

Technical Specifications

SN	Item	Specifications
1	-20 Degree CFreezer	<ol style="list-style-type: none"> 1. -20 Degree temperature 2. Self contained unit with Fan assisted refrigeration 3. Capacity : 260 Ltrs. 4. Compressor : 1.5 HP 5. Refrigerant : R404a Gas
2	Soilrite	It should be a mixture of horticultural grade perlite and Irish Pear Moss specially made for tissue culture applications in laboratories and green houses for vegetative multiplication under disease free conditions. Per 1000 kg
3	Cocopit	for hardening of of tissue culture plants in greenhouse per 1000 kg
4	Gel scanner	Scanner for Electrophoresis gels stained with any color development method, colorimetric blots and slots, film-based chemiluminescent blots, autoradiogram, photographic prints, TLC plates, Slides Transmittance & Reflectance Mode for Wide & Variety Sample Images; Dynamic Range more than 3.0 OD; Should have transparent Lid for Safety of Sample Images from Various Thickness; User-friendly Analytical Software for Image Acquisition & 2D Data Analysis with following features: Automatic Spot detection, Fully adjustable Spot detection parameters; Multiple Spot overlay options, Suite of manual Editing tools; Background Subtraction, Background Visualization and manual editing, Spot measurement, Volumes automatically calculated following spot detection, Multiple spot fields to display including difference Calibration (1D and 2D methods), Intensity Calibration; Overlay Matching, Dual Window Matching, Montage Matching;
5	Photostability Chamber with Humidity and Temp. Control	<ol style="list-style-type: none"> 1. Outer chamber MS powder coated, inner chamber SS 304 grade, Volume 324 Liters, with Fluorescent Lamp 2. Construction Double wall with Poly Urethane (PUF) insulation provided with door having locking arrangement and inner glass viewing door. Temperature range 10.0 °C to 60.0 °C. 3. Temperature resolution 0.1 °C Temperature accuracy +0.2° C. 4. Temperature uniformity +1°C 5. Temperature Control Microprocessor based PID Control. 6. Temperature sensor PT100 RTD type Class 'A', 7. Temperature sensor accuracy +0.25 °C 8. Humidity range 40% to 90% RH Humidity resolution 1% 9. Humidity accuracy +2% RH Humidity uniformity +3 % RH 10. Humidity measuring range 0 to 90% 11. Cooling: CFC Free compressor utilizing eco friendly refrigerant, with condenser, motor, relay complete unit

		<ol style="list-style-type: none"> 12. Steam Injection Boiler with reservoir made of thick stainless steel, with heater, water inlet control, low water level safeguard and insulation. 13. Heating 'U' Shaped Nichrome Wire heater in SS Sheathing 14. Air circulation Flange motor with impeller / blower. 15. Insulation Poly Urethane (PUF) 16. Chamber illumination Fluorescent light with door switch. 17. Trays SS wire meshes heavy duty. 18. Feet Castor wheels. 19. Electrical 230V / 15A / 50 Hz.
6	Horizontal Steam Sterilizer / Autoclave	<ol style="list-style-type: none"> 1. Fully stainless steel except stand, jacket, panel boiler cover & hinge 2. Autoclave controller with digital temperature indicator cum timer & alarm after completion of sterilization cycle. 3. In built steam generator 4. Bearing ISI / CE / ISO mark 5. Internal Size - 600 mm x 600 mm x 1200 mm Depth 6. Volume – 455 Liters 7. Mode of Heating- Electrical 8. Working Pressure - 1.2 to 1.5 kgf /cm² g 9. Working Temperature - 121° C to 125° C 10. Chamber - S.S. 316 L quality, 6 mm. thick 11. End-ring - S.S. 316 quality, 10 mm thick. 12. Jacket - Boiler quality – 10 mm thick 13. Insulation - Rock wool. 14. Outer cover - S.S.304, 20 G. sheet – mirror polished 15. Pipe lines - S.S.316 quality seamless. 16. Fittings / Connections- S.S. 316 quality, 17. Lock/ radial arm / hinge - C.I. & EN-8 quality 18. Gasket - Silicone rubber, joint-less hollow type. 19. Stand - M.S. duly painted with heat resistance colour 20. Multi Port Operating Valve- To carry out all functions of sterilization cycle i.e. steam to jacket, steam to chamber fast/slow exhaust & vacuum / drying, fresh air etc 21. Door- Hinge type Single door shall be fitted with horizontal type opening & automatic pressure locking device so that the door cannot be opened till the steam is fully exhausted from the chamber. 22. Quick vacuum drying - should allows the filtered and sterile air to break the chamber vacuum & helps in quick drying

