GUJARAT ENERGY TRANSMISSION CORPORATION LTD.

SARADAR PATEL VIDYUT BHAVAN, RACE COURSE, BARODA – 390 007.

TECHNICAL SPECIFICATION FOR

Insulation Resistance Tester – 5 KV

GETCO/TEST EQUIP/IR Tester/R1 May-2026

Signature & Seal of Bidder

SPECIAL INSTRUCTIONS TO BIDDER

Please read following instructions carefully before submitting your bid.

1. All the drawings, i.e. elevation, side view, plan, cross sectional view etc., in AutoCAD format and manuals in PDF format, for offered item shall be submitted. Also the hard copies as per specification shall be submitted.

2. The bidder shall submit Quality Assurance Plan (MQP and ***FQP)*** with the technical bid.

3. ***The equipment offered shall have type test certificates from accredited laboratory (accredited based on ISO/IEC guide 25 /17025 or EN 45001 by the National accreditation body of the country where laboratory is located), as per IEC/IS defined in technical specification. The bidder has to submit all the type test reports as stated in the Technical Specifications for the offered item along with the technical bid. The Type test reports shall not be older than 10 years and shall be valid as on the last date of submission of bid.***

   Important Note: In case of non-submission / partial submission or type test reports of which validity is over, the bidder shall submit pending type test report/s from NABL accredited laboratory, in the event of an order, before commencement of supply without affecting delivery schedule, free of cost to GETCO. Confirmation for above shall be invariably submitted along with technical bid.

4. The bidder must fill up all the points of GTP for offered item/s. Instead of indicating "refer drawing, or as per IS/IEC", the exact value/s must be filled in.

5. All the points other than GTP, which are asked to confirm in technical specifications must be submitted separately with the bid.

6. ***The bidder is required to impart training in view of manufacture, assembly, erection, operation and maintenance for offered item, at his works, to the person/s identified by GETCO, in the event of an order, free of cost. The cost of logistics will be borne by supplier***.

7. Please note that the evaluation will be carried out on the strength of content of bid only. ***No further correspondence will be made***

8. The bidder shall bring out all the technical deviation/s only at the specified ***annexure B***.

9. ***The bidder should indicate manufacturing capacity by submitting latest updated certificate of Chartered Engineer (CE) and also mention in annexure A***.

SECTION: I

Qualifying Requirement For Supply Of Insulation Resistance Tester

1) ***The bidder shall be Original Equipment Manufacturer (OEM). The bidder shall have proven experience of not less than 5 years in design, manufacture, supply and testing (as per IS/IEC) at the works of equipment / material. Bidder shall confirm the same with the documentary evidence***.

2) ***Those bidders who cannot meet the requirement above, but are being authorized by OEM having qualifying requirement as per 1 above for sales can also participate, provided they hold valid ongoing authorization from OEM for supply, testing, repairing, etc. for the offered type test equipment since last three years. They shall submit authorization for joint undertaking with OEM for accepting joint and several liabilities of all obligations under the contract and performance letters along with technical bid***.

3) ***The bidder shall submit performance certificate of at least two STU (State Transmission Utilities) or CTU (Central Transmission Utilities) in support of the satisfactory operation of the offered test equipment for a minimum period of 3 years. Also the name of the authority, contact and fax no., and email address from whom the reference can be made shall be given***.

4) The bidder shall have service infrastructure including trained manpower in India. Details shall be submitted with technical bid.

5) ***The minimum requirement of manufacturing capacity of offered type, size and rating of equipment shall be Four times tender/ bid quantity. The bidder should indicate manufacturing capacity by submitting latest updated certificate of a Chartered Engineer (CE). The manufacturer shall have adequate design infrastructure and procedures including quality control and demonstrate the same in the technical bid through relevant documents***.

6) ***The bidder shall clearly indicate the quantity supplied and the value of single contracts executed during the last five (5) years for the offered equipment. The Bidder / OEM / OEM-authorized channel partner (other than the bidder) shall have successfully executed at least one single contract during the last five (5) years for a quantity equivalent to not less than 20% of the tendered quantity.***

   Further, the offered make, type, and class of test equipment shall have been in successful service in India for a minimum period of three (3) years as on the date of bid opening.

