

Tender Notice

No. AEI/SVR/PC/TENDER/2021-22/01

Name of Work:

**TENDER FOR SUPPLY, INSTALLATION & OPERATION OF
LABORATORY EQUIPMENT AT COMMON LABORATORY HALL
(PHASE II), ASSAM ENERGY INSTITUTE, SIVASAGAR**

Vill: Gohain Gaon, Akhoiphutia Road, Dist: Sivasagar,

Assam, Pin: 785697



Rajiv Gandhi Institute of Petroleum Technology

An Institute of National Importance established under an Act of Parliament

Mubarakpur, Mukhetia, Bahadurpur Post: Harbanshganj, Jais, Amethi Pin Code- 229 304

Website: www.rgipt.ac.in

E-Tender No. AEI/SVR/PC/TENDER/2021-22/01

**TENDER FOR SUPPLY, INSTALLATION & OPERATION OF LABORATORY EQUIPMENT AT
COMMON LABORATORY HALL (Phase II), ASSAM ENERGY INSTITUTE, SIVASAGAR**

S.N.	Particulars	Details
1	Type Mode	E-Tender
2	Tender Type	Two-Part Bid System: Tender should be submitted on the schedule to tender. (i) Techno-Commercial Bid and (ii) Financial Bid The Financial bid will be opened only of those firms, who will be found technically qualified after evaluation of their technical bids.
3	Mode of submission	Online Mode
4	Name of the job	Tender for Supply, Installation & Operation of Laboratory Equipment at Common Laboratory Hall (Phase II), Assam Energy Institute, Sivasagar
5	Place of shipping, supply, installation & operation	Assam Energy Institute, Sivasagar (Centre of RGIPT,Jais, Amethi) Vill: Gohain Gaon, Akhoiphutia Road, Dist: Sivasagar Assam Pin: 785697
6	E-Tender Date	18 th June, 2021
7	Date and time of Pre-Bid meeting	29 ^h June, 2021 at 02.00 pm
8	Last Date and time for submission of E-Tender	19 th July, 2021 before 03.00 pm
9	Date and time for opening of Technical Bids	19 th July, 2021 at 04.00 pm
10	Date and time for opening of Price Bids	Date will be informed later in institute website www.rgipt.ac.in and https://rgipt.euniwizarde.com/ for the technically qualified bidders
11	Bid Address to	The Director Rajiv Gandhi Institute of Petroleum Technology, Mubarakpur, Mukhetia, Bahadurpur POST: Harbanshganj, Jais, Amethi – 229304

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S.N.	Particulars	Details
12	E-Tender processing Fee (ITI Limited)	Rs. 3000/- + (Applicable GST @18%) per laboratory (Total Laboratories: 5) through e-payment Gateway available on https://rgipt.euniwizarde.com
14	Earnest Money Deposit (EMD)	INR 1,53,884.75.00 Through online mode only.
15	Performance Security	3% of the contract value
16	Technical Clarification	1. Mr. Chinmoy Jit Sarma 8638292565 2. Ms. Sukanya Hazarika 8638519645 3. Mr. Sekhar Gogoi 8761010275

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INTRODUCTION

Rajiv Gandhi Institute of Petroleum Technology invites sealed tenders, as per Two Bid System, from reputed manufacturers or their authorized Indian Agents/representatives, on the terms and conditions as per tender document, for supply, erection, installation, commissioning, testing, demonstration of supplied equipment and training of designated personnel as per specifications of following item(s):

Note: The place of shipping is Assam Energy Institute, Sivasagar, (Centre of RGIPT, Jais, Amethi), Vill: Gohain Gaon, Akhoiphutia Road, Dist: Sivasagar, State: Assam, Pin: 785697

S.N.	Name of Laboratory (Detailed specification of specification of each equipment of a lab attached at Annexure-A)	Quantity	Place of Delivery	Installation required, if any
a)	Geology Lab	As mentioned in Annexure A	Assam Energy Institute, Sivasagar, (Centre of RGIPT, Jais, Amethi), Vill: Gohain Gaon, Akhoiphutia Road, Dist: Sivasagar, State: Assam, Pin: 785697	Yes
b)	Petroleum Engineering Lab I			
c)	Petroleum Engineering Lab II			
d)	Enhanced Oil Recovery Lab			
e)	Industrial Pollution & Control Lab			

All offers should be made in English and should be written in both figures and words.

The bidders are requested to read the tender document carefully and ensure compliance with all specifications/instructions herein. Non-compliance with specifications/instructions in this document may disqualify the bidders from the tender exercise. The Director, RGIPT, reserves the right to select the item (in single or multiple units) or to reject any bid wholly or partly without assigning any reason thereof. Incomplete tenders, amendments, and additions to tender after opening or late tenders are liable to be ignored and rejected

Tenders can be downloaded from www.rgipt.ac.in and <https://rgipt.euniwizarde.com/>

E Tendering Helpdesk Number: 011-49606060/8448288988/9650970101/8210817180

E Tendering Helpdesk email ID: ewizardhelpdesk@gmail.com,
ewizardhelpdesk89@gmail.com

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INSTRUCTIONS FOR BIDDERS

The bidders are required to submit soft copies of their bids electronically on the e-tender Portal, using valid class 3 Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the e-tender Portal, prepare their bids in accordance with the requirements and submitting their bids online on the e-tender Portal.

More information useful for submitting online bids on the e-tender Portal may be obtained at:
<https://rgipt.euniwizarde.com>.

REGISTRATION

1. Bidders are required enroll on the e-Procurement Portal (URL: <https://rgipt.euniwizarde.com>) with clicking on the link “Online bidder Registration” on the e-tender Portal by paying the Registration fee of Rs.2360/- Per vendor/per year.
2. As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
3. Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication with the bidder.
4. Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (**Only Class III Certificates with signing + encryption key usage**) issued by any Certifying Authority recognized by CCA India (e.g. Sify / TCS / nCode / eMudhra etc.), with their profile.
5. Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC’s to others which may lead to misuse.
6. Bidder then logs in to the site through the secured log-in by entering their user ID /password and the password of the DSC / e-Token.
7. **The scanned copies of all original documents should be uploaded on portal <https://rgipt.euniwizarde.com>**

SEARCHING FOR TENDER DOCUMENTS

1. There are various search options built in the e-tender Portal, to facilitate bidders to search active tenders by several parameters.
2. Once the bidders have selected the tenders they are interested in, you can pay the form fee and processing fee (NOT REFUNDABLE) by net-banking / Debit / Credit card then you may download the required documents / tender schedules, Bid documents etc. Once you pay both fee tenders will be moved to the respective ‘requested’ Tab. This would enable the e- tender Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.

PREPARATION OF BIDS

1. Bidder should take into account any corrigendum published on the tender document before submitting their bids.
2. Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid.
3. Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF formats. Bid Original documents may be scanned with 100 dpi with Colored option which helps in reducing size of the scanned document.
4. To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card

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copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use “My Documents” available to them to upload such documents.

5. These documents may be directly submitted from the “My Documents” area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

SUBMISSION OF BIDS

1. Bidder should log into the website well in advance for the submission of the bid so that it gets uploaded well in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
2. The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document as a token of acceptance of the terms and conditions laid down by RGIPT, Jais.
3. Bidder has to select the payment option as “e-payment” to pay the tender fee / EMD as applicable and enter details of the instrument.
4. Bidder should prepare the EMD as per the instructions specified in the tender document.
5. Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BOQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BOQ file, open it and complete the white Colored (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BOQ file is found to be modified by the bidder, the bid will be rejected.
6. The server time (which is displayed on the bidders’ dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
7. All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid opener public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.
8. The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
9. Upon the successful and timely submission of bid click “Complete” (i.e. after Clicking “Submit” in the portal), the portal will give a successful Tender submission acknowledgement & a bid summary will be displayed with the unique id and date & time of submission of the bid with all other relevant details.
10. The tender summary has to be printed and kept as an acknowledgement of the submission of the tender. This acknowledgement may be used as an entry pass for any bid opening meetings.

ASSISTANCE TO BIDDERS

1. Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.
2. Any queries relating to the process of online bid submission or queries relating to tender Portal in general may be directed to the 24x7 Helpdesk Support. **The contact number for the helpdesk is “011-49606060/8448288988/ 9650970101” and E Tendering Helpdesk email ID: ewizardhelpdesk@gmail.com**

SPECIFICATIONS

Phase II: Specification of Equipment for Common Laboratory Hall at AEI Sivasagar

Geology Lab

S.N.	Item	Description	Quantity
1	Burton Compass	BRUNTON COMPASS. ORIGINAL.. F-5008 or equivalent Alnico II magnets; Induction dampened needle; Vertical angle measurements to $\pm 90^\circ$; Declination adjustable to +/- 1800 Short and long sights for accurate measurements Precision aligned mirror with convenient "see-through" sighting capability Cast aluminium body; Compatible with ball & socket tripod mount; Leather case included	10
2	Rock hammer, Chisel & Pocket lens	Rock Pick Pointed Tip - Long Handle Eastwing Or Equivalent <ul style="list-style-type: none"> • Solid Steel • Pointed tip, longer handle • Smooth face • Size: 16" length • Shock Reduction Grip Bricklayer Or Mason's Hammer Chisel Hammar with bonded and moulded shock reduction grips Geological hand pocket lens Approximate measurements: 3 1/8" unfolded length, 1 7/8" folded length, with a lens diameter of 23 millimeters. Lens Specifications: 10x magnification, 23 millimeters in diameter, correct for spherical aberration.	10 sets
3	Rock collection kit (Indian rock specimen)	Rocks Specimens, Size : 10 X 7.5 X 2 To 2.5 cm. Approx.	5 sets
4	Fossil Collection kit	A collection of 15 different plant and animal fossils from a wide range of time periods.	5 sets
5	Mineral Collection kit (Mineral specimen)	MINERAL SPECIMENS, Size : Trimmed to 7.5 x 5cm, approx	5 sets
6	Hardness scale collection kit	MOHS HARDNESS TEST KIT This set includes 8 Mohs' Hardness Points from Mohs' 2 through Mohs' 9, nicely mounted in nickel-plated Brass, color-coded, number-stamped, double-ended	10 sets

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		<p>Pin Vises. Also includes two Hardness Plates of Mohs' 3.5 and 5.5, a 100x Sharpening Stone, along with laminated Instructions permanently affixed to inside of case, a Table of Industrial and other materials sorted by Mohs' Hardness, all compactly packaged in a molded Plastic carrying Case, designed for use in rugged workplace environments.</p> <p>The Hardness Points are made of Metals and Alloys of equivalent Mohs' Hardness as the mineral standards, so the points will not break off, and they can easily be re-sharpened, and ultimately replaced after many years. This beautiful and thoroughly conceived tool is made for the opposite of "planned obsolescence".</p> <p>We especially configured it with customized components, Instructions, Hardness Tables, and Carrying Case for Industrial use.</p>	
7	Fold and Faults model.	<ol style="list-style-type: none"> 1. Fold & Fault Model, perfect for laboratory study 2. Display the age of different earth bedding & stratification. 3. Illustrates important folds and faults found in the earth's crust. 4. Model gives a visual, tactile view of different folds and faults. 5. Fault and Fold identifications labelled on model base. 	5 sets
8	Geological maps	CHARTS - GEOLOGICAL MAP OF INDIA - SIZE : 22" X 36"	5 sets

