QP CODE: 211330 Reg. No:......

## Second Semester M.Pharm Degree Examinations July 2019 M.Pharm (Pharmacognosy)

Paper I: Medicinal Plant Biotechnology (MPG 201T)

(2017 Scheme)

Time: 3 Hours Total Marks: 75

- Answer all Questions.
- Draw Diagrams wherever necessary.

Essays (3x10=30)

- 1. Explain the fermentation method in the production of ergot alkaloids
- 2. What is bio transformation. Explain the bioreactors used in tissue culture technique for mass production of phyto constituents of medicinal importance
- 3. Explain DNA recombinant technology. Discuss about genetic code.

Short Notes (9x5=45)

- 4. Methods of gene transfer in Plants
- 5. Role of precursors and elicitors in the production of secondary metabolites
- 6. Single cell proteins and its applications
- 7. Role of PCR in plant genome analysis
- 8. Cell signaling and its significance
- 9. Advantages and disadvantages of plant cell cloning
- 10. Explain protein replication methods
- 11. Tissue culture techniques for organogenesis production
- 12. Agents used to sterilize explants

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