

List of items under procurement process as on 28th Feb 2021

Si No	INDENTDESC
1	(1) Evaluation charges for Programmable DC Power supply 167 Amps 60Volts Ametek-Sorenson Model: SGA60X167D-1AAB Serial Number 1124A05547 including two way transit
2	(1) Condition Assessment of Energy storage capacitors by measurement of capacitance, tan-delta values of individual energy storage capacitor units. (2) Condition Assessment of Energy storage capacitors by measurement of capacitance, tan-delta values of individual energy storage capacitor units. (3) Condition Assessment of Energy storage capacitors by measurement of capacitance, tan-delta values of individual energy storage capacitor units. (4) Condition Assessment of Energy storage capacitors by measurement of capacitance, tan-delta values of individual energy storage capacitor units. (5) Condition Assessment of Energy storage capacitors by measurement of capacitance, tan-delta values of individual energy storage capacitor units.
3	(1) Quantachrome make adsorption isotherm system repairing as per the attached scope of work (2) Replacement of components as per the need, if any.
4	(1) Retrofit Job of 3 nos. 1500/5-5 Amp. Megawin make Current Transformers, Core1: 15VA, CL 5P20, Core2: 7.5VA, CL 1.0 (protection core in all three CTs and measurement core in any one CT) in Megawin make 11kV VCB Switchboard alongwith supply, mounting and connection including associated flexible copper connection joints and aluminium busbars including Removal of existing 3 nos. 100/5-5 Amp. Current Transformers.
5	(1) Signal processing card with DAC
6	(1) FOR PROVIDING SERVICES OF MATERIAL HANDLING AND MOVEMENT AT IPR BHAT - GANDHINAGAR, FCIPT AND ITER-INDIA KOTESHWAR. AS AND WHEN REQUIRED BASIS.
7	(1) Digital Multimeter
8	(1) Hand Held Digital Multimeter
9	(1) Supply, fabrication, installation and commissioning of Graphite electrode assembly for 50mm electrode as per attached drawings (2) Supply, fabrication, installation and commissioning of Graphite electrode assembly for 100mm electrode as per attached drawings
10	(1) High Performance Power supplies
11	(1) Laser Photodetector (2) Plano-Convex Lens for wavelength 350-700 nm (3) Fixed Lens Mount (4) Plano-Convex Lens for wavelength 1050-1700 nm (5) Pedestal adapter with Magnetic Base (6) Sample Pack with BPH Post Holders
12	(1) CZT based detector system
13	(1) RF Signal generator as per the attached specifications

14	(1) Epoxy resin System for Cryogenic Application at 77 K and 4.2 K Epoxy resin (Part 1 ARA43) (2) Curing Agent (Hardener) Part 2 .: AH749
15	(1) Anti Wear Hydraulic Oil
16	(1) Garnet Abrasive(type : 80 Mesh) for Omax make water jet cutting machine(model No : 60120)
17	(1) Non magnetic, Honeycomb,optical table top with compatible, rigid support table
18	(1) SCMOS detector
19	(1) Desktop Computer (Technical Specifications as per the attached sheet)
20	(1) All-In-One Computer (Technical Specifications as per attached sheet)
21	(1) Design, fabrication, supply, installation and commissioning of gas cleaning system for flue gas
22	(1) Pneumatic testing of Liquid Nitrogen storage tanks as per SMPV (U) rule 19 at Institute for Plasma Research, Gandhinagar
23	(1) rotary vacuum pump for corrosive environment
24	(1) RF (13.56 MHz) power supply (1000Watts) along with matching network and cables.
25	(1) Digital Storage Oscilloscope (DSO) specification is attached in separate sheet
26	(1) Function Generator 2 channel, 10mHz to 80Mhz
27	(1) 50 mm Diameter Graphite Electrodes with machining and Threading (2) 50 mm Diameter Graphite Electrodes with machining and Threading (3) 100 mm Diameter Graphite Electrodes with machining and Threading (4) 100 mm Diameter Graphite Electrodes with machining and Threading
28	(1) DC Power Supply 0-30 volt and 10 ampere (2) DC Power Supply 0-30 volt and 5 ampere

29	<p>(1) Supply, Installation, testing and Commissioning of Cabinet type constructed with heavy gauge GI (double skin or acoustically insulated) duct inline exhaust air unit. Other details as per attached sheet.</p> <p>(2) Design, Supply, fabrication, installation and testing of GI sheet metal ducts of 24 SWG , including necessary MS supports, anchor fastener, suitable size of connecting rods, angle frames, bolt, nut etc. Other details as per attached sheet.</p> <p>(3) Design, Supply, fabrication and Installation of backed enamel painted/powder coated extruded Aluminium air grilles with VCD. Other details as per attached sheet.</p> <p>(4) Design, Supply, fabrication and Installation of Non vision fresh air transfer Grills suitable for mounting in toilet doors, partitions and brick wall. Grills should have no sight feature. Other details as per attached sheet.</p> <p>(5) Design, supply, installation, testing and commissioning of Suitable size SS 304 insect mesh at the open ends of duct running through cut out. Other details as per attached sheet.</p> <p>(6) Supply, fabrication, Installation, and testing of flexible canvas connections constructed of fire resistant flexible canvas sleeve. Other details as per attached sheet.</p>
30	(1) Trolley for transporting gas cylinder as per attached specification
31	(1) Design, fabrication, supply, installation and commissioning of Secondary chamber assembly
32	(1) RF cable 50 Ohm, 2.4 mm (f) - 2.4 mm (m), DC to 26.5 GHz, Flexible, Phase stable, 3 meter
33	(1) Supply of VFD Cable
34	(1) In-line IV probe
35	(1) Wall mounted NF3 gas detector
36	(1) hp laserjet black print cartridge 410A cf410A
37	(1) Sealed Maintenance Free (SMF) Batteries 12V, 75AH
38	(1) Supply of grade-1 hydrogen gas in rental basis gas cylinders.
39	<p>(1) White Cotton Waste 50 Kilogram, Cotton white Bleached Malmal Cloth. As per attached specification. (IPR CODE: 11 CX91 1001)</p>
40	<p>(1) Supply of butterfly valve of 50 NB size. Other details as per attached sheet.</p> <p>(2) Supply of butterfly valve of 150 NB size. Other details as per attached sheet.</p> <p>(3) Supply of butterfly valve of 200 NB size. Other details as per attached sheet.</p>
41	(1) Digital Storage Oscilloscope as per attached specifications
42	<p>(1) a) XYZ translation stages (15 cm along X, 15 cm along Y and 15 cm along Z)</p> <p>(2) b) XYZ translation stages (20 cm along X, 20 cm along Y and 20 cm along Z)</p> <p>(3) c) 3 axes controller along with its software for items (a) and (b).</p> <p>(4) d) 6 axes controller along with its software for items (a) and (b).</p>
43	(1) Metal Shelving Rack

