

MBS: 409 BIOMOLECULES

40 HRS

Unit-1

12 h

Macromolecules in Biological system, General function and importance of biomolecules in cellular organization, **Carbohydrates** – classification & properties mono, di, oligo and polysaccharides. Identification and analysis of Mono, Di and Polysaccharides-qualitative and quantitative tests.

Unit-II

14 h

Lipids: Properties, functions and classification of Fatty acids, types, Triglycerides- biosynthesis of cholesterol. Phospholipids, biomembrane lipids and functions, liposomes, role of lipid in membrane fluidity. Nucleic acid – Functions and properties of purines and pyrimidines - Structure of DNA and RNA.

Unit-1

14 h

Proteins: classification properties and biological functions, Chemical and biological properties of Amino acids, peptides, Structural levels-primary, secondary, tertiary and quaternary and three dimensional structure of proteins, methods of isolation and purification of proteins functional groups in proteins and their chemical reactions, protein denaturation and renaturation, **Vitamins as coenzymes**-classification, properties and **function. Micronutrients**-source, requirements and biochemical role and deficiency symptoms.