

MSD STATE UNIVERSITY- AZAMGARH

Syllabus for MINOR subject of B.Sc-1st SEM

Sub: BIOCHEMISTRY
Fundamental of Biochemistry

UNIT: 1 Basic of Biochemistry

- I. Contributions of Indian Biochemists.
- II. Concept of PH & PH determination
- III. Water as universal solvent

UNIT: 2 Carbohydrates

- I. Monosaccharide-Structure of Aldoses and Ketoses.
- II. Structure of biologically important sugar derivatives.
- III. Reducing and Non-reducing sugars.

UNIT: 3 Amino acids & Proteins

- I. Physical and chemical properties of amino acids
- II. Structure and classification of Proteins.
- III. Uncommon amino acids and their functions.

UNIT: 4 Lipids and Vitamins

- I. Building block of lipids-Fatty acids
- II. Classification of lipids.
- III. Water and Fat soluble vitamins.

MSD STATE UNIVERSITY- AZAMGARH

Syllabus for MINOR subject of B.Sc-3rd SEM

Sub: BIOCHEMISTRY

Tools and Technique in Biochemistry

UNIT: 1 Basic of Biophysics

- I. Chemical bonding.
- II. Ionic bond ,covalent bond, Hydrogen bond & Vander Waals forces
- III. . Structure and property of water

UNIT: 2 Microscopy

- I. Principle of Light Microscopy
- II. Electron Microscopy.
- III. Permannet and Temporary slide preparations.

UNIT:3 Proteins and Electrophoresis

- I. Structure of Proteins.
- II. Basic principles of Electrophoresis.
- III. Gel Electrophoresis: PAGE, SDS_PAGE.

UNIT:4 Nucleic Acid and Centrifugation

- I. Double Helical Structure of DNA.
- II. Physio-Chemical property of DNA.
- III- Basic rules of sedimentation, sedimentation coefficient & principle of Centrifugation.