

(An autonomous institute of Govt. of Odisha) Sarang, Dhenkanal, Odisha—759146

# **TENDER DOCUMENT**

**Supply of Equipment for** 

# **GEOTECHNICAL ENGINEERING LAB**

of

**Civil Engineering Department** 



# (An autonomous institute of Govt. of Odisha) Sarang, Dhenkanal, Odisha–759146 RECORD OF SALE OF TENDER DOCUMENTS

1. NAME OF THE WORK –	Supply of Equipment for Geotechnical Engg Lab
	capping of Equipment for Coursellinear Engg East

- 2. CALL NOTICE NO: IGIT/CIVIL/377 Dated 16/11/2018
- 3. COST OF TENDER DOCUMENTS: Rs.500.00 (Rupees five Hundred Only)
- 4. DEMAND DRAFT NO & DATE:-
- 5. DATE OF ISSUE OF TENDER DOCUMENTS: 19/11/2018
- 6. LAST DATE OF RECEIPT OF FILLED TENDER DOCUMENTS AS PER CALL NOTICE:-26/12/2018
- 7. TOTAL NUMBER OF PAGES IN THE TENDER DOCUMENTS:-

Signature of Tenderer

Sd/-

Director



(An autonomous institute of Govt. of Odisha) Sarang, Dhenkanal, Odisha–759146

No.IGIT/Civil/377

Dated-16/11/2018

#### TENDER CALL NOTICE

Sealed tenders are invited in conformity with DTCN prescribed format from registered parties/firms having DGSD rate contracts/DIC registration or EPM rate contract /registered original equipment manufacturer (OEM)/ Authorized Distributers/dealers having valid tax clearance certificate for supply of equipment and accessories for set up of above labs in turnkey basis. Tenderers are advised to fill up the prices in the prescribed format only. The tender shall be submitted in two parts (Part: A- Technical bid & Part: B- Financial bid).

Sl.	Name of the	Approximate	EMD @1% of the	Cost of Tender	Last Date
No.	work	Estimated	Bid amount in shape	paper Nonrefundable	of
		cost	of	in Rs.	submission
		in Lakhs	DD in favor of	in shape of	of the Bid
		(Rupees).	Principal, Indira	DD in favor of Principal,	
			Gandhi Institute of	Indira Gandhi Institute of	
			Technology Sarang	Technology Sarang	
			payable at SBI, IGIT	payable at SBI, IGIT Saranga	
			Saranga	(IFSC Code	
			(IFSC Code No.	No.SBIN0010246)	
			SBIN0010246)		
1	Supply of equipment for	15.00	Rs. 15000.00 or 1%	Rs. 500.00	
	Geotechnical Engineering		of the Bid amount		
	Lab (Annexure)				

- 1. Date of sale of Tender Paper- 19/11/2018 at 10:30AM
- 2. Last date of Receipt of Tender Paper- On or before Dated: 26/12/2018 at 3.00 PM
- 3. Date & Time of opening of Technical bid- 27/12/2018 at 3:00PM. The Tender will be opened in the office chamber of the HOD Civil Engineering in the presence of bidders/Authorized nominees.

Date & Time of opening of Financial bid-02/01/2019 at 3:00PM.

- 4. Tender in complete shape must be accompanied by attested copies of valid Registration certificate /PAN Card/ **GSTIN** Certificate. Relationship certificate along with Original Money Receipt towards purchase of Tender paper & required EMD in the shape of D.D.
- 5. Tender is to be sent through registered post/speed post only through Indian Postal service.
- 6. The details of Tender can be obtained from the office of HOD, Civil Engg during working dates & office hours (8.00 AM to 12.10PM & 2.00PM to 4.30PM). Please visit our website <a href="www.igitsarang.ac.in">www.igitsarang.ac.in</a>.
- 7. The tender documents can also be down loaded from our website <a href="www.igitsarang.ac.in">www.igitsarang.ac.in</a>.
- 8. The authority reserves the right to accept or reject any or all the bids or parts without assigning any reason thereof.
- 9. The undersigned will not be held responsible for any postal delay.
- 10. Bids must be accompanied by Earnest Money in the shape of a Demand Draft (for an amount as mentioned in the Table) drawn in favour of "Principal, IGIT Sarang", and payable at IGIT Sarang. Each Tender shall be accompanied with separate EMD. This Earnest Money in the shape of Demand Draft must be enclosed inside the "Technical Bid". Bids without containing the required amount of Earnest Money/Tender cost in the shape of Demand Draft(s) inside the 'Technical Bid' will not be taken in to consideration.

