

**Zoology [Honours]
[CBCS]**

B.Sc. Third Semester End Examination-2023

(Regular & Supplementary Paper)

PAPER-C7T

Full Marks: 40

Time: 02 Hrs

The figures in the right hand margin indicate marks

*Candidates are required to give their answers in their own words as
far as practicable*

Illustrate the answers wherever necessary

Group A

1. **Answer any FIVE questions of the following:** **5x2= 10**
- Mention two rate limiting enzymes in glycolysis
 - State the role of thiokinase in beta oxidation of fatty acids
 - What is zwitter ion?
 - Write the new class of enzyme after 2018 with example.
 - Why plant fat is better than animal fat?
 - What do you mean by first class protein? Give an example.
 - What do you mean by 5' capping and 3' polyadenylation.
 - Give an example of allosteric enzyme with its characteristic features.

(2)

Group B

2. Answer any FOUR questions of the following: **4x5 = 20**
- a. What do you mean by inozyme? Give example. Write the applications of inozyme in medical science. **1+1+3**
 - b. Discuss gluconeogenesis with proper pathways and involvement of enzymes.
 - c. Briefly describe different types of RNA with their functions. **5**
 - d. Write a short note on starch digestion.
 - e. What is true fat? Write down types of fat with suitable examples. **5**
 - f. Write short note on –
 - i) B-pleated sheet
 - ii) Co-factor **2½ + 2½**

Group C

3. Answer any ONE question of the following: **1x10 = 10**
- a. i) Write on the phenomenon of Competitive enzyme inhibition along with its kinetics. Give an example of the name for therapeutic uses.
 - ii) Why Lincauver-Bank plot is required over M.M.plot? Describe non-competitive and uncompetitive enzyme inhibition with the help of L.B. Plot.
 - b. i) Draw the structures of five nitrogen bases that are the components of nucleic acids.

(3)

- ii) What is the other name of citric acid cycle? Why it is so named? Mention any two inhibitors of citric acid cycle. Where does PDH act?
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