



**MEDICINAL PLANT BIOTECHNOLOGY
PAPER II**

Q.P. CODE : 9214

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. What is embryogenesis? Give its applications. Describe the methods useful in effecting embryogenesis and biotransformation.
2. Describe structural and molecular organization of cell.
3. Describe the role of *Agrobacterium* in gene transfer in plants. Write the applications of the technique.

SHORT ESSAY (Answer any FIVE)

5 X 10 = 50 Marks

4. Discuss the applications of radioisotopes to localize the transferred gene.
5. Discuss the applications of transgenic plants in production of phytopharmaceuticals.
6. Describe the method and applications of immobilization of enzymes.
7. In-situ conservation of germplasm
8. Explain regulation of gene expression in plant.
9. PCR gene mapping

SHORT NOTES

2 X 5 = 10 Marks

10. What is micropropagation?
11. Discuss the source, isolation and uses of papain.

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