOR ORIGINAL MANUFACTURER
SCHEDULE OF DOCUMENTS TO BE SUBMITTED IN COVER-I
(TECHNICAL BID)

The bidder has to submit the copies of documents as mentioned in checklist with Technical bid.

All the bid documents uploaded by the bidder should be serially page numbered for reference.

Sl. No.	Documents / Certificate	Attached	Page No.
1	Cost of Tender paper	Yes/No	
2	EMD/ Bid security in proper shape as mentioned	Yes/No	
3	Company Registration Certificate (in case of Company registered under Company Act 1956), Partnership deed, duly registered with competent authority (in case of Partnership firm) and documents from appropriate authority depicting the authority/license to manufacture laboratory testing equipment.	Yes/No	
4	Valid ISO certificate.	Yes/No	
5	GST registration certificate.	Yes/No	
6	GST clearance certificate.	Yes/No	
7	PAN card (in the name of Company in case of Company/Partnership firm and in the name of the Proprietor in case of Proprietary firm).	Yes/No	
8	Bid Declaration Form / Verification & Undertaking in affidavit form on stamp paper of Rs 100/- duly signed before Notary or any appropriate Authority as per format in Annexure-II .	Yes/No	
9	Details of make/ brand specification & logo of the machineries & equipment duly shall be filled in Annexure-IV against tendered items.	Yes/No	
10	Performance statement as per Annexure-V with documentary proof such as:- <ul style="list-style-type: none"> • Copy of supply order or certificate of supply from concerned purchaser for tendered items as indicated in Annexure-III. • Copy of supply order or certificate of supply along with proof of satisfactory performance from concerned purchaser for items as indicated in Annexure-III 	Yes/No	

11	No Relation Certificate as per Format in Annexure-VIII.	Yes/No	
12	Details of the bidder's service center as per format in Annexure-IX	Yes/No	

It is verified that all the Certificates/ information/ documents submitted with this bid are currently valid and have not been withdrawn/ cancelled by the issuing authority. It is clearly and distinctly understood by me/ us that the bid is liable to be rejected if on scrutiny any of these certificates/ particulars are found to be false or invalid.

I/We further undertake to produce on demand the original certificates/ particulars/ documents for verification at any stage during the processing of the tender.

Signature of the bidder:

Full name of bidder:

Date:

Place:

ANNEXURE-IB
CHECK LISTFOR AUTHORIZED DEALER/DISTRIBUTOR
SCHEDULE OF DOCUMENTS TO BE SUBMITTED IN COVER-I
(TECHNICAL BID)

The bidder has to submit the copies of documents as mentioned in checklist with Technical bid.

All the bid documents uploaded by the bidder should be serially page numbered for reference.

Sl. No.	Documents / Certificate	Attached	Page No.
1	Cost of Tender paper	Yes/No	
2	EMD/ Bid security in proper shape as mentioned	Yes/No	
3	Manufacturer authorization in prescribed format (Annexure-VII)	Yes/No	
4	Valid Documents of the manufacturer (i.e. Company Registration Certificate (in case of Company registered under Company Act 1956), Partnership deed, duly registered with competent authority (in case of Partnership firm) and documents from appropriate authority depicting the authority/license to manufacture laboratory testing equipment).	Yes/No	
5	Valid ISO certificate.	Yes/No	
6	GST registration certificate.	Yes/No	
7	GST clearance certificate.	Yes/No	
8	PAN card (in the name of Company in case of Company/Partnership firm and in the name of the Proprietor in case of Proprietary firm).	Yes/No	
9	Bid Declaration Form / Verification & Undertaking in affidavit form on stamp paper of Rs 100/- duly signed before Notary or any appropriate Authority as per format in Annexure-II .	Yes/No	
10	Original manufacturer's make, brand specification & logo of the machineries & equipment to be supplied by the bidder against tendered items as in Annexure-IV .	Yes/No	
11	Performance statement as per Annexure-V with documentary proof such as:- <ul style="list-style-type: none"> • Copy of supply order or certificate of supply from concerned purchaser for tendered 	Yes/No	

	items as indicated in Annexure-III . <ul style="list-style-type: none"> • Copy of supply order or certificate of supply along with proof of satisfactory performance from concerned purchaser for items of Annexure-III. 		
12	No Relation Certificate as per Format in Annexure-VIII .	Yes/No	
13	Details of the bidder's service centre as per format in Annexure-IX	Yes/No	

It is verified that all the Certificates/ information/ documents submitted with this bid are currently valid and have not been withdrawn/ cancelled by the issuing authority. It is clearly and distinctly understood by me/ us that the bid is liable to be rejected if on scrutiny any of these certificates/ particulars are found to be false or invalid.

I/We further undertake to produce on demand the original certificates/ particulars/ documents for verification at any stage during the processing of the tender.

Signature of the bidder:

Full name of bidder:

Date:

Place:

ANNEXURE-II
BID DECLARATION FORM / VERIFICATION & UNDERTAKING

Bid Reference No.

From

M/S _____

No.
Dt.

To

The Principal,
Government College of Engineering Kalahandi
AT: KandBandopala, PO: Risigaon, Bhawanipatna
Dist: Kalahandi
PIN 766002
Odisha.

Dear Sir,

1. Having examined the specification enclosed together with the conditions therein, I/ We hereby offer our rate covered therein complete in all respects, as per the specifications, terms and conditions at the rates entered in the attached contract schedule of price (Price bid). The rates quoted against each item are inclusive of all taxes, duties and other charges and inclusive of installation, commissioning, demonstration & training at respective place(s).
2. I/ We hereby under-take to complete the supply within time specified in the schedule.
3. I/ We hereby confirm that we have gone through all the terms and conditions of bid and we agree to abide by all of them.
4. I/ We hereby guarantee for the particulars entered in the schedule attached to the specification.
5. I/ We verify/certify that the scanned copies of the Certificates/ Documents attached herewith are authentic and true copies of the Original Certificates/ Documents and shall produce the Originals for verification within 5 working days from date of opening of bids (Financial bid).
6. **I/ We hereby certify that all the statements/documents furnished in our bid are true, correct and authentic.**
7. I/ We hereby authorize and request any bank, person, firm or Corporation to furnish pertinent information as deemed necessary and as requested by the Department to verify this statement or regarding my /our competency and general reputation.
8. I/ We understand and agree that further qualifying information may be requested and agree to furnish any such information at the request of the Department.
9. I/ We verify that I/ We are in possession of the requisite valid manufacturing licenses/ permits required for the manufacture/ supply/ sale/ distribution of the items and further verify that the said licenses/ permits have not been revoked/ cancelled by the issuing authorities and are valid up-to date.

10. I/ We also certify that I/We have not been declared defaulter, blacklisted or debarred by any State or Central Govt. or Constitutional Authority or Financial institution or Judicial Court or any Govt. Undertaking for supply of substandard quality items/ part supply/ non-supply.

