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MPHARM
(SEM I) THEORY EXAMINATION 2024-25
ADVANCED MEDICINAL CHEMISTRY

TIME: 3 HRS

M.MARKS: 75

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt all questions in brief.

10 x 2 = 20

a.	State a Role of Bioisosterism in Drug Research.
b.	Write the Role of Artificial Enzymes.
c.	Explain H1 & H2 receptor antagonists.
d.	Write difference between Adrenergic and Cholinergic Agents
e.	Write structure and synthesis of Nifedipine.
f.	Give the structure of Acetyl choline & describe various groups in Acetyl choline.
g.	Write note on chemistry of leukotrienes.
h.	How will you determine therapeutic value of peptidomimetics.
i.	Classify anticonvulsant agents.
j.	Differntiate between COX-1 & COX-2 inhibitors.

SECTION B

2. Attempt any two parts of the following:

2 x 10 = 20

a.	Describe basic concept of prodrug design. Add a note on carrier linked prodrug.
b.	Discuss SAR, mechanism of action of anticonvulsant drugs with examples
c.	Classify NSAID'S with suitable examples. Describe SAR of p-aminophenol derivatives and Aryl acetic acid derivatives.

SECTION C

3. Attempt any five parts of the following:

5 x 7 = 35

a.	Write short note on Reverse transcriptase inhibitors.
b.	Enumerate stages of drug discovery and explain methods of lead discovery.
c.	Explain the Michaelis Menten equation and principles of enzyme inhibitors.
d.	Explain the strategies involved in development of antiviral agent with their mechanism of action.
e.	Discuss Drug Resistance, and explain different causes of drug resistance.
f.	Discuss and correlate role of chirality in selective and specific therapeutic agents.
g.	What is hypertension? Explain recent development in antihypertensive drug therapy.