   The detail is to be submitted in following format,

Sr. No	Items Supplied To	Order Reference No. & Date	Items	Quantity	Order Fully Executed. Yes/No	Status, If Order Under Execution	Remark

7) ***The bidder shall guarantee for supplying maintenance spares and services as well as repairing for life expectancy of 10 years.***

8) ***The equipment offered shall have type test certificates from accredited laboratory (accredited based on ISO/IEC guide 25 /17025 or EN 45001 by the National accreditation body of the country where laboratory is located), as per IEC/IS defined in technical specification. The bidder has to submit all the type test reports as stated in the Technical Specifications for the offered item along with the***

technical bid. The Type test reports shall not be older than 10 years and shall be valid as on the last date of submission of bid.

Important Note: In case of non-submission / partial submission or type test reports of which validity is over, the bidder shall submit pending type test report/s from NABL accredited laboratory, in the event of an order, before commencement of supply without affecting delivery schedule, free of cost to GETCO. Confirmation for above shall be invariably submitted along with technical bid.

9) ***The bidder should indicate manufacturing capacity by submitting latest updated certificate of Chartered Engineer (CE) and also specify in annexure A:***

Annexure A

Sr. No.	Product	Annual manufacturing capacity (In multiple of tender /bid quantity)
1	IR Tester	

FINANCIAL CRITERIA:

1) ***Bidder's Minimum Average Annual Turnover (MAAT) for the best three (3) years out of the last five (5) financial years shall not be less than 50% of the estimated cost of this tender.***

Note: - For the purpose of arriving at MAAT, Turnover shall be taken as revenue from operation (excluding GST) as stated in Financial statement of the bidder, but excluding other income

2) ***Bidder's liquid assets as per the last financial year shall not be less than 20% of the estimated cost of the tender.***

Note: - Liquid Assets is defined as current assets less inventories.

3) ***The Net Worth of the Bidder for last financial year should be positive.***

Note: - Net Worth is defined as paid-up share capital + share application money pending allotment + reserves & surplus (excluding revaluation reserves, write-back of depreciation/amalgamation reserves) less accumulated losses and deferred expenditure/miscellaneous expenses to the extent not written off

Reserves and Surplus to be considered for the purpose of net worth shall be all reserves created out of the profits and securities premium account only

(i) CA Certificate with valid UDIN Number failing which certificate shall not be considered for the purpose of evaluation and

(ii) Audited Balance Sheet and Profit & Loss account along with the schedules referred therein and the Auditor's Report for the preceding five financial years, in line with one of the following:

a) In case last financial year's closing date was within 6 months prior to bid due date and audited Balance Sheet and Profit & Loss account of last financial year are not available, bidder has the option to submit the financial details of five previous years immediately prior to the last financial year. For example, in case bid due date is up to 30th September and financial details of immediate preceding financial years (year ending 31st March of same year) are not available, the financial details of the five previous years immediately prior to the last financial year may be submitted

b) Otherwise it is compulsory to submit the financial details of immediate preceding five financial years.

SECTION – II

General Terms & Conditions for Insulation Resistance Tester

(1)SCOPE:

This section covers the scope of supply and delivery of Insulation Resistance Tester, in line with specification as specified, complete with all accessories required for safe, efficient, satisfactory and trouble free operation of the test equipment. The scope also includes following aspects.

A. The design, manufacturing and complete testing of Insulation Resistance Tester shall be at manufacture's works. It shall meet the requirement of diagnostic testing of Power Transformer, C.T, P.T, LA, CB, etc. in energized switchyard of 66 KV,132 KV class substations/power stations.

B. Demonstration of the offered equipment as per requirement of purchaser.

C. Supply of Insulation Resistance Tester along with all mandatory tools/accessories like cables, switches, indicating lamps, warning lamp, etc. or anything required for successful working along with requirement of first testing and commissioning to provide self contained and ready to use test equipment as per the specification. The same shall be specified in below format.

Sr. No	Description	Qty required	Make and type

(Mandatory tools & accessories for successful working in the scope of supply are to be mentioned.)

