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Reg. No. : .....

Name : .....

Second Semester M.Sc. Degree Examination, November 2023

Biotechnology

BT 202 : MOLECULAR BIOLOGY

(2018 Admission onwards)

Time : 3 Hours Max. Marks : 75

I. Answer **any two** of the following:

1. Describe the steps of post transcriptional modification.

2. Describe the packaging of DNA helix in a prokaryotic cell and an eukaryotic nucleus.

3. Explain the process of DNA replication in prokaryotes.

(2 × 15 = 30 Marks)

II. Answer **any nine** of the following:

4. What is tRNA and what is its role in gene expression?

5. What is central dogma with explanation?

6. How are amino acids activated for protein synthesis?

7. What is genetic code?

8. What is origin of replication?

P.T.O.

9. What is the difference between DNA polymerase I and II?

10. What are okazaki fragments?

11. What is telomerase and its significance?

12. What is a polycistronic mRNA? Give an example.

13. What is sigma factor and rho factor in transcription?

14. What is RNA splicing process?

15. What are post-translational enzymes?

(9 × 5 = 45 Marks)

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