#### **TENDER BID DOCUMENT**

# THE SOUTH INDIA TEXTILE RESEARCH ASSOCIATION 13/37, Avinashi Road, Civil Aerodrome Post Coimbatore – 641014

Phone: (0422) 2574367–8–9, 6544188, 4215333, Fax: (0422) 2571896, 4215300

E-mail: purchase@sitra.org.in; Website: www.sitra.org.in



Tender in sealed cover is invited by SITRA from OEMs, Authorized Distributors, Dealers or Authorized Agents for the supply of calibration instruments for the use of the Textile Engineering & Instrumentation, SITRA.

| S. No.  | Tender No.                  | Description                                | Quantity | EMD          |  |
|---|-----------------------------|--|----------|--------------|--|
| 01  | SITRA / ENGG / INST / 001 / | (i) Multiproduct Calibrator (ii) 8.5 Digit | 1 no.    | Refer Tender |  |
|   | <b>2025</b> (Two Part)      | Digital Multimeter                         | each     | documents    |  |
| Note:- specification and details, terms & conditions as per tender document |                             |  |          |              |  |

Tender document is available on SITRA website <u>www.sitra.org.in</u>. Interested tenderers may download the tender document from the website and submit their offers along with the prescribed tender cost in the form of CROSSED DEMAND DRAFT drawn in favour of "The South India Textile Research Association (SITRA)" payable at Coimbatore as per details given in the Tender Notification.

The other option is to pay Rs.3540/- by RTGS / NEFT to the bank of SITRA as detailed under:

| Account Name                                 | Bank Name | Bank A/c No.   | Bank IFSC Code |
|--|-----------|----------------|----------------|
| The South India Textile Research Association | HDFC Bank | 50100171403281 | HDFC0001068    |

The bidder is requested to attach the Bank statement/RTGS slip in the Technical Bid, in proof of transfer of payment to SITRA's account. Tender fee is non-refundable.

#### Bidders have the option to bid for both the instruments or any one. No change in tender fee and EMD.

Hard copies of the tenders with all necessary enclosures should be addressed to: **The Director, The South India Textile Research Association (SITRA)**, 13/37, Avinashi Road, Civil Aerodrome Post, Coimbatore – 641014, Tamilnadu, India.

| Tender Fee (Non-refundable)         | Rs.3540/- (inclusive of GST 18%) per tender |
|-------------------------------------|---|
| Last date for issue of Tender forms | 30.04.2025 up to 16.00 Hrs.                 |
| Last date for submission of Tender  | 03.05.2025 up to 16.00 Hrs.                 |
| Tender opening date (Technical Bid) | 07.05.2025 at 11.00 Hrs.                    |

At any time prior to the deadline for submission of bids, SITRA may amend the Bidding Documents by issuing addendum on the website. Prospective bidders are advised to keep themselves apprised of the same by visiting SITRA's website.

Director, SITRA reserves the right to reject any or all tenders without assigning any reason thereof.

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#### **Chapter I - Notice Inviting Tender**

# THE SOUTH INDIA TEXTILE RESEARCH ASSOCIATION 13/37, Avinashi Road, Civil Aerodrome Post Coimbatore – 641014

Phone: (0422) 2574367-8-9, 6544188, 4215333, Fax: (0422) 2571896, 4215300

E-mail: purchase@sitra.org.in Website: www.sitra.org.in



Tender No. SITRA / ENGG / INST / 001 / 2025 Tender Due: 16.00 Hrs IST on 03.05.2025

Tender Opening (Technical Bid): 11:00 Hrs IST on 07.05.2025

Dear Sir,

Please submit your sealed quotation, in the Tender Form enclosed herewith along with the descriptive catalogues/pamphlets/Literature, super-scribed with our Tender No. and Due Date for the supply of the following items as per the specifications and terms & conditions mentioned in the tender document.

| S. No. | Description of the items   |     | Quantity |
|--------|--|-----|----------|
| 1      | Supply, installation, commissioning, and training for Multiproduct Calibrator      |     | 1        |
| 2      | Supply, installation, commissioning, and training for 8.5 Digit Digital Multimeter | No. | 1        |

Delivery at: SITRA, CoimbatoreMode of dispatch: ON Site

• Duty Exemption: DSIR/CDEC certificate will be provided, if required

Specific Terms: Refer tender documents

#### **INSTRUCTION TO TENDERERS:**

Please submit your offer in Two Parts: (i) Technical & Commercial Bid (ii) Price Bid

Director, SITRA

#### <u>Chapter 2 – Technical Specifications</u>

Refer: Annexure 2A – Multiproduct Calibrator (Page 32 to 35)
Refer: Annexure 2B – 8.5 Digit Digital Multimeter (Page 36 to 39)

#### Chapter 3 - General Terms & Conditions of Tender Document

#### **INSTRUCTIONS TO THE BIDDERS**

The Tender shall be submitted in accordance with the instructions, as under:

#### 1. Abbreviations

Throughout this tender document, the work/terms shall mean

"SITRA" - The South India Textile Research Association, Coimbatore

"Day" - Calendar day

"Working Day" - Monday to Friday in a week

"Tender" - tender number SITRA / ENGG / INST / 001 / 2025

"Instrument" - the instrument/equipment/software/accessories as detailed at Chapter 2

If context so requires, "singular" means "plural" and vice versa

"EMD" - Earnest Money Deposit

"SITRA" - The South India Textile Research Association (SITRA), Coimbatore

"Bid" - the document and financial details submitted by bidder

"Bidder" - the eligible and qualified Original Equipment Manufacturer (OEM)/Authorized Distributor/Authorized Dealer/Authorized Agent

"Tenderer" - the eligible and qualified Original Equipment Manufacturer/Authorized Distributor/Authorized Dealer/Authorized Agent

"Successful bidder / vendor" - the eligible and qualified Original Equipment Manufacturer/Authorized Distributor/Authorized Dealer/Authorized Agent

"Contract" - Purchase Order for supply of the instrument as mentioned in this tender

#### 2. Bid Document

The Bid Document comprises of total NINE (9) chapters including Appendices. In addition, any other documents/amendments/revisions issued by SITRA to the bidder till the due date of opening of the bids shall be deemed to be integral part of the bid document. Failure to furnish all the information as per the bid document in every respect will be at the bidder's risk.

#### 3. Cost of Bid Document

Bidders can download the Bid Document from SITRA website: **www.sitra.org.in** and submit the cost of the bid amounting Rs.3540/- (inclusive of 18% GST), as applicable along with Bid documents.

#### 4. Scope of Supply

Bidders shall quote only those products (Part of Service delivery) in the bid which are not obsolete in the market and has at least 10 years residual market life i.e. the offered product shall not be declared end-of life by the OEM before this period.

The material shall be supplied in compliance to the specifications mentioned in **Chapter 2** of the tender.

The specifications of the instrument as mentioned in the **Chapter 2** are the requirements of tender. However, higher specifications of instrument may be considered subject to their cost economics i.e. competitiveness in financial terms for the particular location.

The Bidder shall carefully check the specifications and shall satisfy himself regarding the technical requirements and completeness of the instrument/equipment.

After the supply of instrument as mentioned in the **Chapter 2**, the bidder has to execute its installation & commissioning at the designated site in the location. No extra cost shall be paid for this reason.

After the installation & commissioning of instrument, the training to the staff shall be given wherein the training about the instrument's operation, maintenance, information about Do's & Don'ts as well as trouble shooting & all other areas which are necessary for smooth functioning of instrument shall be provided to at least two persons

designated by SITRA, at site, by the bidder. No extra cost shall be paid to the successful bidder for imparting this training.

The bidder shall provide on-site comprehensive warranty at the designated location during the standard warranty period offered by them from the date of successful commissioning of the instrument. SITRA is not liable to pay any extra charges on any account during warranty period.

#### 5. Submission of Bids

Bidders are advised to submit their bids strictly based on the specifications, terms and conditions contained in the bid documents and subsequent revisions/amendments, if any.

The Bid shall be prepared and submitted by typing or printing in **English** with indelible black ink on white paper in consequently numbered pages duly signed by authorized signatory with company seal affixed <u>on each page</u>. Any part of the bid, which is specifically signed by the authorized signatory and not affixed with company seal, shall not be considered for the purpose of evaluation.

The offer shall contain no erasures or overwriting except as necessary to correct error made by bidder. Such corrections, if any, shall be initialed by the person signing the offer. Any overwriting/illegible/erasing, etc. in the documents submitted by the firms shall not be accepted and will not be considered in the evaluation.

Hard copy of the Bid Document should be submitted in Hard Bond or Spiral Binding.

It may be noted that Director, SITRA Coimbatore has full rights to cancel the supplies even after calling the offers from bidders but before the issue of supply order to execute the supply by the bidder. The reason for cancellation of supply would not be disclosed.

#### 6. Location of supply

#### **Delivery address**

The South India Textile Research Association (SITRA), 13/37, Avinashi Road, Coimbatore Aerodrome Post, Coimbatore – 641014. Tamilnadu, India

#### 7. Warranty

A successful bidder / vendor shall offer on-site comprehensive warranty for the instrument during the standard warranty period offered by them from the date of successful commissioning of instrument at the designated location & shall cover each and every part of the instrument including parts having limited life, etc. SITRA is not liable to pay any extra charges on any account during warranty period.

The successful bidder / vendor shall pay to SITRA such compensations that may arise by reasons of the warranty therein contained but not attended by the bidder.

If any part or parts fail or are proved defective within the on-site warranty period specified above, owning to defect in design, material or workmanship, the bidder shall have to replace them at the place of installation without asking for any charges.

During the warranty period, expert(s) shall be deputed at site by the bidder within 48 hours from the date of request from SITRA, to rectify and fixing the defects of instrument(s) at the location where instrument supplied. The cost of deputation of expert(s) and any other associated expenditure shall have to be borne by the bidder.

#### 8. Earnest Money Deposit

The **EMD** of **Rs.1,00,000/**- shall be submitted in the first envelope super-scribed as "Technical Bid", of prescribed amount by way of a Demand Draft drawn in favour of "SITRA, Coimbatore", only for the Instrument(s) quoted by the Bidder. EMD can also be furnished in the form of Bank Guarantee (as per the format **Appendix-8)** from any nationalized banks executed on a non-judicial stamp paper of value Rs.200/-. In case of Bank Guarantee, it shall be valid for a period of 60 days beyond the final tender validity date. No cash towards EMD shall be accepted.

The offers without EMD from the Bidders will be treated as invalid and shall be rejected.

No interest shall be paid on the EMD account submitted by the bidders.

Bidder shall forfeit his EMD, if he withdraws or amends his tender or deviates from the tender in any respect within the period of validity of the tender.

EMD shall be refunded to all the unsuccessful bidders within thirty (30) days after placement of Purchase Order to a successful bidder. EMD shall be refunded to the successful bidder only after payment of the Security Deposit/Performance Guarantee. EMD shall be refunded to all the bidders in cases where the tender is cancelled or withdrawn by SITRA, within thirty (30) days from the date of such cancellation or withdrawal.

#### 9. Five (5) years Annual Maintenance Contract beyond standard warranty

A successful bidder / vendor shall cover the instrument(s) under Annual Maintenance Contract for five (5) years after successful commissioning and expiry of standard warranty period offered by the vendor at the designated location without claiming any additional financial charges. The financial bid for instruments(s) shall be quoted accordingly. Hence, warranty coverage for the instrument shall be period of standard warranty offered plus 5 years.

