

PE-645
M.Sc. Biotechnology (Second Semester)
Semester examination Jun 2022
Paper II
Molecular Biology

Time: Three Hours]

[Maximum marks: 80

[Minimum pas marks: 29

Note: Answer from both the section as directed. The figures in the right hand margin indicate marks

Section A

1. Answer the following question (One word or one sentence) 1X10M=10M
 - a. Define DNA replication?
 - b. What is homologous recombination?
 - c. Define DNA splicing.
 - d. What is suppressor gene?
 - e. What is protein localization?
 - f. Name any one tumor suppressor gene
 - g. What id pRB?
 - h. What is ribozyme?
 - i. What is in situ hybridization?
 - j. What is pedigree.
2. Answer the following question (small answer questions) 5 X 2M=10M
 - a. DNA recombination
 - b. Genetic code
 - c. Polyadenylation
 - d. Antisense technology
 - e. Molecular markers

Section B

Answer the following questions (Long answer questions) 4 X 15M=60M

Unit I

3. Write an essay on transcription in prokaryotes.

OR

Explain in detail on modifications in RNA.

Unit II

4. Write an essay on Translation

OR

Write an essay on post-translational modifications.

Unit III

5. Write an essay on Biochemistry of ribozyme

OR

Write an essay on regulation of gene expression

Unit IV

6. Write an essay on molecular mapping of genome

OR

Write an essay on molecular markers in genome analysis.