44	(1) Metal film resistor, MFR 1/2W 100 Ohm, As per attached specification only. (IPR CODE: 04 RM91 1035) (2) Metal film resistor, MFR 1/2W 1.0 K As per attached specification only. (IPR CODE: 04 RM91 1125) (3) Metal film resistor, MFR 1/2W 1.5 K As per attached specification only. (IPR CODE: 04 RM91 1130)
45	(1) Supply of PVC nylon braided hose pipe of 50 mm ID. other details as per attached sheet.
46	(1) Power Generator (DG Set) Rating: 500kVA (Detailed specifications are attached)
47	(1) Small Angle Grinders
48	(1) Caliper
49	(1) 12 V, 26AH Battery as per attached specification sheet
50	(1) Almirah Steel (2) Metal Shelving rack
51	(1) Miniature Circuit Breakers-IS 60898-1:2002.
52	Module of laboratory benches4-seaterType of back of work benchesIsland typeDesignWith electrical fitting(Physics Lab)Main understructure (atleast)MS CRC Sq. pipe 40mm X 40mm X 1.6mm with 45-50 micron powder coatedRemovable back panelMade of CRCA MS 1mm thickness and coated with epoxy powderTop materialPrelaminated particle boardThickness of top material in mmMinimum 18 millimeterWidth in mmMinimum 2400 mmDepth in mmMinimum 1240 mmHeight in mmMinimum 750 millimeterFinishFrame work to be pretreated with superior pure epoxy powder coated finishWarranty period in number of yearsAtleast 1yr (2) Almirah Conformity to Indian Standard IS:3312 latestYesNo of shelves4Type of ShelvesAdjustableNumber of Doors2ConstructionWeldedLockThree Way bolting device controlled by 6 lever lockMaterialM.S sheet conforming to commercial quality CR- 1,Grade 340 of IS 513:2008 (reaffirmed 2013)(Fifth Revision)Amdt. no.1Material of Almirah DoorsM S SheetSheet Thickness of door in mm1.0 mmSheet Thickness of sides,back , Top and Bottom0.9 mmSheet Thickness of Shelves1.0 mmSheet Thickness of Pedestal in mm0.9 mmHeight (Without Pedestal) (in mm) (+/- 10 mm)1855Width in mm (± 10 mm)910 millimeterDepth in mm (±10 mm)486 millimeterWarantee PeriodAtleast 2 yrs (3) Laboratory Table Module of laboratory benches4-seaterType of back of work benchesIsland typeMain understructure (atleast)MS CRC Sq. pipe 40mm X 40mm X 1.6mm with 45-50 micron powder coatedTop materialPrelaminated particle boardThickness of top material in mmMinimum 19 millimeterWidth in mmMinimum 2400 mmDepth in mmMinimum 1240 mmFinishFrame work to be pretreated with superior pure epoxy powder coated finishWarranty period in number of yearsAtleast 1yrDesignElectrical fitting(Physics Lab) (4) Chairs Pedestal BaseChrome finish with 5 wheelsArm MaterialProopyleneSeat materialPU Foam
53	(1) Fabrication, inspection, testing & Supply of Low Voltage Distribution Panel (3 Phase MDB), with all accessories (2) Fabrication, inspection, testing & Supply of Low Voltage Distribution Panel (Single Phase MDB), with all accessories (3) Erection, Testing & commissioning of Low Voltage Distribution Panel (3 phase and single phase DB) at site.

54	(1) WR340 Waveguide Length 1000mm as per attached specification (2) WR340 90° E-plane Sweep Bend as per attached specification (3) WR340 90° H-plane Sweep Bend as per attached specification (4) WR340 90° Twist as per attached specification (5) WR340 to WR284 Waveguide Transition as per attached specification
55	(1) 63 CF ETP Copper Gasket. ETP copper gaskets for conflate (CF) flanges. As per attached drawing and specification only. (IPR CODE: 09 GC91 1002) (2) 100 CF ETP Copper Gasket. ETP copper gasket for conflate (CF) flanges. As per attached drawing and specification only. (IPR CODE: 09 GC91 1003) (3) 150 CF ETP Copper Gasket. ETP copper gasket for conflate (CF) flanges. As per attached drawing and specification only. (IPR CODE: 09 GC91 1004)
56	(1) 35 Litres (pack size 5 litres) disinfectant and fumigant
57	(1) UHV compatible flexible hose with 40 CF end flange
58	(1) High Voltage Differential Probe
59	(1) 100 CF UHV TEE ADAPTER (2) 100 CF 4-WAY CROSS UHV ADAPTER (3) 35 CF 4-WAY CROSS UHV ADAPTER (4) 35 CF TO 16 CF ZERO LENGTH UHV ADAPTER (5) 16 CF UHV FLANGE (6) 35 CF ROTATABLE UHV FLANGE (7) 150 CF TO 100 CF UHV ADAPTER
60	(1) Small form-factor pluggable transceiver (GeM Category - Small form-factor pluggable transceiver)
61	(1) Digital Storage Oscilloscope
62	(1) supply of Helium Gas
63	(1) Digital Storage Oscilloscope. Detailed specifications given in separate sheet.
64	(1) Multi-parameter Digital Flow Controller. Detailed specifications in separate sheet.
65	(1) Supply of Laser Distance Meter 100 meter Range
66	(1) Supply of Complete Automation system (Hardware and Software) along with enclosure panel, Installation, Commissioning, testing and applications development.
67	(1) 16 CF OFHC Copper gaskets (2) 40 CF OFHC Copper Gaskets (3) 150 CF OFHC Copper Gaskets (4) 200 CF OFHC Copper Gaskets
68	(1) Sodium Iodide (NaI) scintillator with a Photo Multiplier Tube (PMT) (2) Appropriate Electronics (Pre-amplifier, HV supply, voltage divider etc.) for PMT mentioned in item no.1
69	(1) Stereo Microscope
70	(1) Electro-Pneumatic control valve for Helium gas service
71	(1) Raspberry Pi-4 Model B having 8GB of RAM with below mentioned compatible accessories. 1. USB A to USB C cable 2. Micro HDMI to standard HDMI adapter cable 1 Mtr 3. Heat Sinks (heatsink for CPU, RAM, Ethernet etc.. ) 4. Raspberry Pi 4 official 15W USB-C Type Power Supply 5. Aluminium case with Fans 6. 64 Gb Class 10 MicroSD Memory Card

