



K24U 0932

Reg. No. :

Name :

IV Semester B.Sc. Degree (CBCSS – Supplementary/One Time Mercy
Chance) Examination, April 2024

(2014 to 2018 Admissions)

GENERAL COURSE IN MICROBIOLOGY

4A13MCB – Molecular Biology

Time : 3 Hours

Max. Marks : 40



SECTION – A

(Answer **all four** questions).

(4×1=4)

1. Reverse transcriptase.
2. Nucleotide.
3. Degeneracy of codons.
4. Genes of *Trp operon*.

SECTION – B

(Answer very briefly on **any seven** questions out of ten).

(7×2=14)

5. Discuss the histone methylation and acetylation.
6. How the genetic material packed properly ?
7. Brief account on eukaryotic DNA repair mechanism.
8. What are the transcription initiation factors involved in eukaryotes ?
9. Notes on genetic code.
10. Griffith experiment for DNA as the genetic material.
11. Short notes on DNA replication enzymes.

P.T.O.



12. Structure of t-RNA.
13. Protein folding.
14. Note on nucleotide base excision repair.

SECTION – C

(Answer **any four** questions out of six briefly).

(4×3=12)

15. Explain the mechanism of 5' capping and 3' poly A tail.
16. Details of transcription in prokaryotes.
17. Notes on Rec BCD repair model in prokaryotes.
18. Differentiate the translation process in prokaryotes and eukaryotes.
19. Write the mechanisms of Intron splicing.
20. Explain the structure, types and functions of RNA.

SECTION – D

(Answer **any 2** questions out of four).

(2×5=10)

21. Describe the DNA as the genetic material and Watson and Crick model of DNA.
 22. Write an essay on transcription regulation in both prokaryotes and eukaryotes.
 23. Explain the post transcriptional modifications in eukaryotes.
 24. Write notes on semi conservative model and different types of replications.
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