महाराष्ट्र शासन

शासकीय वैद्यकीय महाविद्यालय, धाराशिव

सुक्ष्मजीवशास्त्र विभाग

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Name of the Department: Microbiology

Equipment:

Name of the Equipment	Numbers available	Functional Status	Important Specifications	Adequate (Yes/No)
Binocular Microscopes	2	Working	BINOCULAR RESEARCH MICROSCOPE A Robust and stable die-cast stable body with Co-Axial coarse and fine focusing mechanism based on four step reeducation gears system which runs on ball- bearing guide ways with tension control ring. Stopper system is provided so that the slides may not damage. Binocular Head Inclined at 45/30deg. With all Anti-Fungal Coating prisms. Ratable 360 deg. IPD adjustment between 54mm -74mm.Eye Piece-High Eye Point Anti-Fungal Extra Wide Field 10x /FN 18mm) paired eye pieceNose Piece A high precision quadruple nose piece running on Balls with positive indexing. All positions are parcentered and personalised Objectives- all objective are Antifungal Coated, Infinity corrected Long barrel, high resolution semi-plan objectives 4XNA0.10, 10X NA0.25, 40X NA 0.65(SL) and 100X NA1.25 (SL) Oil immersion.Mechanical Stage- Low positioned Co-axial calibrated double plate mechanical with feather touch movement. Wide Field eye piece.Substage Condenser- N.A.1.25 with Aspheric Lens with rack & Pinion adjustment.Illumination - LED 3.3W 3V illumination with variable control. Up to 100,000 hours of LED life.	Yes

BOD Incubator	3	Working	B.O.D BIO-CHEMICAL OXYGEN DEMAND (Deluxe-Digital Control) Double wall construction. Inner chamber made of richly anodized aluminium or highly polished stainlesssteel sheet. Supplied with two/three removable perforated shelves. Exterior made out of thick mild steel sheet duly finished in white stoving enamel/powder coated paint with mat finished colour combinations. Outer double wall door is provided with magnetic gasket and lock & key arrangement. Inner door unbreakable acrylic transparent sheet for inspection of material in the chamber without disturbing the chamber temperature. Door operated inner illumination has been provided. Temperature is controlled by Deluxe Digital Controller from 5° C to 50° C ± 0.5° C. Standard cooling unit with a sealed compressor with protective devices has been provided below the chamber for safe and efficient working. Heating arrangement has been made with in the chamber for higher temperature working. Inner air circulating system is provided to achieve uniform temperature. A control panel is provided with various indicators, on-off switch. Supplied with cord and plug etc. To work on 220V AC 50Hz single phase. Inner Chambers size(mm)=W xDx H in cu.ft.(Approx.) = 505 x 415 x 830 6.1 cu.ft. Capacity :171 ltrs.	Yes
Bacterial incubator	3	Working	BACTERIOLOGICAL Standard double wall fabrication. Inner chamber made out of richly anodized aluminum or highly polished stainlesssteel sheet and outer made out of thick mild steel sheet finished in white stoving enamel/powder coated paint with mat finished colour combinations. Double wall door with double glass	Yes

			window for observation in the chamber. Temperature range 5° C above ambient to 80° C ± 1° C controlled by a thermostat. The equipment is workable on 220 V Ac 50 Hz single phase. Chamber size in mm/Inches = H D W = 450 x 450 x 450 (18"x18"x18") No. of Shelves: 2 (Approx.) Capacity: 95 ltrs	
Hot air oven	2	Working	HOT AIR UNIVERSAL OVEN (Memmert Type)(Three side heating elements) Standard double wall fabrication, Inner chamber made of richly anodized aluminium or highly polished stainlesssteel sheet. Exterior fabricated out of thick milled steel sheet duly finished in white stoving enamel/powder coated paint with mat finished colour combinations. Kanthal wire heating elements provided on three sides to attain quick and uniform heating in range of 50° C to 250° C ± 2° C, controlled by capillary type thermostat. L-shaped thermometer is built-in type. Control panel is provided with selector switch of high or low rates of power thermostat control Knob and indicators for mains & thermostat. Supplied with cord and plug. The equipment is suitable to operate on 220 V AC 50 Hz single phase. Chamber size in mm / Inches No. of Capacity H W D (Approx.) Shelves (Approx.) c)450 x 450 x 450 (18" x 18" x 18")2 95 ltrs.	Yes
Autoclave	3	Working	AUTOCLAVE (Vertical) Double Wall A versatile, electrically heated sterilizer under saturated steam of adjustable pressure of 10 to 20 psi. Double walled construction with inner chamber made of thick stainless steel. The outer chamber is	Yes