#### 10. After Sales Service

A successful bidder / vendor shall ensure to render after sales services during the warranty period offerred by them and in the period of Maintenance Contract to the satisfaction of SITRA.

The successful bidder / vendor shall depute their engineer within 48 hours to attend the service call received in writing from SITRA.

#### 11. Manuals

The successful bidder / vendor should supply three (3) sets of the following manuals in hard format and one (1) soft format along with instrument:

- Technical details/catalogue/data sheet
- Installation Manual
- Operation Manual
- Maintenance Manual
- Training Manual

#### **12. OEMs**

The Original Equipment Manufacturers/Authorized Distributors/Authorized Dealers/Authorized Agents intending to bid, shall submit a self-declaration on their letter-head, along with the Technical Bid, confirming that they are regular in manufacturing & supplying similar instruments, as asked in this tender, for the last Ten (10) years.

Either the Indian Agent on behalf of the Principal/OEM or Principal/OEM itself can bid but both cannot bid simultaneously for the same item/instrument in the same tender. If an agent submits bid on behalf of the Principal/OEM, the same agent shall not submit a bid on behalf of another Principal/OEM in the same tender for the same item/instrument.

The Minimum Average Annual Turnover of Original Equipment Manufacturers/Authorized Distributors/Authorized Dealers/Authorized Agents should be at least INR 10.00 Crores. The Bidder will provide a copy of audited annual report of last three financial years (i.e. FY 2021-22, 2022-23, 2023-24) certified by CA/Statutory Auditor for ascertaining their turnover and Net Worth for the purpose of verification.

#### 13. Delivery

A successful bidder / vendor will have to deliver the instrument within ninety (90) calendar days from the date of issue of supply order. However, he has an option to submit the best delivery time, but in any case the delivery should be before 120 days after the issue of supply order.

All Tax invoices shall invariably bear the GST registration number (GSTIN), the HSN code of the particular item and the applicable GST rates. SITRA is exempted from Customs Duty for which necessary certificate will be issued, if required.

The material will be inspected on receipt at site and the successful bidder / vendor shall be responsible for any damage during the transit of instrument/equipment.

The bidder shall not arrange part shipment and/or trans-shipments without the permission of SITRA. The insurance cover including insuring the goods against the loss or damage incidental to manufacture or acquisition, transportation, storage and delivery/Installation & Commissioning shall be obtained by the bidder in his own name and not in the name of SITRA. SITRA shall as soon as possible but not later than 30 days from the date of arrival of goods at destination, notify the bidder of any loss or damage to the goods.

#### 14. Performance Bank Guarantee

On acceptance of the supply order, a successful bidder / vendor shall, at the opinion of SITRA and within the period specified by him, submit a **Performance Bank Guarantee** at **5%** of the value of the Purchase Order obtained from any Nationalized Indian Bank executed on non-judicial stamp paper of Rs.200/- and valid for a period of sixty (60) days from the date for completion of all the terms and conditions of the Purchase Order/expiry date of warranty/AMC period.

If a successful bidder / vendor is called upon by SITRA to deposit, and the Bidder fails to provide the security within the period specified, such failure shall constitute a breach of the Contract, and SITRA shall be entitled to make other arrangements for the purchase of the Instrument/contracted at the risk of the Vendor.

The Performance Security, in addition to DD mode, will also be accepted in the form of Bank Guarantee as per the format **Appendix-9**.

Failure to furnish Security Deposit / Performance Guarantee by a successful bidder within the specified period shall also result in forfeiture of EMD.

#### 15. Authorization for submission of tender

The original and all copies of the bid shall be signed / initialed by a person duly authorized to sign on behalf of the Bidder. The written confirmation of authorization (in form of letter on the bidder's letter head) to sign on behalf of the bidder confirming the signature as a person duly authorized to sign should be attached with the technical bid of the tender.

The person signing the tender form or any other documents on behalf of the Bidder shall be deemed to warrant that he has authority to bind the Bidder, if subsequently comes to light that the person so signed had no authority to do so, SITRA may without prejudice to any other civil & criminal remedies cancel the tender and hold the Bidder liable for all costs, charges and damages.

**IMPORTANT**: Offers duly complying with the above formalities should reach us on or before the due date and time prescribed in the Tender Enquiry. **Offers received after the Due Date/Time will summarily be rejected**.

#### **Chapter 4 - SPECIAL CONDITIONS IN RESPECT OF TWO-PART TENDERS**

#### PART-I: TECHNO-COMMERCIAL BID

#### **TECHNICAL DETAILS:**

The tender enquiry contains the technical requirements and specification of items. The detailed technical specifications of a bidder's offer should be covered in this part. This part should not contain Price Details. This should be sent in a sealed envelope duly containing the following details super scribing, "Technical and Commercial Bid" on top of the envelope.

#### **COMMERCIAL DETAILS:**

The commercial terms applicable for this tender such as Delivery terms, Delivery period, Payment Terms, Mode of Despatch, Validity of the Offer, Warranty, Guarantee, Performance Guarantee, Liquidated Damages (for delayed supply), Quantity tolerances etc., shall be covered. The applicable GST rates and duties or requirement of Duty Exemption Certificates also shall be indicated in this part. A copy of the price offer by <u>masking prices</u> shall be enclosed to the technical and commercial part (Part-I) to clearly understand as to whether you have provided the price as desired by the tender document.

#### PART-II: PRICE BID

The price of the item should be indicated in this part with unit rate (INR). The prices are to be mentioned both in figures as well as in words and each page is to be signed by an authorized signatory. Apart from the cost of the items, packing charges, forwarding charges, freight charges, insurance charges (if applicable), loading & unloading charges, installation and commissioning, training charges, Annual Maintenance Contract charges etc, shall be clearly mentioned. GST rate and Duties applicable shall also be mentioned.

No extra payment shall be paid on account of any discrepancy in nomenclature of items. The Bidder shall seek clarifications, if any, before submitting the tender.

No representation for the enhancement of the prices of the accepted tender or alteration of the terms and conditions will be entertained.

The "Technical and Commercial Bid" and the "Price Bid" are to be placed in separate sealed covers and <a href="they should be">they should be</a>
<a href="put into a bigger envelope super-scribed">put into a bigger envelope super-scribed</a> "Tender for the purchase of Calibration Instruments" with the Tender
<a href="https://www.number

The two sealed envelopes inside the bigger envelope must be super-scribed as:

**Envelope No.1**: "Tender for the Supply, Installation, Commissioning and Training of Calibration Instruments – **Techno-commercial Bid**".

Envelope No.2: "Tender for the Supply, Installation, Commissioning and Training of Calibration Instruments – Price Bid ".

The cover thus prepared should be sent to the following address so as to reach us on or before the due date and time specified in the tender form:

The Director
The South India Textile Research Association
13/37, Avinashi Road, Civil Aerodrome Post
Coimbatore – 641014, Tamilnadu, India

Tenders (only hard copy) may be hand delivered or sent by post.

Late and delayed tenders will not be considered. Therefore, please ensure that your tenders are posted well in time to reach us before the due date and time.

Tenders which are not prepared in line with the above terms are liable to be rejected.

Fax or mail offers shall not be considered.

The language for all the correspondence and documents related to the tender shall be in English only. Moreover, the printed literature / technical details for the instrument shall also be in English.

Last date & time of submission of Tender: 03.05.2025 at 16.00 Hrs.

#### Pre-bid meeting

A pre-bid meeting will be held at The South India Textile Research Association (SITRA) on **21.04.2025**. All the prospective bidders are advised to attend this pre-bid meeting.

#### **Opening of Techno-commercial Bid**

The Technical Bid of tender will be opened on **07.05.2025** at **11.00 Hrs.** at SITRA, Coimbatore and in case any further clarifications / discussions are required, they shall be called for before opening the Price Bid. Bidders will be invited only for price bid opening.

The offer should be valid for a **period of 180 days** from the date of opening of the tender. Terms & Commercial details submitted in the bid shall be treated as firm during the said period of **180** days.

#### **Opening of Price Bid**

The Price Bid of only technically qualified bidders will be opened on the stipulated date. The date & time for opening of Price Bid shall be intimated to the technically qualified bidders through email, after the evaluation of Technical Bids.

#### **Evaluation of Bids**

To assist in the examination, evaluation, comparison of the bids and qualification of the Bidders, SITRA may, at its discretion, ask any Bidder for a clarification of its Bid. Such request for clarification and the response thereof shall be in writing only.

If a Bidder doesn't provide clarifications by the date and time set in the request for clarification, then his bid shall be rejected.

SITRA reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to supply order, without thereby incurring any liability to Bidders. In case of annulment, all bids submitted and specifically Bid document, EMD deposits, etc., shall be promptly returned to the Bidders.

SITRA shall compare the evaluated prices of all substantially responsive bids to determine the lowest evaluated bid. The comparison shall be on the basis of landed cost at destination.

SITRA reserves the right to accept or reject any offer in whole or part without assigning any reason.

To ensure transparency, fairness in the bidding process and to further eliminate all arbitrariness in the procurement process, the evaluation of bids would be processed both for

- Techno-commercial aspects as well as
- Financial aspects

The bidder qualified appropriately under each of these aspects and also cumulatively as enumerated above will be declared as the successful bidder.

#### **Zero Deviation & Rejection Criteria**

Deviation in the terms and conditions of Tender Documents may lead to rejection of bid. A substantially responsive Bid is one which conforms to all the terms, conditions and specifications of the Tender Documents without material deviations or reservations or omissions. SITRA will accept bids based on terms & conditions of Tender Documents only. Bidders are requested to not to take any deviation.

More importantly, deviation to the following shall lead to rejection of the Bid summarily:

- Eligibility Criteria including, General, Technical and Financial Qualifying Requirements
- Firm Price
- Tender Document Fees
- Earnest Money Deposit

- Specification & Scope of Supply
- Price Schedule
- Duration/Period of Contract/Completion Schedule
- Period of Validity of Bid
- Warrantee/Guarantee/Defect Liability Period
- Arbitration/Resolution of Dispute/ Jurisdiction of Court
- Force Majeure & Applicable Laws
- Any other condition specifically mentioned in the tender document elsewhere that non-compliance of the clause leads to rejection of Bid
- A compliance matrix would be derived based on submission of information as per the Specifications Table of compliance given in **Appendix-12**

#### **Award of Contract**

The contract shall be awarded to the bidder whose techno-commercial bid complies with the regulations and whose financial bid is acceptable and based on evaluation by the Tender Purchase Committee to supply the instrument at the approved rate and on approval of the Director, SITRA.

#### **Effective Date of Contract**

The effective date of commencement of execution of the order by the selected vendor shall be the date of issue of the Purchase Order.

#### **Contract Price**

The total contract price, in full for supply, installation, commissioning and training of Calibration Instruments should be as per format in **Appendix-10/10A**. The price shall be for the total scope as defined in this document.

Income Tax/TDS shall be deducted as applicable at the existing rate.

