

M Pharm – Pharmaceutical Chemistry Specialization
M Pharm Semester I – End Semester Examination, January 2023
PCH –MPC104T: CHEMISTRY OF NATURAL PRODUCTS

Date: 23/01/2023

Duration: 3 hr.

Max. Marks: 75

Instructions: Answer ALL questions.

Answer the following

5 Q × 10 marks = 50 marks

Question

- 1 Define alkaloids and classify them with an example and discuss the general structural elucidation of alkaloids
- 2 Explain the principle and applications of Site directed mutagenesis, PCR and rDNA technology
- 3 Classify gonadal hormones with examples and discuss the chemistry and important structural features of testosterone and estradiol.
- 4A Discuss the chemistry of sterols and cardiac glycosides.
- 4B 6Classify terpenoids giving one structure from each class and explain the isolation procedure for terpenoids.
- 5 Explain the rationales and strategies used in Lead modifications with respect to Morphine, Quinine and Podophyllotoxin.

Answer the following

5 Q × 5 marks = 25 marks

Question

- 6 Classify marine natural products with their applications
- 7 Justify, how organic synthesis assisted by enzymes are superior to chemical synthesis using chemical catalyst with suitable examples
- 8 What are Eicosanoids? Classify them by giving structures and give their specific application
- 9 Write the chemistry of Lovastatins. Give their applications.
- 10 Classify flavonoids with examples and explain the isolation procedures of flavonoids