Petroleum Engineering Lab I

S.N.	Item	Description	Quantity
1	Fann API Filter Press (LP/LT) with Hydraulic Dead Weight Assembly	<p>Hydraulic Dead Weight API LPLT Filter Press: LPLT Filter Press Assemblies should consist of a mud reservoir mounted in a frame, a pressure source, a filtering medium, and a graduated cylinder for receiving and measuring filtrate. Working pressure is 100 psig and the filtering area is 7.1-in² as per American Petroleum Institute, "API Recommended Practice 13B-1 and 13B-2".</p> <p>The Dead Weight Hydraulic Assembly is to provide a source of constant Hydraulic pressure in one compact unit. It should consist of a water reservoir, piston and cylinder, dead weight, delivery pressure gauge, two check valves and a bleeder valve.</p> <p>When attached to filter press it needs to deliver 100 psig pressure to the filter press cell as</p>	2

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		specified in the American Petroleum Institute, “API Recommended Practice 13B-1 and 13B-2”.	
2	Hamilton Beach Mixer & measuring cup	Hamilton Single Spindle Mixer with Cup 200 -220VAC -50Hz Approx. 10000 rpm Stainless Steel 32 oz Mixer Cups should be included with Hamilton Beach Mixers.	5
3	Mud Balance	Mud Balance-ASTM D4380 The Mud Balance should have a volume sample cup with a lid, connected to a graduated arm, a moving rider, knife edge and a built-in spirit level - measuring the density of the drilling fluid in 4 different scale: specific gravity pounds per gallon Pounds per cubic foot Pounds per square inch per 1000 foot of depth The balance should be made of a special aluminium alloy.	10
4	Marsh Funnel Viscometer	Marsh Cone Funnel with stand and mug The marsh cone should be approx.. 6 inch in diameter at the top and approx. 12 inch long, and tapers to join a tube 2 inch long and copper tube drilled 3/16 inch, the capacity of the funnel should be 1500 cc. Graduated Measuring Mug Digital stopwatch to measure time in seconds required to flow out slurry Thermometer to measure temperature drill mud slurry temperature	10
5	FANN V-G Viscometer	FANN V-G VISCOMETER 115 Volt, 50 HZ (Supplied with 220V AC Power Supply) 6 Speed: 600, 300, 200, 100, 6, 3 rpm Size: 39 x 15 x 27 cm Weight: approx. 6 Kg It should preferably also include a temperature jacket with external hot water circulation It should include a cap to provide evaporation of drilling mud	1
6	API Specific Gravity hydrometers set	Hydrometers Hydrometer Type: Specific Gravity Hydrometer Ranges: 0.650 to 0.700, 0.700 to 0.750, 0.750 to 0.800, 0.800 to 0.850, 0.850 to 0.900, 0.900 to 0.950, 0.950 to 1.000, 1.00 to 1.050, 1.050 to 1.100, 1.100 to 1.150, 1.150 to 1.250, 1.250 to 1.300, 1.300 to 1.350, 1.350 to 1.400, 1.400 to 1.450, 1.450 to 1.500	3 set

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7	Water bath	<p>Water Bath</p> <p>Temperature Range : Ambient 5°C to 150°C Temperature accuracy : ±0.1°C at 37°C Temperature Uniformity : ±0.2°C at 37°C Working size : 35cm L x 30cm W x 17.5cm D with tube tray Bath Volume : Approx 20 Liters Rating : 1.5KW</p> <p>System should have auto cut when water level falls down from heater level.</p> <p>NABL calibration certificate to be provided for supplied instrument.</p> <p>Outer chamber is made from Galvanized Sheet - which is powder coated in attractive shades.</p> <p>Inner chamber is fabricated from Mirror polished material</p> <p>Fully argon welded design.</p> <p>50mm thick Glass wool Insulation is provided between the inner chamber and exterior body to prevent the direct thermal loss.</p> <p>Specially designed immersion Heater for heating within the set point temperature</p> <p>ISI marked immersion Heater - U shaped.</p> <p>Built-in boost for initial heating.</p> <p>Stirring should be achieved by an efficient, continuously rated, self cooling motor with SS shaft and propeller of anti - corrosive Material.</p> <p>Stirrer to be fitted on side of the bath allowing obstruction free usage of working area.</p>	2
8	Hot Air Oven	<p>Hot Air Oven</p> <ul style="list-style-type: none"> •Inner working size : 60 x 60 x 60 cm (H x W x D) •Chamber volume : Approx. 220 liter. •No. of trays : 3 No. •Rating : 2.5 KW •Outer Chamber : CRC powder coated •Inner chamber : Made of Stainless Steel S.S. 304 - mirror polished material. •Temperature range : 50°C to 250°C •Controlling System : Microprocessor based Auto tune - PID controller •Control : ± 1°C or better •Power Consumption : 220/230 Volt, 50 Hz, Single phase, AC Supply 	2

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Petroleum Engineering Lab II

S.N.	Item	Description	Quantity
1	Pensky Marten flash and fire point apparatus	<p>Conforms to the specifications of: ASTM D93; IP 34; ISO 2719</p> <ol style="list-style-type: none"> 1) Temp. Range: 40 to 400° deg C. 2) Test Method: ISO 2719, ASTM D 93, IP 34, IS 1448 (P-21). 3) Ignition Source: Electrical ignitor with LPG gas connection. 4) Temperature Sensor: PT-100 in stainless steel sheath. 5) Flash Detector: CRC Thermocouple. 6) Controller: Touch Screen, Colour Display with PLC with audio visual alarm to check the machine. 3-wire RTD temperature sensor, free potential flame detector sensor as i/p. with automatic barometric reading correction. 7) Inbuilt storage memory for Flash Detection. 8) Flame-Sampling Arrangement: 10 Rpm, D.C. 12 v or 24V DC, gear motor, vertical movement reciprocating to & fro motion. 9) Heater: 800 W, 230v. 10) Electrical ignition flame-sampling. Ignition transformer having continuous o/p of 10.6 Kv. D.C. from 230 v A.C. i/p. 11) Equipment Overall Size (LxWxH): 280mm (W) X 530mm (D) X 415 mm (H) 12) Equipment Gross Weight: 22 Kg. 13) Equipment supply will be 230 V Ac, 50 Hz with 15 amp capacity. <p>Single Action Setting: - The Flash Detection sensor and temperature sensor are permanently mounted on a lid, which allows easy setting of the specimen.</p> <p>Utility: Power Supply 230 V Ac, 16 amps. GAS Supply (LP Gas or Natural Gas Pressure Less than 9.8 Kpa) in case of gas fired.</p> <p>Accessories to be supplied with equipment:-</p> <ol style="list-style-type: none"> 1) Pensky Martene Cup & Lid -- 1 No 2) Thermal Printer -- 1 No 3) Thermal Printer Roll -- 1 No 4) Pc Interface Cable – 1 No. 5) Software For Above-- 1 No. 6) Thermal Fuse – 1 No. 7) Signal Cable - 1 No. 8) Standard for Close Cup Flash Point @55⁰C - 1 No. 9) Standard for Close Cup Flash Point @72⁰C - 1 No. 10) Standard for Close Cup Flash Point @113⁰C - 1 No. 11) Standard for Close Cup Flash Point @175⁰C - 1 No. 12) Standard for Close Cup Flash point @218⁰C - 1 No. <p>Spares Required</p> <ol style="list-style-type: none"> 1) Ceramic Heater -- 2 Nos. 2) Thermal Insulator -- 1 No. 3) Pensky Martin Cup With Lid -- 2 No. 	1

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		<p>4) Ignitor Coil – 3 No Each 5) Cooling Fan – 1 No. 6) Thermal Printer Roll – 5 No</p> <p>Electrical Requirement – 220-240V, 50/60Hz, Single Phase, 10.9A OR 115V, 50/60Hz, Single Phase, 20.8A Dimension: - Ixwxh, in.(cm) 11”x22”x17” (28x53x41) Net Weight: 49 lbs (22kg)</p> <p>Desktop PC compatible with equipment Genuine Windows 10 Pro OS Intel Core i5 Processor 10th Generation 64-bit Operating System, X64-based processor 8GB RAM DDR4 512 GB SSD 4 GB GDDR5 Graphics Card Monitor Display: Full HD Resolution 1920X1080 pixels Extra slots for RAM and SSD to be available for future upgradability Full Sized Keyboard and Mouse I/O ports such as USB 2 ports, USB 3 ports, USB C port, HDMI 2.0, VGA, Audio ports, RJ45 Ethernet Supplied with UPS All Cables and Accessories to be provided</p>	
2	Cloud and Pour point apparatus	<p>CLOUD AND POUR POINT APPARATUS</p> <p>Conforms to the specifications of ASTM d97, D2500, D5853, D6074, D6158; IP 15, 219; ISO 3015, 3016; DIN 51597; FTM 791-201; NF T 60-105</p> <p>1)Type of Chamber : Mechanically refrigerated cooled cascade type. 2) Cooling Stage : Double stage with double compressor. 3) Refrigerant : CFC free. 4) Max working temperature : -55 degree c 5) Compartment : - single 6) Chamber : 4 chamber of copper immersed fully in cooling media. 7) Insulation : Dense puff. 8) Top insulation will be done by polyurethane sheet with Bakelite mounting. 9) Chamber cover : Made of PP with Bakelite knob having center hole. 10) Mounting : Floor mounted. 11) Movability : Mounted on four castor wheel with brakes on two front wheel for easy movability 12) Accuracy : +/- 2 degree c 13) Readability : +/- 0.1 degree c</p> <p>Temperature Control</p>	1

