

## BSc (NEP) Sem.-1 Examination

DSC-C-111

Biochemistry

February-2025

Time : 2-00 Hours]

[Max. Marks : 50

- Q1a) Write the differences between animal cell & plant cell. Draw & labeled schematic diagram of an animal cell & a plant cell. (10)
- OR
- Q1 a) Discuss application & scope of biochemistry. (08)  
b) Discuss any two Axioms of living matter. (02)
- Q2a) Write the structure with their one letter abbreviation: Glutamic acid, Lysine, Serine, Methionine, Glycine. (05)  
b) What are saturated & unsaturated fatty acids? Give an example of each with their structure. (05)
- OR
- Q2 a) Discuss the functions of Proteins in detail. (10)
- Q3 Discuss chemical constants of fats in detail. (10)
- OR
- Q3 a) Discuss Hemiacetal formation & Oxidation- Reduction reactions of sugars. (06)  
b) What are disaccharides? Write the name & source of any three disaccharides. (04)
- Q4 a) Discuss titration curve of amino acid Alanine with appropriate graph. (08)  
b) Write the structure of Glutathione peptide. (02)
- OR
- Q4 a) Discuss the role of Oxytocin peptide in our body. (06)  
b) Discuss Sanger's reaction with amino acids. What is its importance? (04)

(P.T.O)

E1524-2

**Q5 ATTEMPT ANY 10 OUT OF 12:**

(10)

- 1 List any two covalent bonds. In which biomolecule is it found?
  - 2 Name two different type of linkages found in biomolecules
  - 3 Define Enzyme with an example.
  - 4 Write the structure of D- Glucose.
  - 5 Give one main difference between nucleotide & nucleoside?
  - 6 Draw the structure of Selenocysteine.
  - 7 What is rancidity in fats?
  - 8 Write Hydrogenation reaction of fatty acids.
  - 9 What is asymmetric carbon atom?
  - 10 What is the difference between l & d amino acids?
  - 11 Name colour reaction for Arginine & Aromatic amino acids.
  - 12 Define conditionally essential amino acids with an example.
-