



[Time: 3 Hours]

[Max. Marks: 75]

Medicinal Plant Biotechnology

Q.P. CODE: 5173

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

LONG ESSAY (Answer any Three)

3 X 10 = 30 Marks

1. Explain various methods used in Identification and Localization of genes.
2. Explain the production of Ergot alkaloids by Fermentation technology.
3. Discuss the factors affecting the production of secondary metabolites and methods used to improve the production in in-vitro cells.
4. Explain recombinant DNA technology and applications.

SHORT ESSAY (Answer any Nine)

9 X 5 = 45 Marks

5. Write a note on methods of fusion of protoplast.
6. Discuss the applications of Fermentation technology.
7. Discuss the applications of Plant Tissue Culture with special reference to production of secondary metabolites.
8. Explain Agrobacterium mediated gene transfer technique.
9. Write a note on methods of Micropropagation and applications.
10. Explain the various techniques of plant cell immobilization.
11. Explain Regulation of Gene expression.
12. Discuss Transgenic plants and their applications.
13. Discuss Biotransformation and its applications.
14. Write a note on Bioreactors for Pilot and Large scale cultures of plant cells.

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