Roll No. | | | | | | | | | | | | | Total No. of Pages : 01

Total No. of Questions : 06

M.Pharma(Pharmaceutical Chemistry) (2017 & Onwards) (Sem.–1)

ADVANCED MEDICINAL CHEMISTRY

Subject Code : MPC-103T

M.Code : 74665

Time : 3 Hrs. Max. Marks: 75

INSTRUCTIONS TO CANDIDATES :

1. **Attempt any FIVE questions out of SIX questions.**
2. **Each question carries FIFTEEN marks.**

1. a) What are the salient structural features of phenothiazine antipsychotics, which impart antidopaminergic action to this class? 7

   b) Discuss the various structural features of leukotrienes 5

   c) Give one example to show the role of chirality in specific action of a drug molecule. 3

2. a) Describe in brief the following approaches to synthesize peptidomimetics. Also give their importance :

   (i) Amide bond isosteres

   (ii) Cyclization of peptides 10

   b) Discuss various strategies to design anti-HIV drugs. 5

3. a) What are multiple prodrug approaches? Giving examples showing the utility of these approaches for improving the therapeutic efficacy of drug molecules. 10

   b) Give at least two examples to show the usefulness of a prodrug approach in improving transport characteristics of a drug molecule. 5

4. Classify various alkylating agents as anticancer agents. Write their mechanism of action. Give structure of at least one representative agent of each class. Give synthesis of chlorambucil. 15

5. How will you classify antihypertensive drugs on the basis of mode of action? Give a detailed account of calcium channel blockers as antihypertensive agents. Give synthesis of any one new generation molecule belonging to this class. 15

6. a) Write briefly about artificial enzymes as biological targets. 5

   b) Classify various types of enzyme inhibitors and what is meant by active site and allosteric site? 8

   c) Give two examples of pseudo-irreversible inhibitors. 2

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.