

Roll No. 

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Total No. of Pages : 1

Total No. of Questions : 06

M.Pharmacy (Pharmacognosy) (2017 &amp; Onwards) (Sem.-1)

**PHYTOCHEMISTRY**

Subject Code : MPG-103T

Paper ID : [74671]

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. a) Give biosynthesis and method of isolation of Digitoxin. (8)  
b) Write a note on Characterization of Piperine. (7)
2. What is Lead? Describe product discovery process and drug registration. (15)
3. a) Give a descriptive note on Supercritical Fluid Extraction. (8)  
b) Describe working principle of Counter current extraction process. (7)
4. Give principle of HPTLC. Describe the role of HPTLC in analysis of herbal extract. (15)
5. Give UV, IR,  $^1\text{H}$  and  $^{13}\text{C}$ NMR and Mass spectral data for structure elucidation of Citral and Luteolin. (15)
6. Write short notes on :
  - a) Microwave assisted extraction (5)
  - b) Biosynthesis of Umbelliferone. (5)
  - c) Role of IR spectroscopy in structure elucidation of phytoconstituents (5)