



**TENDER**

**FOR**

**SUPPLY, INSTALLATION, TESTING &  
COMMISSIONING  
OF  
MATERIAL TESTING MACHINES  
AND MEASURING EQUIPMENTS**

**Tender No. - NTSC(O)/MTLAB-48(3)/2012-13**

**NSIC- Technical Services Centre**  
**The national Small Industries Corporation Limited**  
(A Government of India Enterprise)  
Okhla Industrial Estate, Phase III  
New Delhi-110020

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**NSIC-Technical Services Centre,  
Okhla Industrial Estate,  
New Delhi**

**NOTICE INVITING TENDER**

NSIC-Technical Services Centre (NTSC), Okhla, New Delhi invites sealed tender in Two bid system (Technical & Commercial bid in two separate envelopes) from reputed Prime Equipment Manufacturers/ Authorized Distributors/ Dealers for the Supply, Installation, Testing and/ or Calibration, Commissioning of all and/or any Material Testing Machines and/ or Measuring equipment's in their office at Okhla Industrial Estate, New Delhi.

The details are summarized below:-

a)	Name of the Project	Supply, Installation, Testing and/ or Calibration, Commissioning at site of Material Testing Machines and/ or Measuring equipment's with required specifications as mentioned in <b>Annexure-A</b>
b)	Technical Bid	The details for submission of Technical Bid is placed at <b>Annexure-B</b>
c)	Commercial Bid	The details for submission of Commercial Bid is placed at <b>Annexure-C</b>
d)	Cost of Tender Documents	The tender document can be collected from the office of General Manager of the centre as addressed on first page, w.e.f. <b>20<sup>th</sup> May, 2013 to 3<sup>rd</sup> June, 2013</b> (except Saturday & Sunday) between 10:30 hours to 16:30 hours against payment of Rs. 500/- (Rupees Five Hundred only) (Non refundable) by way of cash/ demand draft, in favour of ' <b>NSIC Ltd.-NTSC A/c</b> ' payable at New Delhi. Alternatively tender form can be downloaded from our website <a href="http://www.nsic.co.in">www.nsic.co.in</a> from <b>20<sup>th</sup> May, 2013 to 3<sup>rd</sup> June, 2013</b> . The tender fee of Rs. 500/- in form of demand draft in favour of ' <b>NSIC Ltd.-NTSC A/c</b> ' payable at New Delhi shall be enclosed with Technical Bid of the tender while submitting the tender by Tenderers.
e)	Earnest Money Deposit (EMD) along with Tender	The EMD as prescribed in <b>Annexure-A</b> shall be submitted in the form of Cheque/D.D. in favour of ' <b>NSIC Ltd.-NTSC A/c</b> ' payable at New Delhi along-with the Technical Bid envelope while submitting the tender. The Tenderer can participate for any one and/ or all Machines and/ or Measuring Equipment's. The

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		evaluation of tender shall be made on individual machine/ measuring equipment basis. The details of EMD payable against individual machine/ measuring equipment is placed at <b>Annexure – “A”</b> .
f)	Last date of submission of tender	The complete and duly filled in tender in a sealed bigger envelope super-scribed as “Tender for the purchase of Material Testing Machines and Measuring Equipments” with tender inquiry no. – <b>NTSC (O)/ MTLAB-43(3)/ 2012-13</b> & its due date, shall be received by <b>3<sup>rd</sup> June, 2013 up to 13:00 hours</b> (sharp) at the office of General Manager, NSIC-Technical Services Centre, Okhla Industrial Estate, New Delhi
g)	Date of opening of Technical Bid (Envelope-1)	The first envelope containing Technical Bid will be opened on <b>3<sup>rd</sup> June, 2013 at 16:00 hours</b> , at the office of General Manager, NSIC-Technical Services Centre, Okhla Industrial Estate, New Delhi.
h)	Date of opening of Commercial Bid (Envelope-2)	The date for opening second envelope containing Commercial Bid will be intimated to the qualified bidders separately.

**Note:** In case of any further details required, the same can be collected from the office of General Manager, NSIC-Technical Services Centre, Okhla Industrial Estate, New Delhi from 20<sup>th</sup> May, 2013 to 31<sup>st</sup> May 2013 (except Saturday & Sunday) between 10:30 hours to 16:30 hours.

General Manager  
NSIC- Technical Services Centre  
New Delhi

**NSIC-Technical Services Centre**  
Okhla Industrial Estate, New Delhi

**INSTRUCTIONS TO THE TENDERERS**

The Tender shall be submitted in accordance with these instructions and any tender not confirming the instructions as under is liable to be rejected. These instructions shall form the part of the tender and contract.

1. The intending Tenderer, in case of Prime Equipment manufacturers shall submit **a self declaration on their letter-head**, along with the Technical Bid, confirming that they are regular in manufacturing & supplying the similar machines, from last Five (5) years.
2. The intending Tenderer, in case of Authorized Distributor / Dealer shall possess **valid authorized Distributorship / Dealership license from Prime Equipment manufacturers**. The tenderer shall enclose the copy of the same in Technical bid while submitting the tender.
3. The Tenderer can participate for any one and/ or all Machines and/ or Measuring Equipment's. **It shall be noted that evaluation of individual machine and/ or measuring equipment shall be made instead of evaluating all the machines and/ or measuring equipment's collectively.**

For example, if your unit is interested for submitting tender for few machines/ measuring equipment's instead of total machines/ measuring equipment's as detailed at **Annexure - "A"**, you are eligible to do so. The EMD shall be deposited to the amount reflected against individual machine/ measuring equipment as detailed at **Annexure - "A"**, like, if you want to quote for some of the machines like as under,

<b>S. No.</b>	<b>Machine/ Equipment</b>	<b>Range/ Specification</b>	<b>LC/ Accuracy</b>	<b>Qty required</b>	<b>EMD of individual Machine/ Equipment (Rs.)</b>
1	Compression Testing Machine with Accessories, Tools and Spares	2000 kN as per IS:516 & IS:14858, digital (with Peak Hold Facility), motorized, manual in emergency, auto shutdown facility	Class 1 or within $\pm 1\%$ ; compliance to the IS 1828 )Part 1)	1 No	10000/-
2	Cement Auto Clave Apparatus with Accessories, Tools and	Vertically oriented as per IS:4031(Pt.-III), working pressure $21 \pm 1$ kg/cm <sup>2</sup> , Heater 2000 Watts, Rust proof SS material pressure	Compliance to the specification as of IS: 4031 (Part III)	1 No	1000/-

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	Spares	vessel, PID controller for accurate temperature.			
3	Cube Mould	70.6x70.6x70.6 mm, Material and construction shall be as per latest IS: 10080	Compliance to IS: 10080	3 Nos	1000/-
4	Buoyancy balance with Accessories, Tools and Spares	Capacity 15 kg (minimum); 220V, 50 Hz, single phase, AC supply Arrangement of balance shall be on tubular frame, a carriage connected through chain to a ratchet. Balance shall be kept on the top of the table and shall have a hook for hanging the specimen. Power and ratchet shall be provided to raise the plate form along with the plastic container filled with water.	0.5 g and better	1 No	1000/-
Total EMD					13000/-

You can submit tender by payment of Rs. 13000/- (Rupees Thirteen Thousand Only) towards EMD. The EMD shall be submitted in the first envelop super-scribed as "Technical Bid", of prescribed amount by way of Cheque/ Demand Draft drawn in favour of 'NSIC Ltd.-NTSC A/c", only for the Machine(s) and/ or Measuring Equipment(s) quoted by the Tenderer. No cash towards EMD shall be accepted. The offers without EMD will be rejected.