Sd/-DIRECTOR



(An autonomous institute of Govt. of Odisha) Sarang, Dhenkanal, Odisha–759146

# 2. Eligibility of Tenderer and General Instructions:

# 2.1 Eligibility:

Those who fulfill the following criteria are eligible to participate in the tender.

- 1. The Tenderer must be a reputed original equipment manufacturer and /or the authorized Dealer of a reputed manufacturer. Manufacturers should provide all documents relating to their manufacturing capabilities.
- 2. The Tenderer should be an authorized dealer for IGIT Sarang of a reputed manufacturer for the item quoted. Necessary certificate to this effect from the manufacturer must be enclosed.
- 3. All after sales support should be provided directly by the manufacturer only.
- 4. The Tenderer must have the willingness for providing comprehensive maintenance support of the machine/equipments supplied by him.
- 5. The Tenderer must provide evidence of successful execution of supply orders with installation and successful after sales support in at least 3 reputed organizations.
- 6. The Tenderer must have cleared sales tax, Service tax and income tax payment up to date. Attested copies of sales tax clearance certificate or non-assessment certificate from the concerned sales tax authority valid up to date and attested copy of income tax clearance certificate or non-assessment certificate, as the case may be, from the competent authority, upto-date and copy of PAN card must be enclosed along with the tender documents. The company registration no & GSTIN Certificate must be given along with the tender.
- 7. The Tenderer should have comprehensive production facility, after sales service facility & infrastructure, R & D Centre duly recognized by National Council of Science and Technology, Accredited Calibration and Quality Control Test Laboratory. Manufacturing Capacity & capabilities of the supplier and workmanship of the instrument shall be accessed by concerned official before finalizing the order.
- 8. Manufacturer will ensure the traceability (source of calibration) of the calibration unit to NCCBM / NPL.
- 9. NABL ACCRIDATED CALIBRATION LAB MORE THAN 10 YRS.
- 10. BIDDERS HAVE TO QUOTE FOR ALL THE ITEMS AS PER BOQ OF THE TENDER DOCUMENT, INCOMPLETE QUOTATION SHALL BE REJECTED.
- 11. ALL ISI MARKED MACHINE SHOULD SUPPORTED BY BIS WEBSITE CONFIRMATION
- 12. The Tenderer should have local registered office with trained and qualified customer support staff with ample experience in the required filed at local office. They should impart necessary 3 days training to our personal for operation the equipment supplied.
- 13. Preference will be given to ISO 9001-2008 Certified Company who can ensure the manufacturing of the machine as per required testing standard / tender specification within the specified tolerance limits.
- 14. Every machine should be highly qualitative and as per IS Standard/ I.S. marked / wherever required.
- 15. Suppliers Turnover should not have less than Rs. 10Cr per annum.
- 16. Authority may visit bidders works/Users place to evaluate the manufacturing facility quality control, after sales backup facility, expert availability etc before opening price bid.