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		<p>a. Temperature to be controlled by microprocessor based PID temp. Controller ,</p> <p>b. It should have dual display with Int or Siemens contactor for switching on & switching off the heater.</p> <p>Input power supply: 230 v ac, 50 Hz, 1 phase with 10 amp current rating. Cooling load: 2.5 kW.</p> <p>Thermocouple: Calibrated RTD type thermocouple to be provided capable of measuring upto -100 Deg. c at accuracy of +/- 0.1 Deg. C</p> <p>Control Panel/Display:</p> <p>a. Digital display for present, set temperatures. b. Analogue display for supply voltage c. Analogue display for compressor load d. Fuse for overload protection. e. Main switch on/off indicator</p> <p>Safety Interlocks/ Relay: -</p> <p>a. Overload safety cut-off b. Safety for input power fluctuation c. 1-phase indication lamp. d. Emergency switch off</p> <p>Construction: -</p> <p>a. Double walled construction, thermally insulated with puff for better performance during continuous operation. b. Powder coated external surface for esthetic appearance. c. Drain, overflow and fill valve will be provided.</p> <p>Accessories to be Supplied With Equipment: -</p> <p>1) Pour Point Tube : 4 no 2) Bar Cork : 4 no 3) Silicon Bush : 4 no 4) Cork Sheet : 4 no. 5) Thermometer IP 1C with calibration certificate : 1 no. 6) Thermometer IP 2C with calibration certificate : 1 no. 7) Top cover of PP : 4 no. 8) Fuse : 2 no.</p> <p>Spares Required</p> <p>1) Pour Point Tube : 50 no. 2) Thermometer IP 1C : 3 no 3) Silicon Bush : 10 no 4) Cork Sheet : 10 no 5) Drain Valve : 3 no 6) Pt. 100 sensor : 3 no 7) Digital Temperature controller – 1 no. 8) Thermometer IP 2C – 3 no.</p> <p>Electrical Requirement 220-240v, 50/60hz, single phase, 12a 115v, 50/60hz, single phase, 24a</p> <p>Dimension: - ixwxh,in.(cm)</p>	
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		<p>17"x24"x41" (43x60x104) net weight: 125 LBS (57 kg)</p> <p>Thermometers Ranges -10 deg. to +110 deg. C: 5 pieces -50 deg. to +100 deg. C: 5 pieces</p>	
3	Smoke Point Apparatus	<p>SMOKE POINT APPARATUS-(ASTM D1322)-</p> <p>Conforms to: ASTM D1322; ISO 3014; IP 57; DIN 51406; FTM 791-2107; NF M 07-028. It should burn fuel samples under controlled conditions for smoke point determinations of aviation turbine fuels and similar products. Consists of brass lamp body with chimney; gallery; 0-50mm black glass scale with white markings; brass plated door with curved glass window; candle socket; and plated brass candle with wick tube and air vent. Mounted on a cast iron base with aluminum support rod.</p> <p>Accessories will be supplied with equipment 1) Cotton wick , non – extracted -- 1 no 2) Candle – 1 no</p> <p>Spares required 1) Cotton wick non extracted - 6 nos. 2) Candle - 1 no. 3) Front concave glass - 1 no</p> <p>Electrical requirement No electricity required. □</p> <p>Dimension :- dia x ht inch (cm) 7" x 18.5" (18 x 47) Net Weight: 10 lbs (4.5kg)</p>	1
4	Portable Density Meter	<p>Make: Anton Paar</p> <p>Measuring principle: Oscillating U-tube principle (U-tube made of borosilicate glass)</p> <p>Patents granted: Smart connection of measuring cell: AT516421 (B1), EP3015847 (B1)</p> <p>Other special functions:</p> <p>Viscosity correction for reliable measurements, also on highly viscous samples Gesture control for easy one-hand measurements Identification of results outside your specified limits</p> <p>Measuring range:</p> <p>Density: 0 g/cm³ to 3 g/cm³ Temperature: 0 °C to 40 °C (32 °F to 104 °F) Sample temperature range: 0 °C to 100 °C (32 °F to 212 °F)</p> <p>Accuracy*: Density: 0.001 g/cm³, Temperature: 0.2 °C (0.4 °F)</p>	1

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		<p>Repeatability, s.d.**: Density: 0.0005 g/cm³, Temperature: 0.1 °C (0.2 °F)</p> <p>Reproducibility, s.d.**: Density: 0.0007 g/cm³,</p> <p>Resolution Density: 0.0001 g/cm³, Temperature: 0.1 °C (0.1 °F)</p> <p>Ambient temperature: Standard version, Ampere version: -10 °C to +50 °C (14 °F to 122 °F), Ex and Ex Petrol version: -10 °C to +40 °C (14 °F to 104 °F)</p> <p>Output parameters: Density, specific gravity, alcohol concentration, sugar/extract concentration, API functions, H₂SO₄ concentration, ten programmable custom-specific measuring units</p> <p>Sample volume: 2 mL</p> <p>Sample filling: Via manual filling pump or syringe in one second</p> <p>Dimensions (L x W x H): 245 mm x 103 mm x 126 mm (9.6 in x 4 in x 5 in)</p> <p>Internal storage: 1024 measured results, 250 sample IDs, 30 measuring methods</p> <p>Power supply: Three 1.5 V LR06 AA alkaline batteries</p> <p>Weight: 660 g (23.3 ounces)</p> <p>Interfaces: Bluetooth, RFID (included by default; no extra charge)</p> <p>Protection class: IP54 (dust- and splash-proof)</p> <p>Intrinsic safety of Ex and Ex Petrol versions : Ex II 2 G Ex ib IIB T4</p> <p>Scope of supply: Portable density meter, filling tube, adapter for syringe filling, syringes, transportation suitcase, rubber protection for measuring cell, three batteries, Allen key, instructions</p> <p>Available options : Elongated filling tube, Portable Bluetooth printer, Bluetooth USB adapter, Wristband, ISO calibration, Carrying strap, Rubber protection for operating panel</p> <p>* Viscosity < 300 mPa·s, density < 2 g/cm³</p> <p>** According to ISO 5725</p>	
5	Rotational Viscometer	<p>Make: Anton Paar</p> <p>Technical Requirement Rotational Viscometer for Low Viscosity to Medium Viscosity</p>	1

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		<ul style="list-style-type: none"> • Dynamic viscosity range: 15 cps to 6 Million mPa·s , Should be quoted with complete 4 spindle • MOC Spindle: AISI 316 L Material for better chemical resistance. • RPM: 0.1 to 200 RPM with resolution of 0.1 or better • Spindle Coupling should be Magnetic Coupling for easy/one hand operation. • Data transfer cable should be provided to transfer data into Computer. • Digital Leveling should be included in default delivery for better reproducibility. • Automatic spindle recognition feature to avoid human error. • Automode: Automatic check for perfect combination of speed and spindle. • Display information: Viscosity, Speed, Torque, Temperature (If P1 100 is connected), Runtime, Spindle and max. Viscosity FSR. • PT 100 sensor and calibration oil (500cps) should be quoted as optional • Low volume/Ultra adaptor should be quoted as optional to reach viscosity as minimum as 1 cps. <p>Desktop PC compatible with equipment Genuine Windows 10 Pro OS Intel Core i5 Processor 10th Generation 64-bit Operating System, X64-based processor 8GB RAM DDR4 512 GB SSD 4 GB GDDR5 Graphics Card Monitor Display: Full HD Resolution 1920X1080 pixels Extra slots for RAM and SSD to be available for future upgradability Full Sized Keyboard and Mouse I/O ports such as USB 2 ports, USB 3 ports, USB C port, HDMI 2.0, VGA, Audio ports, RJ45 Ethernet Supplied with UPS All Cables and Accessories to be provided</p>	
6	Bomb Calorimeter	<p>Confirm to the specification ASTM D 4809, D 240, DE711, IS - 1350- 1966, BS 1016 PART 5-1967, IP 12/63 T.</p> <ol style="list-style-type: none"> 1)Type of method: - isothermal. 2) Method of detecting temp. Rise : automatic 3) Method of detecting calorific value : automatic 4) Microprocessor based firing unit. 5) Automatic measurement and calculation of Calorific value / water equivalent. 6) 21 x 4 character lcd display 7) Thermal printer interface with printout report. 8) Auto alarm on completion of test. 	1

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	<p>9) Pc interface for data recording. 10) Weight of the sample to be filled by keyboard. 11) Calorimeter vessel made of SS 12) Bomb support to ensure correct positioning of bomb in vessel. 13) Ambient working temp range : 15 to 35 degree c 14) Heat capacity :- 5800 to 6500 cal/deg c 15) Process time: - 10 to 12 minute. 16) Temperature resolution :- 0.001 deg c 17) Oxygen bomb endure pressure : 300 kg/cm 18) Humidity requirement : less than 85% 19) Power supply: 230a VC, 50 Hz, 10 amp. 20) Heating load: 2 kW. 21) Control panel/display :- a. Digital display of temperature. b. Auto temp. Rise detection based on microprocessor chip based. User has to press one button and is free for doing other thing while microprocessor will take reading automatically. c. Automatic reading for temp. Rise calculation. d. All the necessary interlock for stirrer, ignition wire continuity, wire loose, over load etc. e. Electrode short indication. f. Continuity test indication. g. Auto stop of the stirrer after completion of test. h. Buzzer horn after completion of the test. 22) Safety interlocks/ relay :- a. Over load protection. b. Electrode short protection & indication. c. 1-phase indication lamp. d. Emergency switch off 23) Construction :- a. Double walled construction, thermally insulated by pouring approx. 18 ltr water in the outer jacket. b. Made of full stainless steel. Accessories will be supplied with equipment: - 1. SS bomb 2. Calorimeter vessel with bomb support. 3. Insulated outer jacket with calorimeter vessel support. 4. Combined lid for outer jacket & calorimeter vessel. 5. Connecting tubes (copper / flexible) for filling oxygen in the bomb: 3 nos. 6. Spanner for oxygen valve & copper tube connection. 7. Oxygen control valve. 8. Pressure gauge on stand with bomb lid stand. 9. Safety device. 10. Pellet press. 11. Stirrer unit 12. Automatic electronic firing unit with digital Beckmann thermometer. (microprocessor based) 13. Connecting wire [electrical]. 14. Hook for lifting bomb.</p>	
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		<p>15. Crucible. [stainless steel] 16. Cotton reel:01 no. (approximately 200 meters) 17. Bomb ‘o’ ring : 01 no. 18. Teflon tape: 01 no. 19. Valve body ‘o’ ring : 01 no. 20. Ignition wire: 100 meters. 21. Schrader valve: 01 nos. 22. Bursting discs for safety device 12 nos: 1 set 23. Benzoic acid of known calorific value. { 6319 cal / gram } 24. Valve key. { 4 sided key used for replacing/tightening Schrader valve, see (p) in precautions on page 12 } 25. Printer 26. Pc interface cable. 27. Operating manual. Spares required: 1) Cotton reel: 05 no. (approximately 200 meters) 2) Bomb ‘o’ ring: 20 no. 3) Valve body ‘o’ ring: 20 no. 4) Ignition wire: 2 (100 meters each) 5) Schrader valve: 02 nos. Electrical requirement – 220-240v, 50/60hz, single phase, 10.9a Or 115v, 50/60hz, single phase, 20.8a Dimension: - ixwxh,in.(cm) 16”x21.5”x14.5” (41x55x37) net weight: 64 lbs (29kg)</p> <p>Desktop PC compatible with equipment Genuine Windows 10 Pro OS Intel Core i5 Processor 10th Generation 64-bit Operating System, X64-based processor 8GB RAM DDR4 512 GB SSD 4 GB GDDR5 Graphics Card Monitor Display: Full HD Resolution 1920X1080 pixels Extra slots for RAM and SSD to be available for future upgradability Full Sized Keyboard and Mouse I/O ports such as USB 2 ports, USB 3 ports, USB C port, HDMI 2.0, VGA, Audio ports, RJ45 Ethernet Supplied with UPS All Cables and Accessories to be provided</p>	
7	ASTM Crude distillation apparatus with thermometers	<p>PETROLEUM DISTILLATION-SINGLE-(ENERGY REGULATOR)-(NON REFRIGERATED)-(ASTM D86)</p> <p>Compliance with following International Standards : IP 123, IS 1448 (P-18) 1967 & ASTM D86</p> <p>Construction Details To have Unique design with aesthetic exterior appearance and consisting of a metal shield to support distillation flask with GEARED HEIGHT ADJUSTMENT DEVICE.</p>	1