4. The person **signing** the tender form or any other documents forming part of the contract on behalf of the Tenderer shall be deemed to warranty that he has **authority to bind the Tenderer**. If subsequently comes to light that the person so signed had no authority to do so, the General Manager, NSIC - Technical Services Center (NTSC) may without prejudice to any other civil & criminal remedies cancel the tender and hold the Tenderer liable for all costs, charges and damages.
5. The tender must be placed in a properly sealed bigger envelope addressed to General Manager, NSIC-Technical Services Centre, Okhla Industrial Estate,

Phase III, New Delhi and the said **bigger envelope shall contain two sealed envelopes containing Technical & Commercial bids.**

6. The bigger envelope must be super-scribed "Tender for the purchase of Material Testing Machines and/ or Measuring Equipments" with tender inquiry number and its due date. The two sealed envelopes inside the bigger envelope must be super-scribed as:  
*Envelope No-1: The said envelope is for technical bid & shall be super-scribed as "Tender for the Supply, Installation, Testing and/ or Calibration, Commissioning of Material Testing Machines and/ or Measuring Equipments- Technical Bid"*  
*Envelope No-2: The said envelope is for commercial bid & shall be super scribed as "Tender for the Supply, Installation, Testing and/ or Calibration, Commissioning of Material Testing Machines and/ or Measuring Equipments - Commercial Bid".*
7. The tender should reach the office of General Manager, NSIC-Technical Services Centre, Okhla Industrial Estate, New Delhi by 3<sup>rd</sup> June, 2013 up to 13:00 hours.
8. The tenders will be opened at NTSC-Okhla on 3<sup>rd</sup> June, 2013 at 16:00 Hours. The Tenderer or their authorized representative (One person only) may be present at the time of opening of the tender.
9. Tender inquiry documents, if downloaded from website, Rs. 500/- as cost of tender shall be submitted by way of D.D. drawn in favour of 'NSIC Ltd.-NTSC A/c' along with the tender. D.D. shall be enclosed with the Technical Bid.
10. The material shall be in compliance to the specifications mentioned in Annexure- A of the tender and shall be of the latest technology, best quality and high standards. The specifications of the machine as mentioned in the Annexure- A are the minimum requirement, however higher specifications of machine may be considered subject to cost economics.
11. Any optional Equipment/ Accessories/ Tooling, besides the standard tooling's as detailed in Annexure-A, if offered, be provided with their full technical details including their use and advantage in a separate sheet with the Technical Bid. Warranty period, if applicable, should be specified for these.
12. All the columns of the tender shall be duly, properly and exhaustively filled in. Any cutting/over writing etc. in the tender must be signed by the person who is signing the tender. The rates and units shall not be overwritten. **The financial part in commercial bid shall always be both in figures and words. In case of any discrepancy, amount mentioned in words will be considered as final.**
13. A pre-dispatch inspection by 3<sup>rd</sup> party/ technical team of NTSC may be carried out at supplier's site. This pre-dispatch inspection will not absolve manufacturer's responsibility towards quality of equipment.

14. No extra payment shall be paid on account of any discrepancy in nomenclature of items. The Tenderer shall seek clarifications if any before submitting the tender.
15. While submitting the tender, if any of the prescribed conditions are not fulfilled or are incomplete in any form, the tender is liable to be rejected. If any Tenderer stipulates any condition of his own, such conditional tender is liable to be rejected.
16. General Manager, NSIC-Technical Services Centre reserves the right to reject any tender/ bid wholly or partly without assigning any reason and to restrict the list of qualified Tenderer for opening of commercial bid to any number deemed suitable by him from out of bids received
17. NSIC-Technical Services Centre (NTSC) have right to verify the particulars furnished by the bidder independently.
18. The Tenderer shall be agreed that the rates submitted shall remain valid for acceptance for a period of 60 days from the date of opening of Technical Bid of tender.
19. Tenderer shall take into account all costs including loading, cartage etc. for giving delivery of material at site i.e. NSIC-Technical Services centre, Okhla Industrial Estate, New Delhi before quoting the rates. In this regard no claim what so ever shall be entertained.
20. The material shall be inspected on receipt at site and, the machines which are required to be installed shall be calibrated at site after complete installation i.e. NSIC Technical Services Centre, Okhla Industrial Estate, New Delhi and supplier shall be responsible for any damage during the transit of goods. No extra cost will be paid for onsite calibration of machines.
21. All the communication with respect to the tender shall be addressed to:  
**General Manager,  
NSIC- Technical Services Centre,  
Okhla Industrial Estate,  
New Delhi-110020**
22. In the event of any dispute the legal matter shall be subjected to the jurisdiction of Delhi Court only.

*We confirm with our acceptance to the instructions (S.No-1 to 22 above) as given above.*

**TENDERER'S NAME & SIGNATURE WITH SEAL**



**NSIC-Technical Services Centre**

Okhla Industrial Estate, New Delhi

**COMMERCIAL AND GENERAL TERMS & CONDITIONS**

**Nature of Goods/ Equipment's:**

For Supply, Installation, Testing & Commissioning of Material Testing Machines and Measuring Equipment's with specifications mentioned in **Annexure –A**

**1. Scope of Supply:**

- a) The tenders shall be submitted as per the technical specifications enclosed in Annexure-A.
- b) Sealed tenders in the two cover system should be submitted in the prescribed form and should be addressed to the General Manager, NSIC-Technical Services Centre, Okhla Industrial Estate, Phase III, New Delhi. The envelope should be super-scribed as "*Tender for the purchase of Material Testing Machines and/ or Measuring Equipment's*" with inquiry no. and its due date. In the said envelope, the two separate sealed envelopes shall be placed in which one envelope shall have "Technical Bid and second envelope shall have "Commercial Bid". The authorized person of the Tenderer should sign the tender documents.
- c) The Tenderer are free to inspect the installation location in the premises of NSIC-Technical Services Centre, Okhla Industrial Estate, New Delhi before submitting the quotes.