D. Acceptance tests as per the relevant and applicable standards.

E. Testing and commissioning at site.

F. F.O.R. destination supply of completely assembled test equipment.

G. It is not intended to specify entire design and construction detail of the equipment. However, the equipment shall conform in all respects to high standards of engineering; design and workmanship as per Principal Technical Parameter with necessary/required Type tests. It shall be capable of performing continuous commercial operation up to the supplier's guarantee & expected life of equipment. In a manner acceptable to the purchaser, who will interpret the meaning of drawings and specifications, and shall have the power to reject any work of material which, in his judgment is not in accordance therewith. The offered equipment shall be completed with all components necessary for their effective trouble free operation. Such components shall be deemed to whether those are specifically brought out in this specification and/or the commercial order or not.

H. Furnishing test certificates of test set and associated equipment/accessories.

I. List of testing and commissioning of supplied equipment at site during last five years.

J. The successful bidders have to submit three sets of external and internal cable connection diagram, GA, Technical parameters, drawings, commissioning and maintenance manuals with all operational /optional features for approval.

- Design, material selection and workmanship shall be such that, to result in neat inner and outer appearance with no weld, rivets or bolt heads apparent from outside. All exterior surface shall be proper and smooth.

- ***Necessary life time licensed copy of interfacing and analysis software with test kit should be supplied free of cost with test equipment. In future, if any up gradation arise in software then it shall be upgraded free of cost.***

- ***The design of the test kit shall be such that, in any condition, test kit operator should not get any electric shock from the test kit in case of he/she comes in contact with the any part of the kit, test leads, interfacing cables, connectors for computers, printers or any other interfacing devices***

2. STANDARDS

Unless, otherwise specified elsewhere, in this specification, the rating, performance and testing of test set, shall confirm to the latest revisions, available at the time of placement of order of the relevant standards as below.

STANDARD NO	STANDARD TITLE
IEC 61010-1 EN 61010-1	Safety requirement for electrical equipment for measurement, control and laboratory use.
IP 65 IP 40	Degree of Protection With Case Degree of Protection Without case
IEC 61326-1 class A EN-61326-1 class A	EMC
IEC 61000-4-2	Electrostatic Discharge
IEC 61000-4-3	Radio Frequency AM Electromagnetic Field
IEC 61000-4-4	Fast Transients
IEC 61000-4-5	Surge immunity Test.
IEC 61000-4-8	Power Frequency Magnetic Field
IEC 61000-4-11	Dips test
IEC 61000-6-2	Generic Standards
IEC 60068-2-27	Shock Resistant (operation)
IEC 60068-2-6	Vibration during transport and operation
IEC 60068-2-6	Drop Test
IEC- 60255-21-2 IEC-60088-2-29	Shock and bump & Bumping during transport
IEC-60068	Environmental Testing

3. PRINCIPAL TECHNICAL PARAMETERS

The Insulation Resistance Tester shall have following technical requirements.

GENERAL TECHNICAL PARAMETERS

1. The test equipment shall be able to perform diagnostic test to determine insulation condition by measuring insulation resistance of Multi Terminal High Voltage Equipment such as Power Transformers (1/2/3 windings), CT, PT, CVT, CC, LA, Circuit Breakers etc., in energized switchyard of 66 KV,132 KV class substations/power stations.

2. The test equipment shall display minimum following measured parameters in display.

   a) Resistance
   b) Voltage
   c) Leakage current
   d) Capacitance
   e) PI
   f) Battery status.

3. The test equipment shall be automatic, fully microprocessor based and able to operate without need of a dedicated PC/Laptop.

4. The test equipment shall have interference suppression facility and shall give consistent and repeatable results in high interference switchyard up to 132 KV level.

5. The test equipment shall be powered by main supply as well as through inbuilt rechargeable battery.

6. The Internal Rechargeable battery shall have following characteristics.

   (a) Type: Li-Ion
   (b) Continuous life support without charging of battery: minimum 5 Hours.

7. The test equipment shall be equipped with visible LED or audible alarm for safety aspect during test mode.

8. The test equipment shall have GUARD terminal to perform three terminal test and to ignore the surface leakage current.

