

OFFICE OF THE PRINCIPAL
GOVERNMENT POLYTECHNIC, BALODABAZAR, DISITT – BALODABAZAR-BHATAPARA
(C.G.) 493228

e-mail Address:- gpbalodabazar@gmail.com
Contact No.: 8986892089 / 8223866987 / 9827972266



TENDER - DOCUMENT

FOR

PURCHASE OF MACHINE & EQUIPMENTS

CIVIL ENGINEERING DEPARTMENT

(2020 - 2021)

निविदा सूचना क्रमांक / शा0पॉ0बबा0 / स्टोर / 2021 / 116 बलौदाबाजार, दिनांक:-12/01/2021

- | | |
|------------------------------|---|
| 1. Value of work | Approx Rs 2030700/- (Rs. Twenty Lacs
Thirty Thousand Seven Hundred only) |
| 2. Tender document issued to | M/s-----
----- |
| 3. Cost of Tender | Rs 500-00 (Rs Five Hundred only) |
| 4. Money receipt & Date | ----- |
| 5. Date of issue of tender | ----- |

Issued by

Principal,
Government Polytechnic Balodabazar
Disitt – Balodabazar-Bhatapara, (CG)

OFFICE OF THE PRINCIPAL
GOVERNMENT POLYTECHNIC, BALODABAZAR, DISITT – BALODABAZAR-BHATAPARA
(C.G.) 493228
e-mail Address:- gpbalodabazar@gmail.com

TERMS AND CONDITIONS

Terms and conditions for supply of Machines & Equipments are as per following list:

1. For participation in tender process following signed and stamped documents must be furnished in envelope A – super scribed as **“Technical Bid envelope A”**.
 - a. Income Tax returns of the last three years and Commercial Tax clearance certificate as well as PAN/TAN/TIN/GST registration No. with documental proof.
 - b. Registration of firm/company.
 - c. Sales tax/GST clearing certificate.
 - d. GST certificate from commercial tax department for the related business. GST Registration certificate must be valid and live.
 - e. ISO/BIS certificate for firm/product.
 - f. Manufacturer/dealer/distributor certificate.
 - g. Balance sheet /Turnover of firm/company of last three years duly signed by CA.
 - h. **Demand Draft for Tender fee (if downloaded from website) and Demand Draft for EMD.**
 - i. Item specifications/Literature /Brochure / leaflet regarding quoted items.
 - j. Acceptance of terms and condition (signed and stamped copy of tender document).
 - k. Any other document which you consider as necessary.
 - l. The bid shall be accompanied by Proforma for Technical bid in Annexure-I.
 - m. The bid shall be accompanied by Proforma for DECLARATION FOR NOT BLACK LISTED in Annexure-III.
 - n. The bid shall be accompanied by affidavit in prescribed format as given in Annexure-IV on non-judicial stamp paper or Rs 50 certified by Notary.
 - o. Properly filled vendor information form given in Annexure-V (Valid Email-id should be furnished in so that order can be placed via email id)
2. Envelope B should contain Financial bid in Proforma as given in Annexure-II along with taxes and discount if any and super scribed as **“Financial Bid envelope B”**.
3. Both envelope A & B should be put in a third big envelope and Super scribed as **“Tender for supply and installation of machine & equipments” –Civil Engineering Department** on the top of the envelope. All envelope should be signed and should be sealed on all joints.
4. All Sealed envelope for the tender should be super scribed as **Tender Notice No. GPBB/STORE/2021/116, Balodabazar, dated- 12/01/2021** should be addressed to Principal, Government Polytechnic, Balodabazar Vill.-Sakari, District – Balodabazar-Bhatapara(CG) Pin No. 493228.
5. Envelope-A of Technical bid and documents will be opened first and if it is found worth consideration then only the Financial bid Envelope –B will be opened.
6. The tender is liable to be rejected if not submitted as per the prescribed conditions and in the prescribed format in envelope A and B .as given in point 1 & 2 .No further clarification will be entertained.
7. The suppliers should quote their offer/ rate in clear terms without any ambiguity. Discount if any must be clearly specified.

