

B.Sc. Semester - 3 (CBCS) Examination
Oct/Nov - 2023 (OLD COURSE)
BIO-CHEMISTRY(CORE)

Time: 2:30 Hours**Marks: 70****Instructions:**

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

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- Que.1(A) Answer the following. (Any one Out of Two) (07)
1. Write detail different type of disaccharides.
 2. Explain: Structure and importance properties of polysaccharides.
- Que.1(B) Attempt any one. (Out of Two) (04)
1. Short note on: Bacterial cell wall polysaccharides.
 2. Discuss: Blood group polysaccharides.
- Que.1(C) Attempt any three. (Out of Five) (03)
1. Define: Stereoisomerisms
 2. Cellulose is heteropolysaccharides. (True/False)
 3. The general chemical of disaccharides is _____.
 4. Sucrose is a disaccharides of _____.
 5. Define: Isomer
- Que.2(A) Answer the following. (Any one Out of two) (07)
1. Structure and properties of different classes of lipids.
 2. Discuss: Structure and function of Glycerophospholipids.
- Que.2(B) Attempt any one. (Out of two) (04)
1. Short note on: Biological significance of fats.
 2. Properties and functions of steroids.
- Que.2(C) Attempt any three. (Out of Five) (03)
1. Define: Fatty acid.
 2. Lecithin is _____ type of lipid.
 3. Full form of PUFA.
 4. In the intestine, the dietary fats are hydrolysed by pancreatic lipase. (True/False)
 5. Define: Rancidity
- Que.3(A) Answer the following. (Any one Out of two) (07)
1. Classification and structures of standard amino acids.
 2. Short note on: Tertiary and quaternary structure of proteins.
- Que.3(B) Attempt any one. (Out of two) (04)
1. Structure and function of lipoproteins, metalloproteins.
 2. Write short note on: Structure of peptide bond.
- Que.3(C) Attempt any three. (Out of Five) (03)
1. Define: Amino acid
 2. Explain: Alpha Helix
 3. Amino acids joined by _____ bond.
 4. 110 kd the average molecular weight of an amino acid residue in a protein?(True/False)
 5. Which protein present in blood?
- Que.4(A) Answer the following. (Any one Out of two) (07)
1. Detail note: Feature of DNA double helix.
 2. Explain: evidence that DNA is the genetic material.

- Que.4(B) Attempt any one. (Out of two) (04)
1. Define: Genome & chromosome.
 2. Generalized structural plan of nucleic acids.
- Que.4(C) Attempt any three. (Out of Five) (03)
1. Write the full form of RNA.
 2. Which nitrogenous base is not present in DNA?
 3. Which of the nitrogenous base does guanine form hydrogen bonds in DNA?
 4. DNA is composed of repeating units of only nucleotides. (True/False)
 5. Function of mRNA.
- Que.5(A) Answer the following. (Any one Out of two) (07)
1. Detail note on: Porphyrin nucleus and classification of porphyrins.
 2. Schematic classification of vitamin.
- Que.5(B) Attempt any one. (Out of two) (04)
1. Write down any four disease with their vitamin deficiency.
 2. Physiological significance of Bile pigments.
- Que.5(C) Attempt any three. (Out of Five) (03)
1. Define: Vitamins.
 2. Enlist water soluble vitamins.
 3. Vitamin B₁₂ is also known as _____.
 4. Night blindness is caused by deficiency of _____ vitamin.
 5. Define: Metalloporphyrins.