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- 17. All India basis user Certificate from different Govt. Customer, Engineering Institute and PSU will be preferred.
- 18. Supplier should have capacity and experience of carrying out Annual Maintenance contract with the users of their M/C and Proof of such documentation will be preferred.
- 19. Indian Agent of OEM should have well backup facility.
- 20. Q.C Instruments must be from reputed manufacturer who does have above facilities.
- 21. Nearest service station in Bhubaneswar

#### 2.2 General Instructions

- 1. Submission of more than one bid by a particular tenderer under different names is strictly prohibited. In case it is discovered later on that, this condition is violated, all the tenders submitted by such tenderer(s) would be rejected or the contract if assigned would be cancelled.
- 2. All offers should be in English and the price quoted for each item should be firm.
- 3. Warranty period, Delivery period and after sale service conditions, etc. are also to be clearly indicated.
- 4. The rates and conditions of the offer will remain valid for three months from the date of opening of the tender and no change or alteration of the rate will be acceptable on any account.
- 5. Submitted tender forms with overwriting or erased or illegible specifications and rates will be rejected.
- 6. Request from tenderer in respect of addition, alterations, modifications, corrections, etc, of both terms and conditions or rate after opening of the bid may not be considered. However, negotiation may be made before finalization.
- 7. Tenderers shall carefully examine the bid documents and fully inform themselves of all the conditions, which may in any way effect the work of the cost thereof.
- 8. Should a Tenderer find discrepancies or omissions from the specification or other documents and any doubt as to their meaning, he should at once notify the purchaser and obtain clarification in writing.
- 9. This, however, does not entitle the Tenderer to ask for time beyond the due date fixed for the receipt of tenders.
- 10. The tenderer must also specify minimum up time and maximum time to repair/replace in the event of a failure and penalty thereof.
- 11. Verbal clarification and/or information given by the purchaser or its employees or representatives shall not be binding on the purchaser.
- 12. Submission of sealed bid will carry with the implication that the tenderer agrees to abide by the conditions laid down in the detailed particulars of the bid notice.
- 13. Conditional offers and offers qualified by vague and indefinite expression, as 'subject to immediate acceptance' 'subject to prior sale', etc will not be considered.
- 14. While tenders are under consideration, tenderers and their representatives or other interested parties are advised to refrain from contacting by any means, to the purchaser's personnel or representatives on matter relating to the tenders under study.
- 15. The purchaser if necessary, will obtain clarification on tenders by requesting such information from any or all the tenderers either in writing or through personal contact as may be necessary.
- 16. The tenderer will not be permitted to change the substance of his offer after the tenders have been opened.
- 17. In the event of non compliance with this provision, the tender is liable to be disqualified.



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18. The Tender shall submit the tender bid in two parts (Part –A & Part –B). In the case, where Part – A of a bid fails to comply properly (i.e. the technical specifications/Make of the bid is not matching with the required technical specifications of each item and other Technical bid criterion as mentioned in the tender paper), the bid will not be considered for further processing. Such bids will be accounted as disqualified. In that case Part-B of the bid will not be opened. Wherever required, the decision of the tender committee in this regard is considered as final.

#### 2.3. Submission of Tenders;

Tenderers are advised to fill up the prices in the prescribed format only. The tender shall be submitted in two parts (Part –A & Part –B).

#### Part - A

It will cover the **Techical Bid** such as the Letter of Application, Commercial Terms and Conditions, **GST Regd.** Certificate, Income Tax Clearance Certificate / PAN, Documentary Proof of satisfying the required eligibility criteria specified in Tender Notice, Undertaking for registration in Odisha Sales Tax Department in case of order (for bidders not possessing OSTRC), Bank Draft towards cost of Tender Paper (Not applicable for the firms participating in the tender by downloading the tender document from IGIT Sarang website) and EMD etc. This part will also include the required Drawings, General Conditions, Special Conditions, Technical Specifications, Guaranteed Technical Particulars and Deviations, if any. Any document the firm is willing to furnish other than the Financial Bid shall be submitted with this Technical bid.

#### Part - B

It will cover only the **Financial bid**. No other documents except the Financial bid should be enclosed in this part-B.