			made out of Mild Steel. The lid is made out of thick stainlesssteel plate (joint less) or gunmetal and can be sealed by a joint less neoprene rubber gasket by wing nuts through hinged bolts by engaging slotted lugs on rim of the cover.Provided with dial pressure gauge, air/steam release cock, spring loaded safety valve adjustable to any required point from 10 psi to 20 psi with accuracy ± 3 psi. All autoclaves are fitted with standard accessories, such as, a drain cock, pressure gauge, steam release cock, spring loaded safety valve and heating element, but supplied without dressing bins. Chamber size in mm & load: Capacity Diax Depth Load (Approx.) b)300x 500 mm 3 KW 40 ltrs.	
Centrifuge	3	Working	CENTRIFUGE RECTANGULAR (4000 to 5000 r.p.m fitted with electronic solid state speed regulator top cover made of transparent acrylic sheet cord & plug With Automatic timer (Digital)& RPM meter (Digital)Capacity a). 8x15ml tubes.	Yes
pH meter	1	Working	PH determination apparatus Digital with LCD display• PH range from 1-14 • combined electrode• Resolution 0.1• Accuracy ± 0.1	Yes
Electronic Weighing balance	1	Working	Digital Cap. 600gm Make:Standard	Yes
VDRL shaker/ Rotator	1	Working	VDRL Shaker, it has a ability to accommodate the blood bottle slides or the flasks by the spring holder. Used forVDRL Tests, Blood Grouping Tests, Agglutination Tests, Mixing of solutions in small bottles, beakers & flasks etc. Platform size: 300x300mm, Power consumption 230/220V AC with a speed of 70-350 rpm, automatic timer, digitalrpm meter, automatic restrart at preset speed in case of power failure.	Yes
ELISA Washer	1	Working	Specifications for Washer 1. The System must have 8 channel manifold and 12 channel manifold supplied with the instrument.	Yes

			2. It should have a Touch Screen and no keypad. 3. It should have 4 bottles connected to it online, one Rinse, 2 Wash and One Waste bottle. 4. The Waste bottle must have sensors 5. The system should have 64 wash protocols. 6. The system should have 10 presets for different microplates. 7. It should have two options for dispensing Low, and High. 8. The System must offer choice to use any of the 2 wash buffers while running. 9. The system must perform Top wash, bottom wash and in case of Flat wells, cross- wise washing. It should have soak facility for 255 s. 10. The Microplate must be docked in a removable Plate Carrier, whose decontamination can be performed. 11. The system must have Aerosol Cover to prevent particulate matter during wash cycle. 12. Standard accessories must contain pin for cleaning manifolds, 1 fuse, 1 power cord.	
ELISA READER	1	Working	Specification for Microwell Plate Reader. 1. The system should be 8-channel optical measuring system. 2. The system should work with a keypad on 20 keys. 3. It should be able to read U-, V-, or flat bottom 96-well plate. 4. The photometer should be filterwheel based 5. The System should have capability for Mono, Bi chromatic measurements. 6. The entire Microwell plate should be measured within 8 seconds in the Monochromatic measurement mode. 7. The Results ie. Abs, Sample No. and interpretation must be seen on the screen in matrix form. Graphs should be displayed on the screen and printout possible. 8. System should be provided with 405nm, 450nm, 492nm, and 630nmstandard filters. There should	Yes

			have optional 578 nm, 690 nm extra filter positions. 9. System should have facility for up to 100 user defined test protocols. 10. System should have large LCD display, with user friendly, for software operation. 11. System should have variable speed linear shaking facility for the Microwell plates for removal of microbubbles and mixing of the well solution. The time and speed should be user definable 12. The Microwell plate position should have aerosol cover facility to prevent external contaminants and stray light. 13. It should have the measurement range up to 2.5 Abs. 14. The On-board software should have capability of storing the calibration curve data for at least 8 standards in all the test programs. 15. The Curve should be displayed on screen. 16. The system should have 1 cutoff equations per qualitative test and grey zone. 17. It should have facility for plate mapping. Plate mapping must allow positioning of control, calibrators, blanks and samples at any location on the plate with lab custom Patient IDs 18. The system must accept external inkjet printer and must print results in preformatted matrix form giving details such as Sample No., Value, Abs and interpretation, with cutoff equation for qualitative results. 19. The On board software should have QC data storage facility for up to 31 points, with the Levy – Jennings curve. 20. It should have ports for external printer and for transmission of data to the host computer. 21. It should have optional host computer software for extensive data management capability. PC Link software Elilims is optional	
Deep Freezer -20^0	2	Working	DEEP FREEZER (Vertical) Double walled with inner chamber made of S.S and outer of thick PCRC sheet duly enamel painted. Temperature rangefrom ambient to -20°C is achieved by hermetically sealed compressor. Body is mounted	Yes