8. The tender will be opened on the date and time given above in the presence of tenderer(s) or their representative who desire to be present.
9. Tender received after due date and time will not be entertained.
10. Tender form is nontransferable.
11. The tender document is also available on the website <http://gpbalodabazar.com> tenderer can download the document from the website, in that case he has to deposit DD of Rs 500=00 in favor of **Principal, Government Polytechnic, Balodabazar Distt – Balodabazar-bhatapara (C.G.)** at the time of submission of tender in Envelope-A. Otherwise his tender will not be entertained.
12. A soft copy of the tender should be submitted along with the tender document.
13. Item no. and page no of the tender form should be strictly in chronological order. Make/model, name of the manufacturer with complete address should be mentioned against each item and equipment.
14. The tender should be sent in firms own letter pad along with terms and conditions. Printed condition on the back of the tender will not be binding unless separately mentioned.
15. The tenderer must furnish complete and detailed technical specification supported by printed literature/catalogue/leaflet of the equipment offered. Item no. and page no. of the equipment should be mentioned in it. Incomplete specifications/ absence of printed literature support may result in to the rejection of the tender.
16. The rate should be FOR destination (**Govt. Polytechnic, Balodabazar, Village – Sakri & P.O. – Amera, Tehsil - Pallari, Distt – Balodabazar-Bhatapara (C.G)**) including all taxes, packing forwarding, transportation etc. Warranty/Guarantee installation if any on any item it should also be stated clearly.
17. Taxes, (whichever is applicable state clearly item wise) if leviable extra, should be clearly indicated, failing which the rate quoted in the tender will be considered as inclusive of all taxes.
18. There should be no alterations / corrections made in the Tender. The tenderer may quote the rate of any or all the items listed in the tender form. Rates should be quoted separately for individual item and not in lump-sum for all taken together.
19. An Earnest Money Deposit (EMD) of amount Rs 3% in form of Demand Draft must be given in favor of **Principal, Government Polytechnic, Balodabazar** payable at **Balodabazar Distt – Balodabazar-Bhatapara (C.G.)**. Tenders received without EMD will be rejected. Exemption of EMD will be provided to those tenderer who comes under Chhattisgarh Store Purchase Rules 2002, clause-4 sub clause-4.7. However the tenderer needs to provide sufficient documentary evidence in support of the exemption along with the tender document to avail the same.
20. In case of non- acceptance of the tender the EMD will be refunded to the tenderer in due course of time without interest. The EMD will be treated as security deposit in case of selected tenders EMD/ security deposit will be forfeited in case of breach of agreement of supply by the tenderer/supplier. The order shall stand cancelled and security deposit forfeited if.
 - (I) Supplier expresses his inability to execute the order for the quoted items within the validity of supply order period at the rate quoted in the tender and for makes/ brand quoted in the tender.
 - (II) The complete equipment is not supplied within the delivery period (approximately 20-25days) mentioned in the order or within the extended period permitted.
21. Delivery period with installation for the items will be approximately 20-25days only.
22. Any Equipment/ Trainers/ Hardware or software breakdown must be attended within 48 hours during the valid warranty period of the equipment/ software, free of cost.
23. Payment shall be released after the successful installation and demonstration/testing of