72	(1) 250mm dia chamber with charcoal coated components as per tender specification
73	(1) Workstation with Intel core i7 10700 Processor 16GB
74	(1) Hypervsn 3D Holographic Display
75	(1) Stirling cycle based cryocooler as per attached specification
76	(1) Cyan TONER Cartridge of Xerox 7125 (2) Magneta TONER Cartridge of Xerox 7125 (3) Yellow TONER Cartridge of Xerox 7125
77	(1) Double pancakes Inner diameter 500 mm (2) Double pancakes Inner diameter 700 mm
78	(1) parker solenoid valve with serial number 4818653D D5L F
79	(1) XYZ translation stages for optical components (2) Standard optical breadboard
80	(1) Steam Autoclave
81	(1) PEEK (Polyether ether ketone) pipe 100 mm ID and 120 mm OD as per attached specifications (2) PEEK (Polyether ether ketone) pipe 35 mm ID and 40 mm OD as per attached specifications
82	(1) Supply and Installation of WAN Router with buyback option. Details and Technical Specifications as per the attached sheets
83	(1) Process Automation Controller (PAC) CPU with license on pre-loaded SD card Make: Eurotherm, Code: T2750-S-A-2-D-1-A-1  (2) 8-Channel Analog Input (AI) module,  Code: 2750M-AI8-mA (3) Terminal for 8-channel AI module,  Code: 2750T-AI8-mA (4) 2-Channel Analog Output (AO) module,  Code: 2750M-AO2UNIV (5) Terminal for 2-channel AO module,  Code: 2750T-AO2-UNIV-NONE (6) 4-Channel Relay Output module  Code: 2750M-RLY4-EXTPWR (7) Terminal for 4-channel Relay Output module,  Code: 2750T-RLY4-UNIV-NONE
84	(1) Fabrication and Supply of Vacuum Duct for Turbomolecular Pump

85	<p>(1) Height adjustable Counter Chair  Lowest height: 350 mm +/- 50 mm  Hydraulic adjustment: 200 mm  Frame and Support: Stainless steel 202 or 304  Chair type: Revolving  Type of sheet: Circular  Foot rest: Yes  Pedestal: Flat, circular without wheel  Seat Material: Cushion with cover  Foam density: 30 - 40 Kg/CuM  Seat cover: PU/ Leatherine/ Rexin  Seat Size (Diameter): 400 mm +/- 50 mm  Seat Color: Black/ Brown</p>
86	(1) Industrty Pack VITA 4 complaint reconfigurable TTL compatible digital inputs out module with interrupt on change of state
87	<p>(1) MULT.STRD FLXB.CU.CAB.1.1KV2.5SQ.MM 1 CORE. As per attached specification . (IPR CODE: 05 WX91 1052)  (2) COPPER CABLE 16 SQ.MM SINGLE CORE. As per attached specification. (IPR CODE: 05 WX91 1061)</p>
88	(1) 16 Ports Managed PoE+ Layer-2 Access Switch
89	(1) Spare parts set f/isolat. valve 181.5mm, V3 valve, 181,5mm, Spares Kit, HSN Code:9999.99.99
90	(1) Control Unit VDH-R201 (11501)/SEEBIT, Part No. 000000-0560-446, HSN Code: 9999.99.99
91	(1) Multi track spectrograph. Detailed specifications as per attached documents.
92	<p>(1) 10 micron Al Foil, Mounted on Non-magnetic Circular Ring  (2) 10 micron Be Foil, Mouted on Non-magnetic Circular Ring</p>
93	(1) Power Factor Meter- Digital
94	(1) Transformer Digital Winding Resistance Meter
95	(1) Supply of Molybdenum sheet of size 1000 x500 x2 mm3 (Length x Width x Thickness)
96	(1) TOSLNF50A-18 Precision N Female Through/Open/Short/Load Mechanical Calibration Tee, DC to 18 GHz, 50 &#937;
97	(1) Desktop computer as per attached specification
98	<p>(1) 26 pin D-type Positronic make feed through Part no. XAVAC26M/SS.1/AA  (2) 25 pin D-type Positronic make feed through Part no. XAVAC25M/SG.0/AA</p>
99	<p>(1) Supply, fabrication, installation and commissioning of Graphite Electrode assembly for 50mm electrode as per attached drawings  (2) Supply, fabrication, installation and commissioning of Graphite Electrode assembly for 75mm electrode as per attached drawings  (3) Supply, fabrication, installation and commissioning of Graphite Electrode assembly for 100mm electrode as per attached drawings  (4) Supply, fabrication, installation and commissioning of Graphite Electrode assembly for 145mm electrode as per attached drawings</p>
100	<p>(1) 0-8kV,500mA,20kH-50kHz High Voltage High Frequency Power supply (detail specification attached)  (2) 0-30kV,100mA,20kH-50kHz High Voltage High Frequency Power supply (detail specification attached)</p>