#### **Payment Terms**

- (1) 70% payment of total bill will be made to the successful bidder / vendor for which the successful bidder / vendor shall send bills in duplicate (original + copy) after Supply, Installation, Commissioning of instrument.
- (2) The 20% payment of total bill will be released after completion of training to instrument operators at site and on submission of Indemnity Bond by the successful bidder for rendering services during warranty and maintenance period.
- (3) The remaining 10% payment will be retained and shall be released against submission of Performance Bank Guarantee by the bidder.

#### **Extension of Time**

If the completion of supply of instrument is delayed due to reason of force majeure such as acts of God, acts of public enemy, acts of Government, fires, floods, epidemics, quarantine restriction, strikes, freight embargoes, etc., the successful bidder / vendor shall give notice within 15 days to SITRA in writing of his claim for an extension of time. On receipt of such notice after verification, if necessary, SITRA may agree to extend the Contract delivery date as may be reasonable but without prejudice to other terms and conditions of Contract.

#### **Delay in Completion/Liquidated Damages**

If the successful bidder / vendor fails to deliver the instrument within the time specified in the Contract or any extension thereof, SITRA shall recover from the successful bidder / vendor as liquidated damages a sum of **one (1.0) percent** of the Contract price of the undelivered Instrument for each calendar week of delay. The total liquidated damages shall not exceed **ten (10) percent** of the Contract price of the unit or units so delayed. The instrument will be deemed to have been delivered only when all their component parts are also delivered. If certain components are not delivered in time, the instrument will be considered as delayed until such time as the missing parts are delivered.

#### Successful bidder / vendor's Default Liability

Upon written notice of default to the successful bidder / vendor, SITRA can terminate the Contract on whole or in part in circumstances detailed hereunder:

- \* If in the judgement of SITRA, the successful bidder / vendor fails to make delivery of instrument within the time specified in the Contract /agreement or within the period for which extension has been granted by SITRA.
- \* If in the judgement of SITRA the successful bidder / vendor fails to comply with any of the other provisions of the Contract.

#### **Rejection & Replacement**

If the instrument or any portion thereof is damaged or lost during transit or in the event that any of the instrument supplied by the successful bidder / vendor is found defective in material or workmanship or otherwise not in conformity with the requirements of the Contract specifications, SITRA shall give notice to the successful bidder / vendor to rectify the same. The successful bidder / vendor, on receipt of such notification, shall either rectify or replace the defective instrument free of cost to SITRA. If the successful bidder / vendor fails to do so, SITRA may at his option either —

- Replace or rectify such defective instrument and recover the extra cost so involved from the Successful bidder / vendor, or
- > Terminate the Contract for default

#### Arbitration

If at any time any question, dispute or difference whatsoever shall arise between SITRA and the successful bidder / vendor in connection with this Contract, either party may forthwith give to the other notice in writing of the existence of such question, dispute or difference and the same shall be referred to the adjudication of two arbitrators, one to be nominated by SITRA, other by the successful bidder / vendor and in the event of any difference of opinion, the arbitrators will refer the matter to the chief arbitrator. The arbitration shall be conducted in accordance with the rules and procedure for arbitration in India at Coimbatore

#### Indemnity

The successful bidder / vendor shall warrant and be deemed to have warranted that the instrument and its spares supplied against this Contract are free and clean of infringement of any patent, copyright or trade mark and shall at all times indemnify SITRA against all claims which may be made in respect of the instrument for infringement of any right protected by Patent, Registration of design or Trade Mark, and shall take all risk of accident or damage which may cause a failure of the supply from whatever cause arising and the entire responsibility for the sufficiency of all the means used by him for the fulfillment of the Contract.

**Applicable Law**: The Contract shall be interpreted, construed and governed by the laws of India subject to the exclusive jurisdiction of the Courts of Coimbatore.

#### **Chapter 5 - SPECIAL INSTRUCTIONS TO FOREIGN BIDDERS**

Foreign Bidders should submit their quotations in a sealed envelope, super-scribing the Tender No. and complete in all respects with technical specifications, including pamphlets and catalogues.

A Proforma Invoice may also be given which could contain the following information:

- The CIF/CIP value for import by Sea Freight/Air Freight up to Chennai / Coimbatore, Tamilnadu, India should be separately indicated.
- The earliest delivery period and country of origin of the instrument.
- > Banker's name, address, telephone numbers, email ID of the Vendor.
- The approximate net and gross weight and dimensions of packages/cases.
- > Recommended spares for satisfactory operation for a minimum period of one year.
- > Details of any technical service, if required for erection, assembly, commissioning and demonstration.
- > The CIF/CIP prices quoted should be inclusive of all taxes, levies, duties arising in the bidder's country.
- > The offer should be valid for a minimum period of 180 days from the due date of opening of the tender.
- Late and delayed tenders will not be considered.
- > Offers made by Indian Agents on behalf of their Principals, should be supported by the proforma invoice of their Principals.
- ➤ The details of Import License will be furnished in the Purchase Order.
- The authority of person signing the tender, if called for, shall be produced.
- Instruction/Operation Manual containing all assembly details including electrical arrangement should be sent wherever necessary in duplicate.
- > All documents/correspondence pertaining to the Contract shall be written in English language only.
- > Part shipment is not allowed unless specifically agreed to by us.
- Inspection/Test Certificate should be provided for the goods after calibration the instrument thoroughly at the successful bidder / vendor's work. If any Inspection by any 3<sup>rd</sup> party calibration agency is considered necessary, it shall be arranged by successful bidder / vendors.
- > Erection or assembly or commissioning is a part of the Contract, and it should be done immediately on notification.
- The successful bidder / vendor shall be responsible for any loss/damage sustained due to delay in fulfilling this responsibility.
- > For items having shelf life, those with maximum shelf life should be supplied if order is placed.
- Tenders offering firm prices will be preferred.

#### **Terms of Payment**

Establishment of Letter of Credit will be considered on such terms and conditions as may be agreed upon.

Letter of Credit will be operative on presentation of the under mentioned documents:

- Original Bill of Lading/Airway Bill.
- Commercially certified invoices describing the Instrument delivered, quantity, unit rate and their total value, in triplicate.
- Packing List showing individual dimensions and weight of packages.
- Declaration by the vendor that the contents in each case are not less than those entered in the invoices and the
  quality of the instrument are guaranteed as per the specifications asked for by SITRA.
- Country of Origin Certificate in duplicate.
- Test Certificate.
- Warrantee and Guarantee Certificate/s.
- Insurance Certificate

Import License Number & date and Purchase Order Number & date shall be prominently indicated in all the documents. Vendor shall bear demurrage charges, if any, incurred by the purchase due to delayed presentation of shipping documents to the bankers within a reasonable time (say within 10-12 days) from the date of bill of lading for sea consignment and within 3-4 days from the date of Air Way Bill for air consignment.

#### **Bank charges**

While SITRA shall bear the bank charges payable to their Bankers, the successful bidder/vendor shall bear the bank charges payable to their Bankers including the cheques towards advising amendment commissions.

Address of India Agents: .....

The time for and the date of delivery stipulated in the Purchase Order shall be deemed to be the essence of the Contract. Delivery must be completed within the date specified therein.

Mode of dispatch: Sea/Air shipment

Incoterms: CIF/CIP, Chennai / Coimbatore, India

Port of Entry: Sea freight to Chennai, India.

Air freight to Chennai / Coimbatore, India

#### Consignee & Billing address:

The South India Textile Research Association P.B. No.3205, 13/37, Avinashi Road Coimbatore Aerodrome Post Coimbatore – 641014 India

IEC: 3294009437 Date Of Issue: 02/09/1994

GSTIN: 33AAAAT3433H1ZT

#### **Shipping Marks:**

#### **Packing**

The vendor wherever applicable shall pack and crate the instrument and its spares for sea /air shipment as applicable in a manner suitable for export to a tropical humid climate, in accordance with internationally accepted export practices and in such a manner so as to protect it from damage and deterioration in transit by road, rail or sea for space qualified Product and the vendor shall be held responsible for all damages due to improper packing.

The successful bidder / vendor shall ensure that each box/unit of shipment is legible and properly marked for correct identification. The failure to comply with this requirement shall make the Successful bidder / vendor liable for additional expenses involved.

The successful bidder / vendor shall notify SITRA of the date of shipment from the port of embarkation as well as the expected date of arrival of such shipment at the designated port of arrival.

The successful bidder / vendor shall give complete shipment information concerning the weight, size, content of each packages, etc.

Tran-shipment of equipment shall not be permitted except with the written permission of SITRA.

Apart from the despatch documents negotiated through Bank, the following documents shall also be airmailed to SITRA within 7 days from the date of sea shipment by sea and within 3 days in case of air consignment:

- Commercial Bill of Lading/Air Way Bill (Two non-negotiable copies)
- Invoice (3 copies)
- Packing List (3 copies)

- Test Certificate (3 copies)
- Certificate of Origin
- Insurance Certificate

#### Insurance

Transit Insurance up to SITRA, Coimbatore should be covered by the vendor and the cost should be included in the CIF/CIP value.

#### **Guarantee & Replacement**

The successful bidder / vendor shall guarantee that the instrument supplied shall comply fully with the specifications laid down for material, workmanship and performance.

During standard warranty period offered by the vendor, after acceptance of the instrument, if any defects are discovered therein or any defects therein are found to have developed under proper use arising from faulty materials, design or workmanship, the successful bidder / vendor shall remedy such defects at their own cost.

If in the opinion of SITRA it becomes necessary to replace or renew any defective component, such replacements or renewals shall be made by the successful bidder / vendor free of all costs to SITRA.

To fulfill guarantee conditions outlined above, the successful bidder / vendor shall, at the option of SITRA, furnish a **Bank Guarantee** (as prescribed by SITRA – **Appendix-9**) from a Bank approved by SITRA for an amount equivalent to **5%** of the value of the Contract along with first shipment documents. On the performance and completion of the Contract in all respects, the Bank Guarantee will be returned to the successful bidder / vendor without any interest.

#### Guidelines for quoting and placing order on/through Indian Agents

The Indian Agent on behalf of the foreign principal directly could bid in a tender and in the case where their foreign principal have no bid.

Copy of the agency agreement between the foreign principal and the Indian Agent, and the precise relationship between them and their mutual interest in the business shall be mentioned.

Registration and item empanelment and compliance of Tax Laws by the Indian Agent must be established through proper documents.

#### Note:

<u>Customs Duty Exemption/Concession</u>: SITRA is exempted from payment of Customs Duty. Necessary documents to avail duty exemption/concession will be provided by SITRA. Please quote accordingly.

The successful bidder / vendor shall provide **Performance Bank Guarantee** for 5% of Order Value towards Warranty support.