**2. Submission of tender:**

- a) The tender received within the stipulated date and time will be opened at the office of General Manager, NSIC-Technical Services Centre, Okhla Industrial Estate, New Delhi, in the presence of available tenders, on the date and time mentioned in the Notice Inviting Tender.
- b) Tenders received in open covers/ letters/ fax/ telegram/ email will not be considered.
- c) The tenders received after the stipulated date and time or tender received with conditions will not be accepted. Tenders not submitted in the prescribed form will be rejected. Tenders which propose any alternations in the conditions specified will be rejected.

**3. Opening of Commercial Bid:**

The Commercial Bid/ Price Bid of only technically qualified tenderers will be opened in presence of tenderer's authorized representative on the stipulated due date. The date & time for opening of Commercial Bid shall be intimated to the selected tenderers after opening & evaluation of Technical Bid.

**4. Validity of tender:**

- a) The tender shall be valid for a period of 60 days from the date of opening of the Technical Bid of tender. If any Tenderer withdraws his tender before the said period or makes any modifications in the terms and the

conditions of the tender which are not acceptable to the NTSC, then the NTSC shall, without prejudice to any other rights or remedy, be at liberty to forfeit the EMD. The rates quoted in the tenders shall be treated as firm during this period of contract.

- b) Should the Tenderer for any reason whatever, withdraws the tender after it is accepted or become unable or fails to execute the orders within stipulated delivery period as declared in Technical Bid Annexure B para 9, NTSC shall be at liberty to cancel the order forthwith and the EMD of the tender in such a case will be forfeited by the NTSC.
- c) No representation for the enhancement of the prices of the accepted tender or alteration of the terms and conditions will be entertained till supplies are completed.

**5. Offers ready stock/ Subject to prior sale:**

- a) Offers from ready stock are preferred. In case the offers are subject to prior orders, the Tenderer shall indicate the period within which the ordered quantity will be supplied. The Tenderer shall note that in case tenderer fails to supply within the period of delivery indicated in the said tender, penalty at the rate of 1% of value of the order, per week of delay subject to maximum of 20% of the order value will be levied.
- b) The successful Tenderer shall, within a week from the date of receipt of communication of acceptance of quotes from NTSC shall intimate his acceptance of the order. The successful Tenderer shall complete supplies strictly as per the accepted delivery period.

**6. Warranty of goods supplied :**

- a) The equipments offered shall confirm to the specifications as given in tender/order and shall have the warranty, shall be specify machine wise in Commercial Bid, against defective design, defective quality material supplied, manufacturing defects etc., applicable from the date of Installation of Material Testing Machines and Measuring Equipment's. The warranty of goods would certainly be taken into consideration.

**7. Packing :**

- a) The supplier shall provide packing of the goods, as is required to prevent their damages or deterioration during the transit to their final destination to the address of delivery i.e. NSIC-Technical Services Centre (NTSC), Okhla Industrial Estate, New Delhi. The packing shall be sufficient to withstand, without limitation, rough handling during transit.
- b) The machine & equipment shall be securely boxed, crated and protected from mechanical damage, moisture etc. suitable for both storage and transit according to the nature of the material and mode of transport.

**8. Price:**

- a) The price shall be firm and shall include all applicable taxes. Any variation in the taxes duties, levies etc. till the complete delivery of machines to the address of delivery i.e. NSIC-Technical Services Centre (NTSC), Okhla Industrial Estate, New Delhi shall be to the Tenderer account.

- b) The Tenderers shall submit the copy of PAN Number, VAT/CST/TIN Number registration details along with the Technical Bid of the tender document.

## **9. Delivery:**

- a) The successful tenderer shall complete supplies strictly within the accepted delivery period. Material ordered by the NTSC shall be delivered FOR destination securely packed as may be necessary.
- b) The Machine & Equipments shall have to be delivered at and installed at NSIC-Technical Services Centre, Okhla Industrial Estate, Phase III, New Delhi and to be operationalized to the satisfaction of the Chief Manager (Material Testing Laboratory) of NTSC.
- c) Machine(s) and/ or measuring equipment(s) shall be supplied with **Calibration Certificate(s) as per ISO/ IEC 17025 requirement** with the logo of **accreditation body (NABL** in case of Indian Laboratory). Ensure that the delivered machine(s) and/or measuring equipment(s), if supplied in Semi Knock Down/ full assembled, their **Calibration** shall be carried out at site after their Installation & Commissioning.
- d) Installation & Commissioning of Material Testing Machines and/ or Measuring Equipment's shall have to be carried out free of charge at NSIC-Technical Services Centre, Okhla Industrial Estate, New Delhi. The comprehensive training which includes Operations, Maintenance, Trouble shooting & all other areas which are necessary for smooth functioning of machine, shall be provided to at least two persons at site i.e. NSIC Technical Services Centre by Tenderer.

## **10. Payment:**

- a) The 70% payment will be made by crossed account payee cheque for which the tenderer shall send Tax Invoice in duplicate (original + copy) giving the reference number of the purchase order along with copies of delivery receipt note, which will be issued by Chief Manager (Material Testing Laboratory) on the receipt of consignment.
- b) The 20% payment of total invoice value will be released to supplier after successful installation, commissioning & testing and/ or calibration of machines and/ or equipment's at our site. The tenderer shall submit the documents which shall clearly indicate that the Proper Installation, Commissioning & successful Testing and Calibration of Machine(s) & Equipment(s) are done, and the said document shall be duly acknowledged by the Chief Manager (Material Testing Laboratory).
- c) The balance 10% payment of total invoice value will be released after one month of commissioning of the machines and/ or equipments and on submission of indemnity bond for the services to be rendered during guaranty or warranty (or both) period for the supplied machine(s)/ equipment(s).

## **11. Earnest Money Deposit:**

- a) An EMD shall be paid along with the tender (in Technical Bid) either by way of Cheque/DD drawn in favour of '**NSIC Ltd.-NTSC A/c**' payable at

Delhi. Tender is liable to be rejected in case EMD at prescribed rate is not furnished along with the tender. NSIC Technical Services Centre shall not be liable for payment of any interest on EMD.

- b) Any request by the bidders to consider their EMD furnished by them to NTSC for any other contract/ tender cannot be considered as EMD for this tender.
- c) The EMD will be returned to the unsuccessful bidders soon after the orders are placed on the successful bidder. In case of successful bidder, the EMD will be returned along after one month of successful commissioning of the machines and/ or equipments.
- d) The EMD will be forfeited in following cases:
  - I. If the bidder fails to accept the order based on his offer (bid) and within the prescribed time.
  - II. If the bidder fails to supply the Material Testing Machines and Measuring Equipments with specifications in compliance to as mentioned in Annexure –A
  - III. If the bidder delays supplies beyond a reasonable time resulting in disruption of NTSC works
- e) In case tender documents downloaded from website, Tender Fee of Rs. 500/- shall be submitted by way of cash / D.D. drawn in favour of 'NSIC-Ltd.- NTSC A/c' along with the Technical Bid of the tender documents.

