

Exam Date & Time: 16-Dec-2022 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

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

Advanced Medicinal Chemistry [PCH-MPC103T]

Marks: 75

Duration: 180 mins.

SECTION - A

Answer all the questions.

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

- 1) Explain the need for presence of correct binding groups and their proper positioning in design of receptor agonists. (10)
Explain the structure and function of Ion-channel receptors.the
- 2) What are covalently binding enzyme inhibitors? How they are designed? (10)
Write in detail the applications of enzyme inhibitors.
- 3) Explain the different approaches with examples used in designing analogues by ring transformations. (10)
- 4) What are the inspirational sources of analogue design? Explain any two sources with examples. (10)
- 5) Classify prodrugs and define each class with examples. (5)
Write a note on pharmaceutical/formulation applications of prodrugs with examples. (10)
(5)

SECTION - B

Answer all the questions.

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

- 6) Explain with examples any three strategies used for lead identification (5)
- 7) Write a note on Spider scaffolds and its use in CombiChem. (5)
- 8) What is Parallel synthesis? Explain its different types with examples. (5)
- 9) Explain the influence of stereochemistry of drugs on their pharmacokinetic properties. (5)
- 10) Discuss, replacement of peptide bond and inclusion of D-amino acids as strategies in peptidomimetic drug design. (5)

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