			on a sturdy angle iron frame and is mounted on castor wheels. Unit is fitted with solid State Digital Temperature Indicator-Cum-Controller. Horizontal Chest type models are supplied in a single compartment whereas vertical models are supplied with three stainless steel storing shelves. Capacity: Vertical 6 cuft. Optional: Supplied with Automatic voltage stabilizer	
Laminar flow Horizontal	1	Working	HORIZONTAL LAMINAR AIR FLOW CABINET Laminar flow principle involves double filtration of air through coarse pre-filter (up to 5 microns) and Hepa filter (down to 0.3 microns) for filtration of biological and particulate contaminants. A constant uni-directional air flow is drawn from atmosphere and passed through pre and hepa filters on the work surface. Fabricated out of reinforced ply board which is clad in from outside in laminated sheet and inner exposed areas are finished in epoxy paint. Table top covered with non glaring laminated sheet or stainless steel sheet. Side panels are fixed and are made out of transparent acrylic sheet. The front door is folding type and made of thick acrylic sheet. (Optional) Stand is built in type or detachable. Blower unit has AUE or equivalent motor and is dynamically balanced with minimal sound & vibration level. Fluorescent lighting is also provided. A suitable UV tube is provided for sterilization. An acrylic block type manometer to measure static pressure in the chamber has been installed. Twoway gas tap for gas line has also been provided. A) Whole cabinet made of wooden board laminated with sunmica,Working Area 4'x2'x2'	Yes
Biosafety cabinet BSL2	3	Working	Whole Cabinet Made of cold rolled steel sheet duly powder coated inside & outside for longer life & durability. These class II Bio Safety Cabinets provide person as well as environment protection and have 100% exhaust system with HEPA	Yes

			filtration virus burn out unit & U.V.Germicidal Light. Equipment is supplied complete with UV at work area,front sliding door with glove ports. HEPA filter & Manometer etc. as well as with following features: A) Whole cabinet made of cold rolled steel sheet working Table Stainless steel. Working Area 4'x2'x2'	
Automated blood culture	1	Working	1. The system should be a fully automated, walk away system capable of culture and detection of bacteria, fungi from blood and sterile body fluids. 2. The system should be capable of culture and detection of Mycobacterium from Respiratory and Non-respiratory samples. 3. Should have capacity to hold at least 120 bottles at a time – 60 for blood and 60 for mycobacterium. 4. The system should continuously monitor the samples for growth and report it as and when it occurs. 5. The culture media provided should have sufficient mechanism to neutralize the inhibitory effect of antibiotics and other substances in blood. 6. Culture media should be available for detecting bacteria and fungi, including fastidious organisms. 7. Should be capable of processing both adult and paediatric samples. 8. The system should have specific algorithms for detection of growing organisms. 9. The system should have its individual optics for each cell for detection. 10. The supplier should provide plastic bottles for TB, and blood culture for all bottle types to prevent the loss of precious	Yes

			sample and to avoid accidental injuries due to glass bottle. 11. The system should have facilities for data management and storage and Quality control. 12. The system should be supplied in a complete system with all accessories, hardware like computer, printer, barcode reader etc. and required software. 13. Any software or database updates should be done free of cost by the firm, during the life of the equipment, as and when it is released by the manufacturer. 14. The system should have user friendly touch screen monitor. 15. The system should have modular design and additional detecting module can be added in future as per requirement. 16. Should be LIS compatible. 17. Should include data management software to analyze and store data 18. Power Requirement-220/240 VAC. 19. Required training, technical literature and support should be provided by the firm. 20. Culture media for specific detection of Mycobacteria from various specimen like sputum, csf, urine. etc should be available. 21. The system should be included with backup UPS which should provide power supply of 6 Hrs. The system should be included 1 Ton Ac Capacity.	
CO2 Incubator	2	Working	CO2 Incubator It should providesfaster heating and less errors of temperature precision It is made of specular stainless steel by argon-arc welding technics and semicirculararcs at corners ensure easy cleaning,Microprocessor temperature controller makes temperature stability Independent alarm system for temperature-limiting ensures	Yes

