

BIOCHEMISTRY

INFRASTRUCTURE OF THE DEPARTMENT:

a. Department office details:

Department Office		Details
Department office	Available	15 sqft
Staff (Steno/Clerk)	Available	01
Computer and related office equipment	Available	02
Storage space for files	Available	Cupboard, cabinet file steel rack

Office Space for Teaching Faculty/residents		
Faculty	Available	
Head of the Department	Available	18 sqmt (01)
Professors	Available	18 sqmt (03)
Associate Professors	Available	15 sqmt (02)
Assistant Professor	Available	12 sqmt (03)
Senior residents room	Available	20 sqmt (04)
PG room	Available	12 sqmt (01)

b. Seminar Room: 30 sqmt

Space and facility:	Adequate
Internet facility:	Available
Audio visual equipment details:	Available and adequate

c. List of Department specific laboratories with important Equipment:

Laboratory Name	Equipment	Numbers Available
UG Laboratory	AsperUGMSR2023	Input in Table below
PG Laboratory	1. Electrophoresis	01
	2. Chromatography	01
	3. Spectrophotometer	01
	4. Semi/auto analyzer	01+01
	5. Electrolyte analyzer	01
	6. ELISA	01
Clinical Chemistry Laboratory in Hospital	1. Semi Auto Analyzer 2. Fully Auto Analyzer	01 02
Immunochemistry	1. Immunochemistry Analyzer	01
	2. CLIA	01

Equipment: List of important equipment available in the Department as per UGMSR 2023

Name of the Equipment	Numbers Available	Important Specification in Brief
Centrifuges More Thanor Equalto 8 Tubes	02	Remi R- 8c Rotar 16 tube 15ml capacity speed 6000 RPM with digital display
Glucometers	10	On call plus ACON biotech Company limited
Urinometers	10	Alcohol base urinometer Range 0-60 Marindra scientific industries.
Hot Air Oven	01	Lab Hosp Mumbai Temperature 50 to 300 ⁰ C
Digital Colorimeters	03	Systronics microcontroller based colorimeter 115 with eaith filters it can measure percent transmittance, absorbance, concentration, K factor, A wide range of weighlength 400 to 700 NM

Microscopes	05	MSW student compound Microscope MAG 100 to 450
Thermometer 0– 250°C	10	Paico Deluxe Thermometer 0-250
Semi Auto Analyzer	01	Mispa Viva semi-automated clinical chemistry analyser capable of performing whole blood serum plasma urine CSF it is having 6 filters 340 to 630 dual mode cell volume 30 microliter temperature range 30-37 minimum operation volume 300 microlitre
Boiling Water Bath	01	Apollo water bath 30 ⁰ -110 ⁰
Constant Temp Water Bath Tank Capacity (Temp Range 5 to 80°C)		Apollo water bath 30 ⁰ -110 ⁰
Digital pH Meter	01	Systronic digital Ph meter 335 high-quality precision designed specially for accurate Ph MEASUREMENT digital display for reading pH, Mv and temperature with auto decimal and polarity indicator as for more selected
Fixed Volume Pipettes 1mL, 0.5 mL, 0.2mL, 0.1mL, 0.02mL	30	Dragon Lab Top Pipette Gilson Pipette man Gilson Medical Electronics (France)
Bottle Dispensers	06	Royale fixed volume Dispenser (Borosil)
Variable and Fixed Volume Micro Auto Pipettes	10	Royale Adjustable volume Dispenser (Borosil)
Vacutainer Tubes	100	LEVRAM Levac Vacutainer tubes plain EDTA citrate
PCR Machine	01 (CAMR)	VERITI 96W (4375786) <ul style="list-style-type: none"> ● Format: 96-well plate with 0.2 ml tubes ● Temperature range: 4.0–99.9 °C ● Temperature accuracy: ±0.25 °C (35–99.9 °C) ● Temperature uniformity: <0.5 °C (20 seconds after reaching 95 °C) ● Sample ramp rate: ±3.35 °C/sec ● Peak block ramp rate: 3.9 °C/sec ● Reaction volume range: 10–100 µl ● Instrument memory: 800 protocols on board, unlimited with USB memory stick.

