



**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. Answer all questions

**LONG ESSAY (Answer any TWO)**

**2 X 20 = 40 Marks**

1. Describe DNA sequencing, mapping and cloning of human genes
2. Discuss the various steps involved in the production of a recombinant protein using recombinant technology with neat labeled diagrams
3. Define cell culture. Discuss the various culture mediums, culture conditions to be followed to culture the mammalian cells with suitable examples

**SHORT ESSAY (Answer any FIVE)**

**5 X 10 = 50 Marks**

4. Gene therapy for cancer
5. Human genome project
6. Various forces involved in the protein-protein interaction and protein-ligand binding
7. Catalytic antibodies and its therapeutic application
8. Structural features and functions of plasma membranes
9. Apoptosis

**SHORT NOTES**

**2 X 5 = 10 Marks**

10. LCR
11. Anti sense Technology

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