Each envelope (one for Part-A, the Technical bid and the second for Part-B, the Financial bid) shall be duly sealed separately. The envelope containing documents for Part-A shall be super-scribed with "Technical bid," and the envelope containing documents for Part-B shall be super-scribed with "Financial bid". Both these sealed envelopes should be enclosed in a bigger envelope super-scribed with "Bids for Supply of Equipment for Geotechnical Engineering Lab of Department Civil Engineering, IGIT Sarang, Parjang, Dhenkanal, Odisha-759146, Dates of Opening: (a)Technical bid: 27/12/2018 at 3:00PM and (b) Financial bid: 02/01/2019 at 3:00PM" and sealed properly. This sealed bigger envelope duly super-scribed as mentioned above should reach "The Principal, Indira Gandhi Institute of Technology, Sarang, Parjang, Dhenkanal, Odisha-759146" on or before the Tender Closing date: 26/12/2018 at 3.00 PM by Regd. Post/Speed Post only. No other mode of submission is accepted.

#### 3. Requirements by Tenderer before Supply:

#### 3.1 Rating Plate, Name Plate and Labels:

Each of the equipment supplied by the bidder must have permanently attached rating plate of non-corrosive material in a conspicuous position, upon which the total specifications along with the manufacturer's name, address, etc. are to be engraved.



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#### 3.2 Packaging:

All the equipment are to be suitably protected, covered in water -proof packing and thermo cool / crated to prevent damage or deterioration during transit and storage till the time of installation or supply. The supplier shall be responsible for any loss or damage caused during transportation, handling or storage till their successful installation

# 3.3 Inspection:

- a. All materials / equipment shall be inspected and tested for completeness, proper assembly, operation, cleanliness and state of physical condition and performance as per quoted specification.
- b. The test shall be conducted, reported and certifications to be provided by the tenderer. The tenderer shall provide all test and measuring equipment/tools required for inspection / testing. The cost of all such tests shall be borne by the tenderer.
- c. IGIT Sarang reserves the right to reject any equipment if it does not comply with the specifications during site testing, installation and commissioning stage. In case of rejection, the tenderer has to pay the expenses towards the return of the same equipment/ material.
- d. Inspection & testing would be conducted, jointly, at various stages as applicable during unpacking, installation and commissioning of respective equipment/ components at the manufacturing site.

#### 3.4 Environmental Condition:

All the documents submitted must be in the papers showing the signature of the bidder and primed office name of the bidder on official seal.

All the equipment supplied shall be rugged and should operate without any deviation in quality, or degradation of equipment performance. All the specification/parameters shall be guaranteed over the following environmental conditions:

- a. Storage Temperature 0 to 70 degree Celsius
- b. Operating Temperature 0 to 50 degree Celsius
- c. Humidity 95% RH (non-condensing)

All the equipments are intended to operate under 220 V (Single Phase)/ 440V(Three Phase), 50 Hz power supply.

# 4. Requirements by Tenderer after Supply:

# 4.1 Supply:

- a. The material would be delivered by the supplier at Indira Gandhi Institute of Technology, Sarang, Dhenkanal, Odisha 759146.
- b. The items should be supplied directly from the manufacturing terminal having passed all tests successfully with Certifications as required.
- c. The equipment should conform to the latest relevant National/International standards and shall be completed in all respect.
- d. Any component, fitting etc. which may not have been specifically mentioned in the specifications but which are usual and necessary for the equipment, shall be supplied by the tenderer at no extra cost.



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- e. In case, articles are found damaged in transit or found short at the time of delivery the full cost of the same will be deducted from the bill of the supplier in case the supplier does not replace the stock within two weeks from the date of the complain.
- f. The articles ordered must be supplied in one lot within 4 (four) weeks of placing of the order.
- g. In case of delay in delivery or successful installation, a penalty @ 1% (one per cent) of the bid value per week shall be levied.
- h. IGIT Sarang reserves the right to procure the materials from alternative sources at the risk and cost of the successful tenderer giving 15 days notice.
- i. Any increase in tax and duties after expiry of delivery period will be to the seller's account.
- j. In case the items supplied by the supplier are found not up to the specification shall be rejected.
- k. The supplier will be intimated to take back the stocks at his own cost within three days from the date of rejection and to replace the same within 15 days, failing which the EMD will be invoked in addition to taking legal actions.
- 1. Imported consignment, if any, should be destinated to IGIT Sarang, Dhenkanal, Odisha, India through Bhubaneswar Air Port.
- m. The suppliers shall be responsible for releasing the consignments from the carriers/transporters.
- n. The equipment/machineries shall be delivered and installed at site at the cost of the tenderer.
- o. All taxes, levies, surcharges including the customs clearance and handling freight and insurance should be paid and handled by the tenderer.