9. The supplied cables utilized for measurement/connection shall have following characteristics.

   (a) Length of cable in meter (minimum): 15 meters
   (b) Size of connecting clamp/test leads diameter in mm (minimum): 18 mm.
   (C) compatible IEC for cable.: IEC 61010

10. The test equipment shall have USB for P.C/Laptop communication interface.

11. The test equipment shall work with power supply with voltage variation up to 230V AC ± 15%.

12. The test equipment shall work with power supply frequency variation up to 50 Hz ± 5%.

13. The test output voltage shall have following characteristics.

a) Voltage Range: 500 V to 5 KV.

b) ***The test voltage shall be adjustable in steps of 50 V or finer.***

C) Test Voltage accuracy: ± 5 %

14. The test equipment shall have short circuit current capacity of 5 mA (mili Amp) at highest test voltage.

15. The test equipment shall have interference rejection capacity of 4 mA (mili Amp) at highest test voltage.

16. The test equipment shall have capacity to guard terminal error of 2 % with 500 K ohm guarding with 100 MΩ load.

17. The test equipment shall measure resistance in the range 10 KΩ (kilo ohm) to 10 TΩ (tera ohm). Further, kit shall have accuracy of ± 20 % or better at highest resistance range.

18. The test equipment shall measure voltage in the range 0-600 V A.C/D.C.

19. The test equipment shall measure capacitance in the range 10nF (neno faraday) to 25 µF (micro faraday). Further, kit shall have accuracy for capacitance measurement of ± 10 % ±5 nF or better.

20 The test equipment shall work with following environmental parameters.

a) Temperature range :0 °C to 50 °C

b) RH (Relative humidity): 90% RH Non condensing

21. The test equipment shall be portable and light weight.

22. The test equipment shall be supplied with case having adequate shock and vibration absorbers facility.

23. The test equipment shall have minimum ingress protection with IP class i.e. IP 65 for test equipment with case and IP 40 for test equipment without case.

24. The test equipment shall be supplied with software which shall have automatic temperature conversion facility and give measured/converted results at base /reference temperature of 20 degree celsius. However, OEM has to give temp conversion formula with temp conversion/correction table with adopted IEC/IS or other relevant/equivalent standard.

25. The test equipment shall have minimum of 1000 results in built storage facility.

26. The display provided on the kit shall be LCD type or better with back lit facility.

27. The supplied software shall be compatible with window based operating system and

software shall be upgraded at free of cost by supplier/OEM whenever software upgradation is launched by OEM and windows upgradation available in the market.

28. The P.C./laptop communication port shall be galvanically isolated from power supply input.

4.0 **TYPE TESTS**

4.1 ***The equipment offered shall be fully type tested as per the relevant standards. Type Test reports shall be submitted along with offer. The Type test reports shall not be older than 10 years and shall be valid as on the last date of submission of bid. The bidder shall furnish, all required type test reports, conducted in NABL accredited National / Foreign lab, as per relevant IS/IEC or any equivalent standard of the equipment being offered. Pl. refer relevant/applicable standards in sec. 2.0 "standards" with its clause***

1) Degree of protection with and without case
2) Accuracy Test.
3) EMC
4) Environmental Testing
5) Vibration
6) Shock and Bump Test
7) Safety requirement for electrical equipment for measurement, control and laboratory use

4.2 ***Important Note: In case of non-submission / partial submission or type test reports of which validity is over, the bidder shall submit pending type test report/s from NABL accredited laboratory, in the event of an order, before commencement of supply without affecting delivery schedule, free of cost to GETCO. Confirmation for above shall be invariably submitted along with technical bid.***

5. ACCEPTANCE AND ROUTINE TESTS

5.1. All acceptance and routine test as stipulated in the relevant standards shall be carried out by the supplier in presence of Purchaser's representative without any extra cost.

5.2. Immediately after finalization of the programme of type/ acceptance/ routine/ testing the supplier shall give two weeks' advance intimation to the purchaser to enable him to depute his representative for witnessing the tests.

6 INSPECTION DURING MANUFACTURING

6.1 The inspection may be carried out by the purchaser at any stage of manufacture. The successful bidder shall grant free access to the purchaser's representative at a reasonable time when the work is in progress. Inspection and acceptance of any equipment under this specification shall not relieve supplier from obligation of furnishing equipment in accordance with the specifications and shall not prevent subsequent rejection if the equipment is found to be defective.

6.2 ***The supplier shall keep the purchaser informed well in advance, about the manufacturing program so that the arrangement can be made for inspection.***

6.3 ***The purchaser reserves the right to insist for witnessing the acceptance routine testing of bought out items.***

7 QUALITY ASSURANCE PLAN

7.1 ***The bidder shall invariably furnish along with his offer the quality assurance plan adopted by him/his sub-supplies in the process of manufacturing all***

major equipment/component.