## **12. Service Facility:**

Tenderer shall have the facility to provide after sales service within a short notice. Corporation will consider the agency having the after sales-service office at Delhi NCR.

## **13. Claims:**

- a) If the material supplied are found to be off size and shape different than those in the accepted offer and are of specifications lower than those stipulated in the accepted offer, NTSC shall have right to totally reject the goods and/or to prefer a claim for compensation for the part of goods, which are rejected. The supplier shall reimburse to NTSC, the actual expenditure incurred, on such goods, within 15 (fifteen) days of its demand.
- b) The supplier shall be responsible for arranging the rejected goods to be removed at his cost from NTSC premises.
- c) The supplier shall also compensate for losses, if any, sustained by NTSC due to defective packing and/or wrong marking of the goods.

*We confirm with our acceptance to the Commercial & General Terms & Conditions (S.No-1 to 13) as given above.*

Signature of the Tenderer with seal

**NSIC-Technical Services Centre**  
Okhla Industrial Estate, New Delhi

**(Undertaking from Tenderer)**

To,  
The General Manager  
NSIC- Technical Services Centre,  
Okhla Industrial Estate,  
New Delhi-110020

**Sir,**

Nature of Goods/ Equipments:	For Supply, Installation, Testing & Commissioning of Material Testing Machines and Measuring Equipment's
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Dear Sir,

HAVING EXAMINED AND PERUSED THE FOLLOWING DOCUMENTS

1. Notice Inviting Tender
2. Instruction To The Tenderer
3. Commercial & General Terms & Conditions
4. Technical Specifications of item (Annexure-A) for which tender issued
5. Annexure – B (Technical Bid)
6. Annexure- C (Commercial Bid)

I/We .....do hereby submit tender in prescribed formats for Supply, Installation, Commissioning & Testing and/ or Calibration of Material Testing Machine(s) to NSIC- Technical Services Centre (NTSC), New Delhi, completed in all respects in accordance with the conditions applicable.

If this tender is accepted, I/We agree to abide by and fulfill all the terms and conditions in the tender documents

I/We hereby distinctly and expressly declare and acknowledge that before the submission of this tender, I/We have carefully followed the instructions and I/We have understood the existing system of supply in the NTSC, including the scope and nature of duties expected from the Tenderer.

I/We distinctly agree that I/We would hereafter make no claim or demand upon the NTSC based upon or arising out of any alleged misunderstanding or misconceptions or mistake on my/our part of the said stipulations, restrictions and conditions.

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Any notice required to be served on me/us shall be sufficiently served on me/us by post (registered or ordinary) or courier or left at my/our address furnished herein.

I/We fully understand the terms and conditions in the tender documents.

Dated this.....day of.....2013

Name of the Tenderer/s:

Seal:

Authorized Signatory:  
With complete address, phone/fax numbers

**ANNEXURE-A****Technical Specifications for the Supply, Installation, Testing and/ or Calibration, Commissioning of Material Testing Machines and Measuring Equipment's**

<b>S. No.</b>	<b>Machine/ Equipment</b>	<b>Range/ Specification</b>	<b>Least Count/ Accuracy</b>	<b>Qty required</b>	<b>EMD of individual machine/ equipment (Rs.)</b>
1	Compression Testing Machine with Accessories, Tools and Spares	2000 kN as per IS:516 & IS:14858, digital (with Peak Hold Facility), motorized, manual in emergency, auto shutdown facility	Class 1 or within $\pm 1\%$ compliance to the IS: 1828 (Part 1)	1 No	10000/-
2	Impact Testing Apparatus (for Aggregates) with blow counter, Accessories, Tools and Spares	As per IS:9377 & 2386 (Pt.-IV), the sturdy construction consists of a base and support columns to form a rigid frame work around the quick release trigger mechanism to ensure an effective free fall of the hammer during test. The free fall can be adjusted through $380 \pm 5$ mm. The hammer is provided with a locking arrangement.	Compliance to the specification as of IS: 2386 (Part IV)	1 No	3000/-
3	Cement Auto Clave Apparatus with Accessories, Tools and Spares	Vertically oriented as per IS:4031(Pt.-III), working pressure $21 \pm 1$ kg/cm <sup>2</sup> , Heater 2000 Watts, Rust proof SS material pressure vessel, PID controller for accurate temperature.	Compliance to the specification as of IS: 4031 (Part III)	1 No	1000/-
4	Vibration Machine with Timer, Accessories, Tools and Spares	Material, construction and size (includes Bed, Vibrator and Mould) of machines and their parts shall be as per latest IS:10080 and IS:4031	Compliance to IS: 10080	1 No	1000/-
5	Cube Mould	70.6x70.6x70.6 mm, Material and construction shall be as per latest IS: 10080	Compliance to IS: 10080	3 Nos	1000/-
6	Cube Mould	150x150x150 mm, Material and construction	Compliance to latest	27 Nos	1000/-

		shall be as per latest IS: 10086	IS:10086		
7	Accelerated Curing Tank with Water Circulation Arrangement, Accessories, Tools and Spares	Temperature range 5 to 100 <sup>o</sup> C, curing temp. for 12/24 for 150 mm/70.6 mm cubes for curing in one time.	Comply to IS: 516	1 No	1000/-
8	Batch Type Concrete Mixture – 200 litres (Tilting Type) with Accessories, Tools and Spares	Material and construction consist of Drum, Water System, Water Tank, Water Meters, Water Supply Pump, Power Loader, Hopper, Integral Weigher, integral drag Feeder, Discharge Height, Chutes, travelling Wheels, power units, Towing Bars, Lifting Arrangements, Tools and Operating Instructions and applicable Accessories shall be as per latest IS: 1791 and recommended reference Indian Standard for related parts.	Compliance to latest IS:1791	1 No	2000/-
9	Slump Cone/ Slump Apparatus with Accessories, Tools and Spares	Material, construction dimension and essential parts/ accessories, Tamping Rod shall be as per latest IS:7320 and IS:1199	Compliance to IS: 7320	1 No	1000/-
10	Buoyancy balance with Accessories, Tools and Spares	Capacity 15 kg (minimum); 220V, 50 Hz, single phase, AC supply Arrangement of balance shall be on tubular frame, a carriage connected through chain to a ratchet. Balance shall be kept on the top of the table and shall have a hook for hanging the specimen. Powel and ratchet shall be provided to raise the plate form along with the plastic container filled with water.	±0.5 g and better	1 No	1000/-



