

Rajiv Gandhi University of Health Sciences
First Year M.Pharm Degree Examination – May 2012

[Time: 3 Hours]

[Max. Marks: 100]

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. Discuss principle, process and isolation of gene cloning of vectors
2. Define Polymerase chain reaction. Explain in detail about polymerase chain reaction technique and its applications. And a note on variants of PCR.
3. a) Pharmacodynamics and immunogenicity of protein therapeutics
b) Explain the production of growth hormone by recombinant technology

SHORT ESSAY (Answer any FIVE)

5 X 10 = 50 Marks

4. Biosensors
5. Diagnosis of genetic diseases
6. Discuss DNA sequencing
7. Write a note on enzymes used in molecular cloning
8. Principle and applications of ligation chain reaction
9. Discuss briefly the genetic elements that control gene expression.

SHORT NOTES

2 X 5 = 10 Marks

10. Catalytic antibodies
11. Cell cycle

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