101	<p>(1) Socket With Switch 5Amp Switch and Socket Combination As per attached specification and GEM Referral sheet. (IPR Code: 05 SK91 1004)</p> <p>(2) 3 PIN 5 AMP TOP PLUG As per attached specification and GEM Referral sheet. (IPR CODE: 05 PX91 1001)</p> <p>(3) SOCKET TYPES 3 PIN 5 AMP As per attached specification and GEM Referral sheet. (IPR CODE:05 SK91 1002)</p> <p>(4) TOP PLUG 5AMP 2PIN As per attached specification and GEM Referral sheet. (IPR CODE: 05 PX91 1003)</p>
102	<p>(1) Roots/Scroll Oil free Dry Vacuum Pump (2) Pirani Gauge with controller and Accessories</p>
103	(1) e/m Measurement and Demonstration Apparatus
104	<p>(1) Neon Lamp Transformer 2x15 KV = 15-0-15 kV, 30 mA</p> <p>(2) Neon Lamp Transformer 2 x 45 kV = 45KV-0-45KV, 20mA</p>
105	<p>(1) Compact Tesla Coil Spark Generator</p> <p>Specification:-</p> <ol style="list-style-type: none"> <li>1. Size of the overall system : 1 feet x 1.5 feet x 1 feet ± 01 inch</li> <li>2. Spark length expected to be generated generated : 1 to 2 inches or better</li> <li>3. Efficiency in distance in lighting up a fluorescence tube light : One feet or better.</li> <li>4. Electronically triggered with No spark gap</li> <li>5. Frequency: 50- 80 kHz or higher</li> <li>6. Input power: 220-230 volt 5 Amp power point</li> <li>7. Warranty : One year</li> </ol>
106	(1) 400 A Power Distribution Panel
107	(1) Triple channel ultrasonic spray system along with associated components
108	(1) Digital Storage Oscilloscope
109	(1) Refractive Optics based Endoscope system as per the attached specificaiton sheet.
110	(1) Quantum Efficiency Measurement System for Solar Cell
111	(1) Electrochemical Impedance Spectroscopy Setup for Solar Photovoltaic Devices
112	(1) Digital Storage Oscilloscope
113	(1) Design, Supply, Fabrication, Installation, Testing, and Commissioning of Cooling Water System for New Laboratories



114	(1) Supply of cryo temperature sensor monitor
115	(1) Supply of Un-Calibrated Silicon diode temperature sensor (2) Supply of Calibrated Silicon diode temperature sensor
116	(1) Mass flow controllers as per attached sheet
117	(1) Design/engineering, manufacture, Supply, installation, testing and commissioning of VPI /Resin Impregnated dry type Converter Transformer of rating 750kVA, 415V/400V-400V, 50 Hz as per attached technical specification.
118	(1) Benchtop Digital Multimeter with data logging software
119	(1) Development of ECRH signal conditioning electronics as per attached specification
120	(1) Brand New Nitrogen Cylinder with valve as per attached technical specification
121	(1) DC Power Supply (with detail specifications as per attached sheet)
122	(1) Supply, Installation and Commissioning of 750 LPM PSA Nitrogen Gas Generator Set
123	(1) 4 Fiber 2.2 mm Based Construction Step-Index(Multi-Mode) 200 µm HCS Fiber Cables; Part No:BC04791-12 or Equivalent (2) V-Pin Connectors ,Blue color Suitable for HCS fiber cable; Part No.:BP04260-01 or Equivalent (3) V-Pin Connectors, Black/ Grey Colour Suitable for HCS fiber cable; Part No.: BP04260-02 or Equivalent
124	(1) STANDARD CLAW GRIP FOR DN 250 ISO K as per technical specifications (2) STANDARD CLAW GRIP FOR DN 500 ISO K as per technical specifications
125	(1) Turbo molecular pump (400 lps approx) with the backing pump and accessories as per the attached specification. (2) Turbo molecular pump (700 lps approx) with the backing pump and accessories as per the attached specification.
126	(1) Design, Detail engineering, Supply, Installation, Commissioning and Maintenance for 5 years of 50 KW Roof Top Solar Power System, two systems each at IPR and FCIPT as per the tender specifications.
127	(1) Control cable
128	(1) Supply of Bellow sealed ON/OFF valves
129	(1) Cryocooler Assembly
130	(1) Three (03) Core , 1.5 sq mm, Flexible copper cable. (IPR CODE:05 WX91 1028) As per attached GEM referral product and specification only. (2) MULT.STRD FLXB.CU.CAB.1.1KV1.5SQ.MM 2 CORE. (IPR CODE:05 WX91 1027) As per attached GEM referral product and specification only. (3) MULT.STRD FLXB.CU.CABEL 1.1KV2.5 SQ.MM 2 CORE. (IPR CODE:05 WX91 1053) As per attached GEM referral product and specification only.

131	<p>(1) TONNER CART. Q2612A FOR HP PRINTER 1015/1020/1010. (IPR CODE:03 HP91 1101)</p> <p>(2) Q7553A (HP LJ 2015) (IPR CODE: 03 HP91 1122)</p> <p>(3) CC388A HP Laser Jet P1008 1.5K Black Cartridge. (IPR CODE:03 HP91 1145)</p> <p>(4) CE278A HP Laserjet P1566/ P1606 Black Print Crtg. (IPR CODE:03 HP91 1156)</p> <p>(5) CF228A HP 28A Black LaserJet Toner. (IPR CODE:03 HP91 1207)</p> <p>(6) CF230A HP30A BLACK LASERJET TONER CARTRIDGE FOR PRINTER M203-DN. (IPR Code:03 HP91 1225)</p>
132	(1) DESIGN, MANUFACTURE, TESTING AND SUPPLY OF SPRING ENERGIZED C RINGS
133	(1) Labview Professional Development System with single user commercial license. Specifications are as per attached Annexure-1.
134	(1) Fabrication, Inspection, Testing and Supply of Ultra High Vacuum Chambers and support structure
135	<p>(1) SS 304 (AISI 304 or equivalent) Austenitic Stainless steel Bright round bar Dia 20 mm or nearest size x approx. 2 meter length x 10 nos.</p> <p>(2) SS 304 (AISI 304 or equivalent) Austenitic Stainless steel Bright round bar Dia 25 mm or nearest size x approx. 2 meter length x 10 nos.</p> <p>(3) SS 304 (AISI 304 or equivalent) Austenitic Stainless steel Bright round bar Dia 32 mm or nearest size x approx. 2 meter length x 5nos.</p> <p>(4) SS 304 (AISI 304 or equivalent) Austenitic Stainless steel Bright round bar Dia 35 mm or nearest size x approx. 2 meter length x 5nos.</p> <p>(5) SS 304 (AISI 304 or equivalent) Austenitic Stainless steel Bright round bar Dia 38 mm or nearest size x approx. 2 meter length x 4 nos.</p> <p>(6) SS 304 (AISI 304 or equivalent) Austenitic Stainless steel Bright round bar Dia 45 mm or nearest size x approx. 2 meter length x 2 nos.</p> <p>(7) SS 304 (AISI 304 or equivalent) Austenitic Stainless steel Bright round bar Dia 50 mm or nearest size x approx. 2 meter length x 2 nos.</p> <p>(8) SS 304 (AISI 304 or equivalent) Austenitic Stainless steel bright round bar Dia 60 mm or nearest size x approx. 2 meter length x 1 nos</p> <p>(9) SS 304 (AISI 304 or equivalent) Austenitic Stainless steel bright round bar Dia 70 mm or nearest size x approx. 2 meter length x 1 nos</p> <p>(10) Mild Steel sheet 2500 x 1250 x 5 mm or nearest size as per IS 2062 or equivalent</p> <p>(11) Mild Steel sheet 2500 x 1250 x 10 mm or nearest size as per IS 2062 or equivalent</p>

