

**FIRST ALLIED COURSE- I (AC) – BIOCHEMISTRY**

**Unit – I**

Carbohydrate – Definition, Classification, structure of glucose, biological significance, digestion and absorption – Colorimetric method of estimation.

**Unit – II**

Proteins – Definition, classification and structure (Primary, secondary, tertiary), Amino acids – Structure - classifications (Essential and nonessential, protein and non-protein amino acids- Estimation of proteins.

**Unit – III**

Lipids: Definition, classification, structure, properties and functions, Estimation of lipids.

**Unit – IV**

Nucleic acids – DNA structure, form and functions – RNA types structure and functions. Estimation of Nucleic acids.

**Unit – V**

Vitamins – Introduction – Fat soluble vitamins (A, D, E, & K). Water soluble vitamins (B Complex & C). Sources, functions and deficiency syndromes of Vitamins B complex and Vitamin C.

**Reference:**

Dawn, B.Markus, (1994). Biochemistry. Harwal Publishing, New York.

Donald voet and Judith voet. (1990). Biochemistry. John Wiley and Sons, New York.

Henry, R. Mahler and Eugene, H. Cerdesz, (1966). Biological Chemistry. Harper International Edition, New York.

Stryer, L. (1995). Biochemistry. 4th Ed. W.H. Freeman and Company, New York.

William, J. Marshall and Stephan, K. Bangert. (1995). Clinical Biochemistry – Metabolic and Clinical Aspects – Churchill Livingston, New York.