



Molecular Biology
(Revised Scheme 4)

Q.P. CODE: 9351

Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary.

LONG ESSAY (Answer any TWO)

2 X 20 = 40 Marks

1. What is gene mapping? Explain principle and process of mapping of any two human disease genes.
2. Explain the principle, process and applications of gene cloning.
3. Explain in detail how the signaling and communication take place between cells and their environment. Add a note on third messengers.

SHORT ESSAY (Answer any FIVE)

5 X 10 = 50 Marks

4. What are the elements that control gene expression?
5. Explain the structure and functions of plasma membrane.
6. Explain the principle and applications of MTT assay.
7. What is apoptosis? Explain various events and regulation of apoptosis.
8. Write a note on gene therapy.
9. Write notes on peptide chemistry and peptidomimetics.

SHORT NOTES

2 X 5 = 10 Marks

10. Explain principle and applications of western blotting assay.
11. Write a note on nucleic acid technologies.

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