

Exam Date & Time: 03-Dec-2018 (02:00 PM - 05:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

Manipal Academy of Higher Education, Manipal MPharm Theory End-Semester Examinations.
Specializaion: Pharmaceutical Chemistry

Date: 03-12-2018

Advanced Organic Chemistry I [PCH-MPC102T]

Marks: 75

Duration: 180 mins.

SECTION - A

Answer all the questions.

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

- 1) Discuss with an example the mechanism involved in Suzuki Mayaura reaction. (10)
- 2) Explain the properties and synthetic applications and safety precautions in handling oxalyl chloride and NBS (10)
- 3) a) In retrosynthesis, explain the strategies in synthetic planning. (5)
b) What are nitrenes? Explain the methods of their formation and their applications (5) (10)
- 4) Explain with mechanism, any two methods of preparation of quinoline. (10)
- 5) Explain the various methods for protection of carboxyl and amino group (10)

SECTION - B

Answer all the questions.

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

- 6) What is DCC? Give the properties and its synthetic applications (5)
- 7) What are multi component reactions? Give an example. Mention its advantages (5)
- 8) Explain the formation and synthetic applications of carbocations. (5)
- 9) Explain with mechanism Meerwein-Pondorff-Verley reduction. (5)
- 10) Draw structures for the following IUPAC names. (5)
 - a) benzo [f] quinoline
 - b) dibenz [b, f] azepine
 - c) oxazolidine-2,4-dione
 - d) 3-pyrazoline
 - e) piperazine-2,5-dione