

**QP CODE: 113330**

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

**First Semester M.pharm Degree Examinations March 2019**

**M.Pharm (Pharmacognosy)**

**Paper III – Phytochemistry (MPG 103T)**

**Time: 3 Hours**

**Total Marks: 75**

- Answer all Questions.
- Draw Diagrams wherever necessary.

**Essays**

**(3x10=30)**

1. Explain the biogenetic pathway leading to the formation of vinca alkaloids
2. What do you mean by lead discovery. How this lead discovery helps to find a pharmaceutically important molecule from natural sources. Explain with suitable examples
3. Elaborate on modern methods of extraction techniques. Explain their application in isolation, purification and identification of phytochemicals from crude drugs

**Short Notes**

**(9x5=45)**

4. Discuss the methods of isolation and characterization of ephedrine
5. Describe the biogenetic pathway of sennoside
6. Explain the isolation, characterization and purification of digitoxin
7. Protocol design of clinical trials for lead molecules
8. Applications of super critical fluid extraction in pharmacy
9. Methods of fractionation
10. Principle and application of GCMS
11. Give the application of IR in structural elucidation of phytochemicals
12. Structural elucidation of nicotine by spectroscopic techniques.

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