- the machine equipment at the institution.
24. The training for at least two persons for handling the machine/equipments shall be testing provided by the supplier at his own cost.
 25. The tenderer has to give demonstration/testing of the machine/ equipments software at **Government Polytechnic Balodabazar Disitt – Balodabazar-Bhatapara(C.G.)** wherever necessary at his own cost.
 26. Equipment received after the delivery period or dispatched after the delivery period mentioned in the order will not be accepted and will be taken back by the supplier at his own cost and risk,.
 27. In case of any default in execution of the order, the undersigned reserves the right to forfeit the EMD/Security deposit. The undersigned also reserves the right to cancel the order and forfeit the EMD/Security deposit in case the tenderer fails to adheres strictly to all terms and condition of the order/ tender.
 28. If defects of any kind or deviations from the specification are detected and reported to the supplier, the supplier should make replacement or rectify the defects free of cost within 10 days from the date of report, failing which the equipment will not be accepted and will be taken back by the supplier at his own cost and risk, and the EMD will be forfeited, In case the equipment is sent for repairs to the firm, it should be repaired within 10 days. From the date of receipt of equipment failing which the same will not be accepted and EMD will be forfeited, however the undersigned may consider the delay in deserving cases at his/her discretion.
 29. The undersigned reserves the right to increase/ decrease the quantity of the equipment to be supplied. If equipment supplied are not according to the ordered specifications and are not of proper quality, the same will not be accepted .Similarly second hand, reconditioned, damaged, repaired and substandard equipments and equipment having poor workmanship would not be accepted. Only brand new equipment calibrated in SI unit and with fine workmanship will be accepted.
 30. The submission of the tender will be deemed to be the acceptance of all the terms and condition of the tender as stated herein and/ or elsewhere in the tender document.
 31. Exact and earliest possible time of delivery should be indicated in the tender against each item. The delivery period given in the order will be the date of receipt of the equipment in the institute and not the date of dispatch of the equipment by the supplier.
 32. No advance payment will be made. The successful tenderer will have to execute in the form as approved by Government of Chhattisgarh.
 33. If tenderer has supplied these items to any PSU/ Government/reputed Private firm/deptt. Then submit last three years PSU/ Government/ Private Supply record as far as possible.
 34. The minimum guarantee/warrantee period for the equipment supplied by the supplier should be mentioned clearly and should not be less than one year from the date of installation. The tenderer will be required to undertake repair/ replacement of defective parts free of cost at the institution during the guarantee period.
 35. All the disputes with regard to the contract of purchase of equipment etc. is subjected to **Balodabazar Chhattisgarh** Jurisdiction only.
 36. In the event of the order, supplier who is the manufacturer of the equipment will be required to furnish a certificate to the effect that they are manufacturers of such and such make whereas the authorized dealer/distributor will have to furnish certificate issued by the manufacturer certifying that tenderer is their authorized dealer/distributor of that product/item. Without this certificate tender will not be accepted.
 37. The tenderer shall guarantee that after sales services will be provided as and when required. Replacement or repair of part should be done and delivered free of cost at this institution within guarantee/warrantee period.
 38. The supplier will render necessary assistances, if required, in the installation of the equipment/ machinery in the institute/ site free of charge.
 39. No. offer should be made for imported item for which import license has to be arranged by the supplier. The entire imported item will have to be delivered in the institute and

- payment will be made in rupees.
40. The payments shall be released only after satisfactory and successful commissioning and installation of the equipment/ machinery at the designated site/ institute and on submission of bill by the firm.
 41. In the event of any dispute arising out of the tender or from the resultant contract, the decision of the Principal, **Government Polytechnic, Balodabazar Disitt – Balodabazar (C.G.)** will be final.
 42. The Tender document/ resultants contract will be interpreted under Indian laws.
 43. The undersigned is not responsible for any loss or damage to the equipments during transit irrespective of the fact that they are insured or not insured or delivery is ex- go down or factory station.
 44. No claim shall be entertained in respect of interest on Earnest Money/Security deposit/ Tender Deposit.
 45. Inspection of the equipment will be carried out at the institution after receipt of the equipments. Any request for the inspection of the same at the firm's factory/ go down/ showroom etc. will not be accepted.
 46. Illustrated operation manuals, pamphlets/catalogue/literature/working instructions, trainers, software and hardware, erection/ wiring details as the case may be of the ordered equipments must be supplied in suitable damp proof cover. Without operational/ instruction manual no equipment/machinery will be accepted.
 47. If there is any variation of specification of any machine /equipment from tendered specification, it should be clearly mentioned. Specification nearest can also be considered if it is as per technical norms for the given equipment/machinery.
 48. Tenderer should mention list of spares, tools and accessories provided along with equipment without any extra cost.
 49. Only actual manufacturer or their authorized dealer/distributor may submit the tender .It is mandatory to have ISO/BIS certification for supply/manufacture of the item/equipments/ machineries. Only BIS/ISO /ISI certified item has to be quoted.
 50. The bidder shall submit a signed and stamped (on each page) copy of tender document as testimony of acceptance of T&C of tender document.
 51. No octroi/excise duty shall be paid by the institution.
 52. All prices quoted and other information in this regard having a bearing on the price shall be written both in figures and words in the prescribed offer form. If there is a discrepancy between words and figures, the amount mentioned in words will prevail. All prices should be in Indian National Rupees (INR).
 53. Tenderer shall be entirely responsible to pay all Government. (Central and State) GST Taxes & DUTIES, custom duties and levies, sales tax, payable on components, raw materials any other items used for their consumption or dispatched directly to respective location of **Government Polytechnic, Balodabazar Disitt–Balodabazar-Bhatapara (C.G.)**.
 54. **In case of supply order value is 2.5lacs or more in this case supplier will have to deposit 2% GST TDS of Net Value in the form of Demand Draft(DD) in favor of Principal, Government Polytechnic, Balodabazar payable at Balodabazar, Disitt – Balodabazar-Bhatapara (C.G.)**.
 55. **Delivery and Documents**
The suppliers shall notify the purchaser & delivery the following documents to be Purchaser-
 - 1) Three Original copy of the suppliers Invoice, showing Purchaser, The Purchaser order number, Goods Description, quantity, unit price and total amount. Invoice must be signed in original and stamped or sealed with the company stamp/seal.
 - 2) One original of the manufacturers warranty certificate (if any) covering each item supplied.
 - 3) Invoice should be raised in the name as "PRINCIPAL, GOVERNMENT POLYTECHNIC BALODABAZAR (CG)
 56. **OTHER IMPORTANT CONDITIONS**
 1. The purchaser shall have all rights to modify, addition, subtraction of any term(s) and condition(s) of the tender and different bids therein during any time of tender process, which

