

Roll No:

BPHARM

(SEM IV) THEORY EXAMINATION 2023-24

MEDICINAL CHEMISTRY I – THEORY

TIME: 3HRS

M.MARKS: 75

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

SECTION A

1. Attempt *all* questions in brief.

 $10 \ge 2 = 20$

a.	Enlist the factors affecting drug metabolism.
b.	Discuss the importance of optical isomerism in relation to biological action.
c.	Give the structure and uses of methyldopa.
d.	Outline the biosynthesis of catecholamines.
e.	Enlist cholinergic receptors