

**CSIR-NATIONAL PHYSICAL LABORATORY  
PROCUREMENT PLAN**

(\*Please read the note given at the end)

**A FOR THE FINANCIAL YEAR 2024-25**

**A (a) EQUIPMENT**

**(i) Equipment: Out of CSIR Infra Grant**

Sr. No.	Name Category of Equipment/ Vehicle Item	Quantity (Nos.)	Approximate Cost (Rs. In Lakhs)
1	Small sine bar – 300 mm long	1	0.30
2	Retroreflector 150mm	1	3.00
3	Dehumidifier, Capacity: 30L /Day	1	0.70
4	Hydraulic Trolley	1	1.50
5	Micrometer	1	1.40
6	Syringe Pump	1	8.70
7	Digital portable Density meter.	1	6.00
8	Soldering rework station with specification	1	3.00
9	Dehumidifier	1	1.20
10	Programmable DC power supply	1	2.00
11	10 kA AC high Current Source with accessories	1	15.00
12	Soldering station	1	1.00
13	Light source with different wavelengths	1	3.50
14	Mass flow controller	1	2.50
15	532 nanometer Laser source with power supply, mounting arrangement and accessories (collimation optics, IR Card)	1	3.50
16	Pfeiffer DCU 400 Display controller including power supply	1	2.50
17	Polarization microscope with compatible CMOS colour camera with software	1	2.20
18	Fabrication of cylinder Lifting System	1 set	6.50
19	Portable weather monitor for field and balloon observation	1	2.80
20	Pump with mass flow controller	1	0.70
21	PID programmable temperature controller and 2" dia sputter source	1	2.50
22	PM1 Sampler	2	2.00
23	Centrifuge Machine	1	1.50
24	Single beam Visible Spectrophotometer	1	1.50
25	Ultrasonic sonicator	1	1.00
26	Digital pH meter	1	0.50
27	3KVA online UPS with batteries	1	0.75
28	Ultrasonic Cleaner with timer & power controller	1	0.30
29	Desicator Cabinet	1	2.25

30	PM10 Sampler	2	2.00
31	Stainless Steel Syringe	1	1.50
32	Anemometer	1	1.00
33	Cabinet Desiccator	1	1.00
34	One Set of Pyranometer, UV Radio meter and Prygeometer with data logger	1	15.00
35	Climate chamber for controlled temperature and humidity	1	1.50
36	Repair of Optical table legs	1	2.00
37	DC motors of chillers of	2	0.50
38	O2 and H2O analyser of Glove box	1	1.50
39	High temperature Oven	1	3.00
40	Palletiser and hydraulic press	1	1.40
41	Ultrasonic Bath	1	1.00
42	High Resolution Multimeter	1	1.50
43	OVERHEAD MECHANICAL STIRRER	1	0.40
44	3D Scanner for 3D Printer	1	0.35
45	Micro Dispenser controller DSD 55	2	0.50
46	3D Filament dry Storage cabinet - 160 Ltr.	1	0.33
47	High volt DC power Supply for Electrostatic Seperator	1	1.50
48	Precision high voltage DC Power supply	1	3.85
49	standalone power backup	1	0.30
50	UPS 5KVA with isolation transformer	1	1.50
51	Attenuator in 2.4 mm (3 dB, 10 dB)	1 each	1.00
52	Attenuator in N-type (3 dB, 10 dB, 30 dB)	1 each	1.50
53	Function Generator (Low Frequency)	1	4.00
54	RF Millivoltmeter with required TVCs at nominal voltages	1	8.40
55	Shielding Door	1	0.95
56	Antenna Positioner	1	5.50
57	DC Current source meter	1	5.00
58	Brush Cutter	3	2.00
59	Walk behind Lawn Mower Petrol Engine	2	1.20
60	Leaf Shredder	2	1.40
61	Pole Pruner	2	1.30
62	Leaf Blower	2	1.50
63	Water Pump	1	0.30
64	Lawn mower diesel operated 20" with 5HP engine	2	1.50
65	Fogging machine	1	0.45
66	Heavy duty garbage collect tricycle rikshaw (with metal body)	3	0.60
67	Heavy duty floor cleaning machine (cingo) with extra brush wheel pad	2	1.50
68	Heavy duty industrial vaccum cleaner	2	1.00
69	Window & split AC 5 star	100	50.00
70	Meger 5000 Volt	1	1.00
71	Sumersible pump 5HP	2	0.80
72	Ceiling fan BLDC 5 star	50	1.50
73	Data centre renovation	1	25.00