#### 4.2 Installation and Commissioning:

Installation and Commissioning shall include the following:

- a) Installation and Testing of the Equipment, Machineries etc. should be supplied by the tenderer.
- b) It will be the responsibility of the tenderer to provide all necessary spares and consumables, which may be required during installation and commissioning, at no extra cost to IGIT Sarang
- c) The tenderer is to bring their own testing and measuring instruments required for installation, testing, commissioning, which can be taken back after completion.
- d) Installation must complete within a week after delivery on site.
- e) The tenderer should provide all necessary raw materials for running of the machine during commissioning and provide training to our laboratory personnel free of cost.

#### 4.3 Documentation:

- a. Detailed technical manuals, handbooks, drawings, Warranty card and Factory Quality Assurance checklist, test results and any other certifications mentioned in the Technical specifications shall be supplied along with the consignment.
- b. Supplied manuals/handbooks must cover detailed technical specifications and installation, operation, maintenance and System Safety procedures.
- c. For Experimental setups details of theory, procedure and methods of taking measurements etc. should be provided in the form of hand books for each experiment.
- d. The receipts for taxes paid, if any, for the supplied materials should also be submitted.

#### 4.4 Trial Operation and Performance Guarantee Test:

a. After successful completion of Installation and Commissioning of the equipment, a 7-day continuous trial operation putting those on optimum use shall be conducted by the tenderer at site,



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during which the performance of the equipment shall be demonstrated for trouble-free continuous operation, meeting the specified standards.

- b. During trial operation, tenderer shall do all necessary adjustments required to ensure the performance as per the acceptable level.
- c. In case, guaranteed performance is not established, the tenderer shall be given opportunity to rectify/replace the equipment/components, and restart the 7 days continuous trial operation, at the risk and cost of the tenderer.

#### 4.5 On-Site Warranty:

- a) The entire materials may be used continuously. The reliability and safety of the total installed system and trouble-free operation are, therefore, of prime importance. The supplied devices/equipment and components shall be covered under **two-years or more** comprehensive on-site warranty from the date of issue of successful completion of Performance Guarantee Report.
- b) During the period of warranty, it shall be the responsibility of the tenderer to provide all essential spares and consumables, which may be required for maintenance and trouble-free operation of the devices / components at the tenderer's cost.
- c) Software, if any, has to be tested with at least one-year warranty for trouble free operation.

#### **4.6 Comprehensive Maintenance Contract:**

- a. The tenderer shall be under the obligation of entering into a Comprehensive Maintenance Contract (CMC) with IGIT, Sarang for a minimum period of two years, renewable if felt necessary, on mutually acceptable rates, terms and conditions. CMC shall start after the completion of Warranty.
- b. The scope of CMC shall cover maintenance and supply/replacement of materials and components, for smooth and reliable operation of the systems without trouble.
- c. Accordingly, the tenderer has to offer rates for the CMC structure per equipment along with the price for the Systems and other associated Equipment supplied.

#### 4.7 After Sales Service:

- a. During the warranty period and subsequently, after signing of Agreement for CMC the tenderer shall attend to the problems reported by the users of IGIT Sarang on a priority basis.
- b. For any problem reported the tenderer shall attend and rectify the problem within 7 (seven) days or provide a standby system of the similar configuration.
- c. The report on any problem will be informed through phone or fax number of which shall be given by the tenderer.
- d. The branch office of the concerned manufacturing firm will be fully responsible to provide maintenance service, in case of any negligence, in providing the service by the tenderer.
- e. On failure to comply with those instructions, the Bank Guarantee provided for the warranty period shall be invoked.