11	Extensometer (Dial Type)	Measuring Range: 0 to 3 mm, Gauge Length (Adjustable): 30 to 120 mm, suitable for specimen thickness or diameter 1 to 30 mm	Least count 0.01 mm, confirm to Class 1, as per IS: 12872 & ISO: 9513.	1 No	500/-
12	Air Permeability Apparatus (Blain type) with Accessories, Tools and Spares	As per IS: 5516, with 'U' Tube glass manometer mounted on steel stand, valve, test cell with disk and plunger of SS, rubber aspirator bulb, manometric liquid, funnel, brush and other essential accessories.	Compliance to the specification as of IS: 5516	1 No	1000/-
13	Cylindrical metal Measures with Accessories, Tools and Spares	As per IS:2386 (Part-3) and IS: 10079, Capacity: 3, 15 and 30 liters with Tamping Rod of Ø16 mm x 60 cm long having ISI certification mark IS:10086	Compliance to the specification as of latest IS:10079 and IS: 2386 (Part III)	1 set of 3 No's.	1000/-
14	Air Entrainment Meter with Accessories, Tools and Spares	Capacity 0.005 m <sup>3</sup> (5 liters) The apparatus shall consist of a measuring bowl of 0.005 cum. capacity. A flanged conical cover assembly fits over the bowl that shall be sealed with clamps keeping a rubber gasket in between. A water inlet valve with a spray tube and air bleed valve shall be fitted on the conical cover assembly. A pressure gauge shall be mounted on the top of the stand pipe. A hand pump shall be provided for application of pressure, with all essential accessories. Material and construction shall confirm to IS:9799	Compliance to the specification as of IS: 9799	1 No	500/-
15	Humidity Chamber (24"x24"x24") with	20% to 90% Double walled Inner SS, PUF Insulation, Digital Temperature & Humidity Controller, SS water reservoir	± 1%	1 No	2000/-

	Accessories, and Spares	fitted. 3 No's of Tray (Portable/Adjustable).			
16	Muffle Furnace (Chamber size: 150 x 150 x 300 mm) with Accessories, Tools and Spares	1200 °C with Digital Temperature Indicator and Controller with Digital Timer		1 No	2000/-
17	Oven (24"x24"x24") with Accessories, Tools and Spares	Ambient to 300 °C digital temperature indicator and controller with venting port with adjustable opening having digital read output unit, 2 shelf (portable/adjustable), Inside body: SS316; Outer body: SS304, Heater Quality: High Quality Chrome Heater insulated with ceramic insulation; 220 V, AC 50 Hz, single phase	±2 °C	1 No	1000/-
18	Strohlein (Carbon & Sulphur) Apparatus with Accessories, Tools and Spares	0.5% and upto 4.5% Apparatus shall consist of Digital Voltmeter, Ammeter, Automatic temperature indicating controller, Safety tripping MCB switches, Voltage regulating device, Fault detector switch for thermo-couple, furnace and control panel.	± 0.02%	1 No	2000/-
19	Hot Plate (18" x 24") with Accessories, Tools and Spares	Body shall be made of thick M.S. and S.S. Top Plate over hangs by supporting of ceramic beads which ensures air insulation between plate and base unit. Maximum surface temperature 300 degree C. Temperature Controlled by energy regulator. Element shall be of nichrome. Work on electric supply of 230 Volts A.C. Only.		1 No	1000/-
20	BNF Jet Apparatus	For Cu, Ni, plating thickness		1 No	1000/-
21	Electro Analyzer for Cu, Pb, Analyses	Table space: 15" x 15", Integral Stirrer 600 rpm, Adaptable for use with rotating anode, 220 V,		1 No	1000/-

	without mesh with Accessories, and Spares	50 Hz			
22	Rockwell Hardness Tester with Accessories, Tools and Spares	Tester shall give the measuring result digital display for HRB & HRC scale.	Accuracy: confirms to latest ISO:6508 or IS: 1586	1 No	5000/-
23	Digital Weighing Balance with Accessories, Tools and Spares	Capacity: 200 g Comply IS:9281 "Specification for Electronic Weighing Systems – Part 3 Requirements, Part-4 Code for Practice for use and installation"	0.01 mg/ Class 1	1 No	2000/-
24	Universal Load Cell with Accessories, Tools and Spares	2000 kN – S Type Load Cell shall be supplied with digital read out unit.	Class 0, compliance to the IS: 1828 (Part 1)	1 Set	5000/-
25	Weights SS	1 mg upto 200 g, Material: Non-magnetic Stainless Steel	F1 Class as per OIML R- 111	1 Set	1000/-
26	Weights Brass	500 g upto 10 kg Material: Brass (Chromium plated)	M1 Class as per OIML R- 111	1 Set	1000/-

**Note:**

- (1) All above machines should be provided with necessary / required safety features including curtains, wherever applicable.
- (2) All electrical, electronic display units should be of reputed brand.
- (3) The Tenderer can participate for any one and/ or all the Machines and/ or Measuring Equipments. It shall be noted that evaluation of individual machine and/ or measuring equipment shall be made for the received tender and not for all the machines and/ or measuring equipment's collectively.

**ANNEXURE-B**

**NSIC-Technical Services Centre**  
Okhla Industrial Estate, New Delhi

FORMAT & REQUIREMENTS FOR SUBMITTING TECHNICAL BID

1. Tender Ref. No: .....
2. Name of Tenderer: .....
3. Complete office address of Tenderer.....
4. Contact details of authorized person of tenderer who have signed the tender.
  - a. Name.....
  - b. Designation.....
  - c. Phone (office).....
  - d. Phone (Mobile).....
  - e. E mail.....
5. Opening date & time: .....
6. Due date & Time of submission: .....
7. Tender fee (if uploaded from website).....
8. PAN Number of supplier (copy to be enclosed).....
9. VAT/ CST/ TIN registration number of supplier (copy to be enclosed).....
10. Delivery period after receipt of order from NTSC:..... (number of days)
11. Documents - Details to be enclosed with the Technical bid are as under:
  - a. The Tenderer shall give **a self declaration on their letter-head**, confirming that they are regular in manufacturing & supplying the similar machines, accessories and tools from last 05 years, as mentioned in the tender no. NTSC (O)/MTLAB-48(3)/2012-13 and has capacity & capability

to execute the tender independently, in compliance to the terms & conditions contained in Tender documents.

**OR**

In case the indenting tenderer is authorized Distributor / Dealer, they shall have to possess valid authorized Distributorship / Dealership license from manufacturers for supplying the similar machines, accessories and tools from last 05 years. **The copy of the same shall be enclosed along with the technical bid of tender.**

- b. Details of buyers to whom the similar supplies completed during the last five years i.e. Supply, Installation, Testing & Commissioning of Material Testing Machines and Measuring Equipment's. The detail shall be submitted as per the format placed under:

S. No.	Year	Details of machines/ equipment supplied	Name/ Address / Telephone number of officer to whom reference, if required, may be made	Value (Rs.)

