

Galgotias AICTE IDEA Lab, Galgotias College of Engineering and Technology, Greater Noida - 201 310

Each Apparatus / Equipment / Machine / Tools etc. must be of Excellent Quality and of Reputed Brand.

Further, items mentioned in Part-A and Part-B must have 3 years of onsite / in-campus warranty.

Item Cat.	S. No.	Name of Apparatus / Equipment / Machine / Tool / Consumable	Specifications (for Tender Notice)	Qty	
A	A	Part-A	Apparatus / Equipment / Machines		
A	1	Laser Cutter	Working Area: Min 600 x 900 mm or above (Air/ Water Cooling) ; Laser Power: 80/100W ; Laser Type: CO2 DC Glass Laser Tube/RF Metal Laser Tube; Cutting Speed: 30000 mm/min or more ; Engraving Speed: 64000 mm/min or more ; Accessories # CO2 Focus Lens: 1 No.; Mirror 25mm: 3 Nos. ; Acetone: 1 litre ; Acrylic sheet (3 mm; 8x4 Ft): 2 Nos	1	
A	2	Vinyl Printer / Cutter	Dimensions: 50 cm x 15 cm x 15 cm or above ; Cut speed: up to 14.1 ips ; Max cut size using machine mat: 11.5 inch x23.5 inch or more	1	
A	3	3D Printer (FDM)	Printing Technology : FDM ; Printable Area: 256 x 256 x 256 mm or above ; Speed : 500 MM/Sec or above; Temperature : Hot end: Up to 300°C or above Heat bed: Up to 120°C. or above ; Connectivity: Wifi, USB drive, LAN, or internet ; Wi-Fi Module: Built-in ; Multi-Color Printing with Automatic Filament Management; Including 6 rolls (each of 1 kg , PLA+filament of 1.75 mm and compatible with printer) - of Blue, Red, Yellow, Black, White, Green colour (in total - 6 Kg PLA)	1	
A	4	3D Printer (Resin)	Resin based 3D printer; Speed : 500 MM/Sec or above ; Printable Area: 256 x 256 x 256 mm or above; Connectivity: Wifi, USB drive, LAN, or internet; Materials : PLA, PETG, TPU, PVA, ABS, ASA, PA, PC, PET ; Include : 6 kg of compatible consumable material	1	
A	5	3D Printer (Reinforced)	FDM Printer with Dual Nozzle Printing; Speed : 500 MM/Sec or above ; Printable Area: 256 x 256 x 256 mm or above; Connectivity: Wifi, USB drive, LAN, or internet ; Materials : PLA, PETG, TPU, PVA, ABS, ASA, PA, PC, PET ; Reinforcement : Carbon/Glass Fiber Reinforced Polymer ; Include : 6 kg of compatible consumable material with 1 more kg of reinforcement material	1	
A	6	3D Scanner	Technology: Stereo camera structured light with focusable cameras or equivalent ; CPU: Quad-core 64-bit SoC, 1.5GHz with integrated GPU; RAM: 4 GB ; Projector: DLP MEMS mirror or equivalent Camera Sensor: Sony 13 MP or better ; Scan Speed: 4 seconds or more Working; Effective Working Distance: 160mm-1400mm ; Scan Speed : 980,000points/s, up to 14FPS; Safety : Eye-safe Texture Scan : Yes ; Align Modes : Feature Alignment, Hybrid Alignment, Texture Alignment, Global Markers ; Interface : USB2.0 or above; Outdoor Scanning : Yes; Output Formats : OBJ; STL; PLY; P3; 3MF ; Scanning Environment: Indoor and outdoor (shaded); Texture / Color Scanning: Yes ; Minimum Capturable Feature Size: 0.2 mm or less ; Scanner Weight: 500 grams or less; Scanner Dimensions: upto 240 × 60 × 60 mm ; Compatible OS: Any OS supporting a modern web browser	1	
A	7	CNC Wood Router	Working Area: Min 1300 x 2500 mm; Z Axis Working Area: 200 or above ; Resolution: ±0.03/300mm or more CNC Spindle: 3KW or more ; Lathe Structure : Welding Steel Structure or equivalent ; Voltage: AC 220V, 50 Hz, 3 Phase ; XYZ Structure: Rack Pinion , Ball Screw Linear Rails; Max Spindle Speed : Min 18000 RPM ; Table: T-Slot/Vacuum Bed/Water Bed Repeatability: ±0.03 ; Working Mode: Stepper Motor/Servo Motor; Dust Collector : To be included by Vendor	1	
A	8	Lathe Machine	3-Jaw Chuck, Centre Width: Up to 400 mm or better; Height of Centers: Up to 88 mm ; Maximum Workpiece Diameter: Up to 100 mm; rpm; Speed Stages: 6-8 ; Motor Rating: 550W or better, induction motor, single phase 230V; Traverse Cross: Up to 70 mm or better; Traverse Longitudinal: Up to 300 mm or better	1	
A	9	Wood Lathe	Motor: 230V~50Hz, 550W, S2:15min or above ; Max. Disc Diameter: min 75 mm; Max. Cutting Length: 450 mm or more ; Spindle Speed: 5 speeds such as 1600 / 2600 / 3200 RPM etc ; Material: Cast Iron ; Bed Height: 0.2 m ; Cable Length: 0.850 m	1	
A	10	Digital Microscope	7" LCD Digital Microscope; 1200X Magnification; 1080P Video Microscope with Metal Stand; 12MP Ultra-Precise Focusing; PC View; Windows/Mac OS Compatible; 8 Adjustable Lights	1	
A	11	Mixed Signal Oscilloscope	Bandwidth: Up to 100 MHz ; Real-Time Sampling Rate: Max 1 GSa/s per channel ; Analog Channels: 4 or more; Memory Depth: 10 Mpts per channel ; Waveform Update Rate: Approximately 120,000 wfms/s	1	
A	12	Digital Storage Oscilloscope	2 channel, 50MHz Digital Storage Oscilloscope with 1Gsa/s sampling rate	1	
A	13	Signal or Function Generator	Arbitrary Waveform Generator with 2 Analog Channel and 25MHz Bandwidth	1	
A	14	Benchtop Multimeter	Measures 11 input signals (DC voltage, DC current, true RMS AC voltage, AC Current, two- and four-wire resistance, frequency, continuity, diode test, temperature, and capacitance); 7-inch dual-measurement color display; Reading rate of up to 110 readings/s ; Upto 5,000 points logging memory ; Standard USB and LAN for flexible PC connectivity; USB flash drive support; Including PathWave BenchVue DMM software for remote control and data logging	1	

