



K24U 3438

Reg. No. :

Name :

III Semester B.Sc. Degree (C.B.C.S.S. – O.B.E.-Regular/Supplementary/
Improvement) Examination, November 2024

(2019 to 2023 Admissions)

GENERAL AWARENESS COURSE IN MICROBIOLOGY

3A11MCB : Biochemistry for Microbiology

Time : 3 Hours

Max. Marks : 40

PART – A

Short answer questions. Answer **all** questions.

(6×1=6)

1. What is mean by buffer solution ?
2. What is a chiral centre ?
3. What is mean by feedback inhibition ?
4. What are aromatic amino acids, give examples ?
5. What are oligosaccharides ?
6. Which enzyme class catalyse the rearrangement of atoms within a molecule ?

PART – B

Short essay questions. Answer **any 6** questions.

(6×2=12)

7. Explain the properties of monosaccharides.
8. Discuss the distinction between glucogenic and ketogenic amino acids.
9. What is mean by redox potential ?
10. Give a short note on globular proteins.
11. Compare and contrast the structure of fructose and galactose.

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12. Explain the general structure of an amino acid with a diagram.
13. What is mean by allosteric site ?
14. What is mean by optimum temperature and optimum pH of an enzyme ?

PART – C

Essay questions. Answer **any 4** questions.

(4×3=12)

15. How does the secondary structures differ from the tertiary structure of protein ?
16. What is the structural difference between nucleoside di phosphate and nucleoside tri phosphate ?
17. Define stereoisomerism, explain the types of stereoisomerism that can occur in monosaccharides.
18. Compare and contrast α helices and β pleated sheets in terms of their structure and stability.
19. Explain different types of polysaccharides with example.
20. Give an account of enzymes inhibition.

PART – D

Long essay questions. Answer **any 2** questions.

(2×5=10)

21. Explain the classification of amino acids.
 22. Define pH and explain the different methods for measuring pH.
 23. Discuss about the DNA model proposed by Watson and Crick.
 24. Give a detailed account of the functions of lipids.
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