- shall be communicated to the tenderer.
2. Any condition imposed by the firm/ Manufactures/company/Supplier will not be accepted.
 3. No change in the Quoted price shall be allowed to any reason.
 4. In case the item installed by the supplier/tenderer not meets the specifications of quoted equipment/item, the purchaser shall have all rights to cancel the item's purchase order, and the supplier/tenderer shall be responsible to take back the installed item at his/her own cost after getting the order of purchaser.
 5. In all the above conditions the decision of the Government Polytechnic Balodabazar(CG) Purchase Committee or any officer authorized by the committee shall be final and binding.
 6. Principal, Government Polytechnic Balodabazar(CG) will be the final authority for any changes in tender terms.
57. All provisions of Chhattisgarh Store Purchase Rules 2002, with all amendments upto the date of publication of this tender, shall be applicable.

Principal,
Government Polytechnic Balodabazar
Disitt – Balodabazar-Bhatapara (C.G.)

ANNEXURE - I

Format for Technical Bid to be put in envelope A only

(Please provide hard copy as well as soft copy (CD) in MS. Words/M.S. Excel Format in the envelope)

S. No.	Name of Items along with Make and model	Specifications given in the Tender	Technical Specification the bidder wants to supply as per catalogue/ brochure	Deviation (If any)	Brochure/ literature/ catalogue attached Yes/No	Remark
1	2	3	4	5	6	7

Signature:
(Name & stamp of the Firm/Tenderer)

ANNEXURE - II

The Price offer should be submitted in the following format Envelope-B only

(Please provide hard copy as well as soft copy (CD) in MS. Words/M.S. Excel Format in the envelope)

Sl. No.	Name of Items along with Make/ Model	Specifications	Price of the Equipment excluding (GST) In Rs.	(GST) %	GST In Rs.	Cost of the Equipment Inclusive of all taxes & charges (8=5+7)	Remark
1	2	3	4	5	6	7	8

Signature:
(Name & stamp of the Firm/tenderer)

ANNEXURE - III

DECLARATION FOR NOT BLACK LISTED

Date.....

To,
The Principal,
Government Polytechnic Balodabazar,
Disitt – Balodabazar-Bhatapara,(C.G.).

Dear Sir,

Ref.:- Tender No.

I/We hereby confirm that our firm has not been banned or blacklisted by any Government organization/Financial Institution/Court/Public sector Unit/ Central Government.

