e & Time: 05-Dec-2018 (02:00 PM - 05:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

Manipal Academy of Higher Education, Manipal MPharm Theory End-Semester Examinations.

Specialization: Pharmacognosy Date: 05-12-2018

Phytochemistry [PCO-MPG103T]

Duration: 180 mins. Marks: 75 **SECTION - A** Answer all the questions. Answer the following (10 marks x = 50 marks) Discuss various phases of clinical trials with special reference to herbal drugs 1) (10)Elaborate on Soxhlet and Percolation method of extraction 2) (10)Describe Gas Liquid Chromatographic technique with their advantages and 3) (10)disadvantages. Explain HPTLC technique with its applications 4) (10)Describe Shikimic acid and Isoprenoid pathways in the biosynthesis of secondary 5) (10)plant metabolites. **SECTION - B** Answer all the questions. Answer the following (5 marks x = 25 marks) Method of isolation of Guggulsterone 6) (5)Phytochemical finger printing 7) (5)Spectral characteristics of Carvone. 8) (5)Target identification and validation for herbal drug discovery. 9) (5)Precursor product sequence and Double and multiple labeling. 10) (5)

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