7.2 Precaution taken for ensuring usage of quality raw materials and sub- components shall be stated in the quality assurance plan.

7.3 The bidder should specifically express their consent to accept additions, revisions to their quality assurance plan to meet purchaser's requirements if needed. The final quality assurance plan shall be adopted with mutual consent and after discussion with successful bidder.

7.4 Offer is likely to be rejected if quality assurance plan and relevant detail as per clause No. 7.1 to 7.3 is not submitted along with the offer.

8 GUARANTEE

8.1 ***All the equipment supplied against this specification shall be guaranteed for defects/ performance for a period of 36 months from the date of commissioning***

8.2 Any engineering error, omission, wrong provision, equipment failure etc., if found during actual commissioning of the equipment shall be attended by the bidder at free of cost.

8.3 During guarantee period if test kit remains out of service from repair for more than six days, spare kit should be handed over to concern consignee. It will be handed over back to supplier on repair of original set.

8.4 During guarantee period, if any defect observed, it is bidder's responsibility to collect kit from site/ consignee to attend the same.

8.5 On each failure of test equipment, supplier has to submit detail analysis report for failure to Asset management wing, corporate office, GETCO, invariably.

8.6 **DEMONSTRATION:** During technical scrutiny of the bid, purchaser will ask to demonstrate the offered equipment at purchaser's site. The bidder shall demonstrate the offered testing equipment within one week of intimation from purchaser. The purchaser will evaluate suitability of equipment for their application, present practice and test equipment used. Based on demonstration, purchaser decision will be final & unchallenged for acceptance/ non-acceptance of product even, if product will comply other tender's terms and conditions.

8.7 Bidder has to submit inspection call and acceptance test at their works prior to 10 days from date of inspection.

9 DOCUMENTATION

9.1 The bidder shall furnish as a part of their offer, complete set in triplicate of technical literature/ manuals, and typical schematic drawings of test equipment offered by them.

10 PACKING AND TRANSPORT

10.1 All equipment/ material shall be suitably packed for transportation to site and outdoor storage during transit. The bidder shall be responsible for any damage to the equipment during transit and it should be replaced without any extra cost.

10.2 The equipment case containing test equipment shall be very carefully packed and marked with appropriate caution symbols i.e. "FRAGILE", "HANDLE WITH CARE", "USE NO HOOK" etc. The contents of each package shall have marking that can be easily identified from the package list.

10.3 Packing shall provide complete protection against moisture, termite and mechanical shocks and vibrations etc. The moisture absorbent material like silica or other substance should be packed in cotton bags and placed inside the packing.

10.4 Wherever necessary proper arrangement for attaching slings for lifting shall be provided. All packages clearly marked with gross weight, signs showing 'UP' and 'DOWN' sides of boxes, contents of each package, order no. and date, name of the plant/SS/ for which material packed forms part of and any handling and unpacking instructions considered necessary.

10.5 Any material found short inside the packing case, shall be supplied by the manufacturer/ supplier/bidder without any extra cost within 15 days.

10.6 Bidder shall ascertain, prior to shipment from concerned authorities transport limitations like weight, maximum allowable package size for transportation, material fragile or not etc.

10.7 Each consignment shall be accompanied by a detailed packing list containing the following information:

a. Purchase order reference
b. Name of consignee
c. Details of consignment
d. Destination
e. Total weight of consignment
f. Handling & unpacking instructions
g. Bill of materials indicating contents of each package
h. Sign showing upper/ lower side of crate, fragile material or not etc.

11 TRAINING

11.1 The Successful bidder shall be required to provide training at GETCO site i.e. at each circle (13 nos.) of GETCO, at no extra cost. The training should cover the theory and hands on training of:

a. Familiarization with instrument & its parts
b. Procedure of installation, testing & commissioning
c. Procedure for site calibration.
d. On hand testing of different 66/132/220/400 KV equipment etc.
e. Demonstration of software provided with equipment
f. Field maintenance & troubleshooting of equipment
g. Creating/ Maintenance of data base.