- c. Complete Address with Telephone numbers and email address of after-sales service centers and Support Centers as far as possible near to Okhla area in New Delhi shall be provided.
- d. The Tenderer shall clearly confirm that the tender shall remain valid for acceptance for 60 days from the date of opening the Technical Bid of the tender i.e. Valid for 60 days from the day i.e. 3<sup>rd</sup> June, 2013.
- e. The Tenderers shall attach the duly signed on each page of these tender documents as detailed under and place along with the above Technical Bid;
- i) Instructions to Tenderers,
  - ii) Commercial & General terms and conditions,
  - iii) Undertaking from tenderer,
  - iv) Declaration by Tenderers,
  - v) Technical detail Specifications of the Machine(s) and/ or Equipment(s)
- f. The Tenderers shall enclose the copy of Catalogue for the machine/equipment along with applicable accessories and tools; which they are intending to supply through this tender, in the format as placed under:

S. No.	Machine/ Equipment	Range/ Size/ Material Specifications	Least Count/ Accuracy	Comply to Specification and ready to supply required Quantity (write YES/ NO only)	EMD of individual machine/ equipment (Rs.)
1	Compression Testing Machine with Accessories, Tools and Spares	2000 kN as per IS:516 & IS:14858, digital (with Peak Hold Facility), motorized, manual in emergency, auto shutdown facility	Class 1 or within $\pm 1$ % compliance to the IS: 1828 (Part 1)		
2	Impact Testing Apparatus (for Aggregates) with blow counter, Accessories, Tools and Spares	As per IS:9377 & 2386 (Pt.-IV), the sturdy construction consists of a base and support columns to form a rigid frame work around the quick release trigger mechanism to ensure an effective free fall of the hammer during test. The free fall can be adjusted through $380 \pm 5$ mm. The hammer is provided with a locking arrangement.	Compliance to the specification as of IS: 2386 (Part IV)		
3	Cement Auto Clave Apparatus with Accessories, Tools and Spares	Vertically oriented as per IS:4031(Pt.-III), working pressure $21 \pm 1$ kg/cm <sup>2</sup> , Heater 2000 Watts, Rust proof SS material pressure vessel, PID controller for accurate temperature.	Compliance to the specification as of IS: 4031 (Part III)		
4	Vibration Machine with Timer, Accessories, Tools and Spares	Material, construction and size (includes Bed, Vibrator and Mould) of machines and their parts shall be as per latest IS:10080 and IS:4031	Compliance to IS: 10080		
5	Cube Mould	70.6x70.6x70.6 mm, Material and construction shall be as per latest IS: 10080	Compliance to IS: 10080		
6	Cube Mould	150x150x150 mm, Material and construction shall be as per latest IS: 10086	Compliance to latest IS:10086		

7	Accelerated Curing Tank with Water Circulation Arrangement Accessories, Tools and Spares	Temperature range 5 to 100° C, curing temp. for 12/24 for 150 mm/70.6 mm cubes for curing in one time.	Comply to IS: 516		
8	Batch Type Concrete Mixture – 200 litres (Tilting Type) with Accessories, Tools and Spares	Material and construction consist of Drum, Water System, Water Tank, Water Meters, Water Supply Pump, Power Loader, Hopper, Integral Weigher, integral drag Feeder, Discharge Height, Chutes, travelling Wheels, power units, Towing Bars, Lifting Arrangements, Tools and Operating Instructions and applicable Accessories shall be as per latest IS: 1791 and recommended reference Indian Standard for related parts.	Compliance to latest IS:1791		
9	Slump Cone/ Slump Apparatus with Accessories, Tools and Spares	Material, construction dimension and essential parts/ accessories, Tamping Rod shall be as per latest IS:7320 and IS:1199	Compliance to the specification as of IS: 7320		
10	Buoyancy balance with Accessories, Tools and Spares	Capacity 15 kg (minimum); 220V, 50 Hz, single phase, AC supply Arrangement of balance shall be on tubular frame, a carriage connected through chain to a ratchet. Balance shall be kept on the top of the table and shall have a hook for hanging the specimen. Pawl and ratchet shall be provided to raise the plate form along with the plastic container filled with water.	±0.5 g and better		
11	Extensometer (Dial Type)	Measuring Range: 0 to 3 mm, Gauge Length	LC 0.01 mm,		

		(Adjustable): 30 to 120 mm, suitable for specimen thickness or diameter 1 to 30 mm	confirm to Class 1, as per IS: 12872 & ISO: 9513.		
12	Air Permeability Apparatus (Blain type) with Accessories, Tools and Spares	As per IS: 5516, with 'U' Tube glass manometer mounted on steel stand, valve, test cell with disk and plunger of SS, rubber aspirator bulb, manometric liquid, funnel, brush and other essential accessories.	Compliance to the specification as of IS: 5516		
13	Cylindrical metal Measures with Accessories, Tools and Spares	As per IS:2386 (Part-3) and IS: 10079, Capacity: 3, 15 and 30 liters with Tamping Rod of Ø16 mm x 60 cm long having ISI certification mark IS:10086	Compliance to the specification as of latest IS:10079 and IS: 2386 (Part III)		
14	Air Entrainment Meter with Accessories, Tools and Spares	Capacity 0.005 m <sup>3</sup> (5 liters) The apparatus shall consist of a measuring bowl of 0.005 cum. capacity. A flanged conical cover assembly fits over the bowl that shall be sealed with clamps keeping a rubber gasket in between. A water inlet valve with a spray tube and air bleed valve shall be fitted on the conical cover assembly. A pressure gauge shall be mounted on the top of the stand pipe. A hand pump shall be provided for application of pressure, with all essential accessories. Material and construction shall confirm to IS:9799	Compliance to the specification as of IS: 9799		
15	Humidity Chamber (24"x24"x24") with	20% to 90% Double walled Inner SS, PUF Insulation, Digital Temperature & Humidity Controller, SS	±1%		



	Accessories, Tools and Spares	water reservoir fitted. 3 No's of Tray (Portable/Adjustable).			
16	Muffle Furnace (Chamber size: 150 x 150 x 300 mm) with Accessories, Tools and Spares	1200 °C with Digital Temperature Indicator and Controller with Digital Timer			
17	Oven (24"x24"x24") with Accessories, Tools and Spares	Ambient to 300 °C digital temperature indicator and controller with venting port with adjustable opening having digital read output unit, 2 shelf (portable/adjustable), Inside body: SS316; Outer body: SS304, Heater Quality: High Quality Chrome Heater insulated with ceramic insulation; 220 V, AC 50 Hz, single phase	±2 °C		
18	Strohlein (Carbon & Sulphur) Apparatus with Accessories, Tools and Spares	0.5% and upto 4.5% Apparatus shall consist of Digital Voltmeter, Ammeter, Automatic temperature indicating controller, Safety tripping MCB switches, Voltage regulating device, Fault detector switch for thermo-couple, furnace and control panel.	±0.02%		
19	Hot Plate (18" x 24") with Accessories, Tools and Spares	Body shall be made of thick M.S. and S.S. Top Plate over hangs by supporting of ceramic beads which ensures air insulation between plate and base unit. Maximum surface temperature 300 degree C. Temperature Controlled by energy regulator. Element shall be of nichrome. Work on electric supply of 230 Volts A.C. Only.			