74	2 Ton Tower Air Conditioner	1	1.00
75	Servers	5	30.00
76	Books (English & Hindi)	As req.	2.50
77	Journal of Pure and Applied Ultrasonics, Open Source For You, Electronics For You, Collnet Journal of Scientometrics and Information Management	1	0.15
78	Rotary Pump	1	2.00
79	Hot Air Oven(12'x12'x12')	1	0.40
80	Infrared Thermometer	1	0.10
81	refurbished dry vacuum pump	1	1.50
82	Stability and Homgenity Chambers, Oven	1 each	7.00
83	Vacuum pump/Suction pump	02 nos	0.50
84	Bench Top laboratory Fume hoods	01 nos	1.50
85	Auto titrator with wide range of pH,mV and high resolution of pH	01 no	3.00
86	Ultrasonic cleaner bath	1	0.50
87	Gold smith furnace. DSO	1	0.60
88	Double distillation apparatus	1	0.50
89	Items for instrument development (laser & LED source of different wavelengths along with power supply and accessories collimation optics, optical fibre, iris, mounting arrangements	8	7.00
90	High-temperature furnance (box/muffle/tubular)	3	3.00
91	Air compressor	1	0.50
92	High back office executive chair	1	0.07
93	MFP Printer laserjet mono with duplex printing	1	0.25
94	chair	2	0.24
95	Water filter	1	0.48
96	Multifunction printer	1	0.62
97	1 KVA UPS	1	0.15
98	Oil Purifier Room Heater	2	0.70
99	Printer	1	0.70
100	Executive Chair	1	0.15
101	Visitor Chair	10	0.25
102	Digital Barometer	1	3.60
103	Digital temperature and humidity meter	1	4.00
104	Dehumidifier	1	2.30
105	Digital Multimeter	1	1.00
106	Ultra precision capacitance bridge	1	60.00
107	Upgradation of remote machine control system of liquid helium plant	1	25.00
108	Air Compressor for cleaning The Machine	1	0.20
109	Standards to Support R&D Activity of NPL	35	6.00
110	Rotary Stage	1	92.00
111	Surface Plate	1	3.00
112	Uninterruptible power supply UPS with battery	1	0.07

113	Supply, installation, Testing and commissioning of Auditorium stage lights	1 setup	20.00
114	Supply, installation, Testing and commissioning of Auditorium Motorized curtains	2 setup	5.00
115	Supply, installation, Testing and commissioning of Audio-Visual setup for Auditorium	1 setup	40.00
116	Supply, installation, Testing and commissioning of Indoor Active LED Wall of min. P1.8 Pixel Pitch of approx. Size of 20x10 feet with compatible aspect ratio of 16:9 with controller for LED Video Wall etc.	1 complete setup	26.50
117	Supply, installation, Testing and commissioning of Indoor Active LED Wall of min. P1.5 Pixel Pitch or better with COB (CHIP on Board) technology of approx. Size 12.6x6.3 feet compatible aspect ratio of 16:9 with Controller for LED Video Wall etc.	1 complete setup	28.00
118	Supply, installation and Testing of 55" Digital Standee (Standalone Device)	1	2.00
119	15 KVA Online UPS with battery and battery rack(Backup time 15-30 min.)	1	2.00
120	10 KVA Online UPS with battery and battery rack(Backup time 15-30 min. )	1	1.50
121	Supply and installation of Auditorium seating chairs	640 nos.	45.00
122	Supply and installation of Auditorium floor carpet	8500 Sqft.	13.50
123	Auditorium seating sofa set (3 seater)	6 nos.	2.50
124	Reception Seating (Sofa 2 seater)	6 nos.	2.00
125	Reception Side Table	4 nos.	0.70
126	Reception center table	3 nos.	0.80
127	Magazine stand	2 nos.	0.50
128	Visitor Chairs	10 nos.	0.35
129	Seebeck Instrument	1	100.00
130	Fabrication of wooden cabinet	1	0.50
131	Differential Pressure gauge, Range :0-5 KPa and 0-15 KPa with accessories	2 each	1.00
132	Lock-in-Amplifier along with GPIB USB adaptor card	2,1	18.50
133	Lock-in-pre-amplifiers (Current pre-amplifier and Voltage Pre-amplifiers)	3	13.00
134	Turbo-pump with Scroll Pump	1	23.20
135	He-leak Detector	1	23.50
136	Water Chiller	1	4.80
137	UPS, five kVA, online, pure sine wave, minimum backup 30 min., isolation transformer with batteries	2 set	3.00
138	High accuracy full range vacuum gauge sensor head and controller	1 set	5.00
139	Dry Scroll Pump/Rotary Van Pump	1 set	5.00