#### 5. Financial Terms:

#### 5.1 EMD (Refundable)

a. The tenderer has to submit a Demand Draft / Banker's Cheque / Pay order as detailed mentioned above in favour of DD in favor of Principal, Indira Gandhi Institute of Technology Sarang payable at SBI, IGIT Saranga (IFSC Code SBIN0010246) towards EMD.



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- b. There will be no interest paid to the tenderer towards EMD money.
- c. In no case, the EMD Money in cash or other forms will be accepted at the time of opening of the bid.
- d. No request for adjustment of claims, if any, will be accepted.
- e. The EMD of unsuccessful tenderers will be refunded as soon as possible after the tenders are finalized. The EMD must be claimed by the tenderer personally or by authorized letter addressed to the Principal and Secretary IGIT, Sarang, within one year.

#### **5.2 PRICES:**

- a. Price quoted should be FOR IGIT Sarang only.
- b. Price should be quoted for unit item; however, the actual system requirements may be much more.
- c. Purchase order will be placed as a single lot for each type of item or for all the items together, as the case may be.
- d. In case of items of import, the tenderer should take full responsibility for customs clearance, handling, tax payment, etc. and specify the charge for the same in the Financial bid.

#### **5.3 Sales Tax Concession:**

Central Sales Tax/ GST Concession (if any) is to be availed on production of the required certificates applicable to Educational Institution.

#### **5.4 Discount:**

- a. Our Institute is a pioneer Institution in the field of Teaching and Research in Engineering and allied disciplines and do not run with profit motive.
- b. As such we are availing price discount for purchase of equipment/ instruments /chemicals.
- c. The rate of discount or any other Institutional benefit arising out of Govt. Policy etc./ company's own policy on each item may also be indicated in the Financial bid specifically.

#### 5.5 Payments:

In case of imported items, payment will be made by opening LC in the name of the manufacturer subject to the condition that a Bank Guaranty for an equal amount will be submitted by the selected Tenderer to IGIT Sarang for the period of completion of installation and commissioning. In case of purchase in Indian Rupees, payment of 100 % (percent) of the ordered value will be made after successful installation and commissioning of the equipment subject to submission of satisfactory performance report by our Professor-in-Charge.

#### 5.6 Penalty:

If the delivery, installation and commissioning is not carried out in time as specified in other part of the tender document, the Tenderer/manufacturer will be charged @1 % (one percent) per week of the total value of the concerned system / equipment.

#### 5.7 Rate Contract with DGS&D or any other Government Organization:

In case the Tenderer has entered into a Rate Contract with DGS & D or any other Government Organization such as EPM, rate contract preference, number & copy of rate contract have to be submitted along with tender.



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#### 6. Technical Specifications:

- a. Following are the minimum specifications of the equipment/ Machineries.
- b. The minimum specifications are indicative and not exhaustive.
- c. The models with higher specifications may be quoted.
- d. The quoted materials should be of latest trend and technology & software if any should be compatible to all versions of windows.
- e. Each equipment should be complete in itself without needing any extra requirements except the requirement of general test and measuring instruments.
- 7. IGIT, the tenderer and the manufacturer shall make all efforts to resolve amicably by direct informal negotiations on any disagreement or dispute arising then under or in connection with this contract. All disputes arising out of the contract should be referred to courts under the Jurisdiction of the Talcher Court only. The authority reserves the right to reject/ accept tender without assigning any reason thereof.

