

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.