

Exam Date & Time: 03-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: 03-12-2018

Advanced Pharmacognosy I [PCO-MPG102T]

Marks: 75

Duration: 180 mins.

### SECTION - A

Answer all the questions.

Answer the following (10 marks x 5 = 50 marks)

- 1) Give a detailed account of ex situ conservation of medicinal plants. (10)
- 2) What are the challenges encountered in the discovery and development of marine drugs? Give the source and structure of any five marine anticancer drugs. (10)
- 3) Give the source, isolation and health benefits of Hesperidin and Ellagic acid. (10)
- 4) Describe antioxidants and their role as Nutraceuticals. Give the source, chemical nature and health benefits of Braccoli and Black Cohosh. (10)
- 5) Discuss briefly
  - a) Functional foods, PUFA, probiotics, prebiotics and dietary fibers with examples.(5)
  - b) Digestive enzymes as Nutraceuticals (5)(10)

### SECTION - B

Answer all the questions.

Answer the following (5 marks x 5 = 25 marks)

- 6) Fat soluble vitamins (5)
- 7) Good collection practices of medicinal plants (5)
- 8) Role of Pharmacognosy in herbal drug industry (5)
- 9) Pharmacovigilance of herbal drugs in India (5)
- 10) Clinical significance of herbal drug interactions with examples (5)

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Date & 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]

Marks: 75

Duration: 180 mins.

### SECTION - A

Answer all the questions.

Answer the following (10 marks x 5 = 50 marks)

- 1) Discuss various phases of clinical trials with special reference to herbal drugs (10)
- 2) Elaborate on Soxhlet and Percolation method of extraction (10)
- 3) Describe Gas Liquid Chromatographic technique with their advantages and disadvantages. (10)
- 4) Explain HPTLC technique with its applications (10)
- 5) Describe Shikimic acid and Isoprenoid pathways in the biosynthesis of secondary plant metabolites. (10)

### SECTION - B

Answer all the questions.

Answer the following (5 marks x 5 = 25 marks)

- 6) Method of isolation of Guggulsterone (5)
- 7) Phytochemical finger printing (5)
- 8) Spectral characteristics of Carvone. (5)
- 9) Target identification and validation for herbal drug discovery. (5)
- 10) Precursor product sequence and Double and multiple labeling. (5)

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& Time: 07-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: 07-12-2018

Industrial Pharmacognostical Technology [PCO-MPG104T]

Marks: 75

Duration: 180 mins.

### SECTION - A

Answer all the questions.

Answer the following (10 marks x 5 = 50 marks)

- 1) Define TQM. Briefly discuss the Deming's 14 principles of TQM. (10)
- 2) Discuss the plant design, layout and construction for the manufacturing of herbal tablets and capsules. (10)
- 3) Discuss in detail the various steps involved in stability studies that are carried out for herbal drugs. (10)
- 4) Define patent. Give the criteria and various steps involved in filing a patent in India. (10)
- 5) Discuss in detail the evaluation of bitterness value and swelling index of a crude drug as per WHO guidelines. (10)

### SECTION - B

Answer all the questions.

Answer the following (5 marks x 5 = 25 marks)

- 6) Four categories herbal medicines and specific requirements for assessment of its safety as per WHO (5)
- 7) Definition, general content, purpose and uses of Monograph (5)
- 8) Manufacturing of standardized herbal extracts (5)
- 9) Criteria for the selection of a project and Project report (5)
- 10) Phase I and Phase II Clinical trials for herbal products (5)

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