

K23P 3116

Reg. No. :

Name :

I Semester M.Sc. Degree (C.B.C.S.S. – OBE – Regular)
Examination, October 2023
(2023 Admission)
ZOOLOGY
MSZGY01C01 : Biochemistry

Time : 3 Hours

Max. Marks : 60

I. Answer **any five** of the following :

- 1) What are molecular chaperones ? Add a note on protein folding.
- 2) What are isozymes ?
- 3) Discuss the importance of pyridoxal phosphate.
- 4) Explain Glycogenesis.
- 5) Discuss Glyoxylate cycle.
- 6) Explain chemiosmotic theory.

(5×3=15)

II. Answer **any three** of the following :

- 7) Explain the process of ketosis and its physiological significance. Discuss one condition or situation in which ketosis is commonly observed.
- 8) Detail the light independent reactions of Photosynthesis. Outline the key steps involved, the role of ATP and NADPH, and explain how this phase contributes to the synthesis of organic molecules.
- 9) Define and differentiate between Basal Metabolic Rate and Resting Metabolic Rate. Discuss the physiological factors that affect BMR and RMR.
- 10) Explain beta oxidation of fatty acids.
- 11) Explain Kreb's cycle.

(3×6=18)

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III. Answer **any three** of the following :

- 12) Derive Michaelis-Menten equation. Add a note on Line Weaver Burk plot.
- 13) Explain De Novo synthesis and salvage pathway of Purines.
- 14) Discuss biosynthesis of non-essential amino acids.
- 15) Summarize Electron Transport chain and Oxidative Phosphorylation.
- 16) Explain Cholesterol biosynthesis.

(3×9=27)