136	(1) Turbo Molecular Pump(TMP) with display unit for LAPS device (2) Rotary pump for LAPS device (3) Essential accessories: Splinter shield for TMP (4) Essential accessories: Venting valve for TMP (5) Essential accessories: Power relay for TMP (6) Essential accessories: Y-connector for TMP (7) Essential accessories: Heating jacket for TMP (8) Essential accessories : Main cable,230V AC , 50 Hz (9) Essential accessories: corrugated hose, DNN 25 ISO-KF stainless steel, flexible, length 1000 mm (10) Essential accessories: clamping Ring for TMP
137	(1) Level sensor with controlling unit as per the specifications
138	(1) Multi-Secondary, non-enclosed VPI dry type transformer as per attached specification
139	(1) Supply, installation, commissioning and testing of lining materials inside cylindrical process chamber.
140	(1) Servo Motor (Make FESTO; Model EMMS-AS-100-L-HS-RSB; Part No 1562960)
141	(1) Waveguide Transitions
142	(1) Digital Micro-ohmmeter
143	(1) 360 DEGREE ACTION CAMERA
144	(1) GRAPHICS TABLET(ELECTRONICS RESONANCE PAD)
145	(1) Multiprocessor system on a chip (MPSoc), System Logic Cells atleast 504k, ARM(Cortex-A53, Cortex-R5 ) or better, Mali-400 MP2 or equivalent, PS DDR4 atleast 2GB, Programmable clocks, System clock, user clock , FMC, Pmod
146	(1) DN 40 ISO KF to DN 25 ISO KF reducer  (2) DN 50 ISO KF to DN 40 ISO KF reducer (3) DN 50 ISO KF to DN 25 ISO KF reducer  (4) DN 50 ISO KF to DN 16 ISO KF reducer  (5) DN 35 CF to DN 63 CF reducer (6) DN 25 ISO KF to DN 35 CF adapter  (7) DN 25 ISO KF to DN 63 CF adapter (8) DN 25 ISO KF to DN 16 CF adapter (9) DN 200 ISO K to DN 25 ISO KF adapter
147	(1) 2 GHz to 18 GHz Dual ridged Horn antenna as per detailed specifications attached
148	(1) Turbomolecular Pump
149	(1) Supply, installation and commissioning of solid state RF (13.56 MHz) Generator of 1000W capacity, along with compatible automatic matching network
150	(1) Supply and Installation of Computer Workstation for CAD
151	(1) Vacuum variable capacitor. Make: National electronics. Model: CVC1500AS.

152	<p>(1) Supply of Indoor 11 kV Switchboard : Design, Engineering, Manufacture, Assembly, Factory Testing, packing, forwarding, loading, transportation, delivery, unloading, Installation, Site Testing and Commissioning of Indoor 11 kV Switchboard consisting of 04 nos. (01 no Incomer VCB and 03 nos. of Outgoing VCBs) of 11kV rated, 800A Vacuum Circuit Breaker conforming to relevant IS/IEC and all other components as specified in the Tender Document, complete in all respects and as directed &amp; instructed by the designated engineer-in-charge.</p> <p>(2) Installation, Testing and Commissioning of Indoor 11 kV Switchboard consisting of 04 nos. (01 no Incomer VCB and 03 nos. of Outgoing VCBs) of 11kV rated, 800A Vacuum Circuit Breakers Panels, including supply of all materials &amp; works required for proper installation, Testing and Commissioning, like unloading at site, lifting-shifting, safe storage, unpacking, erection, earthing with Cu strips, supply of suitable MS sections/channels, welding, alignment, painting of the MS section base channels, as required, testing of all components, relays, wiring etc and commissioning, complete in all respects as specified in the Tender Document and as directed &amp; instructed by the designated engineer-in-charge.</p>
153	<p>(1) Helium Gas (Grade XL) Purity 99.999 Percentage (Ultra High Pure) Cylinder Capacity: 6 TP 9.5 Cu.Mtr. in your returnable cylinder. Total Impurity Levels &amp;#8804; 10PPM Cylinder Pressure 150 TO 200bar</p> <p>(2) Retention charges per day per cylinder.</p>
154	(1) Stabil Ion Gauges with controller
155	(1) IGBT based 60 kW power supply
156	(1) Turbo Molecular Pump
157	(1) Multi pocket electron beam evaporator
158	(1) Ceramic adhesive 100 ml can
159	(1) Digital Outside micrometer (Detailed specification attached)
160	<p>(1) DN 40 ISO KF Centering Ring, O-ring and Clamp set</p> <p>(2) DN 50 ISO KF Centering Ring, O-ring and Clamp set</p> <p>(3) DN 40 ISO KF Blank Flange</p> <p>(4) DN 50 ISO KF Blank Flange</p> <p>(5) DN 25 ISO KF Tee</p> <p>(6) DN 40 ISO KF Tee</p> <p>(7) DN 50 ISO KF Tee</p> <p>(8) DN 25 ISO KF Cross</p>
161	(1) Supply, Installation and Commissioning of 500 LPM Oxygen Gas Generator Set
162	(1) LaBr3 (Ce) Scintillation based detector system for Hard X-ray measurements
163	(1) Hot cathode ionisation gauge as per specification attached
164	(1) Turbo molecular pump with a dry backing pump as per attached specification sheet
165	(1) Ion pump with controller as per specification
166	<p>(1) MEDIUM SIZE TRIPOD for camera</p> <p>(2) MINI SIZE TRIPOD for Camera</p>
167	(1) Fabrication, supply and commissioning of Waste feeder chamber and Primary chamber assembly
168	(1) Supply and installation of steel portable cabins of size 6.100x3.050M for IT,Safety,CMS and EMS Sections as per specification for similar cabins available on GeM.

