

First Semester Zoology M.Sc. Degree Examination, June 2021
ZO 212: BIOCHEMISTRY
(2021 Admission Onwards)

Time: 3 Hours

Max. Marks: 75

I. Answer any ten of the following each in a paragraph. Each Question carries 2 marks (10x 2=20 marks)

- 1) What is a Covalent bond?
- 2) Comment on Ribose sugar
- 3) Write notes on Resilin
- 4) Write a brief account on Lecithin and its biological functions
- 5) Comment on the peculiarities of Z DNA
- 6) What is the importance of IUB system?
- 7) What is Glucose Tolerance Test? State its clinical application
- 8) Comment on Deamination
- 9) What is Ketone Bodies? Comment on its clinical significance?
- 10) Write a brief note on ADP
- 11) What is Drug detoxification?
- 12) Comment on the Internally generated sources of free radicals
- 13) Write notes on Lipid peroxidation
- 14) What are Prions?
- 15) Write notes on Lymph formation and its biological functions

II. Answer any six of the following each not exceeding a page Each Question carries 4 marks (6x 4=24 marks)

- 16) What is Structural isomerism? Mention its significance
- 17) Write a brief note on properties of amino acids
- 18) Explain briefly on fatty acid nomenclature
- 19) Briefly explain Cori Cycle and comment on its biological importance
- 20) Comment on the Plasma Bilirubin and its biological functions
- 21) Write a note on metabolism of cholesterol
- 22) Write a brief account on ATP synthesis
- 23) Comment on the importance of saliva analysis
- 24) What is Apoptosis? Explain its biological importance
- 25) Briefly explain Chemiosmotic theory

III. Write short essay not exceeding two pages on any three of the following. Each question carries seven marks. (3x7=21 Marks)

- 26) What are Heparin and Agar-Agar? Explain their uses in the field of biochemistry
- 27) Explain the quaternary structure of Haemoglobin
- 28) Describe the Watson-Crick Model of DNA
- 29) Explain the concept of cellular aging
- 30) Discuss about different types of diabetes, its causes, clinical importance and control measures

IV. Answer any one of the following not exceeding four pages. The question carries ten marks. (1x10=10 Marks)

31) Write an essay on the steps involved in Glycolysis

32) Briefly explain how toxic compounds are formed in our body