11. I/ We also take Cognizance of the fact that providing misleading or questionable information or failure to furnish correct or true information to you or any other failure to comply with any contractual requirements laid down by you will be considered as a serious breach of the terms & conditions of the Tender and will invite disqualification and other penal action as deemed fit by the Purchaser.

12. I/ We also hereby certifies that neither our firm M/s -----nor any of its constituent partners/ I have failed to execute any supply in India nor any contract awarded to us/ me for such supply order have been rescinded during the last five years.

13. I/ We understand that you are not bound to accept lowest or any bid you receive.

14. I/ We hereby declare that I/We am/are not supplying/ quoting the same item at rate lower than the rate quoted in the bid to any Govt. Organization or any other institute.

15. I/We agree that the Bid Inviting Authority can forfeit the Earnest Money Deposit or Security Deposit and debar me /us for 3(three) years from participation in Tender, if any information furnished by me/us is proved to be false at the time of inspection/ verification and not complying with the bid Terms & Conditions.

Seal:

Date:

Signature of bidder:

Full Name of bidder:

Name & Address of the Firm:

Note: The above declaration shall be made on stamp paper worth Rs.100/- (Rupees one hundred) only in Affidavit form.

ANNEXURE – III
(DETAILED TECHNICAL SPECIFICATIONS
OF THE MACHINERIES & EQUIPMENT TO BE SUPPLIED BY THE BIDDER)

Sl. No.	ITEM NAME AND SPECIFICATION	QTY.

ANNEXURE – IV
(DETAILS (MAKE, BRAND & MODELS WITH SPECIFICATION) OF THE
MACHINERIES & EQUIPMENT TO BE SUPPLIED BY THE BIDDER)

Sl. No.	ITEM NAME AND SPECIFICATION AS PER TENDER	NAME AND SPECIFICATION TO BE SUPPLIED BY THE BIDDER	MAKE / BRAND & MODEL No.	Remark (if any deviation)

ANNEXURE-V
PERFORMANCE STATEMENT

**LIST OF CLIENTS TO WHOM TESTING MACHINERIES/ EQUIPMENT SUPPLIED
DURING THE LAST FIVE YEARS**

Sl. No	Name of the equipment/ machinery proposed to be supplied	Name of Govt. /Govt. Undertaking Organizations/ Govt. Engineering Institution/ Govt. Laboratories to whom supplied.	Purchase Order No. & Date. (Enclose scanned copies of purchase/ supply order)	Page number	Make/ brand & logo	Quantity	Date of completion of Delivery	Reasons for late delivery, if any	Proof of satisfactory performance (Certificate from Govt. / Govt. Undertaking. Organization/ Govt.Engineering Institution/ Govt.Laboratories to whom Equipment supplied to be furnished)	Contact person of the organization and contact number, email and Fax etc. to whom the supply was made.
1										
2										
3										

ANNEXURE-VI

ANNUAL TURNOVER STATEMENT

The Annual Turnover for the last three financial years of M/S _____, who is a manufacturer/dealer of laboratory machineries & equipment are given below and certified that the statement is true and correct.

Sl. No.	Financial Year	Turnover in Cores (Rs) both in words and figures
1		
2		
	Average	

Date:
Place:

Signature of Auditor/
Chartered Accountant

(Name in Capital)

Seal:

Membership No.

ANNEXURE-VII

MANUFACTURES' AUTHORISATION FORM

(FORMAT OF AUTHORISATION TO BE OBTAINED FROM ORIGINAL MANUFACTURER
BY THE AUTHORIZED DEALER/ DISTRIBUTOR)

No. _____ / Date _____ /

To
The Principal
Government College of Engineering,
Kalahandi, Bhawanipatna

Tender No. _____

Dear Sir,

I/We _____ who are established and
reputed manufacturers of Laboratory testing machineries/equipment, having factories at

_____ (Address of Factory) do hereby
certify that M/s. _____ (Name and address of Dealer) is an
Authorized Dealer/Distributor of our company and we authorize it to submit the bid
and sign the contract with you or your representative(s) against the above bid.

I/We hereby extend our full guarantee and warranty as per terms & conditions of
contract for the goods and services offered by the above firm against this bid.

Yours faithfully,

(Full Name and Signature of the
Manufacturer)

Seal/stamp

**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 bind the manufacturer.**

ANNEXURE-VIII

CERTIFICATE OF NO RELATIONSHIP

I/We hereby certify that I/We* am/are* **related/not related** (*) to any officer of the Principal, Government College of Engineering Kalahandi of the rank of Assistant Professor & above and any officer of the BPUT Odisha. I/We* am/are* aware that, if the facts subsequently proved to be false, my/our* contract will be rescinded with forfeiture of E.M.D and security deposit and I/We* shall be liable to make good the loss or damage resulting from such cancellation.

I// We* also note that non-submission of this certificate will render my / our* tender liable for rejection.

(*) - Strike out which is not applicable

Signature of the bidder

Full name of the bidder:

Date:

ANNEXURE-IX

DETAILS OF THE BIDDER & SERVICE CENTER

GENERAL INFORMATION ABOUT THE BIDDER					
1	Name of the Bidder				
	Registered address of the firm				
	State		District		
	Telephone No.		Fax		
	Email		Website		
Contact Person Details					
2	Name		Designation		
	Telephone No.		MobileNo.		
Communication Address					
3	Address				
	State		District		
	Telephone No.		Fax		
	Email		Website		
Type of the Firm					
4	Private Ltd.		Public Ltd.		Proprietorship
	Partnership		Society		Others, specify
	Registration No. & Date of Registration.				
Nature of Business					
5	Original Equipment Manufacturer (OEM)			Authorized Distributor	
	Direct Importer			Authorized Dealer	
6	<i>Details of <u>existing</u> Service Centre nearest to Odisha:</i>				
	<i>Name of Contact Person:</i>				
	<i>Designation:</i>				
	<i>Address of Service Centre:</i>				
	<i>Telephone No.:</i>				
	<i>Email :</i>				
	<i>Fax:</i>				
<i>Date:</i>		<i>Office Seal</i>		<i>Signature of the bidder/ Authorised signatory</i>	

ANNEXURE-X
AGREEMENT FOR SUPPLY, INSTALLATION & COMMISSIONING OF
MACHINERIES/ EQUIPMENT
(Reference- Clause -27 of DTCN)

Bid Reference No.

This Agreement made this day of2018 between M/s
..... having registered office in the State of
.....(hereinafter called the „Supplier” which
expression shall,unless excluded in the subject or context, include the heirs, successors,
legal representatives, and permitted assigns) of the one part.

&

the Governor of Odisha (hereinafter called the “Governor” which expression shall, unless
excluded in the subject or context, include the heirs, successors, legal representatives
and permitted assigns) of the other part.