20	BNF Jet Apparatus	For Cu, Ni, plating thickness			
21	Electro Analyzer for Cu, Pb, Analyses without mesh with Accessories, Tools and Spares	Table space: 15" x 15", Integral Stirrer 600 rpm, Adaptable for use with rotating anode, 220 V, 50 Hz			
22	Rockwell Hardness Tester with Accessories, Tools and Spares	Tester shall give the measuring result digital display for HRB & HRC scale.	Accuracy: confirms to latest ISO:6508 or IS: 1586		
23	Digital Weighing Balance with Accessories, Tools and Spares	Capacity: 200 g/ Comply IS:9281 "Specification for Electronic Weighing Systems - Part 3 Requirements, Part-4 Code for Practice for use and installation"	0.01 mg/ Class 1		
24	Universal Load Cell with Accessories, Tools and Spares	2000 kN - S Type Load Cell shall be supplied with digital read out unit.	Class 0, compliance to the IS: 1828 (Part 1)		
25	Weights SS	1 mg upto 200 g, Material: Non-magnetic Stainless Steel	F1 Class as per OIML R-111		
26	Weights Brass	500 g upto 10 kg Material: Brass (Chromium plated)	M1 Class as per OIML R-111		

Total EMD (Rs.) \_\_\_\_\_  
in words Rupees \_\_\_\_\_ for the machines/  
equipment agreed to supply through this tender.

EMD of Rs. \_\_\_\_\_ by DD No. \_\_\_\_\_ Dated \_\_\_\_\_  
drawn on scheduled/ nationalized bank \_\_\_\_\_ in  
favour of 'NSIC Ltd.-NTSC A/c' payable at New Delhi.

g. The Tenderers shall submit all supporting information with respect to the technical data, drawings or booklets of product. Any product brief, test certificates available may be enclosed.

h. No price of any Machine/ Equipment/ Spares/ Accessories shall be given in Technical Bid.

Signature of the Tenderer with stamp

**NSIC-Technical Services Centre**  
Okhla Industrial Estate, New Delhi

FORMAT & REQUIREMENTS FOR SUBMITTING COMMERCIAL BID

1. Tender Ref. No.: .....
2. Name of the Tenderer: .....
3. Opening date & time: .....
4. Due date & due time of submission: .....
5. The Total Cost quoted should be inclusive of basic price, statutory levies and taxes, duties, packing, forwarding, transportations & insurance etc. up to the site i.e. NSIC-Technical Services Centre, Okhla, New Delhi basis. **The NTSC will not issue 'C' and 'D' forms.**
6. Rates should only be quoted in the accounting units (A/U) mentioned in above format. Rates must be quoted clearly on free delivery basis at NSIC-Technical Services Centre, Okhla, New Delhi
7. Any exemption of duties/taxes required should be indicated. Also the special prices or discounts applicable to Government Undertaking or Educational Institute may be specified.
8. The offer with rates for the schedule of requirements of items, as elaborated in following pages, to be submitted. Adhering to the format given below is a Pre-requisite for considering your quotations.

S. No.	Description of machine/ equipment as per Annexure- A	Required Qty	Unit Price (Rs.)	Total value of all Taxes/ duties/ Octrai etc. (Rs.)	Total Unit cost inclusion of all Taxes/ Duties (Rs.)	Total cost for the required quantity (Rs. In figure)	Total cost for the required quantity (Rs. In words)	Warranty Period offered (in month from the date of Commissioning & Installation)
A	B	C	D	E	F=D+E	G=CxF	H	I
1	Compression Testing Machine with Accessories, Tools and Spares <b>Specification:</b> 2000 kN as per IS:516 & IS:14858, digital (with Peak Hold Facility), motorized, manual in emergency, auto shutdown facility <b>Least Count/ Accuracy:</b> Class 1 or within±1% compliance to the IS: 1828 (Part 1)	1 No.						
2	Impact Testing Apparatus (for Aggregates) with blow counter, Accessories, Tools and Spares <b>Specification:</b> As per IS:9377 & 2386 (Pt.-IV), the sturdy construction consists of a base and support columns to form a rigid frame work around the quick release trigger mechanism to ensure an effective free fall of the hammer during test. The free fall can be adjusted through 380±5 mm. The hammer is provided with a locking arrangement.	1 No.						

	<b>Least Count/ Accuracy:</b> Compliance to the specification as of IS: 2386 (Part IV)							
3	Cement Auto Clave Apparatus with Accessories, Tools and Spares <b>Specification:</b> Vertically oriented as per IS:4031(Pt.-III), working pressure 21±1 kg/cm <sup>2</sup> , Heater 2000 Watts, Rust proof SS material pressure vessel, PID controller for accurate temperature. <b>Accuracy:</b> Compliance to the specification as of IS: 4031 (Part III)	1 No.						
4	Vibration Machine with Timer, Accessories, Tools and Spares <b>Specification:</b> Material, construction and size (includes Bed, Vibrator and Mould) of machines and their parts shall be as per latest IS:10080 and IS:4031 <b>Accuracy:</b> Compliance to IS: 10080	1 No.						
5	Cube Mould <b>Specification:</b> 70.6x70.6x70.6 mm, Material and construction shall be as per latest IS: 10080 <b>Accuracy:</b> Compliance to IS: 10080	3 Nos						

6	<p>Cube Mould  <b>Specification:</b>  150x150x150 mm,  Material and construction shall be as per latest IS: 10086  <b>Least Count/ Accuracy:</b>  Compliance to latest IS:10086</p>	27 Nos						
7	<p>Accelerated Curing Tank with Water Circulation Arrangement, Accessories, Tools and Spares  <b>Specification:</b>  Temperature range 5 to 100° C, curing temp. for 12/24 for 150 mm/70.6 mm cubes for curing in one time.  <b>Least Count/ Accuracy:</b>  Comply to IS: 516</p>	1 No.						
8	<p>Batch Type Concrete Mixture – 200 litres (Tilting Type) with Accessories, Tools and Spares  <b>Specification:</b>  Material and construction consist of Drum, Water System, Water Tank, Water Meters, Water Supply Pump, Power Loader, Hopper, Integral Weigher, integral drag Feeder, Discharge Height, Chutes, travelling Wheels, power units, Towing Bars, Lifting Arrangements, Tools and Operating Instructions and applicable Accessories shall be as per latest IS: 1791 and recommended reference Indian Standard for related parts.</p>	1 No.						

