

II Semester M.Sc. Biotechnology Examination (Jan-2016)

BT 2.2: MOLECULAR BIOLOGY

Time: 3 Hours

Max. Marks: 80

Instruction: Answer all the sections.

Section A

Write a short note on any FOUR of the following

4 × 5 = 20

1. Wobbles hypothesis
2. Introns and Exons
3. Inhibitors of translation
4. Antisense RNA
5. Attenuation
6. Structure of mRNA

Section B

Answer any THREE questions from the following

3 × 10 = 30

7. Explain the role of enzymes in DNA replication
8. Describe the hormonal regulation of gene expression
9. Discuss prokaryotic and eukaryotic translation.
10. Write a note on DNA topoisomerase
11. Explain targeting of proteins into nucleus.

Section C

Answer any TWO questions from the following

2 × 15 = 30

12. Explain in detail the transcription in prokaryotes.
13. Explain Lac-operon model of gene regulation.
14. Give an account of protein glycosylation.
15. Explain biogenesis of ribosomes