

Question Paper

Exam Date & Time: 24-Nov-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 - S2]

Marks: 75

Duration: 180 mins.

SECTION - A

Answer all the questions.

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

- 1) Explain the various strategies in the protection of Hydroxyl groups. (10)
- 2) Describe the method of synthesis and reactions of purines. Write the names and structure of triazolo pyridines . (10)
- 3) Write the structures, their uses and disposal of the following a) Lawesson reagent b) Sodium hydride c) HOBT (10)
- 4) Discuss the retro synthetic analysis and forward synthesis of Ethambutol. (10)
- 5) Write the structures of 1) 2H furo[3,2-b]pyran 2) 2H pyrido[2,3- d]oxazine 3) pyrano[2,3- b] indole 4) 4H-[1,3] thiazino [3,4-a] azepine (10)

SECTION - B

Answer all the questions.

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

- 6) Give the generation and applications of carbanions. (5)
- 7) Explain the mechanism involved in the conversion of an amide to an amine. (5)
- 8) What is Vilsmeier reagent? Give the mechanism of Vilsmeier formylation with one synthetic application. (5)
- 9) Give the mechanism and one synthetic application of Wolf-Kishner reduction (5)
- 10) Discuss the protocol for synthetic design. (5)

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