

JAMIA HAMMARD

**School of Pharmaceutical Education and Research
M. Pharm. I Semester Examination (2023-24)**

Subject: Advanced Medicinal Chemistry

Paper Code: MPC 103T

Date: 13-03-2024

Maximum Marks: 75

Time: Three hours

(Write your Roll No. on the top immediately on receipt of this question paper)

Note: This paper has two Sections; A and B.

Attempt all the two sections.

Section A: Answer all the questions.

Section B: Answer any 4 out of 6 questions

Abbreviations Used:

CO- Course Outcome, PO- Program Outcome, BTL- Bloom Taxonomy Level: BT level 1- Remember; BT level 2- Understand; BT level 3- Apply; BT level 4- Analyze; BT level 5- Evaluate; BT level 6- Create.

SECTION-A

Answer the following in brief (Attempt all questions)

5x3= 15 Marks

Q. No 1	Question	BTL	CO	PO
(a)	What is lead in drug discovery?	4	1	3,4
(b)	What is a peptidomimetic drug? Explain with examples	2	1	3
(c)	Differentiate between non-covalently and covalently binding enzyme inhibitors.	1,2	2	2
(d)	Write the differences between COX-I and COX-II inhibitors. Draw one structure of COX-I and COX-II inhibitors.	4	1,3	2,4
(e)	Distinguish between an agonist and antagonist.	4	2	3

SECTION B

Long type Questions (Attempt any 4 out of 6)

4x15= 60 Marks

	Question	BTL	CO	PO
Q. No 2	Explain the different causes of drug resistance? Write the various approaches towards combating drug resistance to antibiotics.	1,3	1	2
Q. No 3	Classify antihypertensive agents. Discuss the SAR and mechanism of action of any one class of antihypertensive agents.	2,4	1	3
Q. No 4	Classify receptors. What is induced fit mechanism? Explain the G-protein coupled receptors.	4	2	1,4
Q. No 5	Explain various types of enzyme inhibitors with suitable examples.	2,4	2	2
Q. No 6	Explain the basic concept of prodrug design. Explain the following with suitable examples (a) How to enhance the water solubility and lipid solubility of drug by making prodrug? (b) How to improve patient acceptability of drug by making prodrug?	4	2	1,4
Q. No 7	How to design peptidomimetics by manipulation of the amino acids and modification of the peptide backbone? Discuss the therapeutic value of peptidomimetics.	1,3	2	3,4