

Molecular Biology
(Revised Scheme 4)
Q.P. CODE: 9351

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

LONG ESSAY (Answer any TEN)

10 X 10 = 100 Marks

1. Explain the signalling pathways involving CAMP and P13 kinase and write their significance in metabolism.
2. What is animal cell culture? Discuss the basic requirement, techniques and applications of animal cell culture.
3. Explain the mechanism of excitation and contraction with example.
4. Write any four differences between embryonic stem cells and adult stem cells. What is somatic cell nuclear transfer and its application.
5. Explain the basic technique and applications of microarray.
6. Write short notes on restriction digestion enzymes and cloning vectors.
7. What is sense and antisense technology? Mention four application of antisense technology.
8. Explain the principle and four applications of gene therapy.
9. Write the principles and applications of MTT and COMET.
10. Discuss about glycobiology and catalytic antibodies.
11. Explain the process of polymerase chain reaction and list its applications.
12. Explain the salient features of human genome project.

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