#### Appendix - I

Ref. No.\_\_\_

#### **COVERING LETTER**

(The Covering Letter should be submitted on the Letter Head of the Bidding Company)

| Date:   |
|---|
| То,   |
| The Director  |
| The South India Textiles Research Association   |
| 13/37, Avinashi Road  |
| Coimbatore – 641 014  |
| Tamilnadu   |
| Sub: Bid for Supply, Installation, Commissioning and Training of Calibration Instruments at The South India Textile Research Association (SITRA), Coimbatore, Tamilnadu, India  |
| Dear Sir,   |
| We, the undersigned[insert name of the 'Bidder'] having read, examined and understood in detail the tender Document for "Supply, Installation, Commissioning and Training of Calibration Instruments at The South India Textile Research Association (SITRA), Coimbatore, Tamilnadu, India" and hereby submit our Bid comprising of Technocommercial Bid and Price Bid. We confirm that neither we nor any of our Parent Company/ Affiliate/Ultimate Parent Company has submitted Bid other than this Bid directly or indirectly in response to the aforesaid tender. |
| We give our unconditional acceptance to the tender, datedand tender documents attached thereto, issued by The South India Textile Research Association, as amended. As a token of our acceptance to the tender documents, the same have been initialed by us and enclosed to the Bid. We shall ensure that we execute such tender documents as per the provisions of the tender and provisions of such tender documents shall be binding or us.   |
| Earnest Money Deposit: We have enclosed an Earnest Money Deposit of INR   |
| We have submitted our Price Bid strictly as per this tender, without any deviations, conditions and without mentioning any assumptions or notes for the Price Bid in the said format(s).  |
| In case we are a Successful Bidder, we shall furnish a declaration at the time of commissioning of the instrument to<br>the affect that neither we have availed nor we shall avail in future any Incentive other than received from SITRA for<br>this Contract.   |

We confirm that there are no litigations or disputes against us, which materially affect our ability to fulfill our obligations with regard to execution of this contract offered by us.

**Acceptance**: We hereby unconditionally and irrevocably agree and accept that the decision made by The South India Textile Research Association in respect of any matter regarding or arising out of the tender shall be binding onus. We

hereby expressly waive any and all claims in respect of Bid process.

Familiarity with Relevant Indian Laws & Regulations: We confirm that we have studied the provisions of the relevant Indian laws and regulations as required to enable us to submit this Bid and execute the tender documents, in the event of our selection as Successful Bidder. We further undertake and agree that all such factors as mentioned in tender have been fully examined and considered while submitting the Bid.

| ^ | ~  | 1+1 | c+ | D۸ | rso | n. |
|---|----|-----|----|----|-----|----|
| u | υı | ıla | LL | ге | เรษ | ш. |

Details of the contact person are furnished as under:

Name :
Designation :
Company :
Address :
Phone No :
Email :

We are enclosing herewith the Envelope - I (Covering Letter, Tender Fee, EMD, Techno-Commercial documents etc.) and Envelope -II (Price Bid), duly signed formats, each one duly sealed separately, in one original as desired by you in the tender for your consideration.

It is confirmed that our Bid is consistent with all the requirements of submission as stated in the tender and subsequent communications from The South India Textile Research Association. The information submitted in our Bid is complete, strictly as per the requirements stipulated in the tender and is correct to the best of our knowledge and understanding.

We would be solely responsible for any errors or omissions in our Bid. We confirm that all the terms and conditions of our Bid are valid for acceptance for a period of 180 (One Hundred Eighty Days) from the date of opening of "Price Bid (Envelope-II)". We confirm that we have not taken any deviation so as to be deemed non-responsive.

Name, Designation and Signature of the Authorized Person in whose name Power of Attorney / Board Resolution / Declaration. Copy of Power of Attorney / Board Resolution / Declaration should be enclosed along with Covering Letter.

#### **INFORMATION ABOUT THE BIDDING FIRM**

Tender No.: Date:

| S. No. | Particulars   |  |  |  |
|--------|---|--|--|--|
| 1      | Name of the Bidder  |  |  |  |
| 2      | Address of Bidder with Telephone, E-mail  |  |  |  |
| 3      | Address of the Registered Office  |  |  |  |
| 4      | Address of the works  |  |  |  |
| 5      | GPS Co-ordinate of Registered Office  |  |  |  |
| 6      | GPS Co-ordinate of Factory Campus   |  |  |  |
| 7      | Name & Designation of Authorized Signatory for Correspondence                                 |  |  |  |
| 8      | Nature of Firm (Proprietorship / Partnership / Pvt.<br>Ltd / Public Ltd. Co. / Public Sector) |  |  |  |
| 9      | Permanent Account Number (PAN)  |  |  |  |
| 10     | Firm's Registration Number  |  |  |  |
| 11     | GST Registration Number   |  |  |  |
| 12     | Specify in case of OEM  |  |  |  |
| 13     | Year of starting of Manufacturing   |  |  |  |
| 14     | Number of instruments sold to the market (for the model quoted in the Bid)                    |  |  |  |
| 15     | Whether the Bidder has submitted details of customer list (for the model quoted in the Bid)   |  |  |  |
| 16     | Sales turn-over of the company:   |  |  |  |
|        | (i) FY 2021 - 22  |  |  |  |
|        | (ii) FY 2022 – 23   |  |  |  |
|        | (iii) FY 2023 - 24  |  |  |  |
| 17     | Particulars of Tender Fee   |  |  |  |
| 18     | Particulars of Earnest Money Deposit  |  |  |  |
| 19     | Place where instrument will be available for Inspection (Coimbatore region)                   |  |  |  |
| 20     | Name & address of service centre  |  |  |  |
| 21     | Other details and remarks, if any   |  |  |  |

Yours faithfully,

Name : Designation : Company seal :

(Separate sheet may be used for giving detailed information in seriatim duly signed. This form must be submitted duly signed in case separate sheet is submitted)

## **AUTHORITY LETTER FOR SIGNING BID DOCUMENT & ATTENDING BID OPENING MEETING**

| Tender No.:   | Date:   |
|---|---|
| To, The Director The South India Textile Research Association 13/37, Avinashi Road Civil Aerodrome Post Coimbatore – 641014 |   |
| Sub: Authority Letter for Attending Pre-bid N   | Meeting, Bid Opening Meeting & Signing Bid Document.  |
| -   | (Name & Designation) to attend the <b>Pre-bid Bid Document</b> (tick wherever applicable or tick both, if same person is to on behalf of our company. |
| He is also authorized to provide clarifications on the company. The specimen signature of .                                 | /confirmations, if any, and such clarifications/confirmations shall be binding is attested below:   |
| (Specimen Signature) Name : Designation :   | (Signature of Authorized Signatory)  Name :  Designation:  Company seal   |
| Yours faithfully,   |   |
| (Signature of Authorized Signatory)   |   |
| Name:<br>Designation:   |   |
| Note: To be submitted by bidders on official letter h   | nead of the company.  |
| Authorization can be for more than one personal Meeting.  | on or different person/s for Pre-Bid Meeting and Bid Opening  |

#### Appendix – 4

Tender No.:

#### **DETAILS OF ORDERS RECEIVED AND EXECUTED IN PAST YEARS**

Details of Orders Received & Executed by the Manufacturer / Vendor during the past 10 years in India:

| S.  | Name of the | Model | Order             | Delivery | Qty supplied             | Qty supplied               | Date of        |
|-----|-------------|-------|-------------------|----------|--------------------------|----------------------------|----------------|
| No. | Customer    |       | No. Date<br>& Qty | Schedule | within delivery schedule | after delivery<br>schedule | full<br>supply |
| 1   |             |       |                   |          |                          |                            |                |
| 2   |             |       |                   |          |                          |                            |                |
| 3   |             |       |                   |          |                          |                            |                |
| 4   |             |       |                   |          |                          |                            |                |
| 5   |             |       |                   |          |                          |                            |                |
| 6   |             |       |                   |          |                          |                            |                |
| 7   |             |       |                   |          |                          |                            |                |
| 8   |             |       |                   |          |                          |                            |                |
| 9   |             |       |                   |          |                          |                            |                |
| 10  |             |       |                   |          |                          |                            |                |

Add more rows if required

Yours faithfully,

(Signature of Authorized Signatory)

Date:

Name

Designation : Company Seal :

#### Note:

Attach photocopies of purchase orders

Attach photocopies of Certificate of Satisfactory Performance issued by concerned Organizations

Separate sheet may be used for giving detailed information in seriatim duly signed. This form must be submitted duly signed in case separate sheet is submitted

## <u> Appendix - 5</u>

## NO DEVIATION CERTIFICATE

(To be submitted on the Letter Head of the Bidding Company)

| Ref. No.   | Date:           |
|--|-----------------|
| To The Director The South India Textiles Research Association 13/37, Avinashi Road Coimbatore – 641 014 Tamilnadu  |                 |
| Sub: Bid for Supply, Installation, Commissioning and Training of Calibration Instruments at SITI Tamilnadu   | RA, Coimbatore, |
| Dear Sir,  |                 |
| We understand that any `deviation/exception' in any form may result in rejection of bid. We, that we have not taken any 'exception/deviation' anywhere in the bid and we agree 'deviation/exception' is mentioned or noticed, our bid may be rejected. | •               |
|  |                 |
| (Signature of Authorized Signatory of Bidder)  |                 |
| Name : Designation : Company seal  |                 |
| Company Scal   |                 |
| Place:<br>Date:  |                 |
|  |                 |
|  |                 |

#### DECLARATION REGARDING BANNING, LIQUIDATION, COURT RECEIVERSHIP, ETC.

(To be submitted on the Letter Head of the Bidding Company)

To
The Director
The South India Textiles Research Association
13/37, Avinashi Road
Coimbatore – 641 014
Tamilnadu

Sub: Bid for Supply, Installation, Commissioning and Training of Calibration Instruments at SITRA, Coimbatore, Tamilnadu

Dear Sir,

Date:

We hereby confirm that we are not on Banned List by any Govt. Procurement Agencies or Public Sector Project Management Consultant due to "poor performance" or "corrupt and fraudulent practices" or any other reason or banned by Government department/Public Sector on due date of submission of bid.

Further, we confirm that neither we nor our allied agency/(ies) (as defined in the Procedure for Action in case of Corrupt/Fraudulent/Collusive/Coercive Practices are on banned list.

We also confirm that we are not under any liquidation, court receiver ship or similar proceedings or 'ruptcy bank'.

In case it comes to the notice of SITRA that we have given wrong declaration in this regard, the same shall be dealt as 'fraudulent practices' and action shall be initiated as per the Procedure for action in case of Corrupt/Fraudulent/Collusive/Coercive Practices.

Further, we also confirm that in case there is any change in status of the declaration prior to award of contract, the same will be promptly informed to SITRA by us.

(Signature of Authorized Signatory of Bidder)
Name :
Designation :
Company seal
Place:

Ref. No.

## FORMAT OF CHARTERED ACCOUNTANT CERTIFICATE FOR FINANCIAL CAPABILITY OF THE BIDDER

(To be submitted on the Letter Head of the Chartered Accountant)

Date:

| To The Director The South India Textiles Research Association 13/37, Avinashi Road Coimbatore – 641 014 Tamilnadu   |  |
|---|--|
| Sub: Bid for Supply, Installation, Commissioning and Trainin Tamilnadu  | g of Calibration Instruments at SITRA, Coimbatore, |
| Dear Sir,   |  |
| We have verified the Annual Accounts and other relevant records the following.  | s of M/s (Name of the bidder) and certify          |
| Further, we certify that the Financially Evaluated Entity (ies) had an A. ANNUAL TURNOVER OF LAST 3 YEARS:  | n Annual Turnover                                  |
| Year  | Amount (Currency)                                  |
| Year 1: 2021-22   | , , ,  |
| Year 2: 2022-23   |  |
| Year 3: 2023-24   |  |
| And  Net worth (strike out whichever is not applicable) of INRCro on unconsolidated audited annual accounts as per last FY. (FY 202  B. FINANCIAL DATA FOR LAST AUDITED FINANCIAL YEAR: |  |
| Description   | Year   |
|   | Amount (Currency)                                  |
| 1. Current Assets   |  |
| 2. Current Liabilities  |  |
| Working Capital (Current Assets- Current liabilities)   |  |
| 4. Net Worth (As mentioned under  |  |
| Annexure to BDS)  |  |
| ,   |  |

Yours faithfully

| Name:  |
|--|
| Date:  |
| Place:   |
| Signature and stamp (on each page) of Chartered Accountant / Statutory Auditors of Bidding Company |
|  |
| Name:  |
| Date:  |
| Place:   |
| Notes:   |

Audited consolidated annual accounts of the Bidder may also be used for the purpose of financial criteria provided the Bidder has at least 50% equity in each company whose accounts are merged in the audited consolidated accounts and provided further that the financial capability of such companies (of which accounts are being merged in the consolidated accounts) shall not be considered again for the purpose of evaluation of the Bid.