140	Platinum resistance thermometer sensor and read-out	1 set	8.50
141	Fine control hand pump	1 set	1.50
142	Liquid filled Heater	5	0.50
143	Manual Pressure Controller	1 set	18.00
144	Upgradation of liquid helium plant Simatic IPC547J Rack PC 19" complete incl. (Article No: EO4437) - Simatic IPC547J rack PC - Tower Kit for PC - SIMATIC NET CP5622 PCI - Software Upgrade - Function check - WINCC-Package f SIMATIC IPC, RT2048,V7.5(Article No: E80633) - Screen 21.5" for Simatic IPC547J Rack PC (Article No: E78117) - Keyboard EN for Simatic IPC547J Rack PC (Article No: E77333) - Mouse Optical for Simatic IPC547J Rack PC (Article No: E77331) - Profibus Connector to SIMATIC S7 (Article No: E83254) 1. Inner vessel gasket Part No : 3516010 , Article No: E77069 Size: 1.2x 0.908 2. Charcoal (Activated carbon) RB-3 Container content 1.4Kg , Part No : 3544022P3, Article No : E77068 3. O-Ring (Aeroquip) 2-017, Part No : 0580305, Article No E78263 4. Safety seal (Rubber) , Part No: 3516013, Article No E78259 5. Thermoplastic hoses OD : 6mm , Article No E82913 6. Thermoplastic hoses OD : 10mm, Article No E83231 7. Pressure regulator DR 5E+A: G1/4" type: 10531-HD, Article No: E77328	1 unit           2  3  2  2  30 mtr  30 mtr  1	35.00
145	DC Source Meter and accessories	2	28.00
146	Low Noise Air compressor	1	0.50
147	Mass flow controller for multiple gases	1	2.00
148	Dry Vacuum/Scroll Pump along with connecting Accessories	1	5.00
149	Scroll Pump	1	4.50
150	Multifunction printer	1	0.65
151	Projector + Screen	As per req.	0.426
152	Maskless Laser Writer	1	200.00
153	Split ACs 2 Ton Capacity , inverter smart type, hot/cold , copper condenser	3	2.10
154	Room Dehumidifier	1	0.90
155	Perpetual Academic Volume License (AVL) for LabVIEW software	10 users license	13.00
156	Dehumidifier	4	2.00
157	Analytical Semi-Micro Balance	1	5.01
158	Fabrication of Wooden cabinet	6	0.60
159	Infrasonic sensor with accessories and data analysis software	3	38.00

<b>(ii)</b>	<b>Equipment: Out of CSIR Funded Projects</b>
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Sr. No	Name Category of Equipment/ Vehicle Item	Quantity (Nos.)	Project Number/ Code	Approximate Cost (Rs. In Lakhs)
1	Incubator Analyzer	1	FTT 070507	15.00
2	Neonatal Incubator	1	FTT 070507	7.00
3	Temperature sensor	1	FTT 070507	1.25
4	Hygrometer	1	FTT 070507	4.00
5	Anemometer	1	FTT 070507	0.65
6	Dry well	1	FTT 070507	9.00
7	Humidity Chamber	1	FTT 070507	4.45
8	Sound Calibrator	1	FTT 070507	0.65
9	Wind tunnel	1	FTT 070507	4.00
10	Anti-Vibration Table	1	FTT 070507	1.00
11	Humidifier with dry air controller	1	MLP 201232	6.00
12	Sheffield Head with sensors	1 Set	MLP 201232	7.00
13	IR Thermal Imager	1	MLP 201232	13.00
14	Integrating Nephelometer	1	FTT 050502	20.00
15	Optical Particle Counter	1	FTT 050502	20.00
16	Tethered Balloon Kit (Electrical Winch with three phase motor)	1	FTT 050502	1.25
17	Light Weight PM Sampler	2	FTT 050502	1.00
18	Denuder	1	FTT 050502	1.00
19	Data acquisition system	1	HCP 52	7.00
20	Dual Frequency Comb Based THz Comb. Consisting of : optical Frequency Comb (02) with THz emitter and detectors: ORS-Mini Ultrastable Laser System Beat Detection unit-02 Customized electronics module including THz emitters, Detectors,	2,1,2,1	MMP 015201	1014.00
21	Sound Level Analyzer	1	NWP 100	4.00
22	Multifuction Sound Calibrator	1	NWP 100	3.00
23	Hydraulic Pressure Gauge	1	NWP 100	5.00
24	Printer (Multi Function),	2	NWP 100	0.80
25	Check Master	1	NWP 100	10.00
26	Muffle Furnance	1	NWP 100	2.00
27	Civil and Electrical work for maintaining class rooms & Jigyasa Lab	As Req.	HCP 0101	2.00
28	Electrometer	1	MLP 231932	23.00
29	Power supply, incubator, waterbath, RO	1 each	HCP 52	2.86
30	Workstation, Printer	1 each	HCP 52	1.00
31	Lab bench	3	HCP 52	1.14
32	Vector Network Analyzer (110GHz - 170GHz) two port along with base unit, calibration kit, adapter, enabled TDR option and appropriate Cables. (Output power upto +5dBm or higher)	1	MMP 015201	250.00
33	Signal Generator with power (built in or additional) amplifier (D band, 110GHz-170GHz) with vector software	1	MMP 015201	250.00
34	Spectrum Analyzer (D band, 110GHz-170GHz)	1	MMP 015201	150.00
35	Data Server	1	FBR 010307	9.50