		<p>23. Accidental vacuum breaker / jacket air valve - A safety device for jacket against accidental vacuum and for automatic air removal to obtain saturated steam</p> <p>24. Safety valve - A safety device against excess pressure in jacket / steam generator</p> <p>25. Thermometer (Temperature gauge) to indicate sterilization temperature</p> <p>26. Plug screen to prevent large particles from entering chamber drain line</p> <p>27. Compound gauge to indicate chamber pressure</p> <p>28. Pressure gauge to indicate jacket/boiler pressure</p> <p>29. Boiler –Heater should be water immersion type industrial grade, water level magnetic switch to protect heater from low water level, glass tube to indicate water level in boiler and inlet outlet valves.</p> <p>30. Extended warrenty should be mentioned</p>
7	Tissue Culture Racks	<p>Height: 9 ft 6 inch Width: min 1.5 ft Length: Shelves: 7 including top shelve</p> <p>Shelf Surface: minimum 3mm thick white Hylem/ Cetylam sheet in each shelf.</p> <p>With lighting facility</p> <p>Shelf to shelf distance: 16 inch</p> <p>Frame: min. 2.5 x 2.5 cm square CRC pipe of mild steel, with anti corrosive, humidity resistant treatment and structured powder coated</p> <p>Flourescent lights : 4 tubes per shelf, 40 Watt Tube with individual On/ Off switch., fitted with ERTL tested electronic solid state Photo simulators (ballasts) For use upto 300 volts with individual On/ off switch for each shelf. With Photoperiodic system. .</p>
8	Chilled Water Circulator	<p>CFC free, seamless water tank, capacity 25 lit, temp range upto 5⁰C, should have abrasion resistance and durable finish by heat cured epoxy coating on panels, full stainless steel construction, low liquid level indication and auto cut off.</p>
9	Refrigerated Circulating Water Bath	<p>The equipment should have PID Controller with timer, control accuracy +/- 0.1C for water should have high temp. safety alarm, built in circulator pump for external devices and CE certified.</p> <p>Capacity 20 liters, inner size 320x320x150mm, temp range -10⁰C to 120⁰C</p>
10	Microprocessor controlled floor-standing ultracentrifuge with accessories	<p>Maximum Speed: 80,000 rpm or more.</p> <p>Speed Control Accuracy: ± 10 rpm</p> <p>Maximum RCF: 600,000 g (Approx.)</p> <p>Maximum Capacity: 1.5 litre</p> <p>Tube volume range: 1.5 ml – 250 ml</p> <p>Set Temperature: 0 to 40° C</p>

		<p>Ambient Temperature: 10 to 35° C</p> <p>Cooling System: CFC/ HCFC free</p> <p>Programmability: 20 or more with step run facility</p> <p>Power: 210-240 VAC, 50 Hz, 30 A.</p> <p>Machine should have advanced features like eye-balancing of samples, delayed start, dual display of ‘Run’ & ‘Set’ parameters, data entry through both key pad & touch pad, RPM/ RCF mode of operation, Fiberlite Fixed Angle Rotors (24 x 1.5ml) RPM 50,000 ,RCF 280000 ,K factor 33 ,Tube Angle 45</p> <p>Also quote other rotars for 5-50 ml tube with tubes</p>
11	LOW TEMPERATURE FREEZER	CAPACITY 600 LTRS. With TEMP RANGE (°C)-18 TO -22, with wheel , lock system and auto defrost. Double door model
12	Air conditioner	<p>With 100% Copper coils in R-22 Gas & R410 Gas, Eco-Friendly, with 5 stage filtration system and inverter technology .</p> <p>Cooling system and machine must have copper coils.</p> <p>Rates should be inclusive of installation charges, M.S. stand, transportation etc.</p> <p>2 ton capacity and 1.5 ton capacity, 5 years warranty of compressor should be given.</p> <p>MAKE carrier / Toshiba /O General</p>
13	Tower/Floor Standing Air Conditioner	<p>With 100% Copper coils in R-22 Gas & R410 Gas, Eco-Friendly, with 5 stage filtration system and inverter technology .</p> <p>Cooling system and machine must have copper coils.</p> <p>Rates should be inclusive of installation charges, M.S. stand, transportation etc.</p> <p>3 ton and 4 ton capacity, 5 years warranty of compressor should be given</p> <p>MAKE carrier / Toshiba /diakin /O General</p>
14	CO2 module	Module for attachment to minus 80 degree celcius freeze to keep it cool during power failure.
15	Liquid nitrogen cans	<ul style="list-style-type: none"> • Capacity: 1-2 lit, 10 lit, 20 lit, 30 lit. • Configuration Vertical • Inner Vessel Material: Stainless steel • Insulation: Vacuum + Multi layersuper insulation.

		<ul style="list-style-type: none"> • Durable, tamper-proof lid design • Narrow-mouth • Low Level alarm system
16	Voltage Stabilisers	Servo type stabilisers from 5 KVA to 10 KVA single phase and three phase
17	Generator	<ul style="list-style-type: none"> • Engine with 80 to 85 KVA capacity. • Control panel should be fully automated having suitable rating MCCB, current transformer, indicating lamps, and control fuses. • Should include battery with automatic charging equipped with voltmeter and having suitable alternator. • Should include display for monitoring oil and diesel level, oil pressure, coolant temperature with alarm. • Should have safety trip in case of high coolant temperature and engine overspeed. • Should have emergency push stop button located on external canopy. • Average sound level should be less than 75 dBA. • Should have electric supply manual bypass system. • Should have auto start system on power failure • Should have phase unbalance load protection system to trip the power supply. • Battery Backup should be provided with its own battery bank. • Should have dual input bypass. • Should have rectifier section consisting of IGBT technology with input voltage 230 V single phase and compatible with diesel generator set.
18	Air curtains	<ul style="list-style-type: none"> • Should have power supply 220V. AC., 1 phase, 50 Hz / 440V. AC., 3 Phase, 50 • Size should be available 3, 4 and 6 feet <p>Material construction should be M.S. CRCA / S.S 304.</p>
19	Branded Intel Core i7 /	<p>Processor: Intel Core i7 Processor (4th Generation)</p> <p>RAM: 8GB RAM or More</p>