#### Annexure

Sl.No	Name of the instruments	no of units	Specifications	Make
1	Unconfined Compression Tester	1	Unconfined Compression Tester Ref. Standards IS 2720- Part 10, for load measurement, supplied with Digital Load Frame with LCD 50 kN Capacity with Horizontal Clearance-265mm, Vertical clearance-700mm,  Maximum Platen dia- 130mm with Hardness of material(platen): 60 RHC,  Maximum Platen Travel-100mm with Specimen dia-38mmto 30mm,  Ram Dia 50mm with Four Speed 1.5, 1.25 2.5 mm/min and true speed control upto 15mm/min and Plain Platen with Adapter and Steel Ball.  High sensitivity proving ring capacity 2 KN. Dial Gauge 25 mm travel, 0.01 mm least count.  Split Mould 38mm dia × 76mm long,  Rubber Sheath for 38mm dia specimen.  Paint quality:-Powder coating 70-80 micron thick  Frame Stiffness:-Approx 100kn/mm  Material of Construction: Special quality low carbon mild steel	
2	Direct Shear Test Apparatus Motorised	1	Direct Shear Test Apparatus 2 kN capacity, Ref. Standards IS:2720 (Part 13), BS 1377, ASTM D 3080, Suitable for operation on 220V, 50Hz, Single phase, AC Supply. Ref. Standards IS:11229, 2720 (Part 13) Shear Box Assembly comprises of: Halves of the Shear Box 2 Nos. Plane Gripper Plate 2 Nos. Perforated Gripper Plate 2 Nos. Porous Stone 2 Nos. Top Loading Pad 1 No. Base Plate 1 No. Shear Box Housing with two linear bearing case with steer 1 No. Specimen Cutter 1 No. Surcharge Weights to attain normal stress of 3 kg/cm2 1 Set Type of Shear: Direct / Residual Measurement Operation: Motorised Rates of Strain: 1.25, 0.625, 0.25, 0.125, 0.05, 0.025, (mm/min) 0.01, 0.005, 0.002, 0.001, 0.0004, 0.0002	



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	Sarang, Dhenkanal, Odisha– 759146					
			Specimen Size: 60 x 60 x 25 mm.  This surcharge weight set comprises of following weights: 0.05 kg/cm2: 4 Nos.0.10 kg/cm2: 1 No.0.20 kg/cm2: 1 No.0.50 kg/cm2: 3 Nos.1.00 kg/cm2: 1 No.  Compression - Tension Proving Ring, 2 kN capacity 1 No.  Dial Gauge 0-25 × 0.01mm 2 Nos.  Paint quality:-Powder coating 70-80 micron thick  Frame Stiffness:-Approx 100kn/mm  Material of Construction: Special quality low carbon mild steel			
3	Universal Automatic Compactor	1	Universal Automatic Compactor with Mild Steel compaction mould Ref Standard IS:2720 (Part 7 & 8)			
4	Relative Density Apparatus	1	Relative Density Apparatus Ref Standard IS 2720 Part 14 Suitable for operation on 220 V, 50 Hz, single phase, AC supply. Vibrating Table, Cylindrical Metal Unit Weight Mould, 3000ml capacity 1 No. Guide Sleeve with clamp assembly, For 1 No. Surcharge base plate, Handle, Surcharge Weight, Mould 15000 ml capacity 1 No. Guide Sleeve with clamp Assembly 1 No. Surcharge base plate, for Surcharge weight for, The total weight together with is equivalent to 140g/cm² for the mould being used, Dial Gauge Holder 1 No. Calibration Bar, 75x300x3 mm 1 No. Dial Gauge 25 mm travel, 0.01 mm least count, with an extension piece 1 No.			
5	Laboratory California Bearing Ratio Test Apparatus Motorised	1	Laboratory California Bearing Ratio Test Apparatus, Motorised, Four Speed with Mild Steel Mould. Ref. Standards IS:9669, IS: 2720 (Part XVI), BS 1377; 1924; EN 13286-47/ ASTM D 1883; AASTHO T 193. Equipment consisting of:- Digital Load Frame with LCD 50 kN Capacity with Horizontal Clearance- 265mm, Vertical clearance-700mm, Maximum Platen dia- 130mm with Hardness of material(platen): 60 RHC, Maximum Platen Travel-100mm with Specimen dia-38mmto 30mm, Ram Dia 50mm with Four Speed 1.5, 1.25 2.5 mm/min and true speed control upto 15mm/min Paint quality:-Powder coating Frame Stiffness:-Approx 100kn/mm Material of Construction: Special quality low carbon mild steel Mould - MS150mm ID x 175 mm H, Perforated Base Plate - MS Extension Collar - MS150 mm ID x 50 mm high Penetration Piston 50 mm face dia Adjustable Bracket for Penetration Dial Gauge, Circular Metal Spacer Disc, with detachable handle, 148 mm dia x 47.7 mm high, Annular Metal Weight 2.5 kg, 147 mm dia with 53 mm dia central hole Slotted Metal Weight 2.5 kg, 147 mm dia, with 53 mm dia slot Perforated Plate 148 mm dia, with adjustable stem and lock nut Metal Tripod for Dial Gauge Cutting Collar Rammer 2.6 kg, 310 mm controlled drop Rammer 4.9 kg, 450 mm controlled drop Proving Ring Capacity 50 kN Dial Gauge 25 mm travel, 0.01 mm least count. Load frame pillar			