Place

Signature of Bidder

Date

Name

Designation

Seal

ANNEXURE-IV

(On Non Judicial Stamp Paper of Rs. 50/-)

निविदाकर्ता Bid के साथ दिए जाने वाला शपथ-पत्र

निविदाकर्ता फर्म मेसर्स की ओर से मुझे/हमें अधिकृत किया गया है और मैं/हम निम्नलिखित कथन शपथपूर्वक कहता हूँ/कहते हैं कि :-

1. मैंने/हमने निविदा की सारी शर्तें ध्यानपूर्वक पढ़ी हैं और उनसे सहमत हैं तथा उन्हें मानने के लिए वचनबद्ध है।
2. मेरे/हमारे द्वारा संलग्न किए गए सभी दस्तावेज सही हैं और उनमें किसी प्रकार की कांट-छांट नहीं किया गया है एवं गलत जानकारी नहीं दी गई है।
3. मेरे/हमारे द्वारा कामर्शियल बिड में सामग्रीयों के लिए जो स्पेशिफिकेशन दिया गया है। और उनके सपोर्ट में जो भी संबंधित दस्तावेज, कैटलॉग/ब्रोशर्स आदि संलग्न किए गए हैं उनमें लिखा विवरण निर्माता द्वारा जारी किया गया है एवं मूल रूप में है, और उनमें कोई फेरबदल या कांट-छांट नहीं किया गया है।
4. मेरे/हमारे द्वारा निर्माता से मुझे/हमें जारी अथॉराइजेशन प्रमाण-पत्र जो कि बिड के साथ संलग्न किया गए हैं। वे सही एवं मूल रूप में हैं और उनमें कोई फेरबदल नहीं किया गया है।
5. मैं/हम दिए गए क्रयादेशानुसार सामग्रीयों को निर्धारित समय सीमा में स्पेशिफिकेशन के अनुसार सप्लाई करने के लिए बाध्य है। देर होने या सामग्रीयों के स्पेशिफिकेशन में अन्तर होने पर मुझे/हमें दिए गए क्रयादेश को निरस्त किया जा सकता है, एवं शासन को होने वाले नुकसान की भरपाई मेरे/हमारे द्वारा की जावेगी।
6. टेण्डर के तहत प्राप्त क्रयादेश द्वारा प्रदाय की जाने वाली सामग्रीयों में लगने वाले सभी शासकीय (केन्द्र व राज्य) GST Taxes & DUTIES, custom duties and levies, sales tax इत्यादि का भुगतान करने की सम्पूर्ण जिम्मेदारी मेरी/हमारी होगी कृपया कर सहित राशि का भुगतान करें इस आशय से मेरे द्वारा निवेदन पत्र करुंगा।
7. मेरे/हमारे द्वारा दी गई जानकारी असत्य पाए जाने पर मुझे/हमें एवं हमारी फर्म को निविदा में भाग लेने से वंचित किया जा सकता है।
8. उपरोक्त बिन्दुओं की जानकारी गलत पाये जाने अथवा टेण्डर के नियमों का पालन नहीं करने पर हमारी फर्म को **BLACK LIST** किया जा सकता है। जिसकी सम्पूर्ण जिम्मेदारी मेरी/हमारी होगी।

दिनांक

हस्ताक्षर
 नाम
 धारित पद
 फर्म का नाम
 (सील सहित)

ANNEXURE-V

Vendor Information	
GST NO.	
TIN No.	
PAN NO.	
Vendor Name	
Address	
Mobile No.	
State	
District	
Bank Name	
Branch Name	
Bank A/c No.	
Bank IFSC Code	
Vendor Code	
Valid Email ID.	

I hereby certify that the above particulars are correct to the best of my knowledge and I will responsible for the consequences that may arise due to wrong information if any in the above.