WHEREAS the Governor wants to purchase the goods mentioned in the schedule and
has accepted a bid by the supplier for supply, installation & commissioning of
machineries/ equipment @ sum of ---

-----Contract price in words and figures (hereinafter called the contract price).

NOW THESE PRESENT WITNESSES AND IT IS HEREBY AGREED AS FOLLOWS:

1. That the time shall be the essence of the contract and the supplier shall supply the
goods in the schedule completely at..... (Place) on or before the
date....., failure to do which will entitle the Governor to rescind the contract
immediately.
2. That the goods shall be of the specifications and price mentioned against each. Any
variation on inspection will entitle the Governor to refuse the consignments either in
whole or in part, as the case may be, the whole, if the part renders it useless.
3. That the goods shall be inspected at(place) in the presence of
the officers of both Parties duly Authorized in that behalf on a day fixed in a notice by
either of the parties, provided such day is not postponed for more than a period of two
months after the date given in the notice. Default by the Supplier shall disentitle him to
raise any objection subsequently to the result of inspection made by the Governor in his
absence and claim any compensation on that
account.

4. That the supplier shall guarantee durability of the goods for a period of 24 (twenty four) calendar month from the date of completion of supplies and installation in the case of Machineries and any damage, done to the goods in the usual course of use or any deficiency, detected in them subsequent to such completion & installation and during the period aforesaid shall be made good to render due service at the cost of supplier within a period of seven days from the date of issue of the notice in that behalf. Failure to do so shall be deemed that the supplier has no intention to discharge the obligation and thereupon, the amount of security, deposited separately or withheld from his bills, shall stand forfeited to the Governor as per terms and conditions. The supply of Machines and equipment shall be deemed to be complete only after final approval of the officer duly Authorized on inspection whose decision shall be final and in case of Machineries exactly in the same manner and installation which would include successful test working.
5. The goods shall be duly packed & insured by the supplier for transit and be dispatched at the risk of the carriers and the Governor shall not be responsible for any loss or damage during the transit or at any time prior to inspection and approval.
6. That the price of goods shall be paid on completion of supplies, installation & commissioning including test working as per payment terms and conditions.
7. That any damage or deficiency if not removed during the stipulated period by the Supplier may be removed by the Governor at his cost to be reimbursed by the Supplier. Any amount Payable to the Governor hereunder shall be recovered as Public Demand under the Odisha Public Demand Recovery Act, 1963 and shall bear 6% interest per annum till certificate of recovery is filed.
8. That the supplier shall deposit Rs.-----towards Initial Security Deposit at the time at the time of acceptance of Tender for due performance of the covenants hereof and such money shall be forfeited to the Governor in case of breach of any of the covenants.
9. That the dispute arising hereunder shall be resolved in following manner:
The purchaser & the supplier should try to resolve the disputes, if any, arising out of the contract, amicably between them.
10. That Sri..... is authorized by the Governor and Sri..... on behalf of the supplier to execute the deed.
11. The cause of action hereunder shall always be deemed to arise at -----.
12. The stamp duty shall be borne by the supplier.

13. This shall be read with terms & conditions of DTCN along with other relevant bid documents which will form part of this Agreement.

SCHEDULE OF GOODS

Sl. No	Name of Goods	Specification with make & model	Qty.	Price agreed per unit

IN WITNESS WHEREOF the parties hereto have signed this deed this day.....
of..... mentioned against the signature of each in the presence of
.....

Signed, sealed and delivered by the said
----- (for the purchaser)
in the presence of -----

Signed, sealed and delivered by the said
----- (for the supplier)
in the presence of -----

Note: The agreement shall be done on stamp paper worth Rs.100/- only.

ANNEXURE-XI

GUARANTEE/WARRANTY BOND

We hereby declare that the machines/equipment sold to the Department under this contract shall be of the best quality and workmanship, shall be strictly in accordance with the specification and particulars contained / mentioned in the purchase Order No. dt. and leaflet submitted by us and hereby guarantee that the said machines/equipment would continue to confirm to the description and quality aforesaid for a period of 24(twenty four) months from the date of supply of the same to the Department notwithstanding the fact that the Department may have inspected and/or approved the said machines/equipment. If during the aforesaid 24(twenty four) months, the said machines/equipment be discovered not to confirm to the description and the quality of the aforesaid and have deteriorated, the decision of the Department in this behalf will be final and conclusive and the Department reserves the right to reject the said machines/equipment or such portion thereof as may be discovered not to confirm to the said description and quality. On such rejection, the machines/equipment will be at our risk and all the provisions herein contained relating to rejection of goods shall apply. We shall, if called upon to do, replace the machines/equipment or such portion thereof as rejected by this purchaser, otherwise, we shall pay the purchaser such damages as may arise by reasons of breach of condition herein contained. If the machines/equipment supplied either do not operate properly or efficiently, we will replace the same free of cost. The parts replaced must be new parts or equivalent in performance to new parts. In the event of any complaint of the defective machines / equipment supplied to the purchaser, Principal, shall investigate and determine whether a part/parts/sub-assembly/assembly/Engines was/were defective and if so, any damage has also been caused by it to other parts, in such cases the decision of the Principal is final and binding. In case of any break-down during Warranty/Guarantee, period the period of warranty shall get extended for the period for which the machinery/ equipment remained out of service.

Signature with Seal of Supplier

Full name of the Supplier:

Note:

- i. The Guarantee/Warranty bond shall be done on stamp paper worth Rs.100/- only in Affidavit form.**
- ii. In case of authorized distributor/ dealer, the original manufacturers shall also sign the guarantee/ warrantee bond.**

ANNEXURE-XII
DETAILS OF INSTALLATION CERTIFICATE
(Reference- Clause 31 of DTCN)

Organisation Name:				
Equipment Details				
Name of the equipment:		Purchase Order No:		
Make/Manufacturer:		Purchase Order Date:		
Model:		Purchase amount of the equipment:		
Quantity:				
Installation Start Date:		Installation Complete Date:		
Warranty/ Guarantee Start Date:		Warranty/ Guarantee End Date:		
Preventive Maintenance Schedule(Specify Year &Month)				
YEAR	Visit 1	Visit 2	Visit 3	
Contact Details				
Name of the Supplier:				
Name of Service Engineer with his/ her mobile number:				
Service centre manager's name with mobile number:				
Service centre address:				
ACCESSORIES \ SUPPLIED				
Sl. No.	Item	Qty.	Serial No.	Remarks
To be filled by Consignee				
Whether a digital photograph of the installed equipment in the presence of the consignee appended?				Yes/No
Whether the demonstration of the equipment/ machinery with accessories on the technical specification/ key features was conducted to the satisfaction at the time of installation?				Yes/No
Whether the original printed operation manual, maintenance manual etc. furnished along with the machine/equipment?				Yes/No
Whether Calibration Certificate, along with Testing Machine/ Equipment is furnished.				Yes/No
Whether training was conducted to the satisfaction at the time of installation?				Yes/No
Recommended to release 90 % (ninety percent) payment		The equipment is working satisfactorily.		
Yes	No	Yes	No	