169	<p>(2) 50 KF to 25 KF Reducer made of SS</p> <p>(3) 50 KF to 40 KF Reducer made of SS</p> <p>(4) 25 KF Tee made of SS</p> <p>(5) 25 KF 4-way Cross made of SS</p> <p>(6) 25 KF Outer ring (SS) with Centering ring (SS) and Viton O ring (for High pressure)</p> <p>(7) 40 KF Tee made of SS</p> <p>(8) 40 KF 4-way Cross made of SS</p> <p>(9) 40 KF Blank made of SS</p> <p>(10) 40 KF Clamps made of Aluminium with Wing nut assembly</p> <p>(11) 40 KF SS Center ring with Viton O ring</p> <p>(12) 50 KF Tee made of SS</p> <p>(13) 50 KF 4-way Cross made of SS</p> <p>(14) 50 KF Blank made of SS</p> <p>(15) 50 KF Clamps made of Aluminium with Wing nut assembly</p>
170	<p>(1) Oxygen Free Electronic (OFE) Copper Plates of size 500 mm x 400 mm x 12.5 mm</p> <p>(2) Oxygen Free Electronic (OFE) Copper Plates of size 500 mm x 400 mm x 25 mm</p>
171	(1) Supply of 1/4 Inch bellows sealed valves
172	(1) 1MP Bullet Camera;GEM Product id: 5116877-13734305732; Part number: GLOBUS:G-SC-BI12MN10-TSA or equivalent
173	(1) Supply, Installation, Testing and Commissioning of the Containerized Data Center at IPR (Turnkey Project)
174	(1) Supply of Mild steel sheet
175	(1) Visible spectrometer along with essential accessories
176	(1) High Temperature Vacuum Furnace with High Pressure gas Quenching System
177	(1) 0.47 $\mu$ F metallized polypropylene capacitor as per the attached specification sheet
178	<p>(1) Filament Power Supply;</p> <p>Voltage: 0 to 40V AC;</p> <p>Current: 0 to 40A AC;</p> <p>Floating at -70kVDC;</p> <p>Refer attached detailed specifications</p>
179	(1) Waveguide Twists
180	(1) VIDEO CAMERA/HAND HELD CAMCORDER
181	(1) MCNP6/5/X-CLOUD C00827MNYWS00 software

182	(1) BP 290 Fluke rechargeable Li-Ion battery pack, 10.8V, 2500mah. To be used in Fluke 190-104 scopemeter.
183	(1) DC power supply 128V/25A
184	(1) Capacitor 1000uF - 63V Electrolytic Capacitor, detailed specs sheet attached (2) Capacitor 100uF - 63V Electrolytic Capacitor, detailed specs sheet attached. (3) Capacitor 120uF - 450V Electrolytic Capacitor, detailed specs sheet attached (4) Capacitor 560uF - 450V Electrolytic Capacitor, detailed specs sheet attached (5) Capacitor 330nF - 400V metalized PET capacitor, detailed specs sheet attached (6) Capacitor 0.1uF - 50V, SMD Capacitor, detailed specs sheet attached
185	(1) PVC Copper Cable, Single Core, Unsheathed Cables With Flexible Conductor-For Working Voltages Up To And Including 1100 Volts
186	(1) Supply, Installation, testing and commissioning centrifugal chiller, cooling tower, pumps, pipings, valves, insulation, instruments, cables and minor civil work etc. for SST-1 WCS plant. Other details as per attached sheet.
187	(1) Supply of Lithium (Li) material as per technical specification
188	(1) Industrial water chiller 10 TR cooling capacity
189	(1) Vacuum System
190	(1) Supply of 5 inch HDMI LCD Screen at IPR
191	(1) Turbo Molecular Pump 250 l/s with backing pump of 15m3/hr (2) Gate Valve
192	(1) High Pressure Pumping System. Detailed specifications given in separate datasheet.
193	(1) XC7A35T-1FGG484C, FPGA - Field Programmable Gate Array Gate Array XC7A35T-1FGG484C  (2) S25FL128SAGMFI003, NOR Flash 128Mb 3V 133MHz Serial NOR Flash (3) LMZ31704RVQT, Non-Isolated DC/DC Converters NonIsolated DC/DC Converters 4A Power Module w/ 2.95V-17V Inpu (4) TPS82130SILT, Switching Voltage Regulators Switching Voltage Regulators (5) TPS7A7200RGWR, LDO Voltage Regulators LDO Voltage Regulators 2A,Sgl Out,Very Low Inp,Config Fixed LDO (6) 7W-20.000MBA-T, Standard Clock Oscillators Standard Clock Oscillators 20.000MHz 3.3V 25ppm(-10 +70C) (7) 530BB100M000DG, Standard Clock Oscillators Standard Clock Oscillators Differential/singleended; single frequency XO; OE pin 2; 10-1417 MHz (8) 2227023-1 , Connectors CAGE ASSY PRESS FIT, SFP (9) 744410010, SFP Connector (10) AFBR-5701LZ,SFP Module, 850 nm

