

Exam Date & Time: 29-Mar-2021 (01:30 PM - 04:30 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

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

### Phytochemistry [PCO-MPG103T - S2]

Marks: 75

Duration: 180 mins.

#### SECTION - A

Answer all the questions.

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

- 1) Describe various phases of clinical trial for natural products. (10)
- 2) Elaborate on Super Critical Fluid and Microwave assisted method of extraction. (10)
- 3) Give the spectral characteristics of Menthol and Nicotine. (10)
- 4) Explain briefly HPTLC technique and discuss the role of HPTLC in standardization of herbal products. (10)
- 5) Describe Shikimic acid and Isoprenoid pathways in the biosynthesis of secondary metabolites. (10)

#### SECTION - B

Answer all the questions.

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

- 6) Explain the detail method of isolation of Quercetin and Sennoside. (5)
- 7) Enumerate various applications of LCMS. (5)
- 8) Give the spectral characteristics of Luteolin. (5)
- 9) Write a brief note on pharmacophore based drug design. (5)
- 10) Give a detailed account on TLC technique for the separation of phytoconstituents. (5)

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