Signature of the
Consignee Name
in capital

Annexure-XIII

PRICE SCHEDULE FOR Equipments Package Wise

Bid No. _____

Category _____

1. Item No. :
2. Item with specification :
3. Total quantity to be delivered :
(Approx. quantity as shown in schedule of requirement)
4. Bid Price.
 - a) Rate per unit at delivery point :
(excluding tax component)
 - b) Delivery cost at site (3 x 4a) :
5. Delivery period offered:
6. Break up Price (of SL – 4b)
 - a) Ex-factory/Ex-warehouse/Ex-show room/off the shelf price :
 - b) Packing, forwarding & handling charge :
 - c) Insurance charge (if any) :
 - d) Transportation cost up to institution :
 - e) Erection, Assembly, Commissioning & incidental service :
 - f) Delivery cost at site (excluding tax component)
(Add 6a + 6e) = 4b.
7. Tax Components.
 - a) Excise duty (if any) :
 - b) GSTIN/Sales Tax and other levies (if any):
 - c) Total tax component (Add 7a + 7b):
8. Delivery cost at site (including tax component)
(Add 6f + 7c)

Signature of the Bidder

ANNEXURE-III
TECHNICAL SPECIFICATION

Package -1(TEQIP-III/CIVIL/GOODS 3(P4))

Sl. No	Title	Specification	Quantity
1	Plotter(44")	Plotter(44") with all accessories in complete set	01

Package -2(TEQIP-III/CIVIL/GOODS 3(P5 TRANSPORTATION LAB))

Sl. No	Title	Specification	Quantity
1	Ductility Test of Bitumen	<p>Apparatus with digital display and cooling confirming to IS:1208 consists of followings:</p> <p>1) Briquette mould: - It is made up of brass metal.</p> <p>2) Testing machine-It is an equipment which functions as a constant temperature water bath with suitable arrangement for stirring the water for attaining uniformity in temperature and a pulling device at a precalibrated rate. The central rod of the machine is threaded and through a gear system, provides movement to one end where the clip is fixed during initial placement. The other clip end is hooked at the fixed end of the machine. Two clips are thus pulled apart horizontally at a uniform speed of 50 ± 2.5 mm per minute. The machine may have provision to fix three number of moulds so as to test these specimens simultaneously.</p> <p>* One set consist of all the above items</p> <p>One Water bath of approx. 10 liter volume with a perforated shelf, provided with a thermostatically controlled heater.</p> <p>The machine has two rates of travel i.e. 5cm/min and 1 cm/min. A clutch arrangement is provided by which the movement of the moveable bracket can be arrested or restarted without switching the motor off. Suitable to work on 220V ~, 50Hz.</p> <p>*In complete set confirming to IS Code.</p>	01
2	Flash point & Fire Point Test of Bitumen	<p>1) Pensky – Marten`s closed tester consisting of following major parts confirming to IS:1209, IS : 1448(Part-21)</p> <p>a) Cup –It is made up of brass, the inside of the cup is turned to a slightly larger diameter above the filling mark and the outside may be tapered above the flange. The flange is about 12mm in width and approximately 3mm in thickness. It is equipped with device for locating the position of the lid on the cup and the cup itself in the stove. A handle is attached to the flange of the cup.</p> <p>b) Lid- It includes a stirring device, cover proper, shutter and</p>	01

		<p>flame exposure device.</p> <p>Stirring device: consists of a vertical steel shaft of 2.5mm to 3mm diameter and mounted in the center of the cup. It carries two bladed brass propellers.</p> <p>Cover proper: is made of brass and fits the outside of the cup closely. It has four openings. Opening A has an area defined by area of two concentric circles. Openings B and C are of equal areas and approximately half the angular width of opening A. Opening D is provided to grip the thermometer collar.</p> <p>Shutter- 2.5 mm thick and made of brass. It is so shaped and mounted that it rotates on the axis of the horizontal center of the lid. On one extreme position, the openings A, B and C of the lid are completely closed and when in the other extreme position, these orifices are completely opened.</p> <p>Flame exposure device- having a tip with an opening 0.7 to 0.8 mm in diameter. The device is equipped with an operating mechanism which when the shutter is in open position, depresses the tip so that the center of orifice is between the planes of the under and the upper surfaces of the lid proper. A pilot frame for automatic relighting of the exposure flame is to be provided.</p> <p>c) Stove –It consists of an air bath and a top plate on which the flange of the cup rests. Air bath has a cylindrical interior, 41.3 to 42.2mm in depth. The air bath may be either a flame – heated metal casting or an electric resistance element. The top plate is made of metal and it can be attached to the air bath with the help of three screws in such a manner so as to leave an air gap.</p> <p>d) Thermometers: (i) For low range values, it has measurement range from – 7°C to 110°C and readable upto 0.5°C. (ii) For expected higher values of flash and fire point, thermometer having a range of 90°C to 370°C and readable to 2°C.</p> <p>*In complete set confirming to IS Code 1209-1978</p>	
3	Specific gravity of bitumen	<p>Capacity: 25 ml, 50 ml</p> <p>Material: Glass</p> <p>Specific Gravity Bottle with stopper, The ordinary capillary type specific gravity bottle with a neck of 6mm diameter.</p> <p>The wide mouthed capillary type specific gravity bottle with a neck of 25mm diameter.</p> <p>*In complete set confirming to IS Code. 1202 – 1978</p>	02
4	CBR of soil sub grade	<p>1) C.B.R mould – A metallic cylinder of 150 mm internal diameter and 175 mm high, provided with a detachable metal extension collar 50 mm in height .It also has a detachable perforated base plate of 10mm thickness , the perforations being not more than 1.5 mm in diameter . It</p>	01

