

B.Sc. Semester - 1 (NEP-2020) Examination**OCT/NOV-2024****BIT: Biomolecules (Minor)****Time: 2:00 Hours****Marks: 50****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate marks.

Que-1 Explain classifications of Carbohydrates and their biological functions. **(10)**

OR

What are glycoconjugates? Explain structure and functions of proteoglycans, glycoproteins, and glycolipids.

Que-2 Discuss the structure and classification of amino acids. Describe their general properties and nomenclature. **(10)**

OR

Describe the types of interactions involved in DNA-protein and protein-protein interactions.

Que-3 Elaborate on Classifications of vitamins, their functions and sources. **(10)**

OR

Discuss in detail: Classifications and functions of lipids.

Que-4 What are different types of DNA structure? Elaborate on Watson and Crick model of DNA double helix. **(10)**

OR

Discuss the different types of RNA and their functions. Explain ribozymes and their role in cellular processes.

Que-5 **Write Short notes on following. (5 marks each)** **(10)**

(A) Explain role of polysaccharides in living organisms.

(B) Explain four levels of protein structure.

OR

(A) Structure of phospholipids and their role in cellular membrane.

(B) Chargaff's rule and its significance in understanding DNA structure.
