

Exam Date & 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: Pharmaceutical Chemistry

Date: 07-12-2018

Chemistry of Natural Products [PCH-MPC104T]

Marks: 75

Duration: 180 mins.

SECTION - A

Answer all the questions.

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

- 1) Explain the principle and applications of gene therapy, hybridoma technology and rDNA technology (10)
- 2) Classify flavonoids giving one structure from each class and explain the general structural elucidation of flavonoids. (10)
- 3) Explain the chemistry of taxol and podophyllotoxin (10)
- 4) Explain the structural elucidation of atropine and discuss the stereochemistry of alkaloids. (10)
- 5) Enlist the various enzymes used in organic synthesis with suitable examples and their relevance in organic synthesis (10)

SECTION - B

Answer all the questions.

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

- 1) Write the SAR for quinine and give their specific applications (5)
- 2) Classify cephalosporins and give one structure under each generations with specific examples. (5)
- 3) Classify terpenoids giving one structure from each class and explain the isolation procedure for mono, di and tri terpenoids. (5)
- 4) What are glucocorticoids and mineralocorticoids and discuss the nomenclature and stereochemistry of steroids. (5)
- 5) Enlist four important marine natural products with their applications. (5)