

Reg. No

Name

M. Sc. DEGREE END SEMESTER EXAMINATION - APRIL 2026**SEMESTER 2 : ZOOLOGY****COURSE : 24P2ZOOT08 : BIOCHEMISTRY***(For Regular 2025 Admission and Improvement/Supplementary 2024 Admission)*

Time : Three Hours

Max. Weights: 30

PART A**Answer any 8 questions****Weight: 1**

1. Degradation of amino acids convert carbon skeleton to glucose precursors. Name them. (R)
2. Differentiate between maltose and isomaltose. Comment on their structure. (An)
3. Distinguish between the pK value and iso-electric point of amino acids. (An)
4. List the biochemical functions of Bile acids. (Cr)
5. Differentiate between A and B DNA. (A)
6. Explain any four colour reactions of amino acids. (U)
7. Briefly explain the different enzymes involved in Glycogenolysis. (U)
8. Enumerate the functions of phosphorus. (R)
9. What are 'Ketone bodies'? Where are they formed? (Cr)
10. Explain zymogens citing examples. (E)

(1 x 8 = 8)**PART B****Answer any 6 questions****Weights: 2**

11. Explain the enzymatic reactions of Pentose Phosphate Pathway. (U)
12. Elaborate on the following: Keratin, Collagen, Elastin and Resilin. (E)
13. Evaluate the role of Phosphoprotein Phosphatase-1 in the regulation of Glycogenolysis. (E)
14. Point out the factors affecting enzyme activity. Add a note on enzyme inhibitors. (E)
15. Illustrate the structure and biological significance of Chondroitin sulphate, Keratan Sulphate and Dermatan Sulphate. (E)
16. Describe the scheme of classification of lipids. (E)
17. How conformation change in proteins produces change in the net orientation of a molecule ? (A)
18. Schematically represent the cholesterol synthesis pathway. (A)

(2 x 6 = 12)

PART C
Answer any 2 questions

Weights: 5

19. Discuss the role of secondary and tertiary structure in determining the properties and functions of proteins. (E)
20. Give a description of the chemical nature and functional importance of Vitamin D, Bile acids, Ergosterol, and Terpenes. (A)
21. Reflect on the Michelis Menton Kinetics. Prepare notes on allosteric regulation. (E)
22. Elaborate on the structure, biological and economical importance of any six polysaccharides. (E)

(5 x 2 = 10)

OBE: Questions to Course Outcome Mapping

CO	Course Outcome Description	CL	Questions	Total Wt.
----	----------------------------	----	-----------	-----------

Cognitive Level (CL): Cr - CREATE; E - EVALUATE; An - ANALYZE; A - APPLY; U - UNDERSTAND; R - REMEMBER;