K23U 3438

Reg. No.: .....

Name : .....

III Semester B.Sc. Degree (CBCSS – OBE – Regular/Supplementary/
Improvement) Examination, November 2023
(2019 to 2022 Admissions)

GENERAL AWARENESS COURSE IN MICROBIOLOGY
3A11MCB : Biochemistry For Microbiology

Time: 3 Hours

Max. Marks: 40

PART - A

Short answer questions. Answer all questions.

 $(6 \times 1 = 6)$ 

- 1. Define peptidoglycan.
- 2. What is isoelectric point?
- 3. What are fibrous protein?
- 4. Draw the structure of fructose.
- 5. What are nucleosides?
- 6. Define buffer.

PART - B

Short Essay questions. Answer any 6 questions.

 $(6 \times 2 = 12)$ 

- 7. Differentiate saturated and unsaturated fatty acids.
- 8. Differentiate essential and non-essential amino acids.
- 9. Define pH.
- 10. Explain the glycosidic bond.
- 11. Explain the properties of monosaccharides.

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- 12. Short note on non protein aminoacids.
- 13. Short notes on properties of water.
- 14. Draw the structure of AMP.

## PART - C

Essay questions. Answer any 4 questions.

 $(4 \times 3 = 12)$ 

- 15. Derive Michaelis-Menten equation.
- 16. Briefly explain the different types and functions of polysaccharides.
- 17. Explain the folding of polypeptide chains.
- 18. Describe the different mechanism of enzyme action.
- 19. Write a note on structure and functions of sphingolipids.
- 20. Short note on redox reactions in living systems.

## PART - D

Long Essay questions. Answer any 2 questions.

 $(2 \times 5 = 10)$ 

- 21. Discuss the Watson Crick model of DNA.
- 22. Explain the different types of enzyme inhibition with suitable examples.
- 23. Discuss the structural organisation of proteins.
- 24. Describe the different types of bonding in the biomolecules.