

Requirement of Imported Instruments for next five years for

AMD

Sr. No.	Name of the Instrument/Equipment	Estimated cost (Rs) in lakhs Per unit	No. of Unit	Total (Rs) in lakhs
1	Graphite Furnace Atomic Absorption Spectrometer (AAS) Graphite Furnace Atomic Absorption Spectrometer With Zeeman Background Correction	35	2	70
2	High Resolution Inductively Coupled Plasma Mass Spectrometer (HR-ICP-MS)	440	1	440
3	Simultaneous Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES)	140	1	140
4	Atomic Absorption Spectrometer With High-Resolution Optics And Continuum Light Source (HR-CS-AAS)	45	1	45
5	Quadrupole Inductively Coupled Plasma Mass Spectrometer (ICP-MS)	200	1	200
6	Electrochemical Workstation With Inverse Voltammeter, Polarography, Anodic Stripping Voltametry.	25	1	25
7	Benchtop Spectrofluorimeter With High Resolution Double Monochromator	20	1	20
8	Total Reflection X-Ray Fluorescence Spectrometer (TXRF)	100	1	100
9	Microwave Assisted Digestion System	35	1	35
10	Gas Chromatography-Mass Spectrometer (GC-MS)	45	1	45
11	Portable Helium Detector	16	1	16
12	Wavelength Dispersive X-Ray Fluorescence Spectrometer (WDXRF)	227	2	454
13	Fusion Bead Machine with Accessories	40	1	40
14	Isotope Ratio Mass Spectrometer (IRMS)	160	1	160
15	Laser Raman Spectrometer	100	1	100
16	Scanning Electron Microscope with EDX / CL/EBSD attachment	325	2	650
17	Micro Thermometric Apparatus with Heating and Freezing with Linkam Stage	50	2	100
18	Polaring Research Microscope with Image Analyser Software	50	4	200
19	High Resolution XRD System with attachments, Software and Accessories	300	2	600
20	Frantz Barrier Pole Mineral Separator	50	2	100
21	Laser Ablation High Resolution Inductively Coupled Plasma Mass Spectrometer (LA- HR- ICP- MS)	550	2	1100
22	Downhole Trajectory Measurement System	100	3	300
23	Heavy Duty Straight Pipe Wrenches Having A Sturdy,	150	1	150

	Ductile Iron And An I-Beam Handle With A Full Floating Forged Hook Jaw Featuring Self-Cleaning Threads With Replaceable Hook And Heel Jaws Conforming Standards As Per Federal Specifications GGG-W-00651E, Type-II, Class- A, Having Life Time Warranty Against Manufacturing Defects And Load Bearing Capacity Of 8- 10 Tons (Assorted Sizes)			
24	Multi-Function Ground geophysical Survey System- With Time Domain Electromagnetic (TDEM)/ Frequency Domain Electromagnetic (FDEM)/Induced Polarisation (IP)/ Audio Magneto Telluric System (AMT)/ Controlled Source Audio Magneto Telluric (CSAMT)	400	1	400
25	Ground geophysical Survey Induced Polarisation (IP) Transmitter and Receiver System for chargeability and resistivity measurements. Transmitter with 5kW capacity constant current/constant voltage and receiver system capable of measuring voltage in microvolts from 8 or more potential inputs.	80	1	80
26	Ground geophysical Survey Induced Polarisation (IP) Transmitter and Receiver System for chargeability and resistivity measurements. Transmitter with 10kW capacity constant current/constant voltage and receiver system capable of measuring voltage in microvolts from 8 or more potential inputs.	110	3	330
27	Ground geophysical Survey 3D- Induced Polarisation (IP) system with Transmitter and network of receivers for chargeability and resistivity measurements. Transmitter with 5kW or more capacity constant current/constant voltage and network of 8 or more receiver system capable of measuring voltage in microvolts.	200	4	800
28	Ground geophysical Survey Audio Magneto Telluric System (AMT) system with 3 magnetic and 2 electrical channels. Magnetic field sensor with frequency range 1 Hz to 10 kHz and 24 kHz sampling rate	70	3	210
29	Ground geophysical Proton Precession Magnetometers for Earth's Total magnetic field measurements with sensitivity of 0.2 nT and absolute accuracy +/- 0.25nT at 1Hz sampling rate with gradient tolerance of >6,000 nT/m or better	10	20	200
30	Geophysical Ground Penetrating Radar (GPR) transmitter and receiver system for measurement of shallow conductivity variations with high resolution. The transmitter of 50 kV capacity and deep sounding antennas of 50-3000 MHz frequency range.	70	2	140
31	Handheld Magnetic Susceptibility measuring instrument with sensitivity 1×10^{-6} SI units and measuring range of 10^{-6} to 10 SI units.	4	16	64
32	Ground geophysical High sensitivity Gravity meter with	130	2	260

	fused quartz sensor for measuring relative variations in the Earth's gravity field. Instrument resolution should be 0.001mGal and operating range of 7000 m Gal with inbuilt GPS.			
33	Portable Induced Polarisation/Resistivity measurement system for drill core samples with voltage/current measurement accuracy of 0.3% and chargeability measurement accuracy of 0.4%.	12.5	4	50
34	Refurbishment Of Versatile Time Electro Magnetic (VTEM) Systems	1167	1	1167
35	Heliborne Geophysical System Time Domain Electro Magnetic (TDEM) System, Magnetic and Radiometric System	1800	1	1800
36	High Purity Germanium (HPGe) 50% RE (Relative Efficiency) P-Type Co-Axial Detector With Accessories	80	2	160
37	Variable speed direction controlled Motorised Winch	30	11	330
38	Down Hole Gamma Ray Spectral Logging System	90	5	450
39	Micro R Rate Meter	2	40	80
40	GM (Geiger Muller) Tubes	0.2	100	20
41	LaBr ₃ Detector With Accessories	85	2	170
Total				11,804