



K22P 1607

Reg. No. : .....

Name : .....

**I Semester M.Sc. Degree (CBSS – Reg./Sup./Imp.)**  
**Examination, October 2022**  
**(2019 Admission Onwards)**  
**ZOOLOGY**  
**ZOO1C02 – Biological Chemistry**

Time : 3 Hours

Max. Marks : 60

I. Answer **any two** of the following.

- 1) Explain the electron transport chain in mitochondria and the mechanism of oxidative phosphorylation.
- 2) Discuss the various types of enzyme inhibition.
- 3) Give an account on the classification of carbohydrates.
- 4) Briefly explain TCA cycle with its energetics.

(2×12=24)

II. Answer **any two** of the following.

- 5) Differentiate between deamination and transamination.
- 6) Living body as a thermodynamic system. Substantiate.
- 7) Comment on the tertiary structure of proteins with its stabilizing bonds.
- 8) Briefly explain the biosynthesis of fatty acids.

(2×8=16)

III. Answer **any four** of the following.

- 9) Linear structure of glucose and fructose with its biological functions.
- 10) Write notes on any two inborn errors in amino acid metabolism.
- 11) Elucidate the salient features of Watson and Crick model of DNA.
- 12) Comment on the significance of  $K_m$  and  $V_{max}$  value of an enzyme.
- 13) IUB classification of enzymes.
- 14) HDL and LDL.

(4×5=20)