

**FIRST ALLIED COURSE I- (AC) BIOCHEMISTRY FOR AQUACULTURE - I**

**Unit 1:**

Carbohydrates - definition, detailed classification, structure of glucose, biological significance, digestion and absorption, - Methods of estimations- Colorimetric.

**Unit 2:**

Proteins- definition, Classification and structure (Primary, Secondary, tertiary), Aminoacids-structure, classification (Essential and nonessential, protein and non-protein amino acids.

**Unit 3:**

Lipids: definition, classification, structure, properties and functions, methods of estimation –Gravimetric.

**Unit 4:**

Nucleic acids- DNA structure, form and function –RNA types structure and function.

**Unit 5:**

Vitamins- introduction –fat soluble vitamins (A, D, E & K) water soluble vitamin (B complex &C) sources. Functions and deficiency syndromes of Vitamins.

**TEXT BOOKS:**

1. Stryer, L.1995 Biochemistry, 4<sup>th</sup> Ed.W.H.Freeman and company, New york.

**REFERENCES:**

1. Donald voet and Judith voet, 1990. Biochemistry.John Wiley and Sons, New york.
2. Henry, R.Mahler and Eugene, H.Cerdesz, 1966. Biological Chemistry.0 Harper International Edition. New york.
3. Hubert Stryer, 1995. Biochemistry. Freeman and company, New York.
4. Dawnm B.Markus, 19 94. Biochemistry. Harwal publishing, New york.
5. William, J.Marshall and Stephan, K.Bangert, 1995. Clinical Biochemistry metabolic and clinical aspects. Churchill Livingston, New York.