

MOLECULAR BIOLOGY
PAPER IV (RS 2 & RS 3)
Q.P. CODE: 9244

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. Explain the principle, process and applications of polymerase chain reaction.
2. What is DNA sequencing? Explain in detail the principle and processes of different methods of sequencing.
3. Explain the principle and process of production of recombinant Insulin and growth hormone.

SHORT ESSAY (Answer any FIVE)**5 X 10 = 50 Marks**

4. Write briefly on cell signaling via enzyme-linked cell surface receptors.
5. Explain the role of various enzymes used in Molecular cloning.
6. Explain strategies, approaches and types of Gene therapy.
7. Explain mapping and cloning of any one human disease gene.
8. Explain the positive and negative regulators of cell cycle.
9. Explain the structure and functions of plasma membrane.

SHORT NOTES**2 X 5 = 10 Marks**

10. Write a note on glycobiology.
11. Write a note on RFLP.

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