Vendor Signature

List and Specification of Equipments for Civil Engineering

Lab Name- SURVEYING LAB

Name of the Equipments to be Procured	Specification
1. TAPE	30m invar length,nickel steel alloy
	20m steel tape,10mm width,with brass ring
2.CHAIN	REVENUE CHAIN (33FT.), steel
	GUNTER'S CHAIN(66FT.), steel
	ENGINEER'S CHAIN(100FT.),steel
	METRIC CHAIN (20M),steel
	METRIC CHAIN (30M),steel
3.RANGING RODS	3m length,with alternate painted bands and pointed ends
4.ARROWS	
5.COMPASS	SURVEYER'S COMPASS
	PRISMATIC COMPASS
6.PRISM SQUARE	complete set
7.OPTICAL SQUARE	complete set
8.CROSS STAFF	complete set
9.STAFF	5m Length
10. PLANE TABLE	1000mm X 700MM with complete set and all accessories(plumbing fork, alidade, spirit level, clinometer, trough compass
11. TRI POD	with all accessories
12. TRANSIT THEODOLITE	with all accessories
13. ABNEY LEVEL	with all accessories
14.CLINOMETER	with all accessories
15. BOX SEXTANT	with all accessories
16. HAND LEVEL	with all accessories
17. PLANIMETER DIGITAL	with all accessories
18. PENTAGRAPH	with all accessories
19.TOTAL STATION	with all accessories
20. PLUMB BOB	

21.DUMPY LEVEL	with all accessories
22.SPIRIT LEVEL	

Lab- MATERIAL TECHNOLOGY LAB

Name of the Equipments to be Procured	Specification
1.VICAT'S APPARATUS	with 10 mm dia plunger, final set needle, 40 x 80 mm circular cement mould.
2. BRIQUETTE APPARATUS	Tensile testing machine 01 Nos, 12 Briquette's moulds,
3.WEIGHING MACHINE	CAPACITY 10KG with least count 1gm
	CAPACITY 600GM with least count 0.01gm
4.SCALED BEAKER	Volume Scaling (500cc, 200cc)
5.IS SIEVES	150 micron,300 micron, 600micron, 1.18mm, 2.36mm, 4.75 mm, 10mm, 20mm, 40mm. 80mm
6. UNIVERSAL TESTING MACHINE	with all accessories, • Universal testing Machine is having Loading accuracy as high as $\pm 1\%$
7.SIEVESHAKER	automatically operating,can take up to 7 sieves of 200mm diameter
8.DENSITY BOTTLE	50ml
	100ml

LAB- CONCRETE TECHNOLOGY LAB

Name of the Equipments to be Procured	Specification
1. LE CHATELIER'S APPARATUS	30mm dia mould attached with 165 mm rod, two glass plates,
2.AUTOCLAVE APPARATUS	Inside Chamber Dimensions – 10.5cm diameter x 40.5cm height suitable for operation on 230V, 50Hz, Single Phase A.C.supply. Supplied complete with Test bar holder, special rack to hold specimens above water level in the autoclave and in a vertical position to expose them in the same manner.
3. SIEVE	90micron
4.SLUMP CONE	30cm height, 20cm bottom dia, 10cm upper dia with temping rod,steel base plate 50 cm x 50 cm.. Complete with one tamping rod,
5.COMPACTION FACTOR TEST	Complete Set with temping rod
6.CUBE MOULDS	15 CM Cubes
	7.06CM Cubes
7. FLAKINESS GAUGE	standard Lengths and Widths accurately Cut in the IS 2386 (Part-I)

8. ELONGATION GAUGE	
9. METAL CONTAINER	1000cc
	5000cc
	10000cc
10. WEIGHING MACHINE (Capacity -100Kg)	least count 10mg
	least count 5mg
11. HANDY TOOLS & G.I TRAY	G.I Tray, Trowel, Spatula etc.
12. COMPRESSION TESTING MACHINE 100 TONNE ELECTRICAL CHANNEL MODEL	Compression Testing Machine Electrically Operated channel model 3phase 440 volts capacity 1000kn
13. GAUGING TROWEL	Weight approximately 210 gm. Superior quality with hardwood handle. Blade length approx.200mm.
14. LABORATORY CONCRETE MIXER ELECTRICALLY OPERATED	Equipped with 1 H.P. electric motor, suitable for operation on 220 volts, single phase 50 cycles A.C. supply
15. STANDARD SPATULA IS : 4031	The standard spatula consists of a steel blade of specified shape. A wooden handle is fixed to the stem of the blade. The weight does not exceed 340 gms.
16. CYLINDRICAL MOULD IS : 516, IS : 10086-1982	: The moulds is split vertically into two parts. The mean internal diameter in within +/-0.2mm and height is within +/-1mm. The ends are machined to +/-0.05. The base plate and top plate are machined flat to +/-0.03mm. Cylindrical Mould – 100mm x 200 mm
17. VIBRATING TABLE IS:2514	Sizes: 75cmx75cm & 100cmx100cm. To carry out a load of 140kg. The variable pitch pulley arrangement permits the frequency to be varied step Lesley between a maximum of 3600 vibrations down to 2600 vibrations per minute Suitable for operation on 440 Volts, 3 phase, 50 cycles, A.C. Supply SIZES:- VIBRATING TABLE 1 MTR. VIBRATING TABLE 20 INCHES VIBRATING TABLE 24 INCHES