### BANK GUARANTEE FOR "EARNEST MONEY DEPOSIT (EMD)"

| the bank) (herein   | after called the "Guaranto                               | or") on the one part, o  | on behalf of M/                    | 's                            | (Name & Address of(Name & Address of wing terms and conditions.  |
|---|--|--|------------------------------------|-------------------------------|--|
|   | der is submitting its tende<br>ission of Earnest Money w |  |                                    | ) and this g                  | uarantee is being made for the   |
| the extent of Rs<br>from the Guaran<br>or till any exten            | during the valid<br>tor. This bank guarantee I           | dity of this bank guan<br>nerein contained shal<br>by the bank on rece | rantee and aut<br>I remain in full | thorize SITRA<br>force and ef | d keep SITRA indemnified up to<br>A to recover the same directly<br>fect till the expiry of its validity<br>DER.). The liability under the |
|   | er or its terms and condit                               |  | _                                  |                               | e affected by any reason of any hout the consent or knowledge  |
| demand whenev   |  | ng the currency per  | iod of the gu                      |                               | ereof, on receipt of first written<br>he Guarantor shall pay SITRA   |
|   | arantor hereby agrees no of SITRA in writing.            | ot to revoke this gua  | arantee bond d                     | luring its cu                 | rrency period except with the  |
| <ul><li>Our liab</li><li>This Bar</li><li>We are the writ</li></ul> |  | ntee shall not exceed<br>up to<br>ed amount or any par                 | t thereof under                    |                               | uarantee only and only against of the bank on this day of  |
| Witness:  |  |  |                                    |                               |  |
| •   |  |  |                                    |                               |  |
| •   |  |  |                                    |                               |  |
|   |  |  |                                    |                               | (Signature and seal of Bank)   |

#### PROFORMA OF BANK GUARANTEE FOR CONTRACT PERFORMANCE SECURITY

(To be stamped in accordance with Stamp Act, the Non-Judicial Stamp Paper of Rs.100/- and should be in the name of the issuing Bank)

| Bank Guarantee No.: Date:   |
|---|
| NOA/ Contract No  |
| [Name of Contract]  |
| То:   |
| The Director  |
| The South India Textile Research Association  |
| 13/37, Avinashi Road  |
| Coimbatore – 641 014  |
| Tamil Nadu  |
| Dear Sir,   |
| In consideration of the Director representing "SITRA" having agreed to exempt (hereinafter called "said successful bidder / vendors") from the demand, under the terms and conditions of contract awarded in No Dated   |
| (hereinafter called "said Agreement") of Performance security for the due fulfillment by the said successful bidder / vendor(s) of the terms and conditions contained in the said Agreement, on instrumention of Bank Guarantee for Rs(Rupees                                       |
| We* (hereinafter referred to as the Bank) at the request of successful bidder / vendor(s) do hereb undertake  |
| to pay to the Port an amount not exceeding Rs against any loss or damage caused to or suffered or would be caused to or suffered by the Port by reason of any breach by the said successful bidder / vendor(s) of any of the terms and condition contained in the said Agreement.   |
| We*   |
| We undertake to pay to the Port any money so demanded notwithstanding any dispute or disputes raised by the Successful bidder / vendor(s) in any suit or proceedings before any Court of Tribunal relating thereto our liability under this present being absolute and unequivocal. |

The payment so made by us under this bond shall be valid discharge of our liability for payment thereunder and the Successful

bidder / vendor(s) shall have no claim against us for making such payment.

| We*  |
|--|
| Successful bidder / vendor(s) renew or extend this Guarantee for such further period or periods as the Port may require.   |
| We *   |
| This Guarantee will not be discharged due to the change in the constitution of the Bank or the Successful bidder / vendor(s) We * lastly undertake not to revoke this Guarantee during its currency except with the previous consent of the Port in writing. |
| This guarantee is valid up to (period) dated the day of for **   |
| Indicate here the name of the Bank   |
| Indicate here the period or date.  |

## Format for submitting the "PRICE SCHEDULE/FINANCIAL BID" for Supply, Installation, Commissioning and Training of Multiproduct Calibrator at, The South India Textile Research Association, Coimbatore, Tamilnadu

| Tender No.:  |
|--|
| То,  |
| The Director   |
| The South India Textile Research Association (SITRA) |
| 13/37, Avinashi Road,                                |
| Coimbatore – 641014, Tamilnadu                       |

#### Price Schedule - I

| S.  | ltem   | Price in INR |
|-----|--|--------------|
| No. |  |              |
| 1.0 | Cost of Supply – Multiproduct Calibrator   |              |
| 1.1 | Packing & Forwarding charges   |              |
| 1.2 | Insurance charges  |              |
| 1.3 | Shipping / Transport / Freight charges   |              |
| 1.4 | Other charges (customs duty, customs clearance charges, local transport, etc) if any       |              |
| 1.5 | IGST/GST   |              |
|     | Supply Cost (all inclusive) (A) (1.0+1.1+1.2+1.3+1.4+1.5)                                  |              |
| 2.0 | Installation, Commissioning & Training charges (inclusive of handling, inspection charges) |              |
| 2.1 | Other charges, if any  |              |
| 2.2 | Service Tax  |              |
|     | Installation, Commissioning & Training charges (all inclusive) (B) (2.0+2.1+2.2)           |              |
|     | Total Price (P )= (A+B)  |              |
|     | Total in words (Rupeesonly)  |              |

(Overseas suppliers are permitted to quote in foreign currency)

Certified that rates quoted for Multiproduct Calibrator Instrument are as per specifications, terms & conditions mentioned in the bid document and our financial proposal shall be binding upon us subject to the modifications resulting from contract negotiations, up to expiration of the validity period of the Proposal, i.e., ...............................(Date).

(Signature of Authorized Signatory with Name, Designation, Company Seal)

#### Appendix-10A

## Format for submitting the "PRICE SCHEDULE/FINANCIAL BID" for Supply, Installation, Commissioning and Training of 8.5 Digit Digital Multimeter at, The South India Textile Research Association, Coimbatore, Tamilnadu

| Tender No.:   |
|---|
| То,   |
| The Director  |
| The South India Textile Research Association (SITRA), |
| 13/37, Avinashi Road,                                 |
| Coimbatore – 641014, Tamilnadu                        |

#### Price Schedule - I

| S.  | Item   | Price in INR |
|-----|--|--------------|
| No. |  |              |
| 1.0 | Cost of Supply – 8.5 Digit Digital Multimeter  |              |
| 1.1 | Packing & Forwarding charges   |              |
| 1.2 | Insurance  |              |
| 1.3 | Shipping / Transport / Freight charges   |              |
| 1.4 | Other charges (customs duty, customs clearance charges, local transport, etc) if any |              |
| 1.5 | IGST/GST   |              |
|     | Supply Cost (all inclusive) (A) (1.0+1.1+1.2+1.3+1.4+1.5)                            |              |
| 2.0 | Installation, Commissioning & Training charges (inclusive of handling, inspection    |              |
|     | charges)   |              |
| 2.1 | Other charges, if any  |              |
| 2.2 | Service Tax  |              |
|     | Installation, Commissioning & Training charges (all inclusive) (B) (2.0+2.1+2.2)     |              |
|     | Total Price (P )= (A+B)  |              |
|     | Total in words (Rupeesonly)  |              |

(Overseas suppliers are permitted to quote in foreign currency)

(Signature of Authorized Signatory with Name, Designation, Company Seal)

#### **Check list for submission of Bid**

| S. No. | Document   | Envelo                 | ре        |
|--------|--|------------------------|-----------|
| 1      | Appendix – 2: Information about the Bidding Form   |                        | Cover `A' |
| 2      | Appendix – 3: Authority Letter for Signing Bid Document & Attending Bid Opening Meeting        |                        | Cover `A' |
| 3      | Appendix – 4: Details of Orders Received and Executed in Past Years                            |                        | Cover `A' |
| 4      | Appendix – 5: No Deviation Certificate   |                        | Cover `A' |
| 5      | Appendix – 6: Declaration regarding Banning and Liquidation, Court Receivership, etc           |                        | Cover `A' |
| 6      | Appendix – 7: Format for Charted Accountant Certificate for Financial capability of the Bidder | Techno -<br>commercial | Cover `A' |
| 7      | Registration certificate of the Firm   |                        | Cover `A' |
| 8      | ITR Filing details for the FY 2021-22, FY 2022-23, FY 2023-24                                  |                        | Cover `A' |
| 9      | Brochure/Catalogue/Technical Sheets of Instrument (model as per tender)                        |                        | Cover `A' |
| 10     | Letter of authorized distributor/dealer/agent/service provider                                 |                        | Cover `A' |
| 11     | GST certificate  |                        | Cover `A' |
| 12     | Appendix – 12A & 12B: Specifications compliance list   |                        | Cover `A' |
| 13     | Warranty card  |                        | Cover `A' |
| 14     | Appendix – 10/10A: Format for submitting the Price Schedule                                    | Financial              | Cover `B' |
| 15     | Tender Document  |                        | Cover `C' |
| 16     | Tender Fee   |                        | Cover `C' |
| 17     | Appendix – 8: Bank Guarantee for "EMD"   |                        | Cover `C' |
| 18     | Appendix – 1: Covering Letter  |                        | Cover `C' |

All the above 3 covers are to be put in one master cover and the following information to be furnished on all 4 covers:

Tender Ref. No with date of submission
Instrument(s) number with name
Bidders complete postal address with contact person name and phone number

Note: If the bidder fails to furnish all the relevant documents/information as mentioned in the Tender Document, their bid will be rejected.