		<p>has threaded stay rods and wing nuts for assembling.</p> <p>2) Steel cutting edge (collar) which a can fit flush with the mould.</p> <p>3) Spacer disc – A metal disc of 148 mm diameter and 47.7 mm in height used to obtain specimen of exactly 127.3 mm height.</p> <p>4) Surcharge weight –Annular metal weights and slotted weights each of 2.5 kg (and 5 kg as spares) and 147 mm in diameter with a central hole of 53 mm in diameter.</p> <p>5) Dial gauge- dial gauges 25mm travel with accuracy of 0.01 mm</p> <p>6) Penetration plunger – A metallic plunger having a diameter of 50 mm and at least 100 mm long.</p> <p>7) Loading machine- capacity of at least 5000kg (50kN) equipped with a movable base which can move vertically at a rate of 1.25 mm /min and having a load measuring device like a load cell or a proving ring (50kN capacity).</p> <p>8) Metal rammer – of weight i. 2.6 kg (for light compaction) and ii. 4.89 kg (for heavy compaction) for dynamic compaction.</p> <p>9) Expansion measuring apparatus – perforated plate with adjustable stem, metal tripod etc.</p> <p>*In complete set confirming to IS Code.2720(Part-16)-1987</p>	
5	Buoyancy balance	<p>The apparatus consists of a rigid support frame, incorporating a water tank mounted on a platform. A mechanical lifting device is used to raise the water tank through the frame height immersing the specimen suspended below the balance. Any type of Electronic Balance fitted with an under bench weighing facility can be fitted. The balance supplied can also be used as a standard weighing device, thus providing a versatile and comprehensive weighing system in the laboratory.</p> <p>Unit is fitted with the 15 kg capacity x 0.5 gm of the electronic balance. The frame is supplied with: • Water tank, • Suspension hook • Lever for lifting the water tank manually Moreover</p> <p>Overall dimensions: 510x510x1150 mm(minimum) Weight approx.: 50 kg Accuracy: 1.2 g</p>	02
6	Stripping value of aggregate	<p>A circular tray rotates in a vertical plane at a rate of approximately 100 rpm. by an electrical geared motor 4 bottles of approximately 400 cc are mounted on this circular tray at an angle of 90 to each other with their mouth towards center of the tray. A time switch is provided Suitable for operation on 230 Volts A.C. single phase.</p> <p>Power: Hydraulic,0.75kW Voltage: 380v Material: Steel</p> <p>*In complete set confirming to IS Code. 6241- 1971</p>	02
7	Digital	<p>Marshal Load Frame 50kN capacity, Electrically Operated,</p>	01

	Marshall Stability Test Apparatus	<p>with platen rate travel of 50.8mm/min. Safety cut off switch is provided with the machine to avoid from overloading – 1No Marshal Compaction Pedestal for compaction of 101.6mm (4”) Dia specimen – 1No Breaking head assembly to accommodate specimen of 101.6mm Dia with dial gauge 0.01 x 25mm travel – 1 Set Specimen Extractor (Platen, Steel Ball & Extracting Rod) – 1 Set Marshal Specimen Mould 101.6mm Dia (4”) complete with collar and base plate – 3 Nos Marshal Compaction Hammer 4.53kg (10 lb) x 457mm (18”) drop height – 2 Nos Load shell having capacity of 25Kn and 50KN LVDT having 20mm travel Display arrangement facility for LVDT reading and Load shell * In complete set confirming to IS Code for Marshall Stability Test</p>	
--	--	---	--

Package -3(TEQIP-III/CIVIL/GOODS 3(P7 GEOTECH LAB -2))

Sl. No	Title	Specification	Quantity
1	APPARATUS FOR TRIAXIAL SHEAR TEST	<p>Ref Standard: IS : 2720 (Part XI)-1993 Digital Microprocessor based Triaxial test apparatus with Load frame. • Microprocessor control • Samples up to 100 mm diameter Supplied complete with inbuilt Electronic kit for Triaxial Test With an external load cell, 10 kN capacity, Pore Pressure Transducer, 20 bar (20kg/cm²) capacity, an LVDT (Displacement Sensor) having a range of 0-20mm mm and a 3 - Channel Digital Indicator which has been specially designed to meet the requirements of Triaxial Test. This 50 kN capacity machine, designed primarily for triaxial testing of soil specimens up to 100 mm diameter x 200 mm long. It comprises of a rigid twin column construction with an integral, fully variable microprocessor controlled drive unit and LCD display with a touch sensitive keyboard. The machine is bench mounted for ease of</p>	01

		<p>installation and operation. The use of a microprocessor controlled drive system and keyboard entry provides the Load Frame with a wide variety of features which include pause and speed reset during test, RS232 interface for computer control, operator programming of speed and control functions, self test diagnostics and many other features. Suitable for operation on 220 V, 50 Hz, single phase,</p> <p>AC supply. Capacity : 50kN, Drive Mechanism : Stepper Motor, Drive Microprocessor controlled, Platen Speed range : 0.0001 to 9.99999 mm/minute.</p> <p>Fast Forward & Reverse : 10mm / minute Rapid Approach Speed : 25mm / minute Horizontal clearance : 364mm Max. vertical clearance : 910mm Max. Platen travel : 100mm Specimen dia : 38mm to 100 mm For testing specimen of size 38mm dia x 76mm long.</p> <p>Triaxial Cell consists of Perspex chamber with anvil and loading plunger. The cell is easily split by releasing four type rods. It is leak proof upto 10 bar (10 kg/cm²) fluid pressure.</p> <p>Supplied complete with Pressure Gauge, Flow Valves, connecting Pressure Hose. Suitable for operation on 220 V, 50 Hz, Single Phase, AC supply. Range : 10 kg/cm² Resolution : 0.1 kg/ cm² Accuracy : ± 1% of the indicated pressure Automatic Volume Change Device:-Capacity of 100ml and bottom chamber capacity. The changes over valve box enable the effective use of the device with unlimited capacity. Can be used with LVDT Accuracy is better than 0.1ml</p>	
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Package -4(TEQIP-III/CIVIL/GOODS 3(P 7 GEOTECH LAB-3))

Sl. No	Title	Specification	Quantity
1	APPARATUS FOR DIRECT SHEAR TEST	<p>Ref Standard: IS : 2720 (Part XI)-1993 Digital Microprocessor based Triaxial test apparatus with Load frame.</p> <ul style="list-style-type: none"> • Microprocessor control • Samples up to 100 mm diameter <p>Supplied complete with inbuilt Electronic kit for Triaxial Test With an external load cell, 10</p>	01

	<p>kN capacity, Pore Pressure Transducer, 20 bar (20kg/cm²) capacity, an LVDT (Displacement Sensor) having a range of 0-20mm mm and a 3 - Channel Digital Indicator which has been specially designed to meet the requirements of Triaxial Test. This 50 kN capacity machine, designed primarily for triaxial testing of soil specimens up to 100 mm diameter x 200 mm long.</p> <p>It comprises of a rigid twin column construction with an integral, fully variable microprocessor controlled drive unit and LCD display with a touch sensitive keyboard. The machine is bench mounted for ease of installation and operation. The use of a microprocessor controlled drive system and keyboard entry provides the Load Frame with a wide variety of features which include pause and speed reset during test, RS232 interface for computer control, operator programming of speed and control functions, self test diagnostics and many other features. Suitable for operation on 220 V, 50 Hz, single phase,</p> <p>AC supply. Capacity : 50kN, Drive Mechanism : Stepper Motor, Drive Microprocessor controlled, Platen Speed range : 0.0001 to 9.99999 mm/minute.</p> <p>Fast Forward & Reverse : 10mm / minute Rapid Approach Speed : 25mm / minute Horizontal clearance : 364mm Max. vertical clearance : 910mm Max. Platen travel : 100mm Specimen dia : 38mm to 100 mm For testing specimen of size 38mm dia x 76mm long.</p> <p>Triaxial Cell consists of Perspex chamber with anvil and loading plunger. The cell is easily split by releasing four type rods. It is leak proof upto 10 bar (10 kg/cm²) fluid pressure.</p> <p>Supplied complete with Pressure Gauge, Flow Valves, connecting Pressure Hose.</p> <p>Suitable for operation on 220 V, 50 Hz, Single Phase, AC supply. Range : 10 kg/cm² Resolution : 0.1 kg/ cm² Accuracy : ± 1% of the indicated pressure Automatic Volume Change Device:-Capacity of 100ml and bottom chamber capacity. The changes over valve box enable the effective use of the device with unlimited capacity.</p>	
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		Can be used with LVDT Accuracy is better than 0.1ml	
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Package -5(TEQIP-III/CIVIL/GOODS 3(P7 GEOTECH LAB-4))