36	355 nm pulsed laser source	1	FBR 010302	10.00
37	Force comparator with coil*	1	HCP 55	240.00
38	Permanent Magnet system*	1	HCP 55	270.00
39	Optics, Laser (primary realization option) + Laser Interferometer measurement system	4 sets	HCP 55	200.00
40	Vacuum system, Translation Stages, Mechanics*	1	HCP 55	90.00
41	Sensors and control electronics	1 SET	HCP 55	30.00
42	Precision voltmeters	4	HCP 55	40.00
43	Programmable current sources	4	HCP 55	30.00
44	FG5 (absolute gravimeter), CG5 (relative gravimeter)	1	HCP 55	220.00
45	15 t crane and other accessories.	1	HCP 55	30.00
46	PJVS, QHR systems (PJVS Device + Cryostat, QHR cryostat + superconducting magnet) existing measuring electronics can be used	1	HCP 55	200.00
47	High precision resistors with air bath	1	HCP 55	25.00
48	Branded work station (one)	1	HCP 55	8.00
49	Creation of laboratory with precision mounting and environment control system	1	HCP 55	80.00
50	Coil Winding Machine	1	HCP 55	3.00
51	Low noise current source	1	HCP 55	6.00
52	Nano-voltmeter	1	HCP 55	19.00
53	SPRTs (Capsule and Long-Stem)	2, 2	HCP 55	20.00
54	¼ inch Microphones (08 nos) and Loudspeakers (04 nos) 1-100 kHz	4	HCP 55	20.00
55	Pre-amplifiers (05 nos)	5	HCP 55	10.00
56	Actuator Supply (05 nos)	5	HCP 55	10.00
57	Acoustic Analyzer (two channel), 1-100 kHz	1	HCP 55	15.00
58	Waveform generator (100 kHz) and DAQ	1	HCP 55	10.00
59	Microwave Probes (08 nos) – Specially developed	8	HCP 55	8.00
60	Vector Network Analyzer (up to 40 GHz)	1	HCP 55	45.00
61	Fabrication of copper cylindrical resonator, pressure vessel and assembly	1	HCP 55	35.00
62	Two stage oil sealed Rotary vacuum pump	2	HCP 55	4.00
63	Digital pressure indicator -	2	HCP 55	14.00
64	Racks and Mounting systems for measurement units- 04 nos	2	HCP 55	4.00.
65	Cartridge Heaters at resonator-pressure vessel and RTDs	2, 2	HCP 55	5.00
66	High precision digital thermometer	1	HCP 55	35.00
67	10 MHz frequency counter	1	HCP 55	5.00
68	Data acquisition IEEE GPIB cables and Labview software and DAQs	1 set	HCP 55	10.00
69	Lock-in-amplifier	1	HCP 55	15.00
70	LN2 circulator bath	1	HCP 55	30.00
71	Low temperature circulating bath (-80 °C)	1	HCP 55	30.00
72	T.P. of Argon with realization apparatus	1	HCP 55	35.00

73	Furnace for Cylindrical cavity resonator (1000 oC)	1	HCP 55	30.00
74	High temperature blackbody fixed points with furnace up to 3000 Oc	1	HCP 55	100.00
75	Linear Spectral Pyrometer/Filter radiometer	1	HCP 55	70.00
76	Vibration free optical table and mounting accessories	2	HCP 55	10.00
77	81/2 DMM/ Potentiostat/ Source meter	1	HCP 55	20.00
78	(2P-2T Humidity Generator and Dew Point Hygrometer)	1	HCP 55	250.00
79	Equipment for Digital SI	4	HCP 55	200.00
80	UHV Deposition Chamber	1	HCP 55	170.00
81	Cryogen-free ultra-low noise cryostat in the temperature range 2-300K equipped with superconducting magnet, dual voltage and current biasing module, capabilities to rf coupling	1	HCP 55	450.00
82	Quantum Transport measurement system: Ultra-low noise electronics setup for quantum transport measurements ( Lock-in amplifiers, current preamplifiers, SMUs, DC voltage source, spectrum analyzer, low current measurement unit, nanovoltmeter, temperature controller, ultra-low noise current amplifiers (ULCA) etc.)	1	HCP 55	80.00
83	Electro Optic Modulators	3	HCP 55	15.00
84	RF Drives and Amplifiers	3	HCP 55	15.00
85	Acousto-optic modulators	4	HCP 55	10.00
86	Vacuum Pumps, gauges & accessories	2	HCP 55	12.00
87	Frequency synthesizer/Function generator	4	HCP 55	10.00
88	Clock Laser with ULE cavity with accessories	1	HCP 55	450.00
89	PMT detector	1	HCP 55	10.00
90	CCD/CMOS camera	1	HCP 55	5.00
91	Fast Photodiode	1	HCP 55	5.00
92	Nominal and small/minor equipment electrical, optical & fiber	1	HCP 55	25.00
93	Gaussmeter/Teslameter	1	HCP 55	12.00
94	Power/Energy meter	3	HCP 55	5.00
95	Optical isolator	4	HCP 55	15.00
96	Fabry Perot interferometer & controller, accessories	1	HCP 55	4.00
97	Photodetectors	4	HCP 55	2.00
98	Oscilloscopes	3	HCP 55	7.00
99	DC power supplies	2	HCP 55	5.00
100	Beam profiler	1	HCP 55	5.00
101	Laser and Wavemeter	1	HCP 55	75.00
102	Time Tagger	1	HCP 55	18.00
103	ECDL Laser Systems (one laser diode and one laser diode with amplifier) with frequency stabilization control electronics and associated accessories for Primary Frequency Standard	1	HCP 55	90.00
104	Wavelength meter with switch	1	HCP 55	100.00
105	RF spectrum analyzer upto 13.7	1	HCP 55	20.00



