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Total No. of Pages : 01

Total No. of Questions : 06

**M.Pharmacy (Pharmacognosy) (Sem.-2)**  
**MEDICINAL PLANT BIOTECHNOLOGY**

Subject Code : MPG-201T

M.Code : 74949

Time : 3 Hrs.

Max. Marks : 75

**INSTRUCTIONS TO CANDIDATES :**

1. Attempt any FIVE questions out of SIX questions.
2. Each question carries FIFTEEN marks.

1. Describe briefly prospects for development of plant biotechnology as a source of medicinal agents. Also highlight its applications in pharmacy.
2. Describe micropropagation of medicinal and aromatic plants. Also highlight hairy root and multiple shoot cultures and their applications.
3. Discuss secondary metabolism in tissue cultures with emphasis on production of medicinal agents.
4. What is a bioreactor? Describe bioreactor for pilot and large scale cultures of plant cells and retention of biosynthetic potential during cell culture.
5. Describe the applications of genetic and molecular biology in pharmacognosy with suitable examples.
6. Write short notes on :
  - a) Production of ergot alkaloids
  - b) Single cell proteins
  - c) Enzymes of pharmaceutical interest

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**