		<p>Hard Disk: 500 GB or More Monitor: 18.5" or more Optical Drive: 8X DVD RW or more Network: onboard LAN Port Operating System: Windows Licensed Software Antivirus: Antivirus with Internet Security software 1 Year</p>
20	Branded Laptop Computer Intel Core i7 Laptop	<p>Processor: Intel Core i7 Processor (4th Generation) RAM: 8GB RAM or More Hard Disk: 500 GB or More Monitor: 14" or more Network: a) onboard LAN Port b) Wireless LAN Operating System: Windows Licensed Software Antivirus: Antivirus with Internet Security software 1 Year</p>
21	GREEN HOUSE	<p>Size: 50 ft x 20 ft x 11 ft : 8' (L x W x H height at the center: on sides) Roof : Hut shape/Dome with Buffer room – 5' x 6' x 8' Sketch drawing and design should be attached .</p> <p>Civil Works : CC foundation, Brick wall 2 feet below and 2 feet above ground level, duly plastered . Base PCC 3" thick 18" wide , 13" wide 4" high first base line , then 9"wide second base line, Frame base block height 3'x 9"x 9" CC block at equal distance. Floor: Out Side of green house made of crushed bricks with graded stone (Rodi) which is further flushed with 4:3:1 (Rodi:sand:cement) & Inner side floor is natural. Single central path way is required inside.</p> <p>Infra structure : GI (47 mm x 47mm ± 2mm) ISI standard IS 1239 class B Super Structure: GI (47 mm x 47mm ± 2mm) ISI standard IS 1239 class B anti-corrosive, humidity resistant square pipe. Pipe to pipe distance 3'2" for maximum wind load conditions with Anodised Aluminium strips , duly treated with necessary fastening accessories and bolts.</p> <p>Glazing / Cladding : High quality UV stabilized 50 % Polycarbonate sheet (Luxan) 6mm thick . The polycarbonate sheet should be fixed with the aluminium strips. Doors: The door with flush door opening (Door size : 6'3" x 3') of Anodised Aluminum section with Polycarbonate sheet 6 mm thick as cladding material with lock system. Shading: 75% UV stabilized Agro shading net, Green color shading net above the polycarbonate roof with suitable</p>

