

**QP CODE: 211330**

**Reg. No:.....**

**Second Semester M. Pharm Degree Supplementary Examinations  
February 2025**

**M.Pharm (Pharmacognosy)**

**Paper I: Medicinal Plant Biotechnology (MPG 201T)**

**(Common for 2017 and 2019 Scheme)**

**Time: 3 Hours**

**Total Marks: 75**

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw table/diagrams/flow charts wherever necessary.*

**Essays**

**(3x10=30)**

1. Write in detail about the immobilization techniques of plant cell and its applications on secondary metabolite production.
2. Describe the structure and complicity of genome in DNA recombinant technology.
3. Describe briefly on development of plant biotechnology as a source of medicinal agents. Mention its applications in pharmacy.

**Short Notes**

**(9x5=45)**

4. Applications of PCR in plant genome identification.
5. Methods of protoplast fusion techniques.
6. Transgenic plants and their applications.
7. Different methods of cloning.
8. Applications of fermentation technology.
9. Protein replication.
10. Elicitors on the production of secondary metabolites.
11. Cell signaling.
12. Gene transfer in plants and its applications.

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