	GHz			
106	Turbo molecular pump	1	HCP 55	20.00
107	Microwave Cavities	2	HCP 55	35.00
108	IR Viewer	1	HCP 55	10.00
109	CCD Camera	1	HCP 55	10.00
110	Power meter for upto 4 W power	1	HCP 55	5.00
111	Mixed domain oscilloscope	1	HCP 55	10.00
112	Tunable microwave synthesizer	1	HCP 55	15.00
113	Fabry-Perot Interferometer	1	HCP 55	5.00
114	Regulated DC Power Supplies	4	HCP 55	10.00
115	Workstations	1	HCP 55	7.00
116	Function generator	2	HCP 55	5.00
117	Environment monitors	2	HCP 55	10.00
118	Data logger	1	HCP 55	5.00
119	Data Acquisition Cards with labview software	2	HCP 55	10.00
120	Shutters	6	HCP 55	10.00
121	Vacuum-air transfer system (Vacuum chamber/container, pumps, gauges, etc.) (1 No.)	1	HCP 55	50.00
123	Weighing balances (1Nos.)	1	HCP 55	50.00
124	Volume/density measurement system (1 No.)	1	HCP 55	70.00
125	Standards weights – 1 kg, E0/E1 class (4 Nos.)	4	HCP 55	25.00
126	Standards weights – 1 mg to 50 kg, E0/E1 class (1sets)	1	HCP 55	35.00
127	Roundness machine - non-contact (1 No.)	1	HCP 55	150.00
128	Length Measuring Machine (1 No.)	1	HCP 55	60.00
129	Laser Interferometer (Pico Meter Distance Measurement) (1 No.)	1	HCP 55	60.00
130	CCD/CMoS camera (5 No.)	5	HCP 55	10.00
131	Powder X-ray diffractometer (1 No.)	1	HCP 55	175.00
132	Environmental monitoring system (data logger) (6 Nos.)	6	HCP 55	10.00
133	Work stations	1	HCP 55	3.80
134	Minor equipments (DC Power Supply, Jigs and Fixtures for holding the Si sphere, etc)	1	HCP 55	10.00
135	QHRS System comprising of; (i) 12T Superconducting Magnet (solenoid based) with bipolar programmable magnet power supply (ii) Variable temperature insert having 12 pin TO8 holder with compatible temperature sensors and complete wiring for doing magneto transport measurement (iii) Provision for VTI (i.e. sample) to be align parallel as well perpendicular to magnetic field. (iv) Compatible cryogenic temperature controller , LHe level sensor, (v) DCC resistance bridge with 4 channel matrix scanner Dry scroll pump to achieve 1.3 K at sample	1	HCP 55	500.00
136	QHR Devices (i) GaAs/AlGaAs based and (II) Graphene based	1 each	HCP 55	50.00
137	Integrated Confocal Raman spectroscopy/micro-Raman	1	HCP 55	250.00