		<p>metal roof arrangement for fixing shade net at the height of minimum one fit above polycarbonate roof with moving arrangement.</p> <p>Cooling System Should have closing and opening type windows to escape hot air on the top centre of house. Evaporative Cooling System (ECS) : Fan & Pad system with Cellulose Pads 100 mm thick. Pad Size : 20' x 5'. Along with water softner and filtration unit to prolong the life of the pad. On opposite wall heavy duty Slow Speed Axial Flow Fans 48" Single phase (with GE/CG motor) with aluminium louvered covering, The internal & external surface area of the Fan and pad are covered with filter screen of 40 x 40 mesh Nylon mesh covering cooling pads. Cement underground water storage tank of 10000 liter capacity with metal door opening with lock and key arrangement, 1 HP Submersible Texmo / Crompton greaves pump (ISI make), GI Tray, Filter, water Distribution system and other accessories.</p> <p>Lighting System Lighting System: Four tube lights on two walls inside and four tubelights on four corner of greenhouse on outside required.</p> <p>Humidity System Humidification: Through DAN (Israel) micro misting system with Leakage Prevention Device (LPD) with capacity to maintain RH :- upto 90%-95%, $\pm 4\%$ in side the whole Green House, provide micro filter unit, return gutter, control valve assembly, fitted with 1 H.P. Texmo/ Crompton greaves submersible pump set.</p> <p>Control Panel for Green House 1. Microclimatic Temperature Controller Specifications: Real time microprocessor based user programmable PID Controller.4 digit LED display for displaying measured values and another 4-digit LED display for displaying Set point lock within the setting panel to protect setting changes. Level lock to ensure that the parameter can be read but cannot be changed. Sensor failure indication. Display resolution 0.1°.Accuracy $\pm 0.1^\circ\text{C}$. Wide selectable temperature range, ranges from 0° to 100°C.</p> <p>2. Microclimatic Humidity Controller Specification:Real Time microprocessor based.On / Off control for Humidifying / Dehumidifying. Display Accuracy – indicating value $\pm 0.2\% \pm 1$ digit.</p> <p>Electrical Wiring Electrical Device: High quality ISI approved fittings with copper multi strand twisted FR Grade with proper M.C.B. with appropriate electrical points of 5 Amp & 15 Amps (Anchor make)</p> <p>Plumbing</p>
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		<p>Water Connection: Water connection with one tap in Green House with elbow operated tap, distributed through corrosion free pre coated GI pipe of appropriate diameter (3/4" or 1/2") Stainless Wash Basin (1 No.), Drainage Points should also be provided.</p> <p>AMC of two years should be included in prize beyond warranty period and also mention the warranty period</p>
22	Net House	<p>Size: 50' x 20' x 11' : 8' (L x W x H height at the center: on sides) Roof : Hut shape with Buffer room – 5' x 6' x 8'</p> <p>Civil Works : CC foundation, Brick wall 2 feet below and 2 feet above ground level to duly plastered . Base PCC 3"thick 18" wide , 13" wide 4" high first base line , then 9"wide second base line, Frame base block height 3'x 9"x 9" CC block at equal distance.</p> <p>Floor: Out Side of green house made of crushed bricks with graded stone (Rodi) which is further flushed with 4:3:1 (Rodi:sand:cement) & Inner side floor is natural. Central pathway is required inside.</p> <p>Infra structure : GI (47 mm x 47mm ± 2mm) ISI standard IS 1239 class B Super Structure: GI (47 mm x 47mm ± 2mm) ISI standard IS 1239 class B anti-corrosive, humidity resistant square pipe. Pipe to pipe distance 3'2" for maximum wind load conditions with Anodised Aluminium strips &PCH , duly treated with necessary fastening accessories and bolts, along with Silicon (translucent) treatment for additional holding and thermal safety.</p> <p>Shading: 75 % UV stabilized Agro shading net, Green color shading net.</p> <p>Cement underground water storage tank of 10000 liter capacity with metal door opening with lock and key arrangement, 1 HP Submersible Texmo / Crompton greaves pump (ISI make), GI Tray, Filter, water Distribution system and other accessories.</p> <p>Lighting System Lighting System: Four tube lights on two walls inside and four tubelights on four corner of nethouse on outside required.</p> <p>Plumbing Water Connection: Water connection with one tap in net House with elbow operated tap, distributed through corrosion free pre coated GI pipe of appropriate diameter (3/4" or 1/2") Stainless Wash Basin (1 No.), Drainage Points should also be provided.</p> <p>. AMC of two years should be included in prize beyond warranty period and also mention the warranty period</p>

23	Insect proof net House	<p>Size: 130' x 23' x 8 (L x W x Height) Model: Inverted V Shape with Buffer room – 5' x 6' x 8'</p> <p>Civil Works : CC foundation (1:3:6), Brick wall 2 feet below and 2 feet above ground level to check lateral moments of water duly plastered. Base PCC 3"thick 18" wide , then 13" wide 4" high first base line , then 9"wide second base line, Frame base block height 3'x 9"x 9" CC block at equal distance. Floor: Out side of green house made of crushed bricks and with graded stone (Rodi) which is further flushed with 4:3:1 (Rodi:sand:cement) & Inner side floor is natural. Superstructure: GI 48mm x 48mm round pipe, IS 1239 class B with IS 4736-1968/ISO 65-1973 zinc coat. Doors: (Size: 6'3" x 3') (H x W) 1 Nos. with lock and pinion system Roof Screen and side cover: 40 x40 Mesh SS.</p> <p>Humidity System Humidification: Through DAN (Israel) micro misting system with Leakage Prevention Device (LPD) with capacity to maintain RH :- upto 90%-95%, ± 4% in side the whole Green House, provide micro filter unit, return gutter, control valve assembly, pressure gauge' fitted with 1 H.P. Texmo/ Crompton greaves submersible pump set. Cooler system : Cellulose pad coolers with minimum 18 inch fan diameter, required at every 25 ft running distance on both sides. Lighting System Lighting System: Four tube lights on two walls inside and four tubelights on four corner of greenhouse on outside required.</p> <p>Plumbing Water Connection: Water connection with one tap in Net House with elbow operated tap, distributed through corrosion free pre coated GI pipe of appropriate diameter (3/4" or 1/2") Stainless Wash Basin (1 No.), Drainage Points should also be provided.</p> <p>Shading: 50% UV stabilized Agro shading net, Green color shading net above the roof with suitable metal roof arrangement for fixing shade net at the height of minimum one fit above roof with moving arrangement. AMC of two years should be included in prize beyond warranty period and also mention the warranty period</p>
24	Poly House	<p>Poly House Specification (Fan & Pad system) Size: 50' x 20' x 11' : 10' (L x W x H height at the center: on sides) with opening for release of hot air at centre top with openable window system. Model : Hut shape/Dome with Buffer room – 5' x 6' x 8'</p> <p>Civil Works : CC foundation (1:3:6), Brick wall 2 feet below and 2 feet above ground level. Base PCC 3"thick 18"</p>