Sl. No	Title	Specification	Quantity
1	APPARATUS FOR CONSOLIDATION TEST	<p>The concludometer , electronic measurement , 3 gang, data acquisition system and software consisting of the followings and confirming to IS: 2720 (Part 15):1986</p> <ol style="list-style-type: none"> 1. Loading device: 3 No. of loading device mounted on the load frame. 2. Consolidation cell assembly with followings <ul style="list-style-type: none"> 03 fixed ring with guide ring, 03 top porous stones 03 bottom porous stone,03 pressure pad, 03 channeled base with water inlet , 03 gasket, 03 water jacket 3. Set of weights: 7X0.05 kg/cm² , 5X0.1 kg/cm² , 6X0.2 kg/cm² , 6X0.5 kg/cm² , 5X1.0kg/cm² 4. Water reservoir with plastic tube etc. 5. Displacement sensor, 0 to 10mm complete with 3m long cable mounting bracket. 6. Consolidation indicator with 3 channel 7. Data acquisition system <p>Consolidation test software</p>	01

Package -6(TEQIP-III/CIVIL/GOODS 3(P7 GEO TECH LAB -5))

Sl. No	Title	Specification	Quantity
1	APPARATUS FOR AUGER BORING	<p>Auger (Spiral type) confirming to IS: 10442:1983. Nominal size-100mm, 150mm, 300mm with extension rods, Couplers, T piece, handles and extension to handles etc. in complete for boring up to 10m.</p>	01
2	DISTURBED & UNDISTURBED SAMPLERS	<ol style="list-style-type: none"> (i)Open tube sampler and split tube sampler (ii)Thin walled tubes 50 to 125 mm (iii)Piston type sampler (iv)Samplers with special core retainers (v)Sand sampler <p>Confirming to respective IS codes.</p>	01 Each

3	APPARATUS FOR STANDARD PENETRATION TEST	<p>SPT equipment consists of the followings and confirming to IS: 2131:1981, IS:9640:1980</p> <ol style="list-style-type: none"> 1) Spit Spoon Sampler- 50.8mm OD and 38mm ID confirming to IS 9640: 1980 2) Spit Spoon Sampler with Brass liner, 50.8mm OD and 35mm ID 3) Driving weight – cast iron, 63.5 kg, 78mm bore ID approximately 4) Guide pipe assembly- Bore 73mm OD approximately 5) Tripod with Pulley and built in ladder 6) ‘A’ type Drill Rods -10m long 7) Hoisting equipment-Lifting Bail, Tongs, Rope, Screw Jack, pulley, hook, axle, winch etc. 8) Manila Rope 19mm dia, 10m long 9) Mechanically operated driving mechanism <p>* One set consist of all the above items</p>	01
4	APPARATUS FOR CONE PENETRATION TEST (CPT)	<p>Static Cone Penetrometer machine (capacity 200kN, Engine driven) with all its accessories complete set and confirming to IS: 4968 (Part 3):1976 for 30m depth. Digital display for load and displacement.</p> <p>Major accessories are as given below.</p> <ol style="list-style-type: none"> 1) Penetration cone (steel, 60° cone angle, 10 cm² base area) 2) Friction jacket 3) Mantle Tube with sounding rod (1m working length) 4) Load cell with digital indicator 5)Hyd. Motorized Anchor driving Assembly 6) Driving mechanism 7) Sounding rod etc. 8)Anchors etc. <p>* One set consist of all the above items</p>	01

Package -7(TEQIP-III/CIVIL/GOODS 3(P7 GEO TECH LAB-6))

Sl. No	Title	Specification	Quantity
1	APPARATUS FOR SWELLING PRESSURE TEST	<p>Swell Test apparatus (Digital) consist of the followings:</p> <ol style="list-style-type: none"> 1) Load frame capacity 5 kN 2) Mould-100mm dia X 127.3mm height (1000 ml volume) with base plate and collar 3) Load cell 5kNcapacity 4) LVDT 25mm 5)Battery operated data acquisition system 	01

		<p>5) Perforated swell plate- 100mm dia X 16 mm thick 6) Spacer- 100mm dia X 12.7mm thick 7) Pair of porous stone- 100mm dia X 12.7mm thick 8) Load transfer Bar 9) Steel Ball 10) Soaking tank- 250mm dia X 210mm high * One set consist of all the above items</p>	
2	APPARATUS FOR IN-SITU VANE SHEAR TEST	<p>In-situ vane shear test apparatus consists of the following and confirming to IS 4434:1978 &1987.</p> <p>For Test from Bottom of Bore-Hole</p> <ol style="list-style-type: none"> 1. Vane with Vane Rod (37.5mm dia x 75mm high)-1 No. 2. Vane with Vane Rod (50 mm dia x 100 mm high)-1 No. 3. Torque Applicator Assembly, capacity 2000kg-cm. Complete with stand-1 No. 4. Torque Rod (square cross section) 60cm long-1No. 5. Rods (Quick coupling type) 1m long -25 No. 6. Rods (Quick coupling type) 0.5m long -10 No. 7. Guides for Rod 8. Drilling Equipment and casing for bore hole 9. Jacking arrangement 	01
3	APPARATUS FOR SEDIMENTATION ANALYSIS USING PIPPETTE METHOD FOR CLAY AND SILT.	<p>Apparatus consist of the followings and Confirming to IS: 2720 (Part 4)-1985</p> <ol style="list-style-type: none"> 1) Pippete (10 ml capacity, Anderson) with stand 2) Cylinder/jars(500,1000 ml capacity, glass) 3) Mechanical stirrer -(High speed>8000rpm) 4) Glass weighing bottles of 15 ml capacity fitted with ground glass stopper. 5) Digital Balance- (sensitivity 0.001gm.) of nearly 320g capacity 7) Thermometer (0 to 50°C) 8) Water bath - of 15lit to 20lit capacity 	01

Package -8(TEQIP-III/CIVIL/GOODS 3(P7 GEO TECH LAB-7))