11.2 To and Fro charges, logistics, lodging, boarding shall be borne by bidder for test set and their representative.

11.3 The programme of the training shall be mutually discussed and finalized by the purchaser.

12 SCHEDULES

12.1 The bidder shall fill in the following schedules which form part of the tender specification and offer only signed stamped.

Schedule – B	Guaranteed Technical Particulars (GTP)
Schedule – C	Schedule of bidder's past supply with performance certificates
Schedule – D	Bidder's supply capability
Schedule – E	Requirement of first testing & commissioning of kits

Schedule – F	Recommended Spares/list of consumables

12.2 If the schedules are not submitted duly filled in with the offer, the offer is likely to be rejected.

12.3 Unless otherwise brought out separately by the bidder, the test set offered shall be deemed to conform to the specification, as listed in this tender, scrupulously.

12.4 For any deviation from the specification which is not specifically brought out in the schedules shall be supported by authentic documents, standards and clarification, otherwise offer may be liable for rejection. Any deviation from the specification shall be highlighted giving reasons and unit prices.

12.5 Bidder shall submit list of orders for similar type of equipment, executed or under execution, with full details in the schedule of tender's experience (Schedule 'C') to enable the purchaser to evaluate the offer. If the equipment is being designed and manufactured in collaboration with other manufacturer, the following additional information shall be submitted by the bidder along with his offer.

a. Copy of authorization between the Bidder and manufacturer.
b. List of order for offered equipment, executed/ being executed by the supplier

13 INFORMATION TO BE FILLED INVARIABLY BY THE BIDDER

13.1 Items and relevant information as mentioned below shall be invariably furnished by bidder in offer for ready reference purpose to purchaser.

a. Copy of authentic English translation of each of the standards for offered equipment specified in the specification or higher standards other than mentioned in specification for offered equipment.

b. Schedule 'B', 'C', 'D', 'E','F'

14 GURANTEE FOR MAINTENANCE SPARES AND SERVCIES

14.1 ***The bidder shall guarantee for supplying maintenance spares, services, repairing of test set & calibration of test set for a period of life expectancy i.e. 10 Years.***

SCHEDULE: B: GUARANTEED TECHNICAL PARTICULARS

(TO BE FILLED IN BY THE BIDDER AND FURNISH WITH TECHNICAL BID)

The GTP is to be filled up in this format and, in the page of Tender Specification only, to be submitted in duplicate along with the offer. The bidder shall fill in the particulars against appropriate items in respect of each rating and type of equipment offered in the broad categories listed below:

Sr. No.	Description of Technical Parameter of the particular Kit / Equipment	Rating/ Range/Remark
	Insulation Resistance Tester	
1	Make	
2	Type /Designation	
3	Whether test equipment is able to perform diagnostic test to determine insulation condition by measuring insulation resistance of Multi Terminal High Voltage Equipments such as Power Transformers (1/2/3 windings), CT, PT, CVT, CC, LA, Circuit Breakers etc., in energized switchyard of 66 KV,132 KV class substations/power stations? (Yes/No)	
4	Define measured parameters which shall be displayed on board display.	
5	Whether test equipment is fully automatic, microprocessor based and able to operate without need of a dedicated PC/Laptop.? (Yes/No)	
6	Whether test euipment has interference suppression facility and give consistent and repeatable results in high interference switchyard up to 132 KV level? (Yes/No)	
7	Whether test equipment powered by main supply as well as through inbuilt rechargeable battery? (Yes/No)	
8	Define in built battery characteristics for following aspects (a) Type of Battery (b) Rechargeable/Non rechargeable (C) Continuous life support without charging in hrs.	
9	Specify type of audio/visual facility provided for test equipment while test in progress considering safety aspect.	
10	Whether test equipment have GUARD terminal to perform three terminal test and to ignore the surface leakage current? (Yes/No)	
11	Specify the characterstics of measurement cable which will be supplied with test equipment. a) Length of cable in meters b) Diameter of connecting clamp/test leads in mm. c) Compatible IEC standard for cable.	
12	Detail of communication port for P.C/Laptop communication provided on test equipment.	
13	Specify power supply voltage range (V) with tolerance.	