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		<p>It should have a slot for vapor tube.</p> <p>Non-refrigerated cooling bath (with ice) and supporting stand</p> <ul style="list-style-type: none"> •Paint : Powder coating paint •Glass Window : For clear view of Inside object •Insulation : 4 side insulated sheet to avoid thermal loss •Temperature Control : Energy regulator (Electrically heated) without display •Temperature accuracy : ± 1 C •Temperature sensor : PT 100 •Heating element : Two square Heat resistant boards with 50 mm and 70 mm holes •Operation on : 230 Volts, 50 Hz, Single Phase, AC Supply <p>Thermometers</p> <p>Ranges:</p> <p>0 deg. to +100 deg. C: 5 pieces 0 deg. to +150 deg. C: 5 pieces 0 deg. to +250 deg. C: 5 pieces</p>	
8	Aniline point apparatus	<p>Conforms to: ASTM D611; IP 2; ISO 2977; DIN 51775; FTM 791-3601</p> <ol style="list-style-type: none"> 1) Temp.Range: Ambient to 150° deg C. 2) Test Method : ASTM D611; IP 2; ISO 2977; DIN 51775; FTM 791-3601. 3) Detection Sensor : Photon sensor. 4) Temperature Sensor : PT-100 in stainless steel sheath. 5) Aniline Point Detection: Special Infrared sensor. 6) Controller: HMI Touchscreen with colour display and Inbuilt storage of approx. 300 sample with audio visual alarm to check the machine. 3-wire RTD temperature sensor, photon sensor as i/p. with automatic barometric reading correction. 7) All necessary interlock for self detection of fault. 8) Drain Valve for Drain of sample after completion of test. 9) Heater : Immerssion Heater with stainless steel , 20 W 10) Equipment supply will be 230 V Ac , 50 Hz with 15 amp capacity <p>Single action setting :- Auto cleaning of the Test Tube Vessel without removing it by draining of the sample with drain valve and cleaning with solvent.</p> <p>Installation Site : Temperature : 0 to 45 degree C. , Humidity : Less Than 90% (No condensation).</p> <p>Utility :</p> <ul style="list-style-type: none"> * Power Supply 230 V Ac, 16 amp. * Aniline * Washing Solvent. <p>Accessories to be Supplied with Equipment:-</p> <ol style="list-style-type: none"> 1) Measuring Cell Lower - 1 NO 2) Measuring Cell Upper - 1 NO <p>Spares Required:</p> <ol style="list-style-type: none"> 1) Measuring Cell Lower - 2 NO 	1

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		<p>2) Measuring Cell Upper – 2 NO 3) Outer jacket with cork - 3 NO 4) Tube with cork - 5 NO 5) Brass stirrer inner- 5 NO</p> <p>Electrical Requirement - 220-240V, 50/60Hz, Single Phase, 2.9A OR 115V, 50/60Hz, Single Phase, 5.8A Dimension: - lxwxh,in, (cm) 14.5x18.5x20.5 (37x22x53) Net Weight: 24 lbs (10.9kg)</p>	
9	Softening point apparatus	<p>Conforms to ASTM D36 and related specifications</p> <p>Consists of 800mL beaker, 2 standard balls, shouldered rings, ball centering guides, ring holder, bottom plate and beaker cover with support rods. With micro processor based. Profile temperature controller. Order thermometer and heater separately.</p> <p>Conforms to the specifications of: ASTM D36, E28; AASHTO T53; IP 58, 198; NF T 66-008</p> <p>Maximum Temperature: 477°F (250°C)</p> <p>Type of detection:- electric photo sensor Method of detecting softening point: automatic Microprocessor based detection & control unit with touch screen display 21 x 4 character lcd display Thermal printer interface with printout report. Auto alarm on completion of test. Will follow astm procedure exact without manual intervention. Adjustable ramp rate from starting 0.5 degc/minute to 5 deg/minute. Give audio visual alarm after detection of the softening point. Temperature resolution :- 0.1 deg c Power supply : 230a vc, 50 hz, 10 amp. Heating load : 2 kw . Control panel/display :- Digital display of temperature . Start/ stop/reset key. Main switch. Ramp adjustment switch. Buzzer horn after completion of the test. Safety interlocks/ relay :- Over load protection. 1-phase indication lamp. Emergency switch off Construction :-</p>	1

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		<p>Double walled construction , thermally insulated</p> <p>It will follow exact astm procedure without much more manual intervention. Operator will remain free throughout the process. All necessary interlock will detect the problem automatically. User friendly</p> <p>Bath Medium: A high temperature heat transfer fluid having a flash point in excess of 400°C is recommended. Silicone fluid (P/N 355-001-002) is suitable.</p> <p>Electrical Connection :- 230V 50/60Hz, Single Phase, 6.5A</p> <p>Included Accessories :- Beaker 800 ml Sample holder – 2 Nos Guide -- 2 Nos SS Ball -- 2 Nos. Stand for above -- 1 No, Stirrer and heater assembly for above -- 1 No.</p> <p>Spares: Beaker 800 ml – 4 no. Sample holder – 4 no. Guide – 4 no. SS ball – 4 no. Stand for above – 2 no.</p> <p>Dimensions in inches:- 11” X8” X31” Nett Weight : 16.5 Kg</p>	
10	Total Acid Number apparatus	<p>Conforms to the specifications of: ASTM D 2896 & ASTM D 664</p> <p>Measurement method: Volumetric titration</p> <p>Types of result: mg KOH/g oil or using the formula generator</p> <p>Measuring range: 0.01 ... 250 mg KOH/g oil</p> <p>Resolution of the display: 0.01 mg KOH/g oil</p> <p>Power supply: External plug-in power supply 100 - 240 V, 50/60 Hz</p> <p>Power input: 30 VA</p> <p>Stirrer connection: 12 V DC out, 500 mA</p> <p>Dimensions: 30 x 45 x 30 cm (W x H x D), height with exchange unit</p> <p>Weight: Approx. 3.5 kg (with exchange unit and empty reagent bottle)</p> <p>It should cover procedures for the determination of acidic constituents or basic constituents in petroleum products and lubricants soluble or nearly soluble in mixture of toluene and propane 2-ol.</p>	1
11	Soxhlet Apparatus	SOXHLET EXTRACTION HEATER- MANTLE TYPE With all Glass Parts	1

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		<p>6 heating mantles in small, medium and large capacities. The complete unit is to be setup with extractor base cabinet, supporting rods, clamps and glass apparatus. The extractor cabinet is to be made of powder coated mild steel. Horizontal and vertical rods are metallic. Temperature is to be controlled through energy regulator with most economical design. PID temperature controller for precise temperature controlling and accuracy.</p> <table border="1"> <tr> <td>Heating mantle</td> <td>6</td> </tr> <tr> <td>Flask capacity</td> <td>250ml, 500 ml & 1000 ml</td> </tr> <tr> <td>Structure</td> <td>Powder coated MS cabinet Vertical & horizontal rods Screws & clamps</td> </tr> <tr> <td>Heating element</td> <td>Nichrome heating element</td> </tr> <tr> <td>Temperature controller</td> <td>Individual energy regulator</td> </tr> <tr> <td>Heating surface</td> <td>Fiber glass net</td> </tr> <tr> <td>Power supply</td> <td>220 Volts 50Hz</td> </tr> <tr> <td>Optional</td> <td>PID temperature controller</td> </tr> </table>	Heating mantle	6	Flask capacity	250ml, 500 ml & 1000 ml	Structure	Powder coated MS cabinet Vertical & horizontal rods Screws & clamps	Heating element	Nichrome heating element	Temperature controller	Individual energy regulator	Heating surface	Fiber glass net	Power supply	220 Volts 50Hz	Optional	PID temperature controller	
Heating mantle	6																		
Flask capacity	250ml, 500 ml & 1000 ml																		
Structure	Powder coated MS cabinet Vertical & horizontal rods Screws & clamps																		
Heating element	Nichrome heating element																		
Temperature controller	Individual energy regulator																		
Heating surface	Fiber glass net																		
Power supply	220 Volts 50Hz																		
Optional	PID temperature controller																		
12	Copper Corrosion Test apparatus	<p>Conforms to the specifications of: ASTM D1838; GPA 2140; ISO 6251</p> <ol style="list-style-type: none"> 1. Type of bath :- electrically heated immersion heater. 2. Max working temperature :- 105 degree c 3. Continuous working temperature :- 100 degree c 4. Capacity :- 6 sample at a time. 5. Heater :- ss tubular immersion heater 6. Accuracy :- +/- 0.5 degree c 7. Readability :- +/- 0.1 degree c 8. Temperature controller :- <ol style="list-style-type: none"> 1. temp. is controlled by microprocessor based pid temp. controller , 2. it is having dual display with solid state relay for switching on & switching off the heater. 9. Input power supply : 230 v ac, 50 hz, 1 phase with 5 amp current rating. 10. Heating load : 1 kw . 11. Stirrer : high speed stirrer motor with stirrer blade for maintaining uniformity throughout chamber. 12. Top lid made of bakelite with six hole for thermal insulation as well as mounting of six sample with top cover made of ss with hook. 13. Thermocouple :- <ol style="list-style-type: none"> 1. Calibrated rtd type thermocouple will be provided capable of measuring upto 105 deg c at accuracy of +/- 0.1 deg c 14. control panel/display :- <ol style="list-style-type: none"> 1. heater indicator. 2. main switch on/off indicator. 3. fuse for overload protection. 4. stirrer on/off switch 5. stirrer indicator 15. Safety interlocks/ relay :- 	1																

