

Exam Date & Time: 11-Mar-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 - S2]**

**Marks: 75**

**Duration: 180 mins.**

### SECTION - A

**Answer all the questions.**

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

- 1) Explain the catalytic role of enzymes with suitable examples (10)
- 2) Write a note on mixed combinatorial synthesis giving suitable example 6M  
In the solution phase synthesis what is the role of soluble polymers and scavenger resins? What are their advantages? 4 M (10)
- 3) Explain the design of analogues from natural sources with 5 examples. (10)
- 4) Describe the procedure in the design of direct analogues. (10)
- 5) Discuss the types of receptors and Drug-receptor theories with example (10)

### SECTION - B

**Answer all the questions.**

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

- 6) Explain the method of producing analogues by isosteric variation with examples (5)
- 7) Write a note on lead identification and lead modification (5)

- 8) Discuss various prodrugs for the modulation of pharmacokinetic properties (5)
- 9) Write a note on stereochemistry of drugs and their effect on pharmacokinetic properties (5)
- 10) Explain removal of amino acid and alanine scanning as strategies in peptidomimetic drug design (5)

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