	Mapping - Multimode AFM system with accessories			
138	Cryogenic Current Comparator (CCC) bridge/electronics for the highest precision measurement of resistance ratios at different levels from 1 Ohm to 1 MOhm (type A uc lower than 10 ppb).	1	HCP 55	150.00
139	Source measuring Units, Current sources and Nanovoltmeter	1 each	HCP 55	10.00
140	Closed Cycle Refrigerator (CCR, 4.2 K-350 K)	1	HCP 55	35.00
141	Turbo molecular pump with backing pump	2	HCP 55	20.00
142	Two wavelength/Dual colour infrared optical pyrometer capable of measuring temperatures $\geq 2000$ °C with interfacing kit	1	HCP 55	10.00
143	Throttle valve with controller	1	HCP 55	10.00
144	Digital Oscilloscope (for initiating SQUID measurements in the CCC)	1	HCP 55	2.00
145	Thermally Stabilized Travelling Resistance Standards (1 - 1 MOhm)	1 each (total 6)	HCP 55	30.00
146	PRT thermometer with digital readout	2	HCP 55	10.00
147	High Precision Dual Channel Thermo-Hygrometer/ logger	2	HCP 55	5.00
148	JAWS chip Standalone 2V	1	HCP 55	50.00
149	Compatible Probe	1	HCP 55	20.00
150	Liquid Helium Dewar	1	HCP 55	20.00
151	Waveform Generator 30 MHz	1	HCP 55	5.00
152	High Speed Arbitrary Waveform Generators	1	HCP 55	18.00
153	2 Channel Broadband 50 GHz Modulator Driver/RF Amplifier	1	HCP 55	14.00
154	High Speed Counter Control AWG 4-channel isolated, prog. Amplifier	1	HCP 55	10.00
155	Broadband Digitiser with high sampling rate	1	HCP 55	14.00
156	Thermal Transfer Standard	1	HCP 55	70.00
157	AC voltmeter	1	HCP 55	25.00
158	Cryocooler	1	HCP 55	20.00
159	Cryofree magnet (12/14 T) with adequate inserts and connections and the integrated measuring electronics suitable for AC/DC QHR standard	1	HCP 55	370.00
160	AC/DC QHE devices and the electronics associated with them	6	HCP 55	50.00
161	UPS with Isolation Transformer, 30 kVA	1	HCP 55	10.00
162	Data Acquisition/PXI Cards	4	HCP 55	30.00
163	High Precision Impedance (R /L/C) standards	4	HCP 55	30.00
164	Electron beam lithography (EBL) equipment	1	HCP 55	700.00
165	Inductively coupled plasma reactive ion etching (ICP-RIE) equipment	1	HCP 55	600.00
166	Differential Pressure Gauge	1	NWP 100	2.00
167	Ultrasonic Transducer	2	NWP 100	3.00
168	Turbomolecular pump	1	FIR 010301	7.60
169	DC power supply for Sputtering	1	FIR 010301	6.00

	Guns			
170	Water Chiller	1	FIR 010301	2.00
171	Lock-in-pre-amplifier	3	FIR 010301	4.00
172	Refractometer	1	MLP 190932	11.80
173	Microwave digester system	1	MLP 190932	14.69

<b>(iii)</b>	<b>Equipment: Out of Externally Funded Projects (EFP)</b>
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Sr. No	Name Category of Equipment/ Vehicle Item	Quantity (Nos.)	Project Number/ Code	Approximate Cost (Rs. In Lakhs)
1	Furniture for traceability Lab	As per Req	TSP 180932	5.50
2	Antenna control unit	1	TSP 180932	6.60
3	Works and services for IT	As per Req	TSP 180932	5.50
4	Furniture for RRSs and DRC	As per Req	TSP 180932	9.00
5	TWSTFT equipment	1	TSP 180932	150.00
6	AC systems	As per Req	TSP 180932	20.00
7	TV /Big Displays	As per Req	TSP 180932	60.00
8	Multifunctional Printers	10	TSP 180932	4.00
9	Office Computers	20	TSP 180932	25.00
10	Rubidium frequency Standard	2	GAP 230732	30.00
11	Time Interval Counter	3	GAP 230732	18.00
12	GNSS receiver with Antenna & cable	2	GAP 230732	26.00
13	Work station	2	GAP 230732	3.00
14	Kernel Virtual Machine	2	GAP 230732	2.50
15	White Rabbit Len Standalone kit	2	GAP 230732	15.00
16	GNSS receiver with accessories	2	GAP 150132	6.00
17	Dry Vacuum Pump	1	GAP 230932	11.00
18	Dry Scroll Vacuum Pump	1	GAP 230932	3.16
19	Softening point apparatus	1	GAP 230332	39.00
20	Optical microscope	1	GAP 230332	25.00
21	Polishing machine	1	GAP 230332	32.00
22	Oxidation oven	1	GAP 230332	50.00
23	Carbonization furnace	1	GAP 230332	50.00
24	Upgradation in existing melt-spinning assembly	1	GAP 230332	15.00
25	Minor Equipments, its accessories and installation	1	GAP 230332	15.00
26	Power supply	1	GAP 231232	1.00
27	Chamber	1	GAP 231232	12.00
28	Sputter guns	2	GAP 231232	6.00
29	Vacuum pumps	1	GAP 231232	3.00
30	Laser interferometer, Mechanical Bed*, Microscopic High Resolution Camera and related accessories	5,6,5	TSP 231232	425.00
31	NA			
32	NA			