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		<ol style="list-style-type: none"> 1. overload safety cut-off 2. safety for input power fluctuation 3. 1-phase indication lamp. 4. emergency switch off <p>16. Construction :-</p> <ol style="list-style-type: none"> 1. double walled construction , thermally insulated with inside body made of stainless steel outside gi. 2. powder coated external surface for esthetic appearance <p>Accessories to be supplied with equipment :-</p> <ol style="list-style-type: none"> 1. Top ss cover with hook -- 6 no 2. Copper corrosion bomb -- 2 no 3. Test tube 25 x 150mm -- 2 no 4. Copper strip for lpg – 2 no. 5. Viewing test tube -- 1 no. 6. Polish paper – 1 no. 7. Silicon carbide grain for polish – 100 gm 8. Polishing vice single strip -- 1 no. 9. Laminated copper corrosion chart – 1 no 10. ASTM 120c thermometer with calibration certificate – 1 no 11. Glass fuses – 2 no 12. Connecting tubing sulfur-free plastic-lined tubing for connection of test cylinder valve to sample source. with ¼” stainless steel and aluminium connectors. 24” long. <p>Spares required:</p> <ol style="list-style-type: none"> 1. Test tube 25 x 150mm --20 nos. 2. Temperature controller -- 1 no. 3. Solid state relay -- 3 no. 4. Switchgear(mainswitch, bulb,toggle switch) – 3 no each 5. SS tubular immersion heater – 2 no. 6. Stirrer motor – 1 no. 7. Viewing test tube – 5 no. 8. Polish paper – 10 no. 9. Silicon carbide grain for polish – 500 gm 10. Laminated Copper Corrosion Chart – 2 no. 11. Copper Strip – 20 no. <p>Electrical requirement: 220-240v, 50/60hz, single phase, 10.9a or 115v, 50/60hz, single phase, 20.8a</p> <p>Dimension :- ixwxh,in. (cm) 23”x13.5”x19” (58x34x48) net weight: 40 lbs (18kg)</p>	
13	Portable Cetane Octane measuring Tester	<p>PORTABLE OCTANE AND CETANE ANALYZER-WITH PC SOFTWARE, USB CABLE AND TOOL BAG</p> <p>Compliance Standards ASTM D2699-86, ASTM D2700-86, ASTM D4737-03, ASTM D613, EN ISO 5165</p> <p>Technical Specification •Petrol Octane Number : •Measured petrols octane numbers range : 40–125 ON •Acceptable limit of octane number</p>	1

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		<p>measurement basic error, max : ± 0.5 ON</p> <ul style="list-style-type: none"> •Limit of acceptable difference between parallel octane number measurements, max : ± 0.2 ON <p>•Petrol Oxidation Breakdown Time</p> <ul style="list-style-type: none"> •Petrol oxidation breakdown time measurement range : 50-2400 Minutes •Acceptable basic error limit of petrol oxidation breakdown time : 10 Minutes <p>•Cetane Number</p> <ul style="list-style-type: none"> •Cetane numbers measurement range : 20–100 CN •Acceptable basic error limit of cetane numbers, max : ±1.0 CN •Acceptable difference limit between cetane numbers parallel measurements, max : ± 0.5 CN <p>•Diesel Fuel Pour Point</p> <ul style="list-style-type: none"> •Acceptable error limit when determining diesel-fuel pour points : ± 5 °C •Kerosine content determination range in diesel fuels : 0-95 % •Acceptable basic error limit when determining kerosene content in diesel fuels : 3 % •Measurement Time : 1–5 s •Insufficient power supply indication operation threshold : 5.4 V •Instrument useful life : 6 <p>•Overall Dimensions</p> <ul style="list-style-type: none"> •Electronic module : 100 x 210 x 40 mm •Sensor #1 and #2 : 60 x 100 mm •Weight : 680 Grams <p>Desktop PC compatible with equipment Genuine Windows 10 Pro OS Intel Core i5 Processor 10th Generation 64-bit Operating System, X64-based processor 8GB RAM DDR4 512 GB SSD 4 GB GDDR5 Graphics Card Monitor Display: Full HD Resolution 1920X1080 pixels Extra slots for RAM and SSD to be available for future upgradability Full Sized Keyboard and Mouse I/O ports such as USB 2 ports, USB 3 ports, USB C port, HDMI 2.0, VGA, Audio ports, RJ45 Ethernet Supplied with UPS All Cables and Accessories to be provided</p>	
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Enhanced Oil Recovery Lab

S.N.	Item	Description	Quantity
1	Digital weigh balance	<p>ELECTRONIC WEIGHING BALANCE Max Capacity : 200 Gram Min Capacity : 50 mg (0.05 gram) Readability : 0.001 Gram Repeatability : ± 0.003 Gram Linearity : ± 0.002 Gram Pan size : 80 mm diameter Response Time : Less than 3 Seconds Display : Back light LCD Display Calibration : Single key with external weights Units of Measure : gm, ct, lb, oz Application Mode : Weighing, Parts Counting Housing Dimensions : 270 x 190 x 265 mm Operating Temperature : 15 C to 35 C Weight : 4.5 Power Supply : External Adapter, 100-120VAC 150mA, 220-240VAC 100mA, 50/60 Hz With NABL Calibration Certificates</p>	3
2	Magnetic stirrer	<p>Magnetic stirrer with hotplate digital rpm 2 ltr It should have PMDC motor for higher torque even at low speeds With better speed regulation even with small volume and low speeds Accurate stepless speed control to maintain excellent speed stability. Digital Speed Indicator for displaying of stirring speed Totally enclosed unit Designed to be used even in corrosive atmosphere S.S.Hot Plate with energy regulator, Max.stirring speed 1200 RPM Rating 300 watts Supplied with PTFE coated magnetic stirring paddle 9 x 35mm Should be provided with PTFE magnet micro spin magnetic stirring bars</p>	3 set
3	Tarsons Rotospin Rotary Mixer with bars- 3091X Bar, 3092X Bar, 3093X Bar	<p>Rotospin Rotary Mixer It should have a 5-50 RPM speed range Timer and RPM digital display. It also should have a 99 hrs 59 min timer limit, and rotating bar tube diameters are from 10-30mm. It needs to have plastic coated spring clips. CODE and MODEL 3090X Rotospin Rotary Mixer 3091X Bar for 50x1.5 ml tube 3092X Bar for 20x15 ml tube 3093X Bar for 12x50 ml tube</p>	1 set

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		<p>3091X Bar</p> <p>It is to be for tube holding and rotating purpose. Specification:</p> <ul style="list-style-type: none"> • Bar For Rotospin - Rotary Mixer • Diameter 10-30mm • Capacity: 50X1.5 ml • Pack size: 1 each per pack <p>3092X Bar For 20 x 15 ml tube of Rotospin.</p> <p>It is to be suitable for mixing applications in laboratory. It should provide serial rotation of tubes for extraction, diffusion, etc. Bar For 20 x 15 ml tube also to provide good degrees of process automation for laboratories of varying throughputs. Features:</p> <ul style="list-style-type: none"> • Mixing action can be set from 5-50RPM. • Timer can be set from 0-99hrs/1-59min • Rotating bars for tube dia from 10-30mm • Plastic coated spring clips. • Quick, easy coupling for exchange of rotating bars. <p>3093X Bar For 12 x 50 ml tube of Rotospin.</p> <p>It is to be suitable for mixing applications in laboratory. It should provide serial rotation of tubes for extraction, diffusion, etc. Bar For 12 x 50 ml tube also to provide good degrees of process automation for laboratories of varying throughputs. Features:</p> <ul style="list-style-type: none"> • Mixing action can be set from 5-50RPM. • Timer can be set from 0-99hrs/1-59min • Rotating bars for tube dia from 10-30mm • Plastic coated spring clips. • Quick, easy coupling for exchange of rotating bars. 	
4	Double distillation apparatus	<p>All quartz double distillation apparatus-1.5 LTR/HR-3 KW-50 LTR/HR</p> <p>Double Distillate quality Specific Conductivity of distilled water : 0.1-0.5 µs/cm Biological Activity (distillate quality) : Pyrogen Free pH : 6.0 - 7.0 Organic Matter : NIL Total Solids : 0.1 mg/l Silica : <0.01 mg/l</p> <p>Technical Specifications Output Capacity : 1.5 Liters/Hr approximately Power Rating : 3 KW Cooling water consumption : 50 Liters/Hr approximately</p> <p>Demountable Model</p>	1

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		<p>Easy cleaning required for the first boiler which can be dismantled from the assembly.</p> <p>Ease of interchangeability through provision with Ball & Socket joint.</p> <p>Boiler & condenser to have larger boiling space resulting in balanced boiling & improved quality of distillate.</p> <p>Compact and easy to installation</p>	
5	<p>Kruss Easy Dyne Force Tensiometer K20 with Measuring Probe- Platinum-Iridium precious metal alloy ring RI21 Standard measuring probe for the Du Noüy ring method</p>	<p>FORCE TENSIOMETER</p> <p>Measurement of surface and interfacial tension by Du Noüy ring method</p> <p>Force measurement</p> <p>Maximum load : 50 g Resolution : 100 µg Precision : 300 µg Measurement rate : 5 Hz Adjustment : automated, external weight Adjustment weight : CP0501: 20 g 1)</p> <p>Sample stage</p> <p>Travel distance : 90 mm Travel speed : 2.4 to 14 mm/min Type of motor : DC motor Simple platform : yes Thermostated jacket: Yes Integrated sample stage : yes Software : LabDesk data logger</p> <p>Measurement specifications</p> <p>Du Noüy ring</p> <p>Result : surface tension (SFT)/interfacial tension (IFT) Range : 1 to 999 mN/m Resolution : 0.1 mN/m Correction method : Harkins-Jordan, Zuidema-Waters, linear correction, no correction</p> <p>Wilhelmy plate</p> <p>Result : surface tension (SFT)/interfacial tension (IFT) Range : 1 to 999 mN/m Resolution : 0.1 mN/m</p> <p>Rod method</p> <p>Result : surface tension (SFT)/interfacial tension (IFT) Range : 1 to 999 mN/m Resolution : 0.2 mN/m</p> <p>Liquid density</p> <p>Range : 1 to 2200 kg/m³ Resolution : 1 kg/m³ Precision : ± 3 kg/m³</p>	1 set

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		<p>Temperature control</p> <p>Type: liquid Range: -10 to 90 °c External circulator: optional</p> <p>Temperature measurement</p> <p>Range: -20 to 150 °c Resolution: 0.1 °c Precision: ± 0.2 °c Accuracy: ± 0.5 °c External sensor: sample liquid</p> <p>Housing and peripherals</p> <p>Built-in bubble level: yes Windshield doors: yes Control panel: integrated Display: 320 × 240 px</p> <p>Environment</p> <p>Temperature: operating: 15 to 30 °c, storage: -10 to 70 °c Humidity: without condensation</p> <p>Instrument dimensions</p> <p>Footprint: 270 mm × 350 mm (W × D) Height: 430 mm Weight (without accessories): 11 kg</p> <p>Power</p> <p>Voltage: : 100 to 240 V power consumption: 40 W Frequency: 47 to 63 Hz</p> <p>Interfaces</p> <p>PC: USB 2.0, RS232 Thermostat: external Desktop PC compatible with equipment Genuine Windows 10 Pro OS Intel Core i5 Processor 10th Generation 64-bit Operating System, X64-based processor 8GB RAM DDR4 512 GB SSD 4 GB GDDR5 Graphics Card Monitor Display: Full HD Resolution 1920X1080 pixels Extra slots for RAM and SSD to be available for</p>	
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		<p>future upgradability Full Sized Keyboard and Mouse I/O ports such as USB 2 ports, USB 3 ports, USB C port, HDMI 2.0, VGA, Audio ports, RJ45 Ethernet Supplied with UPS All Cables and Accessories to be provided</p> <p>Measuring Probe: 3 nos.</p> <p>The RI21 should be of high-precision standard measuring probe for surface and interfacial tension using the Du Noüy ring method. The wire ring should be made of a platinum-iridium precious metal alloy and is ideally wettable; the hardness of the iridium should make the measuring probe especially robust. The ring geometry to be only connected to the shaft at two junctures, so that any disturbing influences on the wetting are negligible. A high-quality protective box is to be provided for its safe storage.</p>	
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Industrial Pollution & Control Lab

