Reg. No ..... Name **25P2055**

M. Sc. DEGREE END SEMESTER EXAMINATION - APRIL 2025

SEMESTER 2 : ZOOLOGY

COURSE : **24P2ZOOT08 : BIOCHEMISTRY**

(For Regular - 2024 Admission)

Time : Three Hours Max. Weights: 30

PART A

Answer any 8 questions **Weight: 1**

1.	What are DNA polymerases?	(U)
2.	List the physiological processes where minerals serve as co-factors. Give suitable examples.	(R)
3.	Comment on the role of GABA.	(A)
4.	Mention the role of Vitamin D in human body.	(Cr)
5.	Explain any four colour reactions of amino acids.	(U)
6.	Differentiate between aldoses and ketoses citing suitable examples.	(An)
7.	Indicate how pentose phosphate pathway is regulated within cells.	(R)
8.	Explain the amphoteric property of amino acids.	(U)
9.	Name the two ketogenic amino acids. What does the term 'Ketogenic' refer to?	(R)
10.	Differentiate between cofactor and coenzyme.	(A)

(1 x 8 = 8)

PART B

Answer any 6 questions **Weights: 2**

11.	As biological catalysts, enzymes accelerate the rate of reaction. Validate the statement.	(A)
12.	Explain the Quaternary structure of Haemoglobin.	(U)
13.	"Glycogen metabolism is a highly dynamic process". Evaluate this statement.	(E)
14.	Discuss on the super secondary structure of proteins	(An)
15.	Explain the role of SREBP in cholesterol biosynthesis.	(A)
16.	Discuss the different types of compound lipids. Indicate their importance.	(U)
17.	Discuss the metabolic pathways of Galactose in cells.	(E)
18.	Elaborate on the natural source of Sucrose, Lactose, Maltose, Isomaltose and Cellobiose. Add a note on their monomers.	(E)

(2 x 6 = 12)

PART C

Answer any 2 questions **Weights: 5**

19.	Classify carbohydrates. Give the biological source and importance of any four monosaccharides and any four storage polysaccharides.	(An)
20.	Reflect on the Michelis Menton Kinetics. Prepare notes on allosteric regulation.	(E)

21. What do you mean by the primary and secondary structures of a protein? Discuss the role of amino acid side groups in determining the secondary structure of a protein. (E)

22. Classify lipids citing suitable examples. (U)

(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;