33	Laptop / Desktop / laser printer with Dual Monitor	5	TSP 231232	5.00
34	UPS system and batteries	As req.	TSP 180932	80.00
35	Conductivity Meter	1	GAP 240332	1.00
36	DC Power Supply (10 A)	1	GAP 240332	4.00
37	Digital overhead stirrer	1	GAP 240332	0.50
38	Digital hot plate stirrer	1	GAP 240332	0.30
39	Waterbath with circulator	1	GAP 240332	0.20
40	Mass comparator, 200 g, 1 micro gram	1	GAP 240232	70.00
41	Rheometer Testing Facility for viscosity measurements	1	GAP 240232	65.00
42	Absolute Gravity Meter	1	GAP 240232	530.00
43	Refractive Index Testing Facility	1	GAP 240232	20.00
44	Guarded Hot plate Testing Facility	1	GAP 240232	395.00
45	Moisture Testing Facility (Moisture Analyzer & Forced convection oven)	1	GAP 240232	30.00
46	Clinical thermometer Testing Apparatus	1	GAP 240232	40.00
47	Power Supply (AC)	2	GAP 240232	15.00
48	Photo current meter	1	GAP 240232	35.00
49	Luminance Meter	1	GAP 240232	30.00
50	Brinell Hardness Testing Machine	1	GAP 240232	120.00
51	Optical based Low Force sensor as a new facility; Fiber Bragg Grating Force Sensor with Interrogator	1	GAP 240232	30.00
52	Ultrasonic Pulse Velocity Tester with suitable transducers	1	GAP 240232	15.00
53	Phased array Ultrasonic Flaw Detector Testing Facility	1	GAP 240232	30.00
54	Up-gradation of Microphone Calibration Facility using Insert Voltage method in range 20 Hz to 25 kHz	1	GAP 240232	50.00
56	Up-gradation of Acoustic Free-Field Calibration and Testing facility in frequency range of 125 Hz to 20 kHz	1	GAP 240232	180.00
57	PVTt (Primary gas flow standard)	1	GAP 240232	300.00
58	Aethalometer	1	GAP 161632	45.00
59	Nephelometer	1	GAP 161632	45.00
60	Gas Chromatograph	1	GAP 114732	26.00
61	Water bath with shaker	1	GAP 114732	1.00
62	PM2.5 Sampler	1	GAP 114732	1.25
63	PM1.0 Sampler	1	GAP 114732	1.25
64	Rubidium Frequency Standard	4	GAP 231032	20.00
65	Data Server	1	GAP 231032	12.00
66	Pressure Regulator	5	TSP 231132	6.00
67	Curved Monitor	1	GAP 210232	0.50
68	Aging-life test system	1	GAP 172032	50.00
69	Optical bench intensity measurement (25/30m)	1	GAP 172032	400.00

70	Spectral irradiance primary standard	1	GAP 172032	400.00
71	Desktop UPS	7	GAP 181132	1.50
72	Router/switches	4	GAP 181132	1.50
73	workstation	1	GAP 181132	3.00
74	Overhead Projector with smart screen	1	GAP 181132	2.00
75	Network UPS	1	GAP 181132	2.00
76	Digital Multi meter	2	GAP 181132	4.00
77	Gas Regulator	5	GAP 181132	2.00
78	Function Generator	1	GAP 181132	2.00
79	High Performance Power supply	2	GAP 181132	4.00
80	ESD work bench	1	GAP 181132	3.00
81	Micro balance with chamber and electrostatic neutralizer	1	GAP 181132	150.0
82	Aerosol Particle Spectrometer (APS) with Counter	1	GAP 181132	30.00
83	Electrical Low Pressure Impactor Sampler	1	GAP 181132	30.00
84	Microwave digestion system	1	GAP 181132	30.00
85	IC ( Ion Chromatography)	1	GAP 181132	100.00
86	Volumetric Flow system	1	GAP 181132	1.00
87	Computer	3	GAP 181132	3.60
88	LED/ LCD display Size 55"	2	GAP 181132	2.40
89	CCTV Camera setup	1	GAP 181132	1.00
90	Gas Leak Detection system/ sensor	2	GAP 181132	6.00
91	Forklift 5ton	1	GAP 181132	0.40
92	Color Printer with scanner	1	GAP 181132	0.50
93	Gas Management System	1	GAP 181132	27.00
94	Furniture (computer table, Chair, Working table)	10,10,1	GAP 181132	10.00
95	PM CEMS Stack	1	GAP 181132	20.00
96	Reference Solar cells	5	GAP 170432	15.00
97	transimpedance amplifier	1	GAP 170432	15.00
98	lock-in amplifier	1	GAP 170432	10.00
99	dataloggers	1	GAP 170432	10.00
100	Power supply	2	GAP 170432	14.00
101	upgradation of solar simulator for low current measurement	1	GAP 170432	15.00
102	dehumidifier	1	GAP 170432	0.50
103	Optical Bench	1	GAP 170432	10.00
104	Vector Signal Analyzer software	1	GAP 240432	17.27
105	Silicon APDs	2	GAP 240732	15.00
106	soldering station	1	GAP 170432	2.00
107	High stability liquid temperature bath	5 no.	TSP 231032	150.00
108	SPRT	6	TSP 231032	38.00
109	Precision Temperature Indicator	6	TSP 231032	24.00
110	Cetrifuge System with accessories	6	TSP 231032	12.00
111	Reading Telescope, digital Camera with display and mounting accessories	6	TSP 231032	6.00
112	Computer, Monitor, Laser Printer, UPS and accessories	6	TSP 231032	8.50
113	Multichannel data logger with 12 PRT PT-100	1 set	TSP 231032	20.00