LAB- HIGHWAY MATERIALS LAB

Name of the Equipments to be Procured	Specification
1. ABRASION TEST	LOS ANGELES MACHINE with all accessories (internal dia 700 mm, length 520mm, 10 no's iron balls 48mm dia, weight of balls 340 to 445gm), The drum is rotated by an electric motor through a heavy reduction gear at a speed of 30-33 rpm. A revolution counter is fitted to the frame. A tray is supplied for collecting of the material at the end of the test. Complete with abrasive charge consisting of a set of twelve hardened steel balls, approximately 48mm dia, suitable for operation on 440 volts, 3 phase, 50 cycles, A.C. supply

2. DUCTILITY TESTING MACHINE	complete setup with all accessories The rotating shaft has 2 speeds of travel for the bracket, 5cm/min and 1 cm/min selected by a clutch. Water bath inside is aluminium, it is an insulated water bath. Water bath is provided with a drain. A heater with thermostatic control is fixed inside the water bath. Control switches for motor, stirrer, heater and indicator lamps are fixed at a convenient place on the water bath, complete with three briquette moulds and one base plate, all made of brass. Operates on 230 volts A.C.single phase. Supplied with Thermometer IP 38C, range 23°C to 27°C. Ductility mould with base plate.
3.AGGREGATE IMPACT TESTING MACHINE	The hammer of weight 13.75 ± 0.25kg, Supplied complete with metal measure 75mm dia x 50mm high and tamping rod 230mm long x 10mm dia with/without blow counter.
4. IS Sieves	12.5mm, 10mm, 2.36mm(3 sets)
5.CBR TESTING MACHINE	<ul style="list-style-type: none"> v Load Frame Electrically operated, Capacity 5000kg with high and low rates of travel of the lead screw. v One CBR Mould made from M.S Metal, 150mm internal dia x 175mm high, with perforated base plate and extension collar 50mm high. v One Penetration piston, face dia 50mm with adjustable bracket for penetration dial gauge. Circular metal space disc/Displacer Block, 148mm dia x 47.7mm high with detachable handle. v Annular metal weight, 2.5kg, 147mm dia with 53mm dia central hole. Slotted metal weight, 2.5kg. 147mm dia with 53mm dia slot. v Perforated plate made of Gun metal/Brass 148mm dia with adjustable stem and lock nut. v Tripod for dial gauge, v Cutting Collar v Rammer 2.6kg weight with drop of 310mm, v Rammer 4.89 kg with drop of 450mm, v Proving Ring Capacity 5000 kgs.with dial gauge 0.002 x 5 mm travel v One Dial Gauge with least count 0.01 x 25mm travel.
6. MARSHAL STABILITY TESTING MACHINE	<p>complete setup with all accessories , Loading unit motorised capacity 5000 kgf, with upward & downword control switch operated 230 volt AC,The load frame has fixed speed of 5.80cm per minute, operated on 230 volts AC,v One number Compaction pedal with specimen mould holder.</p> <ul style="list-style-type: none"> v 2 Nos Compaction Rammers, 4.5kg weight and free fall 45.7cm. v One number Breaking head assembly with provision to fix flowmeter. v 3 Nos Specimen Mould 10.16cm I.D. x 7.6cm high with base plate and extension collar. v One number Kit for specimen extraction, consists of one each load transfer bar, steel ball, specimen extracting plate. v Integral type Proving Ring capacity 5000 kgs. v A dial gauge 0.01 x 25mm
7.CYLINDRICAL MEASURES IS-2386	Calibrated cylindrical measures of sheet iron with handles. Consists of 3 measures one each 3 15 liters capacity and 30 liters capacity.