| ANNEXURE 2A: SPECIFICATION FOR MULTIPRODUCT CALIBRATOR |                              |                        |   |  |  |
|--|------------------------------|------------------------|---|--|--|
| SR NO  | PARAMETER                    | REQUIRED SPECIFICATION | ADDITIONAL SPEC. REMARKS                |  |  |
|  |                              |                        |   |  |  |
| 1  | DC VOLTAGE                   |                        |   |  |  |
|  | Voltage Range                | ≤ 1 mV to ≥ 1000 V     |   |  |  |
|  | Accuracy @ 1 mV              | < 20 ppm               |   |  |  |
|  | Accuracy @ 1000 V            | < 50 ppm               | One Year @ 95% Confidence Level         |  |  |
|  | Resolution @ Min Range       | < 50 nV                |   |  |  |
|  | Burden Current (Max)         | ≤ 50 mA                |   |  |  |
|  |                              |                        |   |  |  |
| 2  | DC CURRENT                   |                        |   |  |  |
|  | Current Range                | ≤ 10 µA to ≥ 30 A      |   |  |  |
|  | Accuracy @ 10 μA (Min Range) | < 200 ppm              |   |  |  |
|  | Accuracy @ 30 A Range        | < 1000 ppm             | One Year @ 95% Confidence Level         |  |  |
|  | Resolution @ Min Range       | <200 pA                |   |  |  |
|  | Maximum Compliance Voltage   | ≤10 V                  |   |  |  |
| 3  | AC VOLTAGE                   |                        |   |  |  |
| 3  |                              | 4 m)//h > 4000 l/      |   |  |  |
|  | Voltage Range                | ≤ 1 mV to ≥ 1000 V     |   |  |  |
|  | Frequency Range              | ≥ 1 Hz to ≥ 500 kHz    |   |  |  |
|  | Accuracy @ 1 mV, 1 kHz       | < 1000 ppm             | One Year @ 95% Confidence Level         |  |  |
|  | Accuracy @ 1000 V, 1 kHz     | < 500 ppm              |   |  |  |
|  | Resolution @ Min Range       | < 50 nV                |   |  |  |
|  | Burden Current (Max)         | ≤ 50 mA                |   |  |  |
| 4  | AC CURRENT                   |                        |   |  |  |
| -  | Range                        | ≤ 10 µA to ≥ 30 A      |   |  |  |
|  | Frequency                    | ≥ 1 Hz to ≥ 30 kHz     |   |  |  |
|  | Accuracy @ 10 μA, 1 kHz      | < 1000 ppm             | 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |  |  |
|  | Accuracy @ 30 A, 1 kHz       | < 5000 ppm             | One Year @ 95% Confidence Level         |  |  |
|  | Resolution @ Min Range       | ≤5 nA @ Min Range      |   |  |  |
|  | Maximum Compliance Voltage   | ≤10 V                  |   |  |  |

| 5  | RESISTANCE                     |                     |  |
|----|--------------------------------|---------------------|--|
|    | Operation                      | Continous           |  |
|    | Range                          | ≤ 1 Ω to ≥ 1 GΩ     | For 2 Wire & 4 Wire                    |
|    | Accuracy @ 1Ω (Min Range)      | < 1500 ppm          |  |
|    | Accuracy @ 100 MΩ              | < 500 ppm           |  |
|    | Accuracy @ 1 GΩ Range          | < 5000 ppm          | One Year @ 95% Confidence Level        |
|    | Resolution @ Min Range         | ≤ 100 μΩ            |  |
| 6  | CAPACITANCE                    |                     |  |
|    | Operation                      | Continuous          |  |
|    | Range                          | ≤ 1 nF to ≥ 100 mF  |  |
|    | Frequency                      | @100 Hz to 1 KHz    |  |
|    | Accuracy @ 1 n F (Min Range)   | <0.8 %              | One Year @ 95% Confidence Level        |
|    | Accuracy @ 100 mF (Max Range)  | <1%                 |  |
|    | Resolution @ Min Range         | < 1 pF              |  |
| 7  | INDUCTANCE                     |                     |  |
|    | Operation                      | Continuous          |  |
|    | Range                          | ≤ 50 µH to ≥ 100 H  |  |
|    | Accuracy @ 10 μH (Min range)   | <3 %                | One Year @ 95% Confidence Level        |
|    | Accuracy @ 100 H (Max range)   | <0.5 %              |  |
|    | Resolution @ Min Range         | < 10 nH             |  |
| 8  | FREQUENCY MEASUREMENT          |                     |  |
|    | Range                          | ≤ 10 Hz to > 1 MHz  |  |
|    | Accuracy                       | < 5 ppm             | One Year with Internal Reference clock |
|    | Resolution @ Min Range         | < 0.1 Hz            |  |
| 9  | REFERENCE CLOCK                |                     |  |
|    | Provision                      | Internal & External |  |
| 10 | PHASE                          |                     |  |
|    | Frequency                      | ≤ 5 Hz to ≥ 20 kHz  |  |
|    | Accuracy @ 10 kHz (Max. Range) | < ±10 degree        | One Year @ 95% Confidence Level        |
|    | Provision                      | Internal & External |  |

| 11 | TEMPERATURE                           |   |                                   |
|----|---------------------------------------|---|-----------------------------------|
|    | 0                                     | Thermocouple (Ext CJC)                            |                                   |
|    | Sensors                               | Platinum Resistance Thermometer (PRT)             |                                   |
|    | Thermocouple (TC) Types               | J, K, R, T, S, B, E, N, C, L, U                   | One Year @ 95% Confidence Level   |
|    | Overall Temperature Range with TCs    | -200°C to +1800°C                                 | One real @ 93% Confidence Level   |
|    | PRT Type                              | PT100   |                                   |
|    | Range                                 | -200°C to +800°C                                  |                                   |
|    |                                       |   |                                   |
| 12 | POWER                                 | AC/DC Power Single Phase                          | Active, Reactive & Apparent Power |
|    | DC Power                              | 1 mW to 30 KW                                     |                                   |
|    | AC Power                              | 1 mW to 30 KW                                     | 0                                 |
|    | Frequency                             | > 40 Hz to ≤ 1 KHz                                | One Year @ 95% Confidence Level   |
|    | Additional Options                    | Power Factor (Lead - Lag), Phase Angle, Harmonics |                                   |
|    |                                       | Level   |                                   |
| 13 | OSCILLOSCOPE OPTION                   |   |                                   |
|    | Amerikania                            | ≤1 mVpp to ≥50 Vpp @ 1 KHz                        |                                   |
|    | Amplitude                             | (Sine & Square)                                   |                                   |
|    | Time base                             | 1 ns to 10 s                                      | One Year @ 95% Confidence Level   |
|    | Bandwidth                             | @ 50 KHz Reference Level, at 10                   |                                   |
|    | Banawiatii                            | MHz to 600 MHz                                    |                                   |
| 44 | COMMUNICATION                         |   |                                   |
| 14 | COMMUNICATION                         | CDID IEEE 400                                     |                                   |
|    | REMOTE INTERFACES                     | GPIB IEEE488                                      |                                   |
|    | KEWOTE INTERVACES                     | USB<br>Ethernet                                   |                                   |
|    |                                       | Ethernet  |                                   |
| 15 | POWER SUPPLY                          | 230 V, ± 10%, 50 Hz                               |                                   |
|    |                                       | 200 4, 2 1070, 00 112                             |                                   |
| 16 | ENVIRONMENT                           |   |                                   |
|    | Operating Temperature                 | 0 to 50 Deg C                                     |                                   |
|    | Relative Humidity (Non condensing)    | < 95%   |                                   |
|    | Trefative Fluithaity (Non Condensing) | 9570  |                                   |

| 17 | GENERAL SPECS.  |   |  |
|----|---|---|--|
|    |   | AC, DC Current Coil Adaptors { (1 Turn≥30 A Max.), (2 Turn ≥ 60 A Max.), (10 Turns ≥ 300 A Max.), and 50 Turns ≥ 1500 A Max.) } and at 40 Hz to 1 kHz for AC, to be quoted for Clamp Meter Calibration.   |  |
| A  | Accessories   | All external standard accessories required to operate the equipment such as test lead set, Control software, GPIB Interface cable, Thermocouple & RTD copper test cable, PC Interface cable, carrying case should be provided with the equipment. |  |
|    |   | Other consumables also should be included with the equipment.   |  |
| В  | Compliance Standards  |   |  |
|    |   | IEC 61010-10  |  |
|    | Should comply to  |   |  |
|    |   | IEC 61326-1   |  |
| С  | Specifications Confidence Level   | 95% or better   |  |
| D  | All Accuracy Specifications   | To Comply For One Year Duration   |  |
|    | ,   | Accuracies mentioned above are after considering all contributing factors   |  |
| E  | Calibration Certificate and Detailed Report   | ISO/IEC 17025:2017 Accreditation calibration certificate with Data Traceable to NMI should be supplied along with the Multiproduct calibrator   |  |
|    |   | TUR Ratio 4:1   |  |
|    | Documentation   | Three set of technical, operation, safety and maintenance manual shall be supplied along with the equipment.  |  |
| F  |   | Periodicity Performance verification and internal adjustment procedures of the standard should be included in the Service / Operating manual supplied by the OEM.   |  |
| G  | Warranty  | 1 year (From the date, post installation commissioning of the standard)   |  |
|    | Additional Warranty   | Extended Warranty for 5 Years to be quoted separately   |  |
|    |   | Supplier should install the equipment within 2 weeks from the delivery of the standard.   |  |
|    | Installation & Training   | Training to SITRA Engineers should be provided in SITRA premises along with training certificate  |  |
| J  | After Sales Support   | Should have OEM Authorized Service and Calibration Facility in India  |  |
|    | NOTE:   |   |  |
| 1  | OEM/Authorized distributor should quote with necessary proof /Authorization specific to this tender.  |   |  |
| 2  | OEM should have Service & Calibration facility in India   |   |  |
| 3  | The OEM / Distributor should deliver, set up, demonstrate the total functionality of the standard at site (Installation & Commissioning)  |   |  |
| 4  | Equipment shall be guaranteed for trouble free performance against any defects, operation (hardware/software), and for any abnormal behavior for a period of not less than 12 months from the date of supply. Turn around Time for breakdown service is with in one week. |   |  |
|    |   | 35  |  |

## ANNEXURE 2B: SPECIFICATION FOR 8.5 DIGIT DIGITAL MULTIMETER

| SR NO | PARAMETER                               | REQUIRED SPECIFICATION | REMARKS                          |
|-------|---|------------------------|----------------------------------|
|       |   |                        |                                  |
| 1     | DC VOLTAGE                              |                        |                                  |
|       | Range                                   | ≤ 1 mV to ≥ 1000 V     |                                  |
|       | Absolute Accuracy at 10 V Range         | < 5 ppm                | One Year @ 95% Confidence Level  |
|       | Absolute Accuracy at 1000 V Range       | * 00 ppin              |                                  |
|       | Resolution                              | < 10 nV @ Min range    |                                  |
|       | 1.0.10.                                 |                        |                                  |
| 2     | AC VOLTAGE                              | 4 1// 40001/           |                                  |
|       | Range                                   | ≤ 1 mV to ≥ 1000 V     |                                  |
|       | Frequency                               | ≥ 1 Hz to ≥ 1 MHz      |                                  |
|       | Absolute Accuracy @ 1 V Range, 1 kHz    | < 80 ppm               | One Year @ 95% Confidence Level  |
|       | Absolute Accuracy @ 1000 V Range, 1 kHz | pp                     |                                  |
|       | Resolution                              | < 10 nV @ Min range    |                                  |
|       | I                                       |                        |                                  |
| 3     | DC CURRENT                              |                        |                                  |
|       | Range                                   | ≤ 10 µA to ≥ 30 A      |                                  |
|       | Absolute Accuracy @ 1 mA Range          | < 20 ppm               | One Year @ 95% Confidence Level  |
|       | Absolute Accuracy @ 30 A Range          | 7 00 ppin              |                                  |
|       | Resolution                              | < 10 pA @ Min Range    |                                  |
|       | A O OUDDENT                             |                        |                                  |
| 4     | AC CURRENT                              | 740                    |                                  |
|       | Range                                   | ≤ 10 μA to ≥ 30 A      |                                  |
|       | Frequency                               | ≥ 1 Hz to ≥ 30 KHz     |                                  |
|       | Absolute Accuracy @ 1 mA Range, 5 kHz   | < 700 ppm              | One Year @ 95% Confidence Level  |
|       | Absolute Accuracy @ 30 A Range, 5 kHz   | < 2500 ppm             | John Tear & 33% Confidence Level |
|       | Resolution                              | < 10 pA @ Min Range    |                                  |