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			Later Street Constitution of the Constitution			
			thread M30 X 600mm.			
			Suitable for operation on 220 V, 50 Hz, single phase, AC supply.			
6	Consolidation	1	Consolidation Apparatus, Three Gang with Dial Gauges 0.002x5			
	Apparatus,		mm,			
	Three Gang		Ref. Standards: IS: 2720 (Part-XV), IS: 12287, BS: 1377, ASTM			
			D2435.			
			comprises of a fixed ring type of consolidometer cell for testing			
			specimens of 60 mm dia x 20 mm thick, may be used for varying			
			sizes from 50 mm dia to 100 mm dia. with a set of weights to give a			
			total pressure of 10 kg/cm <sup>2</sup> (besides a seating load of 0.05 kg/cm <sup>2</sup> ).			
7	Laboratory	1	Laboratory Permeability Apparatus, Ref. Standards IS: 2720 (Part			
	Permeability	-	17), IS: 11209.			
	Apparatus		For testing soil with coefficient of permeability in the range of 10-3			
	**		to 10 <sup>-7</sup> cm / sec and maximum particle size of 10 mm.			
			Stand with three glass tubes of 6 mm, 10 mm and 20 mm dia approx.			
			Metallic Mould 100 mm dia x 127.3 mm height, 1000 ml volume.			
			Extension Collar 100 mm dia x 60 mm height. Drainage Base Plate			
			with a recess for Porous Stone and an Outlet Valve. Metallic			
			Clamping Ring, Drainage Cap with recess for a Porous Stone and			
			fitted with Inlet Valve and Air Release Valve. Dummy Plate to serve			
			as False Bottom during compaction. Porous Stone for Drainage Base			
			Plate. Porous Stone for Drainage Cap, Rubber Connection Tube 3m			
			long, with Pinch Cock.			
			Overhead Tank, required for the constant Head method made of steel,			
			approx, 37.5cm dia x 1m high, provided with an inlet port at the top,			
			six outlets at the bottom with cocks, air inlet and water filling tube at			
			the top and arrangement to indicate the water level.			
8	Sieve Shaker,	1	Sieve Shaker Ref. Standards IS: 2720 (Part 4), Motorised, with Built-			
	Motorised	1	in Digital Timer, ¼ HP geared motor or more.			
	1.101011504		Suitable for operation on 220 V, 50 Hz, Single Phase, AC supply.			
		1	With one set of sieves			
			With the set of sieves			

NB: The Tenderer should quote rates for all the items as above and attach the leaflet of the products clearly mentioning the specifications and details about the product failing which the tender will be rejected.

Sd/-DIRECTOR



(An autonomous institute of Govt. of Odisha) Sarang, Dhenkanal, Odisha—759146

# FORMAT FOR TECHNICAL BID

Sl. No.	Name of the Equipment/ Items	Make	Specification/ Description, Warranty Details

Sign of the Bidder

# FORMAT FOR FINANCIAL BID

Sl.	Name of the Equipment/	Make	No of	Cost per unit in	Total cost of individual
No.	Items with Specification/		units	Indian Rupees	item (Including All
	Description, Warranty				taxes, Freight Charges,
	Details				Installation Charges,
					Manual and Demo/
					Training)

Sign of the Bidder