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A	15	Digital Multimeters	Display Count: Up to 4000 ; DC Voltage Range: Up to 1000 V AC Voltage Range: Up to 1000 V ; DC Voltage Accuracy: $\pm 0.5\%$ or ± 3 digits, whichever is higher; AC Voltage Accuracy: Within $\pm 1\%$ + 3 digits DC Current Measurement: Up to 10 A ; AC Current Measurement: Maximum 10 A DC Current Accuracy: $\pm 1.5\%$ + 3 digits (approximate) ; AC Current Accuracy: $\pm 1.5\%$ + 3 digits (typical) ; Resistance Measurement: Up to 40 M Ω Resistance Accuracy: Estimated at $\pm 1.5\%$ + 3 digits ; Capacitance Measurement: Up to 1000 μ F Capacitance Accuracy: $\pm 5\%$ or ± 5 digits	5	
A	16	Variable Power Supply	Triple output DC bench power supply; USB and LAN connectivity; 7-inch WVGA display; Pathwave BenchVue Software Control and Visualization; Power Output = 90 W (I : 0-6 V with 0-5 A; II : 0-30 V with 0-1 A and III : 0-30 V with 0-1 A); Load regulation (\pm % of output + offset) : $< 0.01\% + 2$ mV and $< 0.2\% + 10$ m	1	
A	17	LCR Meter	Maximum Test Frequency : 1kHz; SVHC : No SVHC (15-Jun-2015); Maximum Resistance Measured : 0.2Gohm; Maximum Inductance Measurement : 2kH ; Maximum Capacitance Measure : 200pF	1	
A	18	Non - Contact voltage tester	Operating Principle : Senses the steady state electrostatic field produced by ac voltage through insulation without requiring contact to the bare conductor. A red glow at the tip indicates the presence of voltage ; Safety Compliance : Meets IEC 61010-1:2001, UL 61010-1 (2nd ed.), CAN/CSA-C22.2 No. 61010-1-04, and ISA-82.02.01 Pollution Degree 2 ; EMC Compliance : Meets IEC 61326-1:2006; Operating : 90 V ac to 1000 V ac, CAT IV 1000 V rated	5	
A	19	AC Clamp Meter	400A ; Resistance range upto 4 k Ohm	1	
A	20	Refrigerator	Upto 185 Liters, 5 Star, Smart Inverter Refrigerator	1	
A	21	Normal and Microwave Oven	20 L Normal and Microwave Oven	1	
A	22	Reflow Oven	No. of Waves: 7 or higher; Heating Type: Infrared IC Heater; Max. PCB Width: 300 \times 320 mm or more Power Supply: AC 220V / 50Hz; Peak Power: 1500W; Cycle Time: 1-8 min or less Temperature Range: 0 $^{\circ}$ C-280 $^{\circ}$ C	1	
A	23	PCB Laser Cutting Machine	Capable of cutting PCBs at micro-level through Laser beam	1	
A	24	Projector	Projector Brightness: 3600 Lumens, HDMI / USB Port, Wi-Fi / Bluetooth, Audio Out, Screen Share etc.	1	
A	25	Smart Board / Panel	86 Inch Android 14 Interactive Flat Panel (ADPM) Digital Board, 8 GB RAM 256 GB ROM, Ai-Assistant, 48MP Camera - Microphone, Multitouch Screen Display	1	
A	26	Smart Board / Panel	65 Inch Android 14 Smart Interactive Flat Panel (ADPM) Digital Board with Stand, 8 GB RAM 256 GB ROM, Ai-Assistant, Multitouch Screen Display	1	
A	27	Computers	All in One Desktop, 24 Inch, i7, 13th Generation, 16 GB RAM, 500 GB SSD	10	
A	28	Printer	Laser, Black Toner, with Scanner, High Speed Printing and Scanning, Wifi Enabled; Additional - 1 Black Toner	1	
A	29	PA System	50 Watt; with 2 mic and 4 speakers; capable of USB / Pendrive / Bluetooth input	1	