| _ |                                    | T                                     |                                     |  |
|---|------------------------------------|---------------------------------------|-------------------------------------|--|
| 5 | FREQUENCY MEASUREMENT              | 10.11                                 |                                     |  |
|   | Input Frequency Range              | ≤ 10 Hz to > 50 MHz                   |                                     |  |
|   | Input Frequency Amplitude          | > 2 Vrms                              |                                     |  |
|   |                                    | ,                                     |                                     |  |
| 6 | REFERENCE OSCILLATOR               |                                       |                                     |  |
| Α | INTERNAL Aging of Oscillator       | < ± 5 ppm                             |                                     |  |
|   | Frequency Accuracy at 1 kHz        | < ± 5 mHz                             | Considering other deviation factors |  |
| В | EXTERNAL                           |                                       |                                     |  |
|   | Frequency                          | 1 MHz or 10 MHz                       |                                     |  |
|   | Input Frequency Amplitude          | > ± 2.5 Vp                            |                                     |  |
|   | Input Impedance                    | 50 Ω                                  |                                     |  |
|   |                                    |                                       |                                     |  |
| 7 | RESISTANCE - FOUR WIRE             |                                       |                                     |  |
|   | Range                              | $\leq 1 \Omega$ to $\geq 1 G\Omega$   |                                     |  |
|   | Modes of Operation                 | Normal, Lo current, High Voltage      |                                     |  |
|   | Absolute Accuracy @ 1 k Ω Range    | < 15 ppm                              | One Year @ 95% Confidence Level     |  |
|   | Absolute Accuracy @ 100 M Ω Range  | < 150 ppm                             | One real @ 95% Confidence Level     |  |
|   | Resolution                         | < 15 nΩ @ Min Range                   |                                     |  |
|   |                                    |                                       |                                     |  |
| 8 | CAPACITANCE                        |                                       |                                     |  |
|   | Range                              | ≤ 1 nF to ≥ 100 mF                    |                                     |  |
|   | Absolute Accuracy @ 1 μF Range     | < 550 ppm                             | One Year @ 95% Confidence Level     |  |
|   | Absolute Accuracy @ 100 mF Range   | < 850 ppm                             | Offerreal (@ 95% Confidence Level   |  |
|   | Resolution                         | < 0.05 pF @ Min Range                 |                                     |  |
|   |                                    |                                       |                                     |  |
| 9 | TEMPERATURE                        |                                       |                                     |  |
|   | Sensors                            | Thermocouple (Ext CJC)                |                                     |  |
|   | Sensors                            | Platinum Resistance Thermometer (PRT) |                                     |  |
|   | Thermocouple (TC) Types            | J, K, R, T, S, B, E, N, C, L, U       |                                     |  |
|   | Overall Temperature Range with TCs |                                       |                                     |  |
|   | PRT Type                           | PT100                                 |                                     |  |
|   | Range                              | -200°C to +800°C                      |                                     |  |

| 10  | COMMUNICATION  |  |  |
|-----|--|--|--|
|     |  | GPIB IEEE488.2   |  |
|     | Remote Interfaces  | USB  |  |
|     |  | Ethernet   |  |
|     |  |  |  |
| 11  | POWER SUPPLY   | 230 V, ± 10%, 50 Hz  |  |
|     |  |  |  |
| 12  | ENVIRONMENT  |  |  |
|     | Operating Temperature  | 0 to 50 Deg C  |  |
|     | Relative Humidity (Non condensing)                                   | < 90%  |  |
|     |  |  |  |
| 13  | OTHER FEATURES : Following features should be av                     |  |  |
|     | \ Visual Connection Management: Active terminal illuminat operation. | ion to identify the appropriate terminals to be used for ease of |  |
| E   | Programmable Front/Rear Input switching                              |  |  |
|     | Digitising feature for DCV, ACV, DCI, ACI                            |  |  |
|     | External 10MHz Ref Clock, Phase locking                              |  |  |
| -   | E Aperture setting from 200 ns to 100 s                              |  |  |
|     | F Reading rates: 5MS/s into memory, 100krdg/s at 4.5 digit           | s, 1 rdg /s at 8.5 digits  |  |
|     |  |  |  |
| 14  | GENERAL SPECS.   |  |  |
| - 4 | A Compliance Standards   |  |  |
|     | Should comply to   | IEC 61326-1  |  |
|     | Should comply to   | IEC 61010-1  |  |
| E   | Specifications Confidence Level                                      | 95% or better  |  |
|     |  | To Comply For One Year Duration                                  |  |
|     | All Accuracy Specifications  | Accuracies mentioned above are after considering all             |  |
|     | , .  | contributing factors   |  |
|     |  | # ISO/IEC 17025:2017 Accreditation calibration certificate with  |  |
|     | Calibratian Cartificate and Datailed Banart                          | Data Traceable to NMI should be supplied along with the 8.5      |  |
| L   |  | digit multi meter.   |  |
|     |  | # TUR Ratio 4:1  |  |
|     |  | *  |  |

| <b>—</b> |   |   |  |
|----------|---|---|--|
| E        | Documentation   | # Three set of technical, operation, safety and maintenance manual shall be supplied along with the equipment. # Periodicity Performance verification and internal adjustment procedures of the standard should be included in the Service / Operating manual supplied by the OEM.                                  |  |
| F        | Accessories   | # All external standard accessories required to operate the equipment such as test lead set, Control software, GPIB Interface cable, Thermocouple & RTD copper test cable, PC Interface cable, carrying case should be provided with the equipment. # Other consumables also should be included with the equipment. |  |
| G        | Warranty  | 1 year (From the date, post installation commissioning of the standard)   |  |
| Н        | Additional Warranty   | Extended Warranty for 5 Years to be quoted separately   |  |
| ı        | Installation & Training   | # Supplier should install the equipment within 2 weeks from the delivery of the standard. # Training to SITRA Engineers should be provided in SITRA premises along with training certificate  |  |
| J        | After Sales Support   | Should have OEM Authorized Service and Calibration Facility in India  |  |
|          | NOTE:   |   |  |
|          | OEM/Authorized distributor should quote with necessary proof /Authorization specific to this tender.  |   |  |
| 2        | OEM should have Service & Calibration facility in India   |   |  |
| 3        | The OEM / Distributor should deliver, set up, demonstrate the total functionality of the standard at site (Installation & Commissioning)  |   |  |
|          | Equipment shall be guaranteed for trouble free performance against any defects, operation (hardware/software), and for any abnormal behavior for a period of not less than 12 months from the date of supply. Turn around Time for breakdown service is with in one week. |   |  |

|       | APPENDIX 12A                 | A: COMPLIANCE MATRIX FOR MULTIPRODUCT CALIE | BRATOR                         |
|-------|------------------------------|---|--------------------------------|
| SR NO | PARAMETER                    | REQUIRED SPECIFICATION                      | Bidder's remarks on compliance |
|       | I                            |   |                                |
| 1     | DC VOLTAGE                   |   |                                |
|       | Voltage Range                | ≤ 1 mV to ≥ 1000 V                          |                                |
|       | Accuracy @ 1 mV              | < 20 ppm                                    |                                |
|       | Accuracy @ 1000 V            | < 50 ppm                                    |                                |
|       | Resolution @ Min Range       | < 50 nV                                     |                                |
|       | Burden Current (Max)         | ≤ 50 mA                                     |                                |
| 2     | DC CURRENT                   |   |                                |
|       | Current Range                | ≤ 10 µA to ≥ 30 A                           |                                |
|       | Accuracy @ 10 μA (Min Range) | < 200 ppm                                   |                                |
|       | Accuracy @ 30 A Range        | < 1000 ppm                                  |                                |
|       | Resolution @ Min Range       | <200 pA                                     |                                |
|       | Maximum Compliance Voltage   | ≤10 V                                       |                                |
|       | 1000017405                   | T   |                                |
| 3     | AC VOLTAGE                   | 4 114 4000                                  |                                |
|       | Voltage Range                | ≤ 1 mV to ≥ 1000 V                          |                                |
|       | Frequency Range              | ≥ 1 Hz to ≥ 500 kHz                         |                                |
|       | Accuracy @ 1 mV, 1 kHz       | < 1000 ppm                                  |                                |
|       | Accuracy @ 1000 V, 1 kHz     | < 500 ppm                                   |                                |
|       | Resolution @ Min Range       | < 50 nV                                     |                                |
|       | Burden Current (Max)         | ≤ 50 mA                                     |                                |
| 4     | AC CURRENT                   |   |                                |
|       | Range                        | ≤ 10 µA to ≥ 30 A                           |                                |
|       | Frequency                    | ≥ 1 Hz to ≥ 30 kHz                          |                                |
|       | Accuracy @ 10 μA, 1 kHz      | < 1000 ppm                                  |                                |
|       | Accuracy @ 30 A, 1 kHz       | < 5000 ppm                                  |                                |
|       | Resolution @ Min Range       | ≤5 nA @ Min Range                           |                                |
|       | Maximum Compliance Voltage   | ≤10 V                                       |                                |

| 5  | RESISTANCE                     |  |  |
|----|--------------------------------|--|--|
|    | Operation                      | Continous  |  |
|    | Range                          | $\leq 1 \Omega \text{ to } \geq 1 \text{ G}\Omega$ |  |
|    | Accuracy @ 1Ω (Min Range)      | < 1500 ppm   |  |
|    | Accuracy @ 100 MΩ              | < 500 ppm  |  |
|    | Accuracy @ 1 GΩ Range          | < 5000 ppm   |  |
|    | Resolution @ Min Range         | ≤ 100 μΩ   |  |
|    | -                              | • 1  |  |
| 6  | CAPACITANCE                    | 0 1  |  |
|    | Operation                      | Continuous   |  |
|    | Range                          | ≤ 1 nF to ≥ 100 mF                                 |  |
|    | Frequency                      | @100 Hz to 1 KHz                                   |  |
|    | Accuracy @ 1 n F (Min Range)   | <0.8 %   |  |
|    | Accuracy @ 100 mF (Max Range)  | <1%  |  |
|    | Resolution @ Min Range         | < 1 pF   |  |
| 7  | INDUCTANCE                     |  |  |
|    | Operation                      | Continuous   |  |
|    | Range                          | ≤ 50 µH to ≥ 100 H                                 |  |
|    | Accuracy @ 10 μH (Min range)   | <3 %   |  |
|    | Accuracy @ 100 H (Max range)   | <0.5 %   |  |
|    | Resolution @ Min Range         | < 10 nH  |  |
| 8  | FREQUENCY MEASUREMENT          |  |  |
|    | Range                          | ≤ 10 Hz to > 1 MHz                                 |  |
|    | Accuracy                       | < 5 ppm  |  |
|    | Resolution @ Min Range         | < 0.1 Hz   |  |
| 9  | REFERENCE CLOCK                |  |  |
|    | Provision                      | Internal & External                                |  |
|    |                                |  |  |
| 10 | PHASE                          |  |  |
|    | Frequency                      | ≤ 5 Hz to ≥ 20 kHz                                 |  |
|    | Accuracy @ 10 kHz (Max. Range) | < ±10 degree                                       |  |
|    | Provision                      | Internal & External                                |  |