ABG Machine	02	ABL80 FLEX analyser: Easy-to-use test cassettes and a small footprint make this ideal for measuring blood gas, electrolytes and glucose in low- and mid-volume clinical areas with automatic quality control.
AUTO Analyser	02	Johnson & Johnson Vitros 5.1 and Vitros 250 Biochemistry Analyser.
Chromotographic Unit for Paper &TLC	02 (CAMR)	Borosil TLC chamber with lid.
Complete Electrophoresis (Paper,Page, Agarose) Apparatus WithPower Supply	01 (CAMR)	BIO-RAD Make Mini-PROTEAN® Tetra Vertical Electrophoresis (1658001FC), Mini Trans-Blot Module (1703935), PowerPac™ Basic Power Supply (1645050), Mini-Sub Cell GT Horizontal Electrophoresis System (1704467)
Densitometer With Computer	01	BioradchemiDoc imaging system (12003153) with Densitometry
Vortex Mixer	01	Thermocline Man
Incubator of 37°C	01	Dew incubator temperature 30 to 100 ⁰
Fume Cup Boards	--	Pathale electric wall
Digital Analytical Balance Upto200G – 1GIncrement	01	K-ray precision balance model TJ 600 gm Readatibility
Micro Analytical Balance	01	K-ray EAB 500 capacity-500gm
Spectro Photometer	01	Shimadzo UV 1900 Spectrophometer, high Performing double bean Spectrophometer Wave length 190-1100 nm.
PCR	01 (CAMR)	QuantStudio 5 Real-Time PCR System (A28569), Proven OptiFlex technology (six decoupled channels/21 filter combinations with white LED) for trusted results <ul style="list-style-type: none"> • User account management, locked workflow, and Pause features for greater control of experiment data • Built-in software features to support compliance with 21 CFR Part 11 guidelines • Secure cloud-based software provides increased accessibility and storage options • Simplified instrument software with interactive touchscreen for greater ease of use • 96-well 0.2 mL format or 96-well 0.1 mL format
Elisa Reader &Washer	02	HEALES microplate Reader MB 580/530

Urine Dip Sticks for Glucose,Proteinand KetoneBodies		DEKA PHAN LAURA Urine dip stick 12 Dora meter
---	--	--

ISE Analyzer		Johnson & Johnson Vitros 5.1 and Vitros 250 Biochemistry Analyser
Refrigerator– 400L Capacity		LG Refrigerator model L GL 3654 350 L
Ultra Centrifuge for DNA/RNA Extraction	01 (CAMR)	Sorvall LYNX 6000 Superspeed Centrifuge, up to 100,605 x g, and up to 6L capacity.
Refrigerated Ultra Centrifuge	01 (CAMR)	Remi c-24 cooling centrifuge Digital speed 3000 to 10,000
HPLC	01 (CAMR)	JASCO
Bio Safety Cabinet	01 (CAMR)	Class II A2, Kewaunee
Centrifuges	02	Remi R- 8c Rotar 16 tube 15ml capacity speed 6000 RPM with digital display
Digital colorimeters	02	Systronics microcontroller based colorimeter 115 with eaith filters it can measure percent transmittance, absorbance, concentration, K factor, A wide range of weighlength 400 to 700 NM
Semi Auto Analyzer	02	Mispa Viva semi-automated clinical chemistry analyser capable of performing whole blood serum plasma urine CSF it is having 6 filters 340 to 630 dual mode cell volume 30 mocroliter temperature range 30-37 minimum operation valume 300 microlitre
Fully Auto Analyzer	03	Johnson & Johnson Vitros 5.1 and Vitros
Electrolyte Analyzer	02	Johnson & Johnson Vitros 5.1 and Vitros