QP CODE: 24045387

24045387

Reg No : .....

Name : .....

M.Sc DEGREE (CSS) EXAMINATION, DECEMBER 2024

First Semester

M.Sc ZOOLOGY

CORE - ZL010103 - BIOCHEMISTRY

2019 ADMISSION ONWARDS

4D1B28E6

Time: 3 Hours Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

*Weight **1** each.*

1. What is a Glucose Tolerance test? Comment on its clinical significance.
2. Galactose is highly toxic if the transferase is missing. Explain.
3. Write briefly on the amphoteric properties of amino acids.
4. Discuss on the structure of any two fibrous proteins.
5. Compare the terms: fats, oils and waxes.
6. What are prostaglandins?
7. Explain B-DNA.
8. Explain hyperchromic effect.
9. What are coenzymes? Give few examples.
10. Differentiate between competitive and non competitive inhibition.

(8×1=8 weightage)

Part B (Short Essay/Problems)

*Answer any **six** questions.*

*Weight **2** each.*

11. Discuss about the structure and functions of homopolysaccharides and heteropolysaccharides.
12. Describe pentose phosphate pathway.
13. Describe the transamination reaction of an amino acid. Add a note on how the process is regulated.
14. Explain the reason and symptoms of phenylketonuria and alkaptonuria.
15. Explain about De novo synthesis of fatty acids.

16. Write an account of antioxidant enzyme system.

17. Explain briefly catabolism of purines.

18. Describe the mode of enzyme action.

(6×2=12 weightage)

Part C (Essay Type Questions)

*Answer any **two** questions.*

*Weight **5** each.*

19. Describe in detail the two phases of glycolysis and enumerate the ATP and NADH molecules formed.

20. Elaborate the classification, properties and functions of proteins.

21. Explain the physical characters of and reactions undergone by lipids and mention the different parameters used to assess the quality of lipids.

22. Discuss in detail about the allosteric regulations of enzymes in the context of *Monod-Wyman-Changuex model* and *Koshland-Nemethy-Filmer model*.

(2×5=10 weightage)