			experiment run safely and no accident would happenMicroorganism filter at inlet provides 100% filtrated gasesMain parts are all imported equipped with CO2 pressure-releasing valve(special for Lark)IR CO2 sensor for precise co2 inside the chamber SPECIFICATION Parameter Specification Capacity/Cubage 80Litre Inner Chamber Stainless Steel with curved corners Outer Chamber MS fine finish power coated Heating Method Air Jacket Temperature Range RT+5 ~ 50ºC Temperature Control 0.1ºC Temperature Stability ± 0.3ºC CO2 Control Range 0 ~ 20% (Infrared Sensor) CO2 Recovery ≤ Calibration x 1.2min Humidifying Method Natural EvaporisationAmbient Temperature +5 ~50º C Incubator Sterilizer UV method Shelves Per Chamber 2(pcs)/3(pcs) WXDXH Interior Dimension(mm) 400x400x500/500x500x650 WXDXH Exterior Dimension(mm) 70x580x820/660x680x950 Input Power 450W/720W Electrical Requirement 220V, 50Hz Candle Jar :-240mm diameter , Desicator:-Approximately - 18" x 8"	
Microscope binocular for students	60	Working	BINOCULAR CO-AXIAL RESEARCH MICROSCOPE:(With LED Light) Unique Model incorporation latest COAXIAL coarse and fine focusing mechanism based on a 4- gear reduction system traveling on ball bearing guides with highly sensitivity fine motion with a graduation reading to 0.002mm.The Co-axial system provides highest deg. of working convenience and precision. Sturdy and stable microscope stand with ball bearing Quadruple revolving nose piece turret on a dust-proof mount. Lifelong smooth and built in click stop brings each objective to a perfect alignment for a common centre.Large graduated mechanical stage (145x125mm) with low	Yes

			positioned co-axial central knobs for X & Y movements and convenient manipulation. The microscope base has built in LED 3.3W 3V illumination with variable control. Up to 100,000 hours of LED lifefor day-light has also been provided. A highgrade condenser system NA 1.25 with iris-diaphragm and swing out filter ring is adjustable through rack-n-pinion. A high transmission binocular Observation head is inclined at 45 deg. with superior coated prismatic system. Best colour coated corrected parfocalled and centered optics are fitted. Optical Combination:Achromatic Objectives:4x/5x,10x,40x/45x,(SL) & 100x (SL) Oil immersion Eye Piece : WF.10x (Pair)Eye Pieces : 5x (Pair) HuygenianPacked in Thermocol and Wooden Box	
Microscope with universal condenser	1	Working	Binocular research microscopes With Phase Contrast System: Fine Focus Binocular Co-Axial Research Microscope: with 30 Binocular head. A Hi-fi research microscope with extra large base which supports the robust arm has a special grade plastic top to provide comfortable hand rest for ease of operation. Binocular observation head 45 deg. Rotatable with interpupillary distance from 54 to 74mm. All Prisms – Antifungus treated. It has a special Quadruple revolving nose-piece moving on ball bearings .It is fitted with hard coated,colour corrected optics and super wide field HKWF 10x eyepieces. The optics have been treated with anti fungus treatment for long life. Special graduated mechanical stage(135mm x125mm) travel of 75mm & 50mm in X&Y direction and moves on ball bearings with low positioned 'Soft Feel' co-axial system. Provided with COAXIAL coarse and fine focusing mechanism on ball bearing guide ways. Graduated knob with 1 div = 0.002 mm with knob tension control	Yes

