

Total No. of Printed Pages: 2

SUBJECT CODE NO: - FF-6532
FACULTY OF SCIENCE AND TECHNOLOGY
M.Sc. (Sem-I) (Zoology)
Examination January-2023
Biochemistry ZOO-102

[Time: 3:00 Hours]

[Max. Marks: 80]

Please check whether you have got the right question paper.

N. B

- i. Part 'A' is compulsory.
- ii. Attempt any five questions from Part 'B'.
- iii. Draw neat labelled diagram wherever necessary.

Part 'A'

Q1 Attempt the following multiple choice questions.

20

1. The uranic acid is formed when _____.
 - a) The aldehyde group is oxidized.
 - b) The aldehyde group is converted in NH group.
 - c) The oxidation of terminal CH₂OH group to COO⁻ group.
 - d) The aldehyde group is converted in CH₂OH.
2. _____ is macromolecule but not a polymer.
 - a) Carbohydrate
 - b) Lipid
 - c) Protein
 - d) Nucleotides
3. Beta – oxidation of fatty acids occurs in _____.
 - a) Peroxisome
 - b) Peroxisome and ER
 - c) Peroxisome and Mitochondria
 - d) Mitochondria
4. Ribulose is having the _____.
 - a) 4 chiral carbons
 - b) 3 chiral carbons
 - c) 2 chiral carbons
 - d) 1 chiral carbons
5. Amino acids are linked together by amide groups are called as _____.
 - a) Glyosidic bonds
 - b) Peptide bonds
 - c) Ester bonds
 - d) Hydrogen bonds
6. Keratin has the highest concentration of _____.
 - a) Cystine
 - b) Proline
 - c) Lysine
 - d) Serine

7. Which of the following enzyme joins the ends of two strands of nucleic acids?
 - a) Helicase
 - b) Synthetase
 - c) Ligase
 - d) Polymerase

8. The allosteric inhibitor of an enzyme _____.
 - a) Denatures the enzyme
 - b) Causes the enzyme to work faster
 - c) Binds to the active sit.
 - d) Participates in feedback regulation.

9. Which of the following is the catabolic end product of purine nucleotide?
 - a) Uric acid
 - b) CO₂
 - c) NH₃
 - d) Both b and c

10. Which of the following is complex lipid?
 - a) Cardiolipin
 - b) Cerebroside
 - c) Phospatidic acid
 - d) Cholesterol

Part 'B'

- | | |
|---|----|
| Q2 What are Carbohydrates? Classify them with suitable examples. | 12 |
| Q3 Design phospholipids with their suitable examples and functions. | 12 |
| Q4 Describe the structure of DNA with characteristic features of its various types. | 12 |
| Q5 Give a detail account on types of standard amino acids. | 12 |
| Q6 Explain isomerism in Carbohydrates and its types with suitable example. | 12 |
| Q7 Describe in detail oxidative and substrate level phosphorylation. | 12 |
| Q8 Write a short note on (any 2) | 12 |
| a) Glucose | |
| b) Cholesterol | |
| c) Secondary structure of Protein | |