| 11 | TEMPERATURE                             |   |  |
|----|---|---|--|
|    | 0                                       | Thermocouple (Ext CJC)                            |  |
|    | Sensors                                 | Platinum Resistance Thermometer (PRT)             |  |
|    | Thermocouple (TC) Types                 | J, K, R, T, S, B, E, N, C, L, U                   |  |
|    | Overall Temperature Range with TCs      | -200°C to +1800°C                                 |  |
|    | PRT Type                                | PT100   |  |
|    | Range                                   | -200°C to +800°C                                  |  |
|    |   |   |  |
| 12 | POWER                                   | AC/DC Power Single Phase                          |  |
|    | DC Power                                | 1 mW to 30 KW                                     |  |
|    | AC Power                                | 1 mW to 30 KW                                     |  |
|    | Frequency                               | > 40 Hz to ≤ 1 KHz                                |  |
|    | Additional Options                      | Power Factor (Lead - Lag), Phase Angle, Harmonics |  |
|    |   | Level   |  |
| 13 | OSCILLOSCOPE OPTION                     |   |  |
|    |   | ≤1 mVpp to ≥50 Vpp @ 1 KHz                        |  |
|    | Amplitude                               | (Sine & Square)                                   |  |
|    | Time base                               | 1 ns to 10 s                                      |  |
|    | David William                           | @ 50 KHz Reference Level, at 10                   |  |
|    | Bandwidth                               | MHz to 600 MHz                                    |  |
|    | 100000000000000000000000000000000000000 |   |  |
| 14 | COMMUNICATION                           |   |  |
|    | DEMOTE INTEREACES                       | GPIB IEEE488                                      |  |
|    | REMOTE INTERFACES                       | USB   |  |
|    |   | Ethernet  |  |
| 15 | POWER SUPPLY                            | 230 V, ± 10%, 50 Hz                               |  |
| 13 | I OWEN OUT FET                          | 250 v, ± 10 /0, 50 112                            |  |
| 16 | ENVIRONMENT                             |   |  |
| 10 | Operating Temperature                   | 0 to 50 Deg C                                     |  |
|    |   | <del>-</del>                                      |  |
|    | Relative Humidity (Non condensing)      | < 95%   |  |

| 7 | GENERAL SPECS.                              |   |  |
|---|---|---|--|
|   |   | AC, DC Current Coil Adaptors { (2 Turn ≥ 60 A Max.), (10 Turns ≥ 300 A Max.), and 50 Turns ≥ 1500 A Max.)   |  |
| Α | Accessories                                 | All external standard accessories required to operate the equipment such as test lead set, Control software, GPIB Interface cable, Thermocouple & RTD copper      |  |
|   |   | test cable, PC Interface cable, carrying case should be provided with the equipment.  |  |
|   |   | Other consumables also should be included with the  |  |
| В | Compliance Standards                        | Other consumables also should be included with the  |  |
| _ |   | IEC 61010-10  |  |
|   | Should comply to                            | IEC 61010-2-030   |  |
|   |   | IEC 61326-1   |  |
| С | Specifications Confidence Level             | 95% or better   |  |
| n | All Accuracy Specifications                 | To Comply For One Year Duration   |  |
|   | All Accuracy Specifications                 | Accuracies mentioned above are after considering all  |  |
| Ε | Calibration Certificate and Detailed Report | ISO/IEC 17025:2017 Accreditation calibration certificate with Data Traceable to NMI should be supplied along with the Multiproduct calibrator                     |  |
|   |   | TUR Ratio 4:1   |  |
| F | Documentation                               | Three sets of technical, operation, safety and maintenance manual shall be supplied along with the  |  |
|   |   | Periodicity Performance verification and internal adjustment procedures of the standard should be included in the Service / Operating manual supplied by the OEM. |  |
| G | Warranty                                    | 1 year (From the date, post installation commissioning of the standard)   |  |
| Н | Additional Warranty                         | Extended Warranty for 5 Years to be quoted separately   |  |
|   | Installation 9 Training                     | Supplier should install the equipment within 2 weeks from   |  |
| I | Installation & Training                     | Training to SITRA Engineers should be provided in SITRA premises along with training certificate  |  |
| J | After Sales Support in India                | OEM Authorized Service and Calibration facility   |  |

#### APPENDIX 12B: COMPLIANCE MATRIX FOR 8.5 DIGIT DIGITAL MULTIMETER SR NO REQUIRED SPECIFICATION **PARAMETER** Bidder's remarks for compliance **DC VOLTAGE** ≤ 1 mV to ≥ 1000 V Range Absolute Accuracy at 10 V Range < 5 ppm < 50 ppm Absolute Accuracy at 1000 V Range < 10 nV @ Resolution **AC VOLTAGE** 2 ≤ 1 mV to ≥ 1000 V Range Frequency ≥ 1 Hz to ≥ 1 MHz Absolute Accuracy @ 1 V Range, 1 kHz < 80 ppm Absolute Accuracy @ 1000 V Range, 1 kHz < 150 ppm Resolution < 10 nV @ **DC CURRENT** Range $\leq$ 10 $\mu$ A to $\geq$ 30 A Absolute Accuracy @ 1 mA Range < 20 ppm Absolute Accuracy @ 30 A Range < 700 ppm Resolution < 10 pA @ **AC CURRENT** 4 Range $\leq$ 10 $\mu$ A to $\geq$ 30 A Frequency ≥ 1 Hz to ≥ 30 KHz Absolute Accuracy @ 1 mA Range, 5 kHz < 700 ppm Absolute Accuracy @ 30 A Range, 5 kHz < 2500 ppm Resolution < 10 pA @

| 5 | FREQUENCY MEASUREMENT   |  |  |
|---|---|--|--|
|   | Input Frequency Range   | ≤ 10 Hz to > 50 MHz                        |  |
|   | Input Frequency Amplitude                                       | > 2 Vrms                                   |  |
|   |   |  |  |
| 6 | REFERENCE OSCILLATOR  |  |  |
| P | A INTERNAL Aging of Oscillator                                  | < ± 5 ppm                                  |  |
|   | Frequency Accuracy at 1 kHz                                     | < ± 5 mHz                                  |  |
| E | BEXTERNAL   |  |  |
|   | Frequency   | 1 MHz or 10 MHz                            |  |
|   | Input Frequency Amplitude                                       | > ± 2.5 Vp                                 |  |
|   | Input Impedance   | 50 Ω                                       |  |
|   |   |  |  |
| 7 | RESISTANCE - FOUR WIRE  |  |  |
|   | Range   | $\leq 1 \Omega \text{ to } \geq 1 G\Omega$ |  |
|   | Modes of Operation  | Normal, Lo current,                        |  |
|   | Absolute Accuracy @ 1 k Ω Range                                 | < 15 ppm                                   |  |
|   | Absolute Accuracy @ 100 M Ω Range                               | < 150 ppm                                  |  |
|   | Resolution  | < 15 nΩ @                                  |  |
| 8 | CAPACITANCE   |  |  |
| 0 | Range   | ≤ 1 nF to ≥ 100 mF                         |  |
|   | Absolute Accuracy @ 1 μF Range                                  | ≤ 1 HF t0 ≥ 100 HF<br>< 550 ppm            |  |
|   | Absolute Accuracy @ 1 µF Range Absolute Accuracy @ 100 mF Range | < 850 ppm                                  |  |
|   | Resolution  | < 0.05 pF @                                |  |
|   | Kesolulion  | < 0.05 pr @                                |  |
| 9 | TEMPERATURE   |  |  |
|   |   | Thermocouple                               |  |
|   | Sensors   | Platinum Resistance                        |  |
|   | Thermocouple (TC) Types   | J, K, R, T, S, B, E,                       |  |
|   | Overall Temperature Range with TCs                              | -200°C to +1800°C                          |  |
|   | PRT Type  | PT100                                      |  |
|   | Range   | -200°C to +800°C                           |  |

| 10  | COMMUNICATION   |  |  |
|-----|---|--|--|
|     |   | GPIB IEEE488.2   |  |
|     | Remote Interfaces   | USB  |  |
|     |   | Ethernet   |  |
|     | T   |  |  |
| 11  | POWER SUPPLY  | 230 V, ± 10%, 50 Hz                                      |  |
|     | Tana and the same of the same |  |  |
| 12  | ENVIRONMENT   |  |  |
|     | Operating Temperature   | 0 to 50 Deg C  |  |
|     | Relative Humidity (Non condensing)  | < 90%  |  |
| 13  | OTHER FEATURES : Following features should be av  | ailahla  |  |
| 13  | Visual Connection Management: Active terminal illuminat   |  |  |
| Α   | ease of operation.  | ion to identity the appropriate terminals to be used for |  |
|     | '   |  |  |
|     | Programmable Front/Rear Input switching   |  |  |
|     | Digitising feature for DCV, ACV, DCI, ACI   |  |  |
|     | External 10MHz Ref Clock, Phase locking   |  |  |
|     | E Aperture setting from 200 ns to 100 s   |  |  |
| F   | F Reading rates: 5MS/s into memory, 100krdg/s at 4.5 digits, 1 rdg /s at 8.5 digits   |  |  |
|     | OFNEDAL ORFOG   |  |  |
| 14  | GENERAL SPECS.  | l  |  |
| A   | Compliance Standards  |  |  |
|     |   | IEC 61326-1  |  |
|     | ' '   | IEC 61010-1  |  |
| В   | Specifications Confidence Level   | 95% or better  |  |
|     |   | To Comply For One Year Duration                          |  |
| C   | All Accuracy Specifications   | Accuracies mentioned above are after considering all     |  |
|     |   | contributing factors                                     |  |
|     |   | # ISO/IEC 17025:2017 Accreditation calibration           |  |
|     | D Calibration Certificate and Detailed Report   | certificate with Data Traceable to NMI should be         |  |
| ן ו |   | supplied along with the 8.5 digit multi meter.           |  |
|     |   | # TUR Ratio 4:1  |  |
|     | 1   |  |  |

| E | Documentation           | # Three sets of technical, operation, safety and maintenance manual shall be supplied along with the equipment. # Periodicity Performance verification and internal adjustment procedures of the standard should be included in the Service / Operating manual supplied by the OEM.                                 |  |
|---|-------------------------|---|--|
| F | Accessories             | # All external standard accessories required to operate the equipment such as test lead set, Control software, GPIB Interface cable, Thermocouple & RTD copper test cable, PC Interface cable, carrying case should be provided with the equipment. # Other consumables also should be included with the equipment. |  |
| G | Warranty                | 1 year (From the date, post installation commissioning of the standard)   |  |
| Н | Additional Warranty     | Extended Warranty for 5 Years to be quoted separately   |  |
| ı | Installation & Training | # Supplier should install the equipment within 2 weeks from the delivery of the standard. # Training to SITRA Engineers should be provided in SITRA premises along with training certificate  |  |
| J | After Sales Support     | Should have OEM Authorized Service and Calibration Facility in India  |  |