	<p>wide , then 13” wide 4” high first base line , then 9”wide second base line, Frame base block height 3’x 9”x 9” CC block at equal distance.</p> <p>Floor: Out Side of green house Made of crushed bricks with graded stone (Rodi) which is further flushed with 4:3:1 (Rodi:sand:cement) & Inner side floor is natural.Path way is required inside centrally.</p> <p>Super Structure: GI (60 mm, 48 mm ± 2mm round pipes) ISI standard IS 1239 class B anti-corrosive, humidity resistant square pipe. Pipe Anodised ,Aluminium strips , duly treated with necessary fastening accessories and bolts, along with Silicon (translucent) treatment for additional holding and thermal safety.</p> <p>Glazing / Cladding : High quality UV stabilized Poly film 200 micron, Multiwalled. The poly film will be fixed to Alluminium profile with zikzak spring.</p> <p>Doors: flush door opening (Door size : 6’3” x 3’) of Anodised Aluminum section with Polycarbonate sheet 6mm thick as cladding material with lock and pinion system.</p> <p>Cooling System Evaporative Cooling System (ECS) : Fan & Pad system with Cellulose Pads 100 mm thick. Pad Size : 20’ x 5’ . Along with water softner and filtration unit to prolong the life of the pad. On opposite wall heavy duty Slow Speed Axial Flow Fans 48” Single phase (with GE/CG motor) with aluminium louvered covering, The internal & external surface area of the Fan and pad are covered with filter screen of 40 x 40 mesh Nylon mesh covering cooling pads. Cement underground water storage tank of 10000 liter capacity with metal door opening with lock and key arrangement, 1 HP Submersible Texmo / Crompton greaves pump (ISI make), GI Tray, Filter, water Distribution system and other accessories.</p> <p>Lighting System Lighting System: Four tube lights on two walls inside and four tube lights on four corner of greenhouse on outside required.</p> <p>Humidity System Humidification: Through DAN (Israel) micro misting system with Leakage Prevention Device (LPD) with capacity to maintain RH :- upto 90%-95%, ± 4% in side the whole Green House, provide micro filter unit, return gutter, control valve assembly, pressure gauge’ fitted with 1 H.P. Texmo/ Crompton greaves submersible pump set.</p> <p>Control Panel for Green House 1. Microclimatic Temperature Controller Specifications: Real time microprocessor based user programmable PID Controller.4 digit LED display for displaying measured values and another 4-digit LED display for displaying Set point lock within the setting panel to protect setting</p>
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		<p>changes. Level lock to ensure that the parameter can be read but cannot be changed. Sensor failure indication. Display resolution 0.1°. Accuracy $\pm 0.1^{\circ}\text{C}$. Wide selectable temperature range, ranges from 0° to 100°C.</p> <p>2. Microclimatic Humidity Controller Specification: Real Time microprocessor based. On / Off control for Humidifying / Dehumidifying. Display Accuracy – indicating value $\pm 0.2\%$ ± 1 digit.</p> <p>Electrical Wiring Electrical Device: High quality ISI approved fittings with copper multi strand twisted FR Grade with proper M.C.B. with appropriate electrical points of 5 Amp & 15 Amps (Anchor make)</p> <p>Plumbing Water Connection: Water connection with one tap in Poly House with elbow operated tap, distributed through corrosion free pre coated GI pipe of appropriate diameter (3/4" or 1/2") Stainless Wash Basin (1 No.), Drainage Points should also be provided. AMC of two years should be included in prize beyond warranty period and also mention the warranty period</p>	
25	On line UPS 10 KVA and 7.5 KVA	Company should have ISO-9001 & 14001 certified	
		UPS Capacity in KVA	10KVA(Online) and 7.5 KVA
		Nominal input voltage	415V 3 Phase +/- 10% V
		Input frequency	50 Hz +/- 3 Hz
		Output	
		Output power capacity (VA)	10000 VA
		Output power capacity (W)	8000 W (10 KVA) / 7500 W (7.5 KVA)
		Nominal output voltage	230 V (single phase)
		Output voltage distortion	less than +/- 5% at full load
		Output frequency	50 Hz +/- 3 Hz
		Waveform type	Pure Sine wave
		Batteries	
		Battery type	Liquid industrial battery
		Battery Make	Exide
		Back up time	7 to 8 Hours
		Automatic restart of load	Required
		Cold Start capability	Required
		Generator compatibility	To provide Clean uninterrupted power when Generator is used.

		LED/LCD display	A) Online
			B) On Battery
			C) Overload
			A) On battery
		Alarms	B) Low battery
		Isolation Transformer Protection	Inbuilt Galvanic Isolation Transformer
27	Insect proof net house	Iron poles fitted in cement concret at 5 mts distance with side support. With top frame , total size size 50 mt x 100 mts, with nylon 50 mesh net covered from all sides. Also quote optional 50 mesh steel mesh	
28	sonicator	To disrupt the cell tissues / to break clumps of gel beads	
29	UV transilluminator	Research quality model, Big size, with Quartz glass shield along with face shield	
30	White light illuminator	Research quality model, milky top, Big size	

Laboratory furniture :

For Laboratory furniture attach colour booklet. The supply order will be given only after clearance from inspection committee of university.