114	Digital Thermo Hygrometer	6	TSP 23032	9.60
115	Ice Flakes Machine with accessories	1	TSP 231032	5.00
116	Climatic Chamber for environment test	7	TSP 231032	35.00
117	IR Thermometer	12	TSP 231032	1.20
118	Oil heater	2 no.	TSP 231032	0.50
119	Ga and In blackbody fixed points with furnace	1	TSP 231032	27.00

<b>A (b)</b>	<b>CONSUMABLES</b>
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Sr. No.	Category	Expected Procurement Value (Rs. In Lakhs)			
		Out of CSIR Infra Grant	Out of CSIR Funded Projects	Out of Externally Funded Project (EFP)	Total (Rs. In Lakhs)
1	Glassware	6.72	0.20	1.13	8.05
2	Miscellaneous	100.83	16.94	324.34	442.11
3	Research & Development Accessories (R & D Consumable)	148.03	150.42	137.04	435.49
4	Electrical & Electronic Items	14.50	29.20	34.14	77.84
5	Computer Accessories	10.56	0.85	1.09	12.50
6	Cartridge	3.70	3.05	0.80	7.55
7	Software	47.17	12.25	11.87	71.29
8	Stationary	0.46	0.51	2.07	3.04
9	Chemical (Gases)	49.52	3.33	104.31	157.16
10	Chemical (Solid)	27.73	17.16	50.93	95.82
11	Batteries	2.80		2.00	4.80
12	Job Work (Repair)	114.97	20.26	36.49	171.72
13	Annual Maintenance Contract (AMC)	78.48	14.00	6.50	98.98
14	Furniture	9.62	2.40	0.10	12.12

<b>B</b>	<b>FOR NEXT 2-4 FINANCIAL YEARS (2025-29) (From 01/04/2025 to 31/03/2029)</b>
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<b>B (a)</b>	<b>EQUIPMENT</b>
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Sr. No.	Name of Equipment / Item	Quantity (Nos.)	Approximate Cost (Rs. In Lakhs)
1	Tabletop SEM-EDS	1	70.00
2	Upgrade of Microphone calibration and testing facility , Multifunction Acoustic Calibrator & Access	1	50.00

<b>B (b)</b>	<b>CONSUMABLES</b>
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Sr. No.	Category	Expected Procurement Value (Rs. In Lakhs)
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1	R&D Consumables for closed loop systems (by equipment name)	
2	Chemicals (ex.- Name the different chemicals like Solvents, Biochemical/s, Biochemical kits & enzymes, Diagnostic kits, Sequencing, Oligonucleotides, etc.)	
3	Other Consumables (ex- Insecticide, Raw Materials, Packing Material, Column, Syringes, Transcriptome and Metagenome Analysis, Metabolites analyses, Farm Consumables, TLC Plates, Filter papers, Planting materials, seeds, Chemical standards, Essential oils, Standard aroma molecules, Animal feed, Cell Lines, Agriculture accessories, etc.)	
4	Glass wares (ex- name the different glass wares)	
5	Plastic wares (ex- Name the different plastic wares)	
6	Toner Cartridges.	
7	Batteries, etc.	
8	Gases (ex- tentative names)	
9	Maintenance/AMC/repairing of existing equipment	
10	Stationery items (ex- name a few)	
11	IT / software-related Items (Name the items required during year)	
12	Furniture (Name the items required during year)	
13	Electric Items (Name the items required during year)	

**Note:**

- The above procurement plan is dynamic and could be revised as often as may be necessary with the approval of the Competent Authority.
- The procurement of the chemicals & consumables would be based on the need and ongoing requirement of R&D activities of Lab/Instt.
- The procurement is subject to the fund's availability/release of sufficient grant from CSIR / funding agency.
- The indicated procurement value is an estimate only.