S.N.	Item	Description	Quantity
1	pH Meter	<p>PH METER-TABLE TOP-(0.01 PH)-(MTC)-(MANUAL CALIBRATION)</p> <p>Technical Specification</p> <ul style="list-style-type: none"> •pH Range : 0.00 to 14.00 pH •Millivolt range : 0 to + 1999 mV •Resolution : 0.01pH, 1mV •Accuracy : 0.01 pH+1 digit, 1mV+1 digit •Input Impedance : 10¹² ohms •Slope Correction : 80% to 105% •Repeatability : +0.01pH +1 digit +1mV +1digit •Temperature Compensation : 0 to 100°C (manual) •Display : 3 ½-digit LED with automatic polarity & decimal point •Polarity & Decimal : Automatic •Recorder Output : 0 to 10 mV per pH •Polarizing current : 10 micro amps •Power Supply : 230V +10% , 50Hz •Dimensions : 230mm(w) x 230mm(D) x 115mm(H) •Weight : 1.5 kg. Approx. •Accessories : pH Electrode (0 to 14 pH) pH Buffer Tablets, stand & clamp, Instruction 	2
2	Exhaust Analyzer	<p>EXHAUST GAS ANALYZER</p> <p>Technical Specification</p> <ul style="list-style-type: none"> •Display : 16 x 2 alphanumeric backlite •Sensors : Electromechanical type for O2 & CO with expected life of 2 to 3 years respectively Range O2 : 0 to 25.0% with resolution of 	1

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		<p>0.1% Range</p> <ul style="list-style-type: none"> •Pump : Diaphragm type with suction capacity of 8" Hg •Pump Flow Rate : 1 LPM •Temperature Probe : Thermocouple, K Type length 1.5 mtr •Range : 0 to 600°C with a resolution of 1°C •Probe length : 1.5 meter with cooler & integral filter •Rubber Hose : 1.5 m long •Data Storage : Up to 25 reading •Data Output : Printer Port & RS 232 •Power : Rechargeable Battery with Low Bat.indication •Working Temperature : 5 to 50°C •Size : 26 x 14 x 10 cm •Weight : 1.8 kg •Standard Accessories : Battery Charger, Probe, Connecting Hose, Printer Cable, Serial Cable, Soft Carrying Case. 	
3	Fire Extinguisher	Fire Extinguisher (ABC Extinguisher) 4 kg	4
4	Safety equipment set	<p>Hand Gloves – Asbestos</p> <p>Hand Gloves – Rubber</p> <p>Safety Goggles: Pack of 3 nos. safety overspectacle impact resistant polycarbonate clear coated lens</p> <p>Mask: NIOSH N95 with Headband Pack of 50</p> <p>Head protection Comes with special grade Headband made of fabric that conforms to EN 340:2003</p> <p>Safety Shoes: Ankle Height Black Leather Safety Footwear, Protective Metal Toe Cap, Soft Black Lining, Double Density, Light Grey Pu Out Sole, Black Pu Mid Sole, Antistatic, Antislip, Oil & Heat Resistant</p>	4 set

Terms & conditions mentioned above are accepted

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TERMS & CONDITIONS

1. Tender filling up and submission

- a. Tender offer must refer to the letter/Notice inviting the Tender.
- b. The bid should mention “Tender for Supply, Installation & Operation of Laboratory Equipment at Common Laboratory Hall (Phase II), Assam Energy Institute, Sivasagar” to Rajiv Gandhi Institute of Petroleum Technology, Jais, Amethi.
- c. Bids must be submitted only against above mentioned tender.
- d. The prices can be quoted in Indian Rupees, both in figures and in words and the same will be considered for price comparison. Where there is a difference between the two, the rates given in words will be taken as authentic. Should there be any discrepancy between unit rate and amount, the unit rate will be considered as the correct one.
- e. The rates quoted should include freight charges up to Assam Energy Institute, Sivasagar clearly mentioning the percentage/rate of GST and the rates quoted should be valid for at- least 180 days from the date of opening of the quotation. The rates must be quoted both in figures and words and overwriting should be avoided. However, all cuttings/corrections must be duly authenticated.
- f. The bid submitted must not contain any ambiguity. Any such ambiguity in the quote submitted shall make it liable for rejection.
- g. The tender document is not transferable.
- h. No amendment to the bid in any form by the bidder will be permitted after opening of the tender. No conditional offers shall be accepted.
- i. Submission of bid will bind the bidder to the acceptance of all conditions specified in the tender document.
- j. Canvassing in any form is forbidden and will be a criterion for disqualification.
- k. All interested eligible tenderers/bidders are invited to submit their best competitive bids as per the criteria given in this tender document. Kindly submit your bids in two parts as under:
 - a) Technical bid (Part-1) consisting of all technical details along with commercial terms and conditions and
 - b) Price bid (Part-2) indicating item-wise price for the items mentioned in the technical bid.

The bidder should also submit an undertaking to abide by all the terms and conditions laid down in the tender document along with the technical bid.

2. Tender Cost

- a. The bidder should pay the tender processing fee online.

- b. In addition, for MSME firms, the tenderers who are currently registered and, also, will continue to remain registered during the tender validity period body specified by Ministry of Micro, Small & Medium Industry under MSME are exempted from payment of earnest money & Tender fees. In case the tenderer falls in these categories, it should furnish details.

3. **EMD (Earnest Money Deposit):**

The EMD should be paid online.

- a. The EMD of the unsuccessful bidders will be returned after final award of the Job to a successful bidder/ acceptance of the tender and within reasonable time not exceeding six months from the date of opening of Tender. The EMD will carry no interest.
- b. The EMD will be forfeited if the bidder withdraws his offer before finalization of the tender.
- c. The EMD of successful bidder will be returned after the submission of Performance Security.
- d. The firms registered with DGS&D, MSME & NSIC, if any, are exempted from payment of EMD provided such registration includes the item they are offering which are manufactured by them and not for selling products manufactured by other companies. **(Latest Copy must be submitted for claiming exemption).**

4. **Performance Security:**

The successful bidder will provide “Performance Security” for an amount of 3% of the contract value in the form of valid Account payee Demand Draft/ FDR from a scheduled bank favouring “**Rajiv Gandhi Institute of Petroleum Technology**” payable at **Bank of Baroda, RGIPT Jais Campus Branch**. Performance security should remain valid at least for a period of 180 days beyond the date of completion of all contractual obligations of supplier **(Total Period of FDR/Demand Draft – Warranty Period plus 180 days)**. Thereafter the security will be returned, provided there is no defect in the equipment supplied.

5. **Evaluation Criteria:**

The order will be awarded to the vendor, who fulfils all the technical specifications, terms & conditions mentioned in the tender document for Technical Bid and whose rate is L1 in grand total for a particular laboratory in Price Bid. A vendor has the option to bid for one, some or all the laboratories. Evaluation of Lowest bid will be calculated on the total price of all items tendered for basic equipment along with accessories, packing & forwarding, transportation, installation & commissioning, GST and other charges etc. as mentioned in the tender (Bidder must submit the technical bid & price bid separately). The price bid will be opened only of those firms, who will be found technically qualified after evaluation of their technical bids.

6. **Bid Validity:**

The bid must be valid for at least 180 days from the date of opening of Technical Bid.

7. **Payment terms:**

100% payment will be released against successful supply of equipment at site i.e. Assam Energy Institute, Sivasagar; erection, installation, commissioning, testing, demonstration of supplied equipment and training

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of designated personnel and subject to submission of original Bill/ Invoice as certified by the Indenter.

8. Clearance and delivery of foreign goods/equipment:

On arrival of foreign shipment/consignment, the supplier is required to arrange custom clearance and transportation of the consignment up to Assam Energy Institute, Sivasagar premises. The Tenderer/ bidder will do all types of clearance work and formalities to deliver/provide the equipment at the site of installation.

The expenses incurred will be reimbursed on actual basis not exceeding the quoted amount. Institute will provide all types of documentary support including Customs Duty exemption certificate. The custom duty, custom clearance charges, transportation charges etc. will be reimbursed in Indian Rupees on subject of submission of documentary proof. This may be included in your quotation as a separate item. Principals will themselves have to procure any requisite permission from the Govt. of country of origin of equipment.

9. Part Shipment not allowed:

Part Shipment will NOT be allowed.

10. Insurance:

For delivery of goods at the purchaser's premises, the insurance shall be obtained by the supplier in an amount equal to 110% of the value of the goods from "Warehouse to Institute" (final destination) on "All Risks" basis including War Risks and Strikes. The insurance shall be valid for a period of not less than 3 months after installation and commissioning. If orders placed on CIF/CIP basis, the insurance should be up to Assam Energy Institute, Sivasagar.

11. Bank Charges:

All the bank charges within India will be borne by the Institute and outside India will be borne by the Supplier.

12. Site Preparation:

The supplier shall inform to the Institute about the site preparation, if any, needed for the installation of equipment, immediately after the receipt of the purchase order. The supplier must provide complete details regarding space and all the other infrastructural requirements needed for the equipment, which the Institute may arrange before the arrival of the equipment to ensure its timely installation and smooth operation thereafter. The supplier shall visit the Institute and see the site where the equipment is to be installed and may offer his advice and render assistance to the Institute in the preparation of the site and other pre-installation requirements.

13. Resolution of Disputes:

The dispute resolution mechanism to be applied pursuant shall be as follows:

- a. In case of Dispute or difference arising between the Purchaser and a domestic supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Indian Arbitration & Conciliation Act, 1996, the rules there under

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and any statutory modifications or re-enactments thereof shall apply to the arbitration proceedings. The dispute shall be referred to the Director, Rajiv Gandhi Institute of Petroleum Technology, Jais, Amethi and if he is unable or unwilling to act, to the sole arbitration of some other person appointed by him willing to act as such Arbitrator. The award of the arbitrator so appointed shall be final, conclusive and binding on all parties to this order.

