Reg. No.	•
Name :	

IV Semester B.Sc. Degree (C.B.C.S.S. – O.B.E. – Regular/Supplementary/
Improvement) Examination, April 2024
(2019 to 2022 Admissions)
GENERAL AWARENESS COURSE IN MICROBIOLOGY
4A13MCB: Molecular Biology

Time: 3 Hours Max. Marks: 40

PART - A

Answer all questions. Each question carries 1 mark.

 $(6 \times 1 = 6)$

- 1. RNA.
- 2. Anticodon.
- 3. Pyrimidines.
- 4. Operon.
- 5. Histones.
- 6. DNA replication.

PART - R

Answer any 6 questions. Each question carries 2 marks.

 $(6 \times 2 = 12)$

- 7. Enzymes involved in DNA replication.
- 8. Chemical properties of DNA.
- 9. RNA-dependent synthesis of RNA.
- 10. RNA replicase.
- 11. Triplet binding.

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- 12. Attenuation regulation.
- 13. Polysomes.
- 14. Codon assignment.

PART - C

Answer any 4 questions. Each question carries 3 marks.

 $(4 \times 3 = 12)$

- 15. Semiconservative replication.
- 16. DNA supercoiling.
- 17. Molecular mechanism of site specific recombination.
- 18. Compare the ribosomal structure in prokaryotes and eukaryotes.
- 19. Protein folding.
- 20. Positive and negative regulation.

PART - D

Answer any 2 questions. Each question carries 5 marks.

 $(2 \times 5 = 10)$

- 21. Discuss the various models of DNA replication.
- 22. Describe the experimental evidence DNA as the genetic material.
- 23. Explain translation activation of amino acids and the mechanism of protein synthesis.
- 24. Write an essay on gene regulation by recombination.