	<b>Accuracy:</b> Compliance to latest IS:1791							
9	Slump Cone/ Slump Apparatus with Accessories, Tools and Spares <b>Specification:</b> Material, construction dimension and essential parts/ accessories, Tamping Rod shall be as per latest IS:7320 and IS:1199 <b>Least Count/ Accuracy:</b> Compliance to the specification as of IS: 7320	1 No.						
10	Buoyancy balance with Accessories, Tools and Spares <b>Specification:</b> Capacity 15 kg (minimum); 220V, 50 Hz, single phase, AC supply Arrangement of balance shall be on tubular frame, a carriage connected through chain to a ratchet. Balance shall be kept on the top of the table and shall have a hook for hanging the specimen. Powel and ratchet shall be provided to raise the plate form along with the plastic container filled with water. <b>Least Count/ Accuracy:</b> ±0.5 g and better	1 No.						
11	Extensometer (Dial Type) <b>Specification:</b> Measuring Range: 0 to 3 mm, Gauge Length (Adjustable): 30 to 120 mm, suitable for specimen thickness or diameter 1 to 30 mm	1 No.						

	<p><b>Least Count/ Accuracy:</b> Least count 0.01 mm, confirm to Class 1, as per IS: 12872 &amp; ISO: 9513.</p>							
12	<p>Air Permeability Apparatus (Blain type) with Accessories, Tools and Spares <b>Specification:</b> As per IS: 5516, with 'U' Tube glass manometer mounted on steel stand, valve, test cell with disk and plunger of SS, rubber aspirator bulb, manometric liquid, funnel, brush and other essential accessories. <b>Least Count/ Accuracy:</b> Compliance to the specification as of IS: 5516</p>	1 No.						
13	<p>Cylindrical metal Measures with Accessories, Tools and Spares <b>Specification:</b> As per IS:2386 (Part-3) and IS: 10079, Capacity: 3, 15 and 30 liters with Tamping Rod of Ø16 mm x 60 cm long having ISI certification mark IS:10086 <b>Least Count/ Accuracy:</b> Compliance to the specification as of latest IS:10079 and IS: 2386 (Part III)</p>	1 set of 3 Nos						
14	<p>Air Entrainment Meter with Accessories, Tools and Spares <b>Specification:</b> Capacity 0.005 m<sup>3</sup> (5 liters) The apparatus shall consist of a measuring bowl of 0.005 cum. capacity. A flanged conical cover assembly fits over the bowl</p>	1 No.						



	<p>that shall be sealed with clamps keeping a rubber gasket in between. A water inlet valve with a spray tube and air bleed valve shall be fitted on the conical cover assembly.</p> <p>A pressure gauge shall be mounted on the top of the stand pipe. A hand pump shall be provided for application of pressure, with all essential accessories. Material and construction shall confirm to IS:9799</p> <p><b>Least Count/ Accuracy:</b> Compliance to the specification as of IS: 9799</p>							
15	<p>Humidity Chamber (24"x24"x24") with Accessories, Tools and Spares</p> <p><b>Specification:</b> 20% to 90% Double walled Inner SS, PUF Insulation, Digital Temperature &amp; Humidity Controller, SS water reservoir fitted. 3 No's of Tray (Portable/ Adjustable).</p> <p><b>Accuracy:</b> ±1%</p>	1 No.						
16	<p>Muffle Furnace (Chamber size: 150 x 150 x 300 mm) with Accessories, Tools and Spares</p> <p><b>Specification:</b> 1200 °C with Digital Temperature Indicator and Controller with Digital Timer</p>	1 No.						
17	<p>Oven (24"x24"x24") with Accessories, Tools and Spares</p> <p><b>Specification:</b></p>	1 No.						

	Ambient to 300 °C digital temperature indicator and controller with venting port with adjustable opening having digital read output unit, 2 shelf (portable/adjustable), Inside body: SS316; Outer body: SS304, Heater Quality: High Quality Chrome Heater insulated with ceramic insulation; 220 V, AC 50 Hz, single phase <b>Accuracy:</b> ±2 °C							
18	Strohlein (Carbon & Sulphur) Apparatus with Accessories, Tools and Spares <b>Specification:</b> 0.5% and upto 4.5% Apparatus shall consist of Digital Voltmeter, Ammeter, Automatic temperature indicating controller, Safety tripping MCB switches, Voltage regulating device, Fault detector switch for thermo-couple, furnace and control panel. <b>Accuracy:</b> ±0.02%	1 No.						
19	Hot Plate (18" x 24") with Accessories, Tools and Spares <b>Specification:</b> Body shall be made of thick M.S. and S.S. Top Plate over hangs by supporting of ceramic beads which ensures air insulation between plate and base unit. Maximum surface temperature 300 degree C. Temperature Controlled by energy regulator. Element shall be of nichrome.	1 No.						

	Work on electric supply of 230 Volts A.C. Only.							
20	BNF Jet Apparatus <b>Specification:</b> For Cu, Ni, plating thickness	1 No.						
21	Electro Analyzer for Cu, Pb, Analyses without mesh with Accessories, Tools and Spares <b>Specification:</b> Table space: 15" x 15", Integral Stirrer 600 rpm, Adaptable for use with rotating anode, 220 V, 50 Hz	1 No.						
22	Rockwell Hardness Tester with Accessories, Tools and Spares <b>Specification:</b> Tester shall give the measuring result digital display for HRB & HRC scale. <b>Accuracy:</b> Accuracy: confirms to latest ISO:6508 or IS: 1586	1 No.						
23	Digital Weighing Balance with Accessories, Tools and Spares <b>Specification:</b> Capacity: 200 g Comply to IS:9281 "Specification for Electronic Weighing Systems - Part 3 Requirements, Part-4 Code for Practice for use and installation" <b>Least Count:</b> 0.01 mg/ <b>Accuracy:</b> Class 1	1 No.						

24	Universal Load Cell with Accessories, Tools and Spares <b>Specification:</b> 2000 kN – S Type Load Cell shall be supplied with digital read out unit. <b>Accuracy:</b> Class 0, compliance to the IS: 1828 (Part 1)	1 Set											
25	Weights SS <b>Specification:</b> 1 mg upto 200 g, Material: Non-magnetic Stainless Steel <b>Accuracy:</b> F1 Class as per OIML R-111	1 Set											
26	Weights Brass <b>Specification:</b> 500 g upto 10 kg Material: Brass (Chromium plated) <b>Accuracy:</b> M1 Class as per OIML R-111	1 Set											

We hereby confirm that we have clearly understood the terms & conditions as specified in the tender documents and agreed for the payment terms as specified in Para 10 of "Commercial and General Terms & Conditions" of this tender.

Further confirm that we will abide all the terms & conditions as specified in the tender and agreed for the penalty to be imposed, in case of delayed supplies from our end as specified in Para 5 of "Commercial and General Terms & Conditions" of this tender.

Signature of the Tenderer with stamp

\*\*\*\*\*END OF TENDER DOCUMENT\*\*\*\*\*