- b. In the case of a dispute between the purchaser and a Foreign Supplier, the dispute shall be settled by arbitration in accordance with provision of sub-clause (a) above. But if this is not acceptable to the supplier then the dispute shall be settled in accordance with provisions of UNCITRAL (United Nations Commission on International Trade Law) Arbitration Rules.
14. Live working product Demo of the equipment (at the cost of bidder) for all the bidders, if asked for, within the ONE week of opening the technical bid.
15. **Printed Conditions of the Company – Not Acceptable to the Institute:**
RGIPT does not accept the printed conditions of any Tenderer. It will be ignored without any reference; hence tenderers should withdraw such printed conditions if they have any. RGIPT shall accept only unconditional tender.
16. **Technical Deviations – Sole discretion of RGIPT for consideration:**
If technical deviations furnished by the Tenderer are not agreeable to RGIPT, the offers may be ignored. However it will be solely at discretion of RGIPT to consider the technical deviations OR not for considering the Tenderer. No correspondences of the Tenderer will be entertained in this matter.
17. **Price Validity:**
The price quoted by the bidder shall remain valid till the supply is completed. During the tenure of the supply period, no price increase will be considered, except for change in statutory levies imposed by Central Govt. / state Govt. or Local authorities.
18. **Warranty:** All equipment should have 2 years of warranty period from the date of successful installation
19. **Delivery:**
The timely delivery of “Laboratory Equipment at Common Laboratory Hall (Phase II), Assam Energy Institute, Sivasagar” is the essence of contract. The supply should be completed with the specified delivery. Delivery shall be completed within maximum 45 days from the placement of purchase order.
20. **Bid Acceptance and Rejection:**
 - a. RGIPT reserves the right to reject the bid without assigning any reason whatsoever.
 - b. RGIPT does not bind itself to accept the lowest or any quotation and reserves the right to reject any or all without assigning any reason.
21. **Late Receipt of Bids:**
No bids will be accepted or considered after the due date and time.
22. **Liquidity Damage Clause:**

In case of any damages and delay in supply of material, liquidated damages at the rate of 0.5% of the order value per day of delay or part thereof, subject to a maximum of 5% of the order value shall be recovered from the vendor's bill/invoice.

23. Withdrawal of Tender:

The Institute reserves the right to withdraw the tender at any stage of tendering process with the approval of the Competent Authority.

24. Replacements of Goods Broken, Damaged or Short:

If whole or part of the goods/ equipment supplied against the order is found defective/ non-functional or without specification the supplier will have to replace the defective goods/equipment to make equipment operational within a reasonable time (not exceeding two months from the date of intimation to the supplier), failure to which the supplier will have to refund the full cost of the equipment including freight, Insurance etc.

25. A quotation submitted with false information will not only be rejected but the vendor may also be debarred for participation in future tendering processes.

26. Each bidder who will participate in the tender/bid for one, some or all the laboratories will make sure that each and every Equipment/instruments listed in the Technical Specification (Annexure A) for that particular laboratory(s) will have to be supplied otherwise their bid will be rejected without any intimation.

27. Each bidder should have at least 3 years performance of supplying the Laboratory Equipment mentioned in this tender in various Reputed Central and/or State Government Universities and Institutes or other reputed national level institute in India. PO copy should be attached.

28. Each Bidder should have at least 3 years of performance of Services/Maintenance of Laboratory Equipment mentioned in this tender in various Reputed Central and/or State Government Universities and Institutes or other reputed national level institute in India. Servicing copy should be attached.

29. A bidder can submit bid for one, some or all the laboratories. But Only one PRICE BID should be submitted for each laboratory. A bidder, who submits more than one PRICE BID for a single laboratory, shall be disqualified and considered non-responsive.

Documents required for eligibility in the tender

S. N.	Description	Uploaded/ Not uploaded
1	The EMD of INR 1,53,884.75.00(Rupees One Lakh Fifty Three Thousand Eight Hundred Eighty Four and Seventy Five Paisa Only) is to be paid only through Online mode and proof has to be submitted. If the EMD is not paid, then the bid will be automatically rejected.	
2	Technical Specification Compliance Statement -(On the letter head of the Company) – Annexure -1	
3	Manufacturer’s Authorization Form – In defined format OR Self Declaration of Manufacturing Unit – Annexure – 2	
4	Price Reasonability Certificate – In defined format (On the letter head of the Company)- Annexure – 3	
5	Declaration Certificate (Acceptance of terms & conditions of the tender) – In defined format (On the letter head of the Company) - Annexure – 4 and Declaration Sheet as per Annexure - 4A .	
6	As on date of submission of the proposal, the Bidder is neither blacklisted by Central Government/ State Government or Instrumentalities thereof nor is any criminal case against the Bidder/ its Partners/ Directors/ Agents pending before any court of law. Non-Blacklisting Certificate on Rs. 100.00 non-Judicial Stamp Paper – In defined format - Annexure - 5	
7	Copy of Firm Registration	
8	Copy of PAN Card & GST No.	
9	Bidder should have at least 3 years’ experience in the selling and 3 years experience providing service (related Equipment) to reputed Reputed Central and/or State Government Universities and Institutes or other reputed national level institute in India. – List of Clients & Purchase Orders of “Laboratory Equipment mentioned in this tender” to be submitted.	
10	Undertaking of Technical key persons proposed by the bidder with attested copies of Certificate of academic qualification including Phone Number and contact details and Pan Card/Passport where signature of the key person along with his photograph is clearly visible. These key persons should be available for any technical issue/maintenance during the warrant period and after that	
11	The Bidder or their OEM should possess any valid standard certification of ISO 9001:2015/ 14001:2004.	
12	Bidder should enclose the copies of last 3 years (FY 2017-2018, FY 2018-2019, FY 2019-2020) Audited Annual Accounts (Balance Sheet and Profit & Loss A/c) duly authenticated by Chartered Accountant	
13	Last three years (FY 2017-2018, FY 2018-2019, FY 2019-2020) CA certified turnover certificate (Average Turnover of last three years should be Rs.15 lakhs (Rupees Fifteen lakhs only)	
14	Last 3 year (FY 2017-2018, FY 2018-2019, FY 2019-2020) Income Tax Return (ITR)	
15	In case of exemption of EMD, the scanned copy of the document in support of exemption will have to be uploaded by the bidder during bid submission	
16	MOST IMPORTANT: Document related to prior installation and service – At least 3 Academic and R&D National Organizations, Central and/or State Government Universities/Institutes/ Departments/ Institutions/ PSU in the last 4 years. Annexure – 6	
17	Separate Catalogue with make and model number for each equipment for each of the laboratories quoted need to be enclosed	

Place:

Date:

Signature and seal of the Manufacturer/ Bidder

Terms & conditions mentioned above are accepted

Signature of Contractor
Official Seal

Technical Compliance Statement for Common Laboratory Hall (Phase II), Assam Energy Institute, Sivasagar

(ON THE LETTER HEAD OF THE COMPANY)

Name of the Lab:				
S.N.	Item (Name of Laboratory Equipment)	Description of Specifications	Make and Model No.	Comply (or) Not Comply

Please mention the brand and model no. & name of the equipment:

Place:

Date:

Signature and seal of the Manufacturer/Bidder

Terms & conditions mentioned above are accepted

Signature of Contractor
Official Seal

**MANUFACTURERS' AUTHORIZATION FORM (MAF)
(ON THE LETTER HEAD OF THE COMPANY)**

[NOTE: The Bidder shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be **on the letterhead of the Manufacturer** and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer. It should be included by the Bidder in its bid]

No. Dated

Date: **[insert date (as day, month and year) of Bid Submission]**

Tender No.: **[insert number from Invitation for Bids]**

To, Director
Rajiv Gandhi Institute of Petroleum Technology
Mubarakpur, Mukhtia, Bahadurpur
POST: Harbanshganj, Jais, Amethi - 229304

WHEREAS

We **[insert complete name of Manufacturer]**, who are official manufacturers of **[insert type of goods manufactured]**, having factories at **[insert full address of Manufacturers factories]**, do hereby authorize **[insert complete name of Bidder]** to submit a bid the purpose of which is to provide the following Goods, manufactured by us **[insert name and or brief description of the Goods]**, and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with the General Conditions of Contract, with respect to the Goods offered by the above firm.

Signed: **[insert signature(s) of authorized representative(s) of the Manufacturer]**

Name: **[insert complete name(s) of authorized representative(s) of the Manufacturer]**

Title/Designation: **[insert title]**

Duly authorized to sign this Authorization on behalf of: **[insert complete name of Bidder]**

Dated on day of,,**[insert date of signing]** Yours faithfully,

(Name of manufacturers)

OR

SELF DECLARATION OF MANUFACTURING UNIT

Terms & conditions mentioned above are accepted

Signature of Contractor
Official Seal

PRICE REASONABILITY CERTIFICATE
(ON THE LETTER HEAD OF THE COMPANY)

It is certified that the rates quoted against Tender No.

Dated.....for the items vide our bid No.
..... datedare exclusively for supply
to ACADEMIC and RESEARCH Institutions and are not more than as charged to other Govt./PSU"s for
similar supplies made in recent past. If they have been approved by the Director, RGIPT and if at any
stage it has been found that the quoted rates are higher than the rates applicable to supply to Government
then in such condition RGIPT, Amethi, will have the right to cancel the approved rates and to take legal
action against the tenderer.

Yours faithfully,

(Name of manufacturers)

(Signature with date)

(Name and designation)

Duly authorized to sign tender for and on behalf of

Terms & conditions mentioned above are accepted

Signature of Contractor
Official Seal

DECLARATION (ACCEPTANCE OF TERMS & CONDITIONS)
(ON THE LETTER HEAD OF THE COMPANY)

1. I,.....Son/Daughter of Shri
.....Proprietor/ Partner/CEO/MD/Director/Authorized
Signatory of M/s am competent to sign this tender document.
2. I have carefully read and understood all the terms and conditions of the tender and hereby convey my acceptance of the same.
3. The information/ documents furnished along with the above application are true and authentic to the best of my knowledge and belief.
4. I/ we/ am are well aware of the fact that furnishing of any false information/ fabricated document would lead to rejection of my tender at any stage besides liabilities towards prosecution under appropriate law.
5. Each page of the tender document and papers submitted by my Company is authenticated, sealed and signed, and I take full responsibility for the entire documents submitted.

Date:

.....

Place:
Person

Signature of the Authorized

Full Name:

Company Seal:

Terms & conditions mentioned above are accepted

Signature of Contractor
Official Seal

DECLARATION SHEET

We, _____ hereby certify that all the information and data furnished by our organization with regard to this tender specification are true and complete to the best of our knowledge. I have gone through the specification, conditions and stipulations in details and agree to comply with the requirements and intent of specification.

This is certified that our organization has been authorized (Copy attached) by the OEM to participate in Tender. We further certified that our organization meets all the conditions of eligibility criteria laid down in this tender document. Moreover, OEM has agreed to support on regular basis with technology / product updates and extend support for the warranty.

