

Exam Date & Time: 15-Jul-2022 (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 II [PCH-MPC202T-S1]

Marks: 75

Duration: 180 mins.

SECTION - A

Answer all the questions.

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

- 1) Define Green chemistry. Mention its importance. Discuss any five important principles of green chemistry with examples. (10)
- 2) What are pericyclic reactions? How different these are from conventional reactions. Mention the types with examples. (10)
- 3) Enlist the important catalyst and building blocks used in asymmetric hydrogenation reactions of carbon carbon double bonds and alpha alkylation reactions. (10)
- 4) What is resolution? Explain dynamic kinetic resolution and metal catalyzed reactions with examples. (10)
- 5) What are the different types of asymmetric aldol reactions? and discuss substrate controlled aldol reactions. (10)

SECTION - B

Answer all the questions.

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

- 6) Write a note on protective and deprotective groups used in peptide synthesis. (5)
- 7) Give the structures of any four coupling reagents used in peptide synthesis. (5)
- 8) Propose an ideal class of solvents for microwave assisted organic synthesis. What is the basis for the selection of the solvent? (5)
- 9) What are the uses of Wilkinson catalysts and Ziegler Natta catalysts? discuss with examples. (5)
- 10) Explain bio catalysis and phase transfer catalysis with examples. (5)

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