

B.Sc. 3rd Semester (Hons.) Examination, 2021 (CBCS)

Subject: Zoology

Paper: CC – 7

(Fundamentals of Biochemistry)

Full Marks: 40

Time: 2 Hrs

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

Answer any **eight** questions of the following:

5×8 = 40

1. Explain allosteric regulation of enzyme activity. Name two clinically important enzyme inhibitors along with their target enzymes.
 2. Draw the chemical structure of a deoxyribonucleotide. Mention the role of one non-DNA and non-RNA nucleotide.
 3. Give diagrammatic representation of the citric acid cycle with chemical structures of the substrates involved and names of the enzymes.
 4. Elucidate three irreversible steps of the glycolysis.
 5. Give a brief account of the structure of t-RNA with a note on its function.
 6. State salient features of an α -helix in protein with a neat diagram.
 7. Differentiate between saturated and unsaturated fatty acids with examples. Calculate energy yield of Palmitic acid (16C) through β -oxidation.
 8. Give an account of the transamination reaction with one example.
 9. Discuss the role of Lyases and Ligases with an example for each.
 10. Mention chemical nature and functions of two eicosanoids.
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