8.SOFTENING POINT APPARATUS	The apparatus consist of Glass beaker of heat resistant glass of internal dia 8.5 cm X 12 cm depth (approx.), Two steel balls each of 9.5mm dia. (Weighing $3.50 \pm 0.05\text{gm}$). Two tapered brass moulds, Two ball guides, ring stand. Supplied with a heating unit designed to give temp. rise at 50C per minute as required under standard. The temperature is controlled with an energy regulator. In addition, there is an electrically operated stirrer mounted on a stand with chuck and glass rod or aluminum rod and for stirring the water in the water bath. Operation on 230 Volts. single phase, 50 Cycles, AC.
8. CRUSHING TESTING MACHINE	v M.S.Cylindrical container 150mm \pm 0.5mm dia x 130mm to 140mm high with base plate 200 to 230mm/sqr. X 6mm thick. v A plunger of 148mm \pm 0.5mm dia x 100 to 115mm high. v Tamping rod, 16mm dia x 600mm long, one end rounded. v Metal measure 115 \pm 0.5mm dia x 180mm high.
9. LABORATORY CEMENT AUTOCLAVE	. Inside Chamber Dimensions – 10.5cm diameter x 40.5cm height suitable for operation on 230V, 50Hz, Single Phase A.C.supply. Supplied complete with Test bar holder, special rack to hold specimens above water level in the autoclave and in a vertical position to expose them in the same manner.
10.IMPACT TESTING MACHINE	The machine consist of a pendulam with hammer having a striker at the end.The machine has two capacity ranges 170 Jules for Izod test and 300 Jules for Charpy test .Two control leavers are fitted in this machine ,one for releasing the pendulam and other for stopping the pendulam after rapture. Minimum Scale Graduation should be 2 J

LAB - SOIL MECHANICS

Name of the Equipments to be Procured	Specification
1.CORE CUTTER	1000cc Capacity Cutter is made of steel 100mm dia. x 130mm long with steel Dolly 25 mm high and 100 mm dia., fitted with a lip to enable it to be located on top of the core cutter.
2.RAMMER	
3.PYCNOMETER	This comprises a 1Kg glass jar with brass cone, locking ring and rubber seal.
4.CASSAGRANDE'S APPARATUS	This unit consists of a brass cup held on an adjustable bracket. The cup can be adjusted for a fall of 1 cm and can be raised and dropped on a rubber base of standard hardness by cam action. Complete with one casagrande grooving tool, one ASTM Grooving tool and a high gauge block.
5. OVEN	complete setup with all accessories
6.SIEVES	2 micron, 75micron, 0.475mm, 2.00mm,4.75mm, 10.00mm, 20mm, 80mm, 300mm
7.SIEVES	2.00mm, 1.00mm, 600micron, 425micron, 212micron,1 50micron, 75micron,
8.HAMMER(IS PROCTOR TEST)	2.6KG
	4.9 KG
9. MOULD	1000cc Cylindrical mould

10. BOX SHEAR TEST APPARATUS	Along with Dial gauge, proving ring, porous stone, Loading Unit: Supplied with loading yoke with direct and lever for applying load. Normal stress capacity 8Kg/Sq.cm
11. TRIAXIAL TEST APPARATUS	complete setup with all accessories
12. VAN SHEAR	complete setup with all accessories
13. WATER BATH	
14. STOP WATCH	
15. SAND REPLACEMENT APPARATUS	
16. SIEVE SHAKER (GYRATORY MOTORISED)	Carrying up to 7 Sieves of 200mm diameter Sieves. The Shaker is driven by ¼ HP motor through a reduction gear immersed in oil
17. VOLUME MEASURING INSTRUMENTS	Measuring Cylinder Plastic 50ml to 1000 ml.
18. UNCONFINED COMPRESSION TESTER	Proving ring type, motorised, It consists of a load frame 50kN capacity with 3 rates of strain The instruments is supplied with upper and lower platens, an adaptor for the proving ring and a cone seating A strain dial gauge bracket is provided and fitted to one of the pillars

LAB-COMPUTER AIDED DRAFTING AND PROGRAMMING LAB

Name of the Equipments to be Procured	Specification
CAD SOFTWARE	VERSION 2016