			ring. A high transmission sub stage condenser NA 1.25 with iris diaphragm and daylight blue glass filter. Unit is adjustable through rack-n–pinion. built-in halogen illumination 6V-20w with light intensity controller. Optical Combination Achromatic Objectives:(DIN Standard) 4x (N.A.0.10),10x(N.A 0.25),40x (N.A.0.65) and 100x (N.A.1.25- oil immersion Spring Loaded).Super wide eye pieces : WF 10x (Pair) (FN 18) Eye Pieces : 5x (Pair) HuygenianPHASE CONTRAST EQUIPMENT (Imported)Sophisticated attachment for bright field Microscopy which is employed in study of living organisms ,cells etc. Comprises Substage Abbe condenser with revolving Turret Annular Phase Plates for 10x,20x, 40x,100x Objectives and fifth position for Bright Field with iris. Full Plan Achromat Objectives 10x,20x,40x(SL) & 100x (SL)Phase It also includes one green filter and centering Telescope Eye piece DARK FIELD EQUIPMENT FOR RESEARCH MICROSCOPE (Imported) Versatile attachment for Dark Field Microscopy. It Comprises of 100x oil immersion with built in iris diaphragm and Dark filed substage condenser.	
Anaerobic apparatus	2	Working	Anaerobic apparatus should be Transparent unbreakable jar with 3.5 Litres capacity • Sturdy lid, clamp and sealing ring with built in safety features • System with compound gauge. • Supplied with Stainless steel Petri-plate carrier, stainless steel test tube carrier.	Yes

Vertical Refrigerator	4	Working	Lab Refrigerator (Minimum 400 litres) With convertible freezer chamber to refrigerator with voltage stabilizer with UPS supplied with minimum 0.5KVA capacities • Laboratory Refrigerator: Specifically designed and are suitable for research laboratories, Blood banks applications and across other laboratories working with critical elements. • The laboratory refrigerator controls temperature varying from 2deg. C to 8deg. C. • The unit shall be vertical model constructed of double walls high quality powder coated exterior mild cabinet. • The laboratory refrigerator shall be insulated with high density CFC free Poly urethane foam to ensure temperature & reduced energy consumption. • The Inner chamber shall be made up of S.S. 304 grade with built in microcontroller based temperature indicator cum controller having audio visual alarms. Door locking system for improved security with magnetic door gasket. Air cooled hermetically sealed compressor. Capacity Internal (cm) External 400 ltr	Yes
Distill water plant	1	Working	Application: General laboratory purpose water distillation plant Specification:The complete outer and inner jacket, condenser tubes are made of Stainless steel.The apparatus capable of producing pyrogen free distilled water as per IP/BP standards.The instrument should have low water cut off device, water level indicator and control panel. Capacity : 5-6 ltrs/hrChamber -: Stainless Steel 304 qualityAir Heater: should have ISI MarkHeat up	Yes

			Time: 20- 30 min. from AmbientMounting: Clamp for wall mounting. It should have BIS or CE or ISO certified	
Single Channel Micropipette	3	Working	SINGLE CHANNEL PIPETTES ● Spring Loaded Tip Cone for connecting tips very tightly ● Adjustment opening for adjusting pipettes to a specific liquid and volume ● Control Button with very low operating force, colour indication for pipette volume ● Tip ejector with very low operating force, positioned for perfect ergonomics ● Volume Display: 4 Digits with magnifier ● To provide thermal, mechanical and chemical stability piston should manufactured with the combination of Fortron and PEEK material Error- + 1% REPRODUCIBILITY -99-99.5% Volume range a) Micropippettes 0.1 to 2.5µl Variability 0.1µl increment -. b) Micropippettes 0.5 to 10µl Variability 0.1µl increment - c) Micropippettes 2 to 20µl Variability 1µl increment - d) Micropippettes 20 to 200µl Variability 1µl increment - e) Micropippettes 100 to 1000µl Variability 1µl increment - f) Micropippettes 0.1 to 10ml Variability 1ml increment - g) Fixed volume single channel 20ul- h) Fixed volume single channel 200ul-	Yes
Multi-Channel Micropipette	3	Working	MULTI CHANNEL PIPETTES ● Lightweight electronic Pipette for high Professional Standards that provide optimal support in work ● Only one multi-function rocker for liquid aspiration & dispensing. ● Pipette should work continuous while charging ● Parameters should be in the same position regardless of the mode ● Provision to autoclave lower parts ● Should have provision for removing individual channels (in Multichannel Pipette) to adjust the distance between channels. ● Provision for electronic labelling to	Yes