194	(1) Instrument chassis (As per attached specification sheet) (2) Embedded Controller (As per attached specification sheet) (3) Simultaneous sampling Digitizer Module (As per attached specification sheet)
195	(1) SS 304 polished round bar Dia 5 mm x Length more than 3000 mm(Nos:5) (ASME SA479/SA479M )  (2) SS 304 polished round bar Dia 6 mm x Length more than 3000 mm(Nos:5) (ASME SA479SA479M )  (3) SS 304 polished round bar Dia 8 mm x Length more than 3000 mm(Nos:5) (ASME SA479SA479M )  (4) SS 304 polished round bar Dia 10 mm x Length more than 3000 mm(Nos:5) (ASME SA479SA479M )  (5) SS 304 polished round bar Dia 12 mm x Length more than 3000 mm(Nos:5) (ASME SA479SA479M )  (6) SS 304 polished round bar Dia 20 mm x Length more than 3000 mm(Nos:5) (ASME SA479SA479M )  (7) SS 304 polished round bar Dia 22 mm x Length more than 3000 mm(Nos:5) (ASME SA479SA479M )  (8) SS 304 polished round bar Dia 25 mm x Length more than 3000 mm(Nos:3) (ASME SA479SA479M )  (9) SS 304 polished round bar Dia 28 mm x Length more than 3000 mm(Nos:3) (ASME SA479SA479M )  (10) SS 304 polished round bar Dia 32 mm x Length more than 3000 mm(Nos:3)(ASME
196	(1) Supply of Differential pressure transmitters
197	(1) Source Measuring unit as per specification sheet attached
198	(1) 40 KF FUSED SILICA (QUARTZ)VIEWPORT
199	(1) ROTARY PUMP OIL GRADE 8A. As per attached specification only. (IPR CODE:08 OL91 1004)
200	(1) Supply,Installation,Testing and Comissioning of CNC Vertical Machining Center with Mitsubishi / Fanuc / Seimens make controller as per specification given in Annexure-I
201	(1) SLEEVING TEFLON 1 MM ID X 1.6MM OD X 0.3MM W.THK. Color: Black, Blue, Red, Yellow and Green. (IPR CODE:19 SL91 1004) (2) SLEEVING TEFLON 2MM ID X 2.8MM OD X 0.4MM W.THK. Color: Black, Blue, Red, Yellow and Green. (IPR CODE:19 SL91 1006) (3) SLEEVING TEFLON 2.5MM ID X 3.3MM OD X 0.4MM W.TH. Color: Black, Blue, Red, Yellow and Green. (IPR CODE: 19 SL91 1007)

202	(1) NC Hydraulic Shearing Machine having provision for Variable Rake Angle and with standard accessories. The present Mechanical Shearing machine available with IPR is to be considered as buy back offer. The technical specifications are given in Annexure-I
203	(1) Auto-fill system using capacitance level sensor as per attached specifications.
204	(1) Manufacturing, Testing and Supply of Copper-Chromium-Zirconium- Plate-1000x500x13(Size in mm) (2) Manufacturing, Testing and Supply of Copper-Chromium-Zirconium- Plate-1000x500x15(Size in mm)
205	(1) PA Speaker with mic and amplifier - GEM Product Id 5116877-19372065435 Or equivalent in specification (2) High Power Home Audio System with Bluetooth technology- GEM product Id 5116877-93770100801 or equivalent in specification (3) Audio Amplifier-GEM product Id 5116877-80512765046 or equivalent in specification (4) Paired Desktop Monitor Speakers - GEM product id 5116877-3132371514 or equivalent in specification (5) 12 channel Audio mixer- Gem Product ID 5116877-92669270190 or equivalent in specification
206	(1) Providing 24X7 operation and maintenance of firefighting system at IPR for the First Year (2) Providing 24X7 operation and maintenance of firefighting system at IPR for the Second year (3) Consumables
207	(1) Overhauling of water cooling system of APC power supply as per attached scope of work
208	(1) Supernova make 50KVA Diesel Generator sets
209	(1) Converter Transformer
210	(1) Mass Flow Controller for Hydrogen gas (Detailed specifications attached) (2) Mass Flow Controller for Nitrogen gas (Detailed specifications attached) (3) Mass Flow Controller for Argon gas (Detailed specifications attached) (4) Mass Flow Controller for Acetylene gas (Detailed specifications attached) (5) Four channel flow display power supply module for above Mass Flow Controllers (Detailed specifications attached)
211	(1) 3-Axis, foldable gimbal Stabilizer for mobile phone (2) 3-Axis gimbal stabilizer for DSLR (3) Pocket 3 axis Gimbal Camera (4) License Free , foldable Mini Drone with Camera
212	(1) 3D product animation video (including voice over) for plasma pyrolysis technology - as per attached specification sheet
213	(1) PEEK rod -30 mm diameter, 1 meter (2) PEEK rod -25 mm diameter, 1 meter (3) 5 mm thick, PEEK sheet (4) 2 mm thick, PEEK sheet



214	<p>(1) Indoor wireless access point with OEM supported 5 years warranty and mounting accessories including required licenses.</p> <p>For details refer technical specifications.</p> <p>(2) Outdoor wireless access point with OEM supported 5 years warranty and mounting accessories including required licenses.</p> <p>For details refer technical specifications.</p> <p>(3) Virtual machine (VM) based wireless controller with 5 years subscription and onsite support services.</p> <p>For details refer technical specifications.</p> <p>(4) PoE/PoE+ adapter to connect indoor and outdoor access points (Sr. No :1 and Sr. No : 2) with 1 year replacement warranty.</p> <p>(5) One time installation and implementation charges.</p>
215	<p>(1) Supply and Installation of Radio Frequency Identification (RFID) System including the following at IPR Library as per the attached specifications:</p> <p>a) RFID Staff Station;</p> <p>b) Library Security Gate;</p> <p>c) RFID Tags;</p> <p>d) Shelf Management System / Portable Handheld Reader;</p> <p>e) RFID Enabled Book DropBox; and</p> <p>f) Kiosk (Self check-in / Check-out station)</p>
216	<p>(1) Scanning Near-Field Optical Microscope(SNOM) add on accessories for existing AFM system.</p>
217	<p>(1) CCTV camera 4MP, PTZ detailed specification sheet attached</p>
218	<p>(1) Hardware In Loop (HIL) Testing System (as per specifications attached)</p>
219	<p>(1) 12 kV 2000 A 40 KA ( minimum), 50 hz 3 pols magnetic actuator mechanism operated with combine operation of all the poles VCB having vacuum interrupter, life of operations more than 10000 as per the specifications attached.</p>
220	<p>(1) Linear Guide Rail(R25)</p>
221	<p>(1) Network Attached Storage (NAS) with attached specifications</p>
222	<p>(1) Supply of modular electric gripper with replaceable curvilinear and parallel jaw</p>
223	<p>(1) Type 01 Gear Box with attached detailed specifications</p> <p>(2) Type 02 Gear Box with attached detailed specifications</p> <p>(3) Type 03 Gear Box with attached detailed specifications</p>
224	<p>(1) Supply of LM Ball screw shaft (specification attached)</p> <p>(2) Supply of LM Ball screw Nut (specification attached)</p> <p>(3) Supply of LM Block &amp; Rail(specification attached)</p> <p>(4) Supply of LM End Support Bearing(specification attached)</p>
225	<p>(1) TRANSFORMER OIL as per attach specification sheet</p>
226	<p>(1) Two Port Hand Held Vector Network analyser with spectrum Analyser</p>
227	<p>(1) High purity bellow valve 6mm tube fittings NC Actuator</p> <p>(2) Seamless tubing 6mm odx 1mm wall thickness</p>
228	<p>(1) Subscription of PDF 4+ Diffraction Database</p>
229	<p>(1) Industrial Compliance meter NIM 511 with dual field probe 300 kHz to 100 MHz and batteries.</p>

