



'समानो मन्त्रः समितिः समानी'

UNIVERSITY OF NORTH BENGAL
B.Sc. Honours 4th Semester Examination, 2023

CC10- ZOOLOGY

Time Allotted: 2 Hours

Full Marks: 40

The figures in the margin indicate full marks.

1. Answer any **five** questions from the following: 1×5 = 5
 - (a) Name two physiologically important saturated fatty acid.
 - (b) Name two aromatic amino acids.
 - (c) Expand MUFA.
 - (d) What is holoenzyme?
 - (e) The bond between the sugar and base is called _____.
 - (f) Name two complexes of respiratory chain.
 - (g) Name two pyrimidine bases.
 - (h) What is glycosidic bond?

2. Answer any **three** questions from the following: 5×3 = 15
 - (a) Write the dehydrogenation steps of β -oxidation of fatty acids.
 - (b) Write a note on gluconeogenesis.
 - (c) Discuss 'Chargaff's rule'.
 - (d) Write a note on 'Ramachandran plot'.
 - (e) Write the basic structure of Nucleotide.

3. Answer any **two** questions of the following: 10×2 = 20
 - (a) Briefly describe the Urea cycle and its significance. Mention the importance of deamination in Urea cycle. 5+2+3
 - (b) Discuss in detail the biosynthesis of fatty acid. State the function of Triacylglycerols. 7+3
 - (c) Write about the four levels of organization of protein. Name the bonds that stabilize the protein structure. Write about the peptide bond. 6+2+2
 - (d) Describe the oxidative pathway of Hexose monophosphate shunt. How it is connected to the glycolytic pathway? 6+4

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