1	Computer Table Main Unit:	Approx. Size: Length:- 900mm. Width:-450mm. Height:-760 mm. C-Frame & tubular CRCA steel structure. Provision to run cable in legs Drum removable CPU stand. All steel components should be of epoxy powder coated.
2	Computer Table Adon Unit :	Approx. Size: Length:- 900mm, Width:-450mm, Height:-760 mm. C-Frame & tubular CRCA steel structure. Top made of 18mm thick material. Electrical Cable Tray made of 0.8mm thick. Provision to run cable in legs. Metal keyboard tray and removable CPU stand All steel components should be epoxy powder coated.
3	Keyboard:	Approx. Size:- Width:600 mm, Depth:270 mm, Height:70 mm Made up of prime quality MS CRCA sheet of 0.8mm thk. Fitted with branded telescopic channel.

		All steel components should be epoxy powder coated.
4	CPU Trolley:	Approx. Size:- Length :245mm Width:300mm, Hight:210 mm. Made of press formed MS CRCA sheet 1 6mm thk. The width is adjustable from 150mm to 275mm. Rubber Pads should be posted inside the trolley for better grip and with twin wheel nylon rollers for mobility. All steel components should be epoxy powder coated.
5	CPU Stand Inbuilt:	Made of 18 mm PLPB supported by 20 mm X 20 mm X 18 Square CR Tube. All steel components should be epoxy powder coated.
6	Multipurpose Table:	Approx. Size:- Length: 1200 mm, Width: 600 mm, Height: 760 mm C- Frame Leg 200 mm wide made of aluminum profile and CRCA formed sections, having provision for wire management. Top – 25mm thick PLPB. Edge banding of edges by Through Feed Machine. Dotted embossed cable Duct and Perforated steel modesty panel on visitor's side All steel components should be epoxy powder coated.
7	Round Table:	Approx. Diameter 13pprox.. 1200mm height: 760mm Top – 25mm thick Base structure in Plus shape made of 18mm thk pre-laminated particle board. All edges covered with pvc edge beading. Fitted with floor levelers at bottom. OR Frame made of 1.2 mm thk M.S., CRCA tube duly Powder Coated, fitted with 25mm top or Glass
8	Desk Based partition with cable duct:	Approx. Size:- Length : 900 mm / 1200 mm , thickness:70 mm, Height: 450mm, Frame made of CRCA Steel Structure. Provision for Cable and switches and top – Soft board / White Board. All steel components should be epoxy powder coated
9	Desk mounting cable duct:	Approx. Size:- Length:900 / 1200mm Width: 75mm, Height: 150mm, Frame made of CRCA Steel Structure. Provision for Cable and switches. All steel components should be epoxy powder coated.
10	Desk mounting partition pole base:	Approx. Size: Width – 900mm D – 32mm, Ht– 450 mm Frame Structure:- made up of 32mm dia, 1.25mm thk MS tube, Tile made up of 18mm PLPB. All steel components should be epoxy powder coated.
11	Partition panel with tiles:	Approx. 70mm Thk. Tiles Base partition.

		Internal Frame 1.6mm thk. CRCA powder coated Sections. Tiles 12mm. thk. Pre laminated board. Provision of Slot for cabling and accessories.
12	Worktop:	Worktop made of 25mm thick material PLPB or in MDF. All exposed edges covered with 2mm thk PVC edges bend by machine, fitted to the partition with necessary M.S. CRCA duly Powder Coated brackets.
13	Side panel:	Approx. 735mm High Side panel/leg made of 18mm thk. PLPB fitted with necessary bracket. All exposed edges covered with 2mm thk. PVC edge bend by machine.
14	Side panel (Metal)	Approx. 735mm High, having provision for wire management. Fitted with necessary brackets and work Top, All steel components should be epoxy powder coated.
15	Mobile pedestal Unit:	Approx. Size: Height:650mm, Width:410 mm, Depth:540mm Top – 25mm thick PLPB. Side .back and drawer front are made of 18mm thk. PLPB. Metallic finish heavy duty handle. Front mounted lock, provision of Casters for mobility. Drawer slides for filing drawer. Other drawers on roller slides.
16	Side runner with 3 drawer:	Approx. Size:- Height:680mm,Width:1200mm, Depth:400mm Body part made-up of prime quality CRCA Sheet. Top – 18mm thick PLPB. Side Edges covered with PVC edge band on edge bending machine. Door lock. All steel components should be epoxy powder coated.
17	Collapsible Glass Door:	Approx. Size:- Height:1676mm, Width:838 mm, Depth:310 mm(4-Door) Body part made-up of prime quality CRCA Sheet. Doors made of MS CRCA formed sections fitted with 4mm thk glass Doors open and slide on delrin rollers. Inbuilt aluminum die cast handles. All steel components should be epoxy powder coated.
18	Single Side main rack:	Approx. Overall Size:- H:-1980mm, W:-915mm, D:-380mm: Body Structure: Made up of prime quality CRCA MS sheet 1.0mm thk 3 fold side panel with dia 12mm hole in middle of each panel throughout the height at 25mm pitch for height adjustability of shelves. Adjustable shelf made out of Prime Quality CRCA 0.8mm thk. Sheet. Complete knockdown assembly. All steel components should be epoxy powder coated.
19	Single side Adon Rack:	Approx. Overall Size:- H:-1980mm, W:-915mm, D:-380mm: Body Structure: Made up of prime quality CRCA MS sheet 1.0mm thk 3 fold side panel with dia 12mm hole in middle of each panel throughout the height at 25mm pitch for height adjustability of shelves. Adjustable shelf made out of Prime Quality CRCA 0.8mm thk. Sheet. All steel components should be epoxy powder coated.
20	Main Shoe Rack/Adon Rack	Approx. Overall Size:- H:-1980mm, W:-275mm, D:-350mm : Made up of prime quality MS CRCA sheet. Shelf – 2 nos. making three compartments. All steel components should be epoxy powder coated.