230	(1) Fabrication with Material of 6 1/8 inch Coaxial Phase Shifter as per attached Annexure - I
231	(1) PLC based LCPC control system with I/O module and required software as per sheet attached
232	(1) UHV vacuum 100 CF viewports
233	(1) Digital Multi-meter as per the attached specification sheet
234	(1) Digital Ultrasonic Cleaner
235	(1) Supply of Poster Board (Slim LED frame) size 3ft x 4ft (2) Poster designing charges
236	(1) 1MP Bullet Camera;GEM Product id: 5116877-2301591715; Part number: CP Plus:CP-EAC-BW-H or equivalent
237	(1) Supply of high purity helium gas (Grade-5) with gas transfer elements
238	(1) DN 160 CF-F UHV electro-pneumatic gate valve and accessories as per the detailed specifications attached
239	(1) 12 pair Kapton Insulated T type thermocouple cable
240	(1) Transportation of Science and Technology Exhibition and Resource Material from Ahmedabad (Gujarat) To different places in India as and when required
241	(1) Dynamic Mechanical Analyzer Q800
242	(1) Shifting, loading & unloading of furniture from IPR extension Laboratory, GIDC to IPR main campus.
243	(1) 3-1/8 Inch coaxial Directional Coupler. Other Specifications as per attached Sheet.
244	(1) Remotely Programmable DC Power Supply(100 V, 2 A, 200 W) as per technical specification attached for Aditya Gas Feed system
245	(1) 50X Objective as per given specifications
246	(1) Electrolytic Touch Pitch (ETP) Copper Round Rod, 99.8 percent copper purity, diameter 25 mm, length 2 feet (2) Electrolytic Touch Pitch (ETP) Copper Round Rod, 99.8 percent copper purity, diameter 45 mm, length 2 feet (3) Electrolytic Touch Pitch (ETP) Copper Round Rod, 99.8 percent copper purity, diameter 120 mm, length 1 feet
247	(1) Free cutting brass rod, diameter 265 mm, length 1 foot (2) Free cutting brass rod, diameter 180 mm, length 1 foot

248	<ul style="list-style-type: none"> <li>(1) 30 mm post</li> <li>(2) 50 mm post</li> <li>(3) 100 mm post</li> <li>(4) 30 mm post holder</li> <li>(5) 50 mm post holder</li> <li>(6) 100 mm post holder</li> <li>(7) Post base (U-type)</li> <li>(8) Post base (H-type)</li> <li>(9) Post clamp bracket</li> <li>(10) Mounted variable aperture</li> <li>(11) 90 degree post clamp</li> <li>(12) M4 to M6 adopter</li> <li>(13) X-Y adjustable lens mount for 2 inch optics</li> <li>(14) X-Y adjustable lens mount for 1 inch optics</li> <li>(15) Beam Steering system</li> <li>(16) Adjustable laser mount</li> <li>(17) Linear motion translation stage</li> </ul>
249	<ul style="list-style-type: none"> <li>(1) Periscope Assembly for one-inch diameter mirror as per the specification attached</li> <li>(2) 90-degree Flip Mount assembly for One-Inch diameter mirror as per the attached specification.</li> <li>(3) Fixed lens mount with post and suitable post holder for one-inch diameter lens as per the attached specification.</li> <li>(4) Rotation mount for one-inch diameter optics with post and suitable post holder as per the attached specification</li> </ul>
250	(1) Operation of different types of Workshop machines as per details attached with annexure-I
251	(1) CFD analysis work for a part of plate fin heat exchanger PHE1
252	<ul style="list-style-type: none"> <li>(1) Silicone Rubber Heater Type - 1 as per specifications attached</li> <li>(2) Silicone Rubber Heater Type - 2 as per specifications attached</li> <li>(3) Silicone Rubber Heater Type - 3 as per specifications attached</li> <li>(4) Silicone Rubber Heater Type - 4 as per specifications attached</li> <li>(5) Silicone Rubber Heater Type - 5 as per specifications attached</li> <li>(6) Silicone Rubber Heater Type - 6 as per specifications attached</li> <li>(7) Silicone Rubber Heater Type - 7 as per specifications attached</li> <li>(8) Silicone Rubber Heater Type - 8 as per specifications attached</li> <li>(9) Silicone Rubber Heater Type - 9 as per specifications attached</li> <li>(10) Silicone Rubber Heater Type - 10 as per specifications attached</li> <li>(11) Silicone Rubber Heater Type - 11 as per specifications attached</li> <li>(12) Silicone Rubber Heater Type - 12 as per specifications attached</li> <li>(13) Silicone Rubber Heater Type - 13 as per specifications attached</li> <li>(14) Silicone Rubber Heater Type - 14 as per specifications attached</li> <li>(15) Silicone Rubber Heater Type - 15 as per specifications attached</li> <li>(16) Silicone Rubber Heater Type - 16 as per specifications attached</li> </ul>
253	<ul style="list-style-type: none"> <li>(1) Supply of 100 pairs, 0.63 mm conductor size, jelly filled armoured telephone cable as per ITD specifications</li> <li>(2) laying the above cable with earth work excavation, back filling with sand and bricks, route marking, clamping and saddling etc</li> </ul>

254	<ul style="list-style-type: none"><li>(1) Cleaning of 750 kVA Multi-secondary Transformers as per specification</li><li>(2) Testing of 750 kVA Multi-secondary Transformers as per specification</li><li>(3) Cleaning of 3300 kVA Multi-secondary Transformers as per specification</li><li>(4) Testing of 3300 kVA Multi-secondary Transformers as per specification</li><li>(5) Cleaning of 5600 kVA Multi-secondary Transformers as per specification</li><li>(6) Testing of 5600 kVA Multi-secondary Transformers as per specification</li><li>(7) Transformer Oil Testing (as per Specification 3 [1])</li><li>(8) Oil Filtration of Multi-secondary Transformers as per specification</li></ul>
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