



61434

IV Semester B.Sc. Examination, September/October 2023

(CBCS Scheme)

BIOTECHNOLOGY (Paper – IV)

Molecular Biology

Time : 3 Hours

Max. Marks : 70

Instruction : Draw a neat labelled diagram **wherever** necessary.

SECTION – A

I. Write a short notes on the following.

(5×2=10)

1. Semi-conservative replication
2. Transformation
3. Eukaryotic promoters
4. Transposable elements
5. Glycosylation.



SECTION – B

II. Answer **any four** of the following.

(4×5=20)

6. Give a brief note on m-RNA.
7. Briefly explain the mechanism of DNA replication in prokaryotes.
8. Give an account on Photoreactivation.
9. Brief about the p-elements in Drosophila.
10. Enumerate on structure of chloroplast DNA.

SECTION – C

III. Answer **any three** of the following.

(3×10=30)

11. Discuss the double helical structure of DNA. Add a note on its function.
12. Elaborate on the mechanism of transcription in prokaryotes.
13. Describe the eukaryotic translation process.
14. Explain the mechanism of GAL-Operon.
15. a) Generalized transduction.
b) Characteristics of genetic code.

P.T.O.

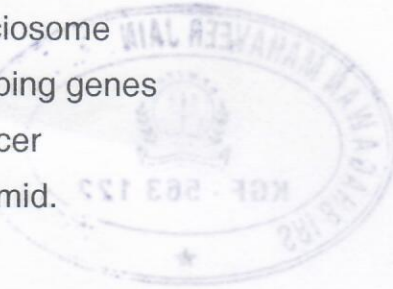


SECTION – D

IV. Answer the following in a **word** or **sentence each**.

(10×1=10)

16. Nucleoside
17. Ribozyme
18. Okazaki fragments
19. SOS response
20. Competent cells
21. Triplet Codon
22. Spliciosome
23. Jumping genes
24. Inducer
25. Plasmid.



SECTION – B



SECTION – C