

QP Code : U24A059

Reg. No :

Name :

ST MARY'S COLLEGE (AUTONOMOUS), THRISSUR-20

**I SEMESTER B.A./B.Sc./B.Com/BSW (FYUGP) DEGREE
EXAMINATION, November 2024**

BCH1MN101 : BIOCHEMISTRY

2024 Admission Onwards

(Credits: 4)

Time : 2 Hours

Maximum Marks : 70

Section A

[Answer all. Each question carries 3 Marks] (Ceiling: 24 Marks)

1. What is a nucleotide? [BTL1]
2. Explain the various functions attributed by proteins in a living system. [BTL2]
3. Differentiate between pH and pOH. [BTL2]
4. What are the different types of diffusion? [BTL2]
5. What are acids and bases? [BTL2]
6. Which biomolecule provides maximum energy level after digestion and mention the energy value. [BTL2]
7. What is N-terminus of a protein? [BTL3]
8. What is electrostatic interaction or salt bridges? [BTL3]
9. Discuss on reactions of organic functional groups: OH, CO, CHO. [BTL3]
10. Differentiate between emulsion and emulsifying agent with suitable examples. [BTL3]

Section B

[Answer all. Each question carries 6 Marks] (Ceiling: 36 Marks)

11. Explain the structure of a eukaryotic cell. [BTL4]
12. Draw the titration curve for acetic acids against NaOH. Explain pKa and its relevance. [BTL3]
13. Discuss on hydrogen bonds seen in biomolecules and their role in maintaining stability of macromolecules. [BTL3]
14. Explain and derive Henderson Hassel Balch equation. Why is it important? [BTL3]
15. Discuss on various applications of colloids. [BTL1]
16. Explain different types of isomerism. [BTL2]

Turn Over

17. Explain Dissociation of water and derivation of pH. [BTL3]
18. Differentiate between fat soluble and water soluble vitamins and their physiological functions. [BTL4]

Section C

[Answer any one. Each question carries 10 Marks] (1x10=10 Marks)

19. Write an essay on digestion and absorption of carbohydrates and proteins. [BTL2]
20. Discuss different types and properties of colloids. [BTL4]

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