Sl. No	Title	Specification	Quantity
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1	APPARATUS FOR UNCONFINED COMPRESSION TEST	Confirms to IS: 2720 (Part 10)-1973 Should consist of Load Frame, Motorized three speed, 50 kN. Supplied complete with Plain Platen with Adapter and Steel Ball . Load measurement should be by means of a high sensitivity proving ring, capacity 2 kN. Displacement to measured with Dial Gauge 25 mm travel, 0.01 mm, least count Split Mould 38mm dia × 76mm long Rubber Sheath for 38mm dia specimen	01
2	Apparatus for Laboratory Vane Shear Test	Apparatus for Laboratory Vane Shear Test consists of the followings and confirms to IS: 2720 (Part 30)-1980 Motorised vane shear apparatus Rate of rotation: 1/60 rpm Single phase AC supply. Container Set of 04 springs one of each capacity 2kg-cm, 4 kg-cm, 6 kg-cm & 8 kg-cm	01
3	APPARATUS FOR MDD & OMC BY USING COMPACTION TEST (LIGHT & HEAVY) OF SOIL	Automatic Compactor with Mild Steel compaction mould as per IS: 2720 (Part 7&8)-1980&1983 . 1) Compaction moulds –(a) cylindrical mould of capacity 1000 cc, internal diameter 100 mm ,effective height 127.3mm (b) Cylindrical mould of capacity 2250cc, internal diameter 150 mm, effective height 127.3mm 2) Metal rammers – (a) for light compaction (face diameter 50mm mass of 2.6 kg ,free drop of 310 mm) (b) for heavy compaction (mass =4.89kg ,free fall 450 mm) 3) Mould accessories – (detachable base plate , removable collar) 4) I.S. Sieves- size 19 mm & 4.75 mm, Brass 5) GI tray - 02 No.(0.45mX0.6m and 0.6mx0.75m) 6) Drying crucibles-06 Nos. 7) Graduated jars (Glass) for measuring water- 50ml,100ml,200ml,500ml,1000ml 8) Straight edge 9)Spatula * One set consist of all the above items	01
4	APPARATUS FOR RELATIVE DENSITY	Apparatus consists of the followings and confirms to IS: 2720 (Part 14)-1983 Vibratory table of size 75cm x 75cm. Vibration rate should be 3600 VPM (3000 @ 50 Hz)	01

		<p>vibratory table, minute under a 11.5kg load. Amplitude is variable in between 0.65mm in step of 0.05 to 0.25mm, 0.25 to 0.45 mm and 0.45 to 0.65mm. Suitable for operations on 415V, Three Phase supply.</p> <p>Cylindrical metal mould, 3000ml. Capacity. Guide sleeve with clamp assembly. Surcharges base plate for mould. Handle for surcharge base plate. Surcharge weight.</p> <p>Cylindrical metal mould 15000 ml. capacity. (Total weight together with the above mould & surcharge weight is equivalent to 140 kg./sq. cm)</p> <p>Dial gauge 0.01mm x 50mm travel. Extension piece 25mm for dial gauge.</p>	
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Package -09(TEQIP-III/CIVIL/GOODS 3(P8 ENVIRONMENTAL LAB))

Sl. No	Title	Specification	Quantity
1	Digital pH meter	3 ½ digit LED display for pH & MV, pH range: 0-14, Accuracy +/- 0.01pH, MV range: +/-1999MV, Complete with check position, with combined electrode	02
2	Conductivity meter with TDS	7digit digital display for conductivity temperature Range - 0.1µmhos to 100 milli-mhos-	02
3	Nephelometer-Digital	3 ½ digit digital display, Range: 1 NTU, 10 NTU, 100 NTU & 1000NTU (4 ranges), Accuracy: +/-2% of full scale	02
4	Jar test apparatus	With illuminated base having fluorescent tube fitted below translucent plastic plate - Consist of 1/20 HP motor, variable speed from 10-100 rpm with speed control fitted with S.S rod with digital RPM indicator. - Complete with 6 stirrer, Capacity: 1 litre	01
5	BOD incubator	Double walled inner chamber made of S.S with glass inner door, Temperature range 5°C to 60°C, +/-0.5°C Accuracy, Temperature controlled with Digital Temperature controller cum indicator with audio visual alarm Capacity: 285 litres	01
6	COD digester	(COD Reflux appts) 15 samples at a time with fifteen reaction vessels and air condenser with digital temperature control arrangement upto 250°	01
7	Visible Spectro photo meter	Brand :labline band width :3mm Dimension:180mmX 375mmX540mm	01

8	Choloroscope	Range 0.1 to 5ppm with o-toludine	01
9	Imhoff cone	Size: 1000 ml, Total height 454 mm approx, Top dia 100 mm	05
10	Hot air oven-Digital	Triple walled inner chamber made of stainless steel with S S shelves. Temp. range: 5°C above ambient to 300°C Temperature controlled with digital temperature controller cum indicator. With air circulating fan, Inner Size: 45×60×60cm	01
11	Muffle furnace	Temp. 1200-1500 degrees, operating tempreture 900 ⁰ C, Digital tempreture controller-cum-indicator, 3 side heating system comprising of air heaters	01
12	Autoclave labratory vertical	Fully automatic floor mounted auto clave Stainless Steel sheet – 304 grade, Chamber volume 22-200 Litre, Operates on 230 V AC Single phase 50 Hz, 2-6 KW, Temperature Range 121°C to 125°C, Temperature Resolution: 0.1 °C, Pressure range : 15 PSI to 20 PSI Factory Set at 15 PSI	01
13	Dessicator	Size 300mm dia. Made of polypropylene and poly-carbonate, vacuum retention upto 740mm of Hg for 24 hours	01
14	Magnetic stirrer with hot plate	Maximum stirring capacity : 1000 ml, Heating power: 150 W, Stirring power: 25 W, 220 V, 50 HZ, speed: 0-2400RPM, Size: 20*15*9 cms	01
15	Distillation unit	Quartz double distillation units with 5.0 ltr/ hrs capacity. Vertical type, Conductivity: <1 X 10 ⁻⁶ S/cm, Temp. 750 degree, Complete unit with stand & electrical connection & water level sensor, Power requirement: 230-250 Volts	01

Package -10(TEQIP-III/CIVIL/GOODS 3(P8 ENVIRONMENTAL LAB -1))

Sl. No	Title	Specification	Quantity
1	Electronic balance	Capacity: 220gm, 0.1mgm(0.0001gm)	02
2	Ordinary balance	With S.S both side pan, including weight Capacity:2kg	01
3	Monocular microscope	Magnification 100X-1000XStandard set complete with widefield eyepieces NWF 10x, Hard anti-reflection coated coded parfocal Achromatic objectives 10x, 40x,100x (spring, oil immersion) attachable graduated mechanical stage (120×125mm) with convenient adjustment for manipulation of slides & plano concave mirror in adjustable fork mount, substage abbe condenser focusable with rack & pinion fitted with an iris diaphragm & filter holder (complete set in thermocole packing)	02
4	Air compressor	Maximum flow rate 21-50 Cfm, Discharge pressure 4 bar, Max presssure 0.4 MPa, 2HP, 220V, 50/60HZ, 23 Litre tank capacity, Dimension: 400*400*580 mm	01
5	Micropipettes:	Variable volume Partially autoclavable (lower part)	01