21	Magazine Rack Main:	Approx. Size:- Height:1870mm, Width:265mm, Depth:400mm: Sides made of 18mm thick pre-laminated board. Edges covered with PVC edge band on through feed edge bending machine Shelf tray & Bottom Panel made by M.S.CRCA Sheet. Tray slides on roller bearing. All steel components should be epoxy powder coated.
22	Reading Table:	Approx. Size:- Length : 2100 mm, Width : 900 mm, Height:760 mm. Frame made of MS CRCA sheet and tubes. Top made of 18mm thick pre-laminated board. Side Edges covered with PVC edge band on edge bending machine. Perforated modesty panel at center of table. All steel components should be epoxy powder coated.
23	Laboratory Table:	Approx. Size:- Length:2100mm, Width: 900mm. Height: 760mm, Frame made of MS CRCA sheet and tubes. Top made of 18mm thick pre-laminated board. Side Edges covered with PVC edge band on edge bending machine. One self at middle of table height. All steel components should be epoxy powder coated.
24	High Back Chair	Approx. Size: Height Overall/Seat – Max:1285/560mm, Min:1185/460mm, Depth – 660mm, Width- 640 mm : 5-Prong base for stability. Twin Wheel heavy duty Castor. Seat height adjustment. Lockable center tilt mechanism, High density PU cushion.
25	Middle Back Chair:	Approx. Size: Height Overall/Seat – Max:1110/560mm, Min: 1010/460mm, Depth -660mm, Width- 640 mm : 5-Prong base for stability. Twin Wheel heavy duty Castor Sturdy steel column gas lift and seat height adjustment. Lockable center tilt mechanism and with Single piece arm rest. High density PU cushion.
26	Fixed Visitor Chair:	Approx. Size: Height Overall/Seat – 1045/560mm, Depth – 660mm, Width- 640mm Under Structure cantilever type MS CRCA Tube 1.6 mm thick. Single piece arm rest. High density PU cushion. All steel components should be epoxy powder coated.
27	Premium Visitor Chair:	Approx. Size: Total length: 1775mm, Total Height: 1045 mm, Total Depth: 550 mm and Seat height: 556mm. Made of MS CRCA. Chrome plated Handles & BASE. Steel perforated MS molded one piece seat and back fitted in molded chrome plated side strips, three individual seats fitted on MS tube support seat and bottom support Powder coated.
28	Half Writing Pad Chair	Approx. Size: Total Height-825mm, Seat Height: 460mm, Tablet Height: 665mm, Depth 570 mm &Width : 550 mm. Under Structure cantilever type MS CRCA. Hot pressed ply wood with steel T-Nuts for rigid fastening. Single piece integral skin PU arm rest. High density PU molded cushion. Book rack made of plastic coated wire mesh fitted at bottom of seat and tablet made of 18mm thick PLPB.

		All steel components should be epoxy powder coated.
29	Glass Door Cabinet	With 4 adjustable shelves, 2 doors with 4 glass panels and lock, S.S. keys in duplicate. Approx. Overall size: H-980 W-915 D-485(mm) (H-78" x W-36" x D-19") Door & Shelves: Steel of not less than 1 mm. Back & two sides: Steel of not less than 0.9 mm. Locks & Security: 6 levers inbuilt branded Lock system with non interchangeable S.S. Key in Duplicate. All steel parts in powder coated.
30	Wooden executive Table	Executive Main Table with Mobile pedestal, Overall Dimension (A) Main Desk Size: W-135 D-75 H-75 (cm) (B) Side Return Desk Size: W-120 D-45 H-75 (cm) I Credenza Size: W-75 D-42.5 H-75 (cm) Material specification: Frame 'C channel frame & pipe of 1" PRIME quality. Table Top: Pre-laminated particle board of ISI marked top with 2mm PVC edge beading. 6 levers inbuilt branded Lock system. With S.S. Key in Duplicate. All steel parts with powder coat.
31	Executive table	Both side storage, 2 drawers cum filing drawer & a center drawer, mounted on telescopic channel. Front side of storage units with wooden paneling. Perforated knee cover. Frame structure CRCA "C" channel frame ERW pipe of 1" PRIME quality. Table Top: Pre-laminated particle board of ISI marked top with 2mm PVC edge beading. Locks & Security: 6 levers inbuilt branded Lock system with S.S. Key in Duplicate. All steel parts finished in high quality MARPOL powder.
32	Computer table	With steel frame pullout tray for keyboard & collecting tray for printout Approx. Overall Size: W-90 x D-59 x H-75(cm) All steel parts in powder coated.
33	Conference table	For 11 to 14 persons manufactured from 36 mm high quality top & wire management facility. Expandable as requirement. Approx. Size: (A) Single seater module W-675 x D-600 x H-750 mm

