

TM241517M

Reg. No :

Name :

MASTER'S DEGREE (C.S.S) EXAMINATION, NOVEMBER 2024
2024 ADMISSIONS REGULAR
SEMESTER I - CORE COURSE ZOOLOGY
ZO1C03TM20 - Biochemistry

Time : 3 Hours

Maximum Weight : 30

Part A

I. Answer any Eight questions. Each question carries 1 weight

(8x1=8)

1. Examine the role of Glycoproteins.
2. Define mutarotation of monosaccharides.
3. Comment on Ramachandran map. Evaluate its significance.
4. State the biological importance of Buffers.
5. Classify antioxidants and cite examples.
6. Outline the concept of Ketosis.
7. Deduce the key functions of nucleic acid and nucleotides.
8. Infer the biological significance of Watson and Crick model of DNA.
9. Categorize enzyme catalysed reactions based on thermodynamic/energy considerations.
10. Comment on Ribozymes.

Part B

II. Answer any Six questions. Each question carries 2 weight

(6x2=12)

11. Discuss critically the various reactions and derivatives of monosaccharides.
12. Interpret the major differences between Epimerism and Anomersim with suitable examples.
13. Elucidate the difference between myoglobin and haemoglobin.
14. Describe the colour reactions used in identifying different amino acids.
15. Discuss briefly on any four biologically important steroids.
16. Explain the properties of triacylglycerols.
17. Describe the catabolism of purine nucleotides.
18. Elaborate on the two main mechanisms that are involved in the control of enzyme activity.

Part C

III. Answer any Two questions. Each question carries 5 weight

(2x5=10)

19. Gluconeogenesis is not the complete reversal of Glycolysis. Justify this statement.
20. Describe the four distinct levels of structural conformation in proteins. Quote and explain relevant examples at each level of organization.
21. Write a detailed account on cholesterol metabolism.
22. Write a brief account on enzyme inhibition. Discuss the kinetics of enzyme inhibition.