		Range: 500-5000µl	
6	Beakers_5ml	5 ml	20
7	Beakers_10ml	10 ml	20
8	Beakers_25ml	25 ml	20
9	Beakers_50ml	50 ml	20
10	Beakers_100ml	100 ml	40
11	Beakers_250ml	250 ml	40
12	Beakers_500ml	500 ml	20
13	Beakers_1000ml	1000 ml	20
14	Wash bottles_500ml	500 ml	40
15	Burette_50ml	50 ml	20
16	Burette_100ml	100 ml	20
17	Measuring cylinders_50ml	50 ml	20
18	Measuring cylinders_100ml	100 ml	30
19	Measuring cylinders_250ml	250 ml	10
20	Measuring cylinders_500ml	500 ml	05
21	Reagent bottles_500ml	500 ml	20
22	Reagent bottles_1000ml	1000 ml	30
23	Amber reagent bottles_1000ml	1000 ml	10
24	BOD bottles_300ml	300 ml	30
25	Petri dish	150X20 mm	30
26	Flasks, Erlenmeyer, Conical, Narrow Mouth_150ml	150 ml	20
27	Flasks, Erlenmeyer, Conical, Narrow Mouth_250ml	250 ml	50
28	Flasks, Erlenmeyer, Conical, Narrow	500 ml	10

	Mouth_500ml		
29	Flasks, Erlenmeyer, Conical, Narrow Mouth_1000 ml	1000 ml	05
30	Volumetric Flasks_50ml	50 ml	10
31	Volumetric Flasks_100ml	100 ml	40
32	Volumetric Flasks_250ml	250 ml	10
33	Volumetric Flasks_500ml	500 ml	10
34	Volumetric Flasks_1000ml	1000 ml	10
35	Funnels_50ml	50 ml	20
36	Funnels_100ml	100 ml	40
37	Pipettes, Measuring (Mohr Type), Class B_5ml	5 ml	20
38	Pipettes, Measuring (Mohr Type), Class B_10 ml	10 ml	20
39	Pipettes, Measuring (Mohr Type), Class B_25 ml	25 ml	20
40	Spatula (one end flat one end spoon)_4 mm	4 mm dia	20
41	Spatula (one end flat one end spoon)_10 mm	10 mm dia	20
42	Whatmann Filter papers	No. 42	10
43	Crucibles_100ml	100 ml	30
44	Crucibles_50 ml	50 ml	30
45	Burette stand		30

Package -11(CIVIL/GOODS 3(P6 MATERIAL TESTING LAB-2))

Sl. No	Title	Specification	Quantity
1	Flexural Testing Machine for Concrete	100kN Flexure Testing Machine Computerized Control System: -Microprocessor based, auto pace rate control option must be incorporated.	01

		Sensor:- Bonded strain gauge based Pressure transducer, accuracy of +/- 1% or better conforming to IS-516 and IS : 14858,Machines conforming to ASTM C39. least count of 0.01KN	
2	Beam Mould	Beam Mould, 100mm x 100mm x 500mm Cast iron with ISI mark	09
3	Beam Mould	150mm x 150mm x 700mm Cast iron with ISI mark	09
4	Mould	Cast Iron, for 150mm Cube with ISI Certification Mark	12
5	Mould,	Cast Iron, for 100mm Cube with ISI Certification Mark	09
6	Cylindrical Mould	Cast Iron, Split Lengthwise 100mm dia x 200mm high	09
7	Cylindrical Mould	Cast Iron, Split Lengthwise 150mm dia x 300mm high	09
8	Concrete Pan Mixer	Cap. 100 ltr.	01
9	Vee Bee Consistometer Apparatus	The machine should confirm to Standards- IS:10510, IS:1199, BS 1881(Part104	01
10	Electric oven	Electric oven with digital indicator cum controller with safety alarm Range: 50 to 250 °C Accuracy +/- 1 °C with air circulating fan	01
11	Electronic Balance	Capacity 50kg with accuracy 5g	01
12	Electronic Balance	Capacity 30kg with accuracy 5g	01
13	Automatic Blaine Apparatus with PC	Automatic Blaine Apparatus with PC based data recording and onboard control system, confirming to IS 4031-2 (1999) including PC	01
14	Sieve Shaker Sieve Shaker, Motorised, with Built-in Digital Timer	Motorised, with Built-in Digital Timer. The Sieve Shaker can carry up to 8 sieves of 20cm dia. Suitable for operation on 220 V, 50 Hz, Single Phase, AC supply.	01
15	Set of Sieves made of brass of different size for fine aggregate	4.75 mm, 2.36 mm, 1.18 mm, 600mic, 300mic, 150mic, 90mic, 75 mic, Lid & Pan	01
16	Set of sieves of different size for coarse aggregate	80mm, 40 mm, 20 mm, 10 mm, 4.75 mm, Lid & Pan	01

Package -12(TEQIP-III/CIVIL/GOODS 3(P6 MATERIAL TESTING LAB-3))

Sl. No	Title	Specification	Quantity
1	Vibrating machine for Compression test of Cement	Vibrating machine for Compression test of Cement IS:4031, IS:10080, EN 196-1 413-2, EN 13454-2	01
2	Mould for compression test cement 70.6 mm Cube	Mould for compression test cement 70.6 mm Cube with ISI Certification Mark as per IS:10080 -1982	09
3	Digital Schmidt Rebound Hammer	Language independent user interface Data acquisition & processing Concrete Compressive Strength Range: 10-100 N/mm ² Battery life:> 5000 impacts between charges Charger connection: USB type B (5 V 100 mA) Conforms to BS-1881-202, IS 13311	01
4	Ultra sonic Pulse velocity tester	The machine should capable of storing features online data acquisition, waveform analysis and full remote control of all transmission parameters, along with the traditional transit. It can have facility such as the possibility to estimate compressive strength. It can measure time and pulse velocity, perpendicular crack depth measurement and surface velocity measurement. It should have Software Battery Lifetime > 8h Operating Temperature (10 ⁰ to 60 ⁰)	01
5	L Box Apparatus as per EFNARC 2005 guide lines	L Box Apparatus as per EFNARC 2005 guide lines	01
6	V funnel	V funnel as per EFNARC 2005 guide lines	01
7	U box	U box as per EFNARC 2005 guide lines	01
8	J ring with flow Table	J ring with flow Table as per EFNARC 2005 guide lines	01

Sd/-
Principal, GCEK
Bhawanipatna