

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

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

Que-1 What are disaccharides? Provide examples and explain the types of glycosidic bonds that link monosaccharides to form disaccharides. **(10)**

OR

Discuss the classification of polysaccharides and their functions in living organisms.

Que-2 Provide an overview of the four levels of protein structure. How do these structures relate to the function of proteins? **(10)**

OR

Explain the process of protein folding. How does the primary sequence of amino acids determine the three-dimensional structure of a protein?

Que-3 Explain the classifications of lipids and discuss their biological functions. **(10)**

OR

Explain the functions of vitamins in the body. How do vitamins contribute to metabolic pathways, immune function, and overall health?

Que-4 What are the different types of RNA? Discuss their functions in protein synthesis and gene regulation. **(10)**

OR

Describe the Watson and Crick model of the DNA double helix structure.

Que-5 **Write the short note on:** **(10)**

(A) Properties of monosaccharides.

(B) Protein-protein interactions.

OR

(A) Functions of Lipids.

(B) Explain the concept of catalytic RNAs
