Reg. No ..... Name **24P4030**

M. Sc. DEGREE END SEMESTER EXAMINATION - MARCH 2024

SEMESTER 4 - PHARMACEUTICAL CHEMISTRY

COURSE : **21P4CPHT15EL - MEDICINAL CHEMISTRY**

(For Regular - 2022 Admission and Supplementary - 2021 Admission)

Duration : Three Hours Max. Weights: 30

PART A

Answer any 8 questions **Weight: 1**

1.	What are mitotic inhibitors? Give two examples.	(A, CO 2)
2.	What are the functions of core and linker in solid phase synthesis?	(U, CO 1)
3.	What are the major steps involved in QSAR studies?	(U, CO 1)
4.	What are the limitations of CADD?	(U, CO 1)
5.	Describe Hammett equation. Explain the significance of the terms involved.	(R, CO 1)
6.	What are Nonclassical bioisosteres? Give examples.	(U, CO 1)
7.	What is the major reason for Parkinson's disease?	(R, CO 2)
8.	Give the structure and uses of Pindolo.	(U, CO 2)
9.	What is solution phase synthesis?	(U, CO 1)
10.	Dopamine does not have any therapeutic utility, why?	(A, CO 2)

(1 x 8 = 8)

PART B

Answer any 6 questions **Weights: 2**

11.	Outline the synthesis and mechanism of action of Meprobamate.	(A, CO 2, CO 3)
12.	Explain the split-mix method in combinatorial chemistry.	(A, CO 1)
13.	Write a note on CoMFA.	(U, CO 1)
14.	Give the mechanism of action and synthesis of atropine.	(U, CO 2)
15.	What are 3-D QSAR techniques? Explain any two of them in detail.	(An, CO 1)
16.	Give an account on combinatorial organic synthesis.	(U, CO 1)
17.	Give the mechanism of structure based and ligand based drug designing.	(A, CO 1)
18.	Aspirin is reasonably absorbed from stomach. Justify.	(An, CO 1)

(2 x 6 = 12)

PART C

Answer any 2 questions **Weights: 5**

19.	Write a brief note on hormones and their antagonists as anticancer agents.	(U, CO 2)
20.	Write a note on Anti-cholinesterases.	(U, CO 2)
21.	(a) Briefly list any five uses of pro drugs. (b) Discuss the importants of peptidomemetics in drug design.	(An, CO 1)
22.	Write a note on various classes of anti-Parkinson's drugs. Explain the synthesis and mode of action of levodopa and benztropine.	(A, CO 2)

(5 x 2 = 10)

OBE: Questions to Course Outcome Mapping

CO	Course Outcome Description	CL	Questions	Total Wt.
CO 1	Explain the principles of drug design and development, QSAR, CADD and combinatorial chemistry.	U	2, 3, 4, 5, 6, 9, 12, 13, 15, 16, 17, 18, 21	23
CO 2	Illustrate the structure and mechanism of actions of antineoplastic drugs, drugs acting on ANS and drug acting on CNS.	U	1, 7, 8, 10, 11, 14, 19, 20, 22	23
CO 3	Explain the synthetic studies of different classes of drugs.	A	11	2

Cognitive Level (CL): Cr - CREATE; E - EVALUATE; An - ANALYZE; A - APPLY; U - UNDERSTAND; R - REMEMBER;