		(B) Two seater module W-1350 x D-600 x H-750 mm I Single seater Quarter Circle W-600 x D-600 x H-750 mm All steel parts in powder coated.
34	Conference table	For 12 persons manufactured from 36 mm thick top, Triple melamine coated over veneer. Steel ribs running through each module, level adjusting screw, Expandable as requirement. Table top size: W-416.6 x D-142.6 x H-75 (cm) All steel parts in powder coated.
35	4 drawer filing cabinet	With automatic locking arrangement. Each drawer with ball bearings double extension telescopic channel. Overall size: H- 1320 W-470 D-623(mm) (H-51 .9” W-18.5” x D-24.5”) Inside dimension of each drawer size: H-250 xW-385 x D-560 (mm) All steel parts powder coated.
36	Teapoy	Glass top & wood. Overall Size:H-450 x W-1000 x D-650 mm.
37	Book case	With four doors inside sliding with glass overall, Approx. size:1740(h) x 915(W) x 320(d) mm. Locks fitted to each individual door with ss keys in duplicate. All parts are finished in powder coating.
38	Sofa set	Consisting of three and more with single chair Inner wood is of teak or any seasoned wood with kiln chemical treatment. Cushion is made out of high and medium density foam. Actual photographic representative literature is must.
39	Storage cabinet	With 4/5 adjustable shelves. Overall size H-I 980 x W – 915 x D-485 (mm) (H-78” x W-36 x D-1 9) Material specifications: Door & Shelves: CRCA IS 513 ‘D’ Grade steel of not less than 21 mm Back & two sides: CRCA IS 513 ‘D’ Grade steel of not less than (0.9 mm) Locks & Security: 6 levers inbuilt system with non interchangeable S.S. Key in Duplicate. All steel parts in powder coated.
40	Executive side unit	With 3 drawers fixed pedestal. Approx. size W-1 38 x D-60 x H-75 (cm)

		All steel parts in powder coated.
41	3 seats cluster	Chair on beam with perforated steel seat and back with handle. Overall 18approx.. size: L-64 x D-23 x D-57 (cm) All steel parts in powder coated.
42	Sliding Glass Door unit	With 4 adjustable shelves. Overall 18approx.. size : H-1830 x W-90 x D-450 (mm) (H-72'' x W-35.5'' x D-1 8'') All steel parts in powder coated.
43	2 drawer filing cabinet (Laboratory)	With automatic locking arrangement. Drawer will be mounted on ball bearings with double extension telescopic channel. Overall size: H-696 W-470 D-623(mm) (H-27'' W-18.5'' x D24.5''). All steel parts in powder coated.
44	Laboratory Table	Top fitted with 17 to 20 mm black granite. Table frame (pedestal) made out m.s. tube 25x25 mm thick and finished with epoxy powder coating. Under bench storage modules. Modular of best quality sheet, drawers running on roller slide channels, shutters are fitted with consealedhing with ss handle with one half shelf. Complete module finished with powder coating. A) Two drawer two almirah unit. B) Single drawer single almirah unit C) Two door almirah unit D) Single door almirah unit E) Reagent rack unit F) Sink unit G) Corner H) Wall mounting unit
45	cupboard	Steel, with 4 shelf, lock and key.
	Other items	
46	Shade net	50 % and 70 %, with variable size
47	Mulching paper	For orchards
48	Trays / crate	Nilkamal seedling handling trays of various sizes 18approx.. a.) 2 inch x 1.5inch, depth 12 inch b) 1.5 inch x 1.0 inch, depth 15 inch c.) 1.5 inch x 1.0 inch, depth 30 inch
49	Protrays	Black colour 96 well as well as 18approx.. 50 well
50	Insect proof net	50 mesh nylon
51	Drip system	For two acres for plantation at a distance of 5ft x 5ft. Along with ventury, filter, along with fittings. And underground sub line and main line. All ISI
52	Sprinkler system	sprinkler pipeline 1000 ft 5 HP submercible pump along with all accessories , sprinkler stand 16 with metal noozles. All ISI

53	Ahuja Audio system	Ahuja Model No. CMC-4100 Chairman Unit Ahuja Model No. CMD-4200 Delegate Unit (Set of 10 unit) Ahuja Model No. CMA-4400 Amplifier Unit Ahuja PA wallspeaker Model no. PS-400T having 16 watt Studio master cordless hand mike with receiver Coller mike (two units) Inclusive of Installation charges With Cabling
54	Polybags	Black colour 7 x9 inch and 11 x 9 inch
55	Autoclavable polybags	24 cm x 30 cm size transperant
56	Coffee maker/ tea maker	5 lit capacity
57	Water cooler with RO system	Approx. 100 lit/ hr. capacity