			prevent an accidental exchange or loss Should have adjustable volume range from 15 -300ul - 2 Nos. Should have adjustable volume range from 5-50 ul- 2 Nos. Should have Documentation Certificate of calibration and inspection from factory. Valid for 6 months and calibration every 06 months for 02 years 8 Channel pipettes	
Serum Inspissator	1	Working	Serum inspissators Cap 50 Tube	Yes
Vortex Mixer	2	Working	Useful for routine purpose. Routine rectangular water bath with holes and concentric rings. Standard double wall construction.Inner chamber made out of highly polished stainless steel sheet and exterior made out of thick mild steel dulyfinished power coated paint and should be rust proofImmersion heaters are provided for heating to attain temperature range from 5° C above ambient to 95° C ± 1°C.Digital temp. Indicator-cum-Controller. The equipment to work on 220v AC 50 Hz single phase.Chamber size in mm & inches L x W x H 300 x 225 x 175 mm Approx Capacity appox 15 ltrs. Approx.Should be CE or FDA or BIS approved product	Yes
Colony Counter	1	Working	1. Auto Mark Pen/Probe.2. Wolffhuegel Grid Glass Plate with adjustable focussing. 3. 110 mm Magnifying Lens.4. Four Digit Resettable Electronic Counterwith audio beep at every count.5. Net Weight- 3.5Kgs.6. Supply- 230V AC 50Hz	Yes
Water Bath	1	Working	SEROLOGICAL WATER BATH (Thermostatic Water Bath) (57°C) Temperature range from ambient temperature to 80° C. Thermostatic control with accuracy of ± 0.5° C to 1°C. Double walled, inside stainless steel and outside mild steel painted in epoxy powder coating. Bath consists of two pilot lamps. Temperature control knob and on/off switch. To work on 220/230 volts A.C. Supplied with or without stirring arrangement, without racks and thermometer. Lid of water bath is made of stainlesssteel sheet. Size inside chamber (Stainless steel) Capacity (Approx.)	Yes

			a) 300 x 250 x175 mm (suitable for 2 racks) 14 ltrs.	
Semi Auto Analyzer	1	Working	1. Analyzer should be micro controller based semi-automated analyzer to perform routine biochemistry tests (endpoint, fixed time & kinetic chemistries, multi standard curve calibration) 2. Analyzer should offer minimum of 150 or more user definable programmable parameters. 3. Analyzer should have temperature selection setting parameters programmable at 20^0 C-40^0C in step of 1^0C for flow cell. 4. Analyzer should have 6 static interference filters (not filter wheel) with wavelength selectable from 340 - 630 n.m. 5. Analyzer should have graphic LCD and built-in full graphic printer for printing reaction curves and test results. 6. Analyzer should have programmable aspiration volume from 100 µl - 2997 µl. 7. Analyzer should have user friendly software and have facility of HELP & CALIB key. 8. Analyzer should have facility to store 5000 test results in the memory and can recall stored results with Patient ID or with Date or with Date & Patient ID. 9. Analyzer should have full-fledged QC menu to give daily & monthly QC with Levy Jennings graph for at least two controls per test. 10. Analyzer should have a separate port to directly connect to a dry block incubator and also a separate port to connect to an external keyboard 11. Analyzer should have USB port facility to transfer test results from analyzer to PC and as well as to an external printer. 12. Instrument should be CE certified, BIS certified and US-FDA registered. 13. The instrument manufacturer should be manufacturer of reagents, controls and calibrators, and it should be preferably of INDIAN origin.	Yes

Vertical Laboratory Autoclave (Semi Automatic)	1	Working	1. Type : Double wall vertical cylindrical 2. Pressure control : Mechanical spring loaded safety valves. 3. Supply : 230 volts, single phase, 50 Hz, ac supply. 4. Basket material : Stainless steel perforated basket 5. Lid opening : Top opening, pedal lifting. 6. Inside chamber : 18 swg. Thick SS. 304 quality sheet. 7. Outside chamber : Stainless Steel 304 quality sheet for air jacket 8. Lid gasket : Silicon rubber gasket. 9. Safety valves : Mechanical spring loaded safety valves – 2 nos. 10. Pressure gauge : Dial type pressure gauge. 11. Digital control timer : Microprocessor based temp. Controller with inbuilt steam purging system. Water level cut Off device : Inbuilt electronic circuit in controller.	Yes
Computer	1	Working	Including All essential Software's and programming's.	Yes
Laptop	1	Working	Including All essential Software's programming's..	Yes

Sign & stamp of Dean

Dean,
Government Medical College
Dharashiv

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