



K24P 3942

Reg. No. : .....

Name : .....

I Semester M.Sc. Degree (CBCSS – OBE – Reg./Supple./Imp.)  
Examination, October 2024  
(2023 Admission Onwards)  
Zoology/Zoology (Structure, Physiology, Development and  
Classification of Animals)  
MSZNG01C01/MSZGY01C01 : BIOCHEMISTRY

Time : 3 Hours

Max. Marks : 60

PART – A

Answer **any five** of the following. **Each** question carries **3** marks. (5×3=15)

1. Why is water referred to as the “universal solvent” ?
2. Explain the role of molecular chaperones.
3. Discuss the role of the ubiquitin-proteasome system.
4. What are the causes and effects of acidosis ?
5. What is the difference between BMR and RMR ?
6. Explain the possible fates of pyruvate in cellular metabolism.

PART – B

Answer **any three** of the following. **Each** question carries **6** marks. (3×6=18)

7. Explain the levels of structural organization in proteins.
8. Explain glycogen metabolism and its regulation.
9. Discuss the catabolism of purines and pyrimidines.
10. Summarize the role of vitamins as cofactors in enzymatic reactions.
11. Explain the major steps involved in the activation, transport and beta-oxidation of fatty acids.

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PART – C

Answer **any three** questions. **Each** question carries **9** marks. (3×9=27)

12. Explain the different types of enzyme inhibition with suitable examples.
13. Describe the transport and biosynthesis of cholesterol.
14. Describe the major steps involved in deamination, transamination and the urea cycle.
15. Discuss the major complexes involved in the electron transport chain and add a note on oxidative phosphorylation.
16. Summarize the major events in the light reaction of photosynthesis.