14	Specify power supply frequency(Hz) with tolerance.(HZ)	
15	Specify test output voltage characterstics for following aspects. a) Voltage range b) Step size for voltage range. c) Test Voltage Accuracy in %	
16	Specify short circuit current capacity of test equipment in (mili Amp) at highest test voltage.	
17	Specify interference rejection capacity of test equipment in (mili Amp) at highest test voltage.	
18	Specify % guard terminal error nullified by test equipment with 500 K ohm and guarding with 100 MΩ load.	
19	Specify resistance range which will be measured using test equipment	
20	Specify accuracy of test equipment at highest test voltage .	
21	Specify voltage measurement range in A.C and D.C .(V)	
22	Specify capacitance range which will be measured using test equipment.	
23	Specify accuracy of test equipment for capacitance measurement.	
24	Specify Temperature range for test equipment.	
25	Humidity relative in % Condensing or Non Condensing	
26	Specify the weight of kit in Kg considering following aspects. (a) Test equipment weight in Kg without cables and accessories. (b) Test equipment weight in Kg with cables and accessories.	
27	Specify the dimensions of the test equipment (H x Wx D) in mm .	
28	Whether test equipment case is having adequate shock and vibration absorbers? (Yes/No)	
29	Specify degree of ingress protection IP class. (1) Test equipment with case (2) Test equipment without case	
30	Whether test equipment will be supplied with software having automatic temperature conversion facility with results conversion at base /reference temperature of 20 degree celsius? (Yes /No)	
31	Whether supplier agree to give temp conversion formula with temp conversion/correction table with adopted IEC/IS or other relevant/equivalent standard? (Yes /No)	
32	Specify the number of results which can be stored in test equipment?	

33	Specify the type of display available on kit. Whether display is having back lit facility (Yes/No)	
34	Whether software is compatible with window based operating system?	
35	Whether supplier agree to upgrade software at free of cost whenever software upgradation is launched by OEM and windows upgradation available in the market? (Yes/No)	
36	Whether communication port provided on test equipment is galavanically isolated from power supply unit? (Yes/No)	
37	List of standard accessories	
38	List of optional accessories	
39	Applicable standards	
40	Define standard for following type tests. a) Degree of protection with case and without case b) Accuracy Test. c) EMC d) Environmental Testing e) Vibration f) Shock and Bump Test g) Safety requirement for electrical equipment for measurement, control and laboratory use.	
41	Whether agree for training at 13 Locations of GETCO at free of cost?	
42	Agree for GURANTEE period of 36 months ?	

SCHEDULE: C
Schedules of Bidder's
Past supply with performance certificates

Bidder shall furnish list of similar orders executed/ under execution with name of persons to whom reference may be made by purchaser if purchaser consider such reference is necessary for order and performance certificate validation.

Sr. No	Name and Description of Item/work Supplied	Qty. and value of work	Date of commissioning/Purchase order detail	Name Of Client/Purchaser	Persons to whom reference be made

SCHEDULE: D

BIDDERS SUPPLY CAPABILITY

Sr. No	Order pending with bidders for set				Commitment (Against pending orders) during the delivery period guaranteed in this bid	Capability of supply in terms of rating and quantity per year.
	Order	Client	Qty	Ref		

SCHEDULE: E

REQUIREMENT FOR FIRST TESTING AND COMMISSIONING OF KIT's

- **The Successful Bidder shall** provide instruction manual, all drawings, literatures, write up containing testing and commissioning procedure, setting calculation, circuit diagram with trouble shooting protocols etc., of offered equipment to all consignee destination as well as asset management department of corporate office, GETCO, Vadodara.

- The successful bidder has to do first testing/commissioning of the test set, by deputing service engineer at free of cost. 10% value of order is to be retained over and above money retained against payment terms of GETCO and same will be released after satisfactory first testing and commissioning of the set.

Date: _____ Name: _____

Place: _____ Signature of bidder: _____

Seal of the Bidder: _____

SCHEDULE: F

List of Recommended spares/ List of consumables

Sr. No.	Name of Testing kit / equipment	Particulars of recommended spares	QTY.
1		Sp. Tools	
2		Any other (if required list below)	
3		cable	
4		Accessories	

NAME OF THE FIRM

SIGNATURE OF THE BIDDER

DESIGNATION

DATE

SEAL OF THE COMPANY

Annexure B"

DEVIATION FROM TECHNICAL SPECIFICATION

Technical deviations if any to be furnished in this schedule only and to be submitted with technical bid.

Sr No	***Clause No***	***Details of deviation***
