

Question Paper

Exam Date & Time: 28-Dec-2023 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

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

Advanced Organic Chemistry I [PCH-MPC102T - S3]

Marks: 75

Duration: 180 mins.

SECTION - A

Answer all the questions.

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

- 1) Give a brief note on carbocations and carbanions. (10)
- 2) A. What are synthons? Classify them with two examples each giving their synthetic equivalents . (10)
B. Explain retro synthesis and forward synthesis of Losartan .
- 3) Write the method of synthesis and reactions of benzo pyrones and pyridine. (10)
- 4) What is indolizine? Write the names and structure of Aza indolizines. Give the synthesis of one of them. (10)
- 5) Write the method of synthesis purines and explain tautomerism in biological purines. (10)

SECTION - B

Answer all the questions.

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

- 6) Give the generation and applications of Free radicals. (5)
- 7) Explain Suzuki-Miyura coupling with proper mechanisms. (5)
- 8) Give the mechanism involved in Micheal addition with one synthetic application. (5)
- 9) Give the overall reaction and mechanism of Hoffmann rearrangement. (5)
- 10) Discuss the applications and disposal of n butyl lithium and DCC in organic synthesis. (5)

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