The prices quoted in the price bids are subsidized due to academic discount given to RGIPT, Jais, Amethi.

We, further specifically certify that our organization has not been Black-Listed/ De Listed or put to any Holiday by any Institutional Agency/ Govt. Department/ Public Sector Undertaking in the last three years.	
1. Phone	
2. Fax	
3. E-mail	
4. Contact Person Name	
5. Mobile Number	
6. TIN Number	
7. PAN Number	

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Signature of Contractor
Official Seal

8.. Kindly provide bank details of the bidder in the following format: a) Name of the Bank	
b) Account Number	
c) Kindly attach scanned copy of one Cheque book page to enable us to return the EMD to unsuccessful bidder	

(Signature of the Tenderer)

Name:

Seal of the Company

Terms & conditions mentioned above are accepted

Signature of Contractor
Official Seal

NON-BLACKLISTING DECLARATION

It has been certified that all information provided in tender form is true and correct to the best of my knowledge and belief. No forged / tampered document(s) are produced with tender form for gaining unlawful advantage. We understand that RGIPT, Amethi is authorized to make enquiry to establish the facts claimed and obtain confidential reports from clients.

In case it is established that any information provided by us is false / misleading or in the circumstances where it is found that we have made any wrong claims, we are liable for forfeiture of EMD and or any penal action and other damages including withdrawal of all work/purchase orders being executed by us. **Further RGIPT, Amethi is also authorized to blacklist our firm/company/agency and debar us in participating in any tender/bid in future.**

I / We assure the Institute that neither I / We nor any of my / our workers will do any act/s which is improper / illegal during the execution in case the tender is awarded to us.

Neither I/We nor anybody on my/our behalf will indulge in any corrupt activities/practices in my/our dealing with the Institute.

Our Firm/Company/Agency is not been blacklisted or banned by any Central Government/State Government/ Central Government Department/State Government Department, PSU, University, Autonomous Institute or Any other Govt. Organization.

Date

Signature of the Tenderer

Place

Stamp

Note: This certificate should be executed on duly notarized INR 100/- Non Judicial StampPaper.

Terms & conditions mentioned above are accepted

Signature of Contractor
Official Seal

List of Central and/or State Govt. Universities/Institutes/Organization/Department

List of Central and/or State Government Universities/Institutes/Organization/Department for whom the Bidder has undertaken such work during last three years (must be supported with work orders)		
Name of the Organization	Name of Contact Person	Contact No.

(Signature of the Tenderer)

Name:

Seal of the Company

Terms & conditions mentioned above are accepted

Signature of Contractor
Official Seal

Price Bid Format

Tender No. AEI/SVR/PC/TENDER/2021-22/01

Name of Work: TENDER FOR SUPPLY, INSTALLATION & OPERATION OF LABORATORY EQUIPMENT
AT COMMON LABORATORY HALL (Phase II), ASSAM ENERGY INSTITUTE, SIVASAGAR

Name and address of the Bidder:

I. Geology Lab				
S.N.	Description	Rate (INR)	Quantity	Amount (INR)
1	Burton Compass		10	
2	Rock hammer, Chisel & Pocket lens		10	
3	Rock collection kit (Indian rock specimen)		5	
4	Fossil Collection kit		5	
5	Mineral Collection kit (Mineral specimen)		5	
6	Hardness scale collection kit		10	
7	Fold and Faults model.		5	
8	Geological maps		5	
9	Add: Cost of Warranty (2 Year)			
10	Add: Packing & Forwarding Charges, If any			
11	Add: Installation & Commissioning Charges, if any			
12	Add: Transportation Charges up to AEI, Sivasagar, if any			
13	Add: GST (Taxes)			
14	Total Price in numbers (Sum of Sl. No 1 to 13) F.O.R AEI, SIVASAGAR			
15	Total Price in words (Sum of Sl. No 1 to 13) F.O.R AEI, SIVASAGAR			

Each equipment must include all of their accessories and their quantities as mentioned in detailed tender document specifications.

The Institute will provide DSIR & GST Exemption Certificate.

Tender No. AEI/SVR/PC/TENDER/2021-22/01

Name of Work: TENDER FOR SUPPLY, INSTALLATION & OPERATION OF LABORATORY EQUIPMENT
AT COMMON LABORATORY HALL (Phase II), ASSAM ENERGY INSTITUTE, SIVASAGAR

Name and address of the Bidder:

II. Petroleum Engineering Lab I				
S.N.	Description	Rate (INR)	Quantity	Amount (INR)
1	Fann API Filter Press (LP/LT) with Hydraulic Dead Weight Assembly		2	
2	Hamilton Beach Mixer & measuring cup		5	
3	Mud Balance		10	
4	Marsh Funnel Viscometer		10	
5	FANN V-G Viscometer		1	
6	API Specific Gravity hydrometers set		3	
7	Water bath		2	

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8	Hot Air Oven		2	
9	Add: Cost of Warranty (2 Year)			
10	Add: Packing & Forwarding Charges, If any			
11	Add: Installation & Commissioning Charges, if any			
12	Add: Transportation Charges up to AEI, Sivasagar, if any			
13	Add: GST (Taxes)			
14	Total Price in numbers (Sum of Sl. No 1 to 13) F.O.R AEI, SIVASAGAR			
15	Total Price in words (Sum of Sl. No 1 to 13) F.O.R AEI, SIVASAGAR			

Each equipment must include all of their accessories and their quantities as mentioned in detailed tender document specifications.

The Institute will provide DSIR & GST Exemption Certificate.

Tender No. AEI/SVR/PC/TENDER/2021-22/01

Name of Work: TENDER FOR SUPPLY, INSTALLATION & OPERATION OF LABORATORY EQUIPMENT
AT COMMON LABORATORY HALL (Phase II), ASSAM ENERGY INSTITUTE, SIVASAGAR

Name and address of the Bidder:

III. Petroleum Engineering Lab II				
S.N.	Description	Rate (INR)	Quantity	Amount (INR)
1	Pensky Marten flash and fire point apparatus		1	
2	Cloud and Pour point apparatus		1	
3	Smoke Point Apparatus		1	
4	Portable Density Meter		1	
5	Rotational Viscometer		1	
6	Bomb Calorimeter		1	
7	ASTM Crude distillation apparatus with thermometers		1	
8	Aniline point apparatus		1	
9	Softening point apparatus		1	
10	Total Acid Number apparatus		1	
11	Soxhlet Apparatus		1	
12	Copper Corrosion Test apparatus		1	
13	Portable Cetane Octane measuring Tester		1	
14	Add: Cost of Warranty (2 Year)			
15	Add: Packing & Forwarding Charges, If any			
16	Add: Installation & Commissioning Charges, if any			
17	Add: Transportation Charges up to AEI, Sivasagar, if any			
18	Add: GST (Taxes)			
19	Total Price in numbers (Sum of Sl. No 1 to 18) F.O.R AEI, SIVASAGAR			
20	Total Price in words (Sum of Sl. No 1 to 18) F.O.R AEI, SIVASAGAR			

Each equipment must include all of their accessories and their quantities as mentioned in detailed tender document specifications.

The Institute will provide DSIR & GST Exemption Certificate.

Terms & conditions mentioned above are accepted

Signature of Contractor
Official Seal

Tender No. AEI/SVR/PC/TENDER/2021-22/01

Name of Work: TENDER FOR SUPPLY, INSTALLATION & OPERATION OF LABORATORY EQUIPMENT
AT COMMON LABORATORY HALL (Phase II), ASSAM ENERGY INSTITUTE, SIVASAGAR

Name and address of the Bidder:

IV. Enhanced Oil Recovery Lab				
S.N.	Description	Rate (INR)	Quantity	Amount (INR)
1	Digital weigh balance		3	
2	Magnetic stirrer		3	
3	Tarsons Rotospin Rotary Mixer with bars- 3091X Bar, 3092X Bar, 3093X Bar		1	
4	Double distillation apparatus		1	
5	Kruss Easy Dyne Force Tensiometer K20 with Measuring Probe- Platinum-Iridium precious metal alloy ring RI21 Standard measuring probe for the Du Noüy ring method		1	
6	Add: Cost of Warranty (2 Year)			
7	Add: Packing & Forwarding Charges, If any			
8	Add: Installation & Commissioning Charges, if any			
9	Add: Transportation Charges up to AEI, Sivasagar, if any			
10	Add: GST (Taxes)			
11	Total Price in numbers (Sum of Sl. No 1 to 10) F.O.R AEI, SIVASAGAR			
12	Total Price in words (Sum of Sl. No 1 to 10) F.O.R AEI, SIVASAGAR			

Each equipment must include all of their accessories and their quantities as mentioned in detailed tender document specifications.

The Institute will provide DSIR & GST Exemption Certificate.

Tender No. AEI/SVR/PC/TENDER/2021-22/01

Name of Work: TENDER FOR SUPPLY, INSTALLATION & OPERATION OF LABORATORY EQUIPMENT
AT COMMON LABORATORY HALL (Phase II), ASSAM ENERGY INSTITUTE, SIVASAGAR

Name and address of the Bidder:

V. Industrial Pollution & Control Lab				
S.N.	Description	Rate (INR)	Quantity	Amount (INR)
1	pH Meter		2	
2	Exhaust Analyzer		1	
3	Fire Extinguisher (ABC Extinguisher) 4 kg		4	
4	Safety equipment set		4	
5	Add: Cost of Warranty (2 Year)			
6	Add: Packing & Forwarding Charges, If any			
7	Add: Installation & Commissioning Charges, if any			

Terms & conditions mentioned above are accepted

Signature of Contractor
Official Seal

8	Add: Transportation Charges up to AEI, Sivasagar, if any	
9	Add: GST (Taxes)	
10	Total Price in numbers (Sum of Sl. No 1 to 9) F.O.R AEI, SIVASAGAR	
11	Total Price in words (Sum of Sl. No 1 to 9) F.O.R AEI, SIVASAGAR	

Each equipment must include all of their accessories and their quantities as mentioned in detailed tender document specifications.

The Institute will provide DSIR & GST Exemption Certificate.

Date

Signature of the Tenderer

Place

Stamp

Note:

1. The Company can bid only in Indian Currency in the given format
2. The Institute will provide DSIR & GST Exemption Certificate.
3. For Exemptions:-
 - a) For Customs duty exemption in terms of Govt. Notification No. 51/96- Customs dated 23.07.1996& 28/03 Customs dated 01.03.2003 and Central Excise duty Exemption in terms of govt. Notification No. 10/97- Central Excise dated 01.03.1997 & 28/13- Central Excise dated 01.10.2013. Institute DSIR Notification No. TU/V/RG-CDE(1083)/2016 dated:03.02.2017 Valid up to 31.08.2021
 - b) For GST Exemption Notification No. 47/2017- Integrated tax (Rate).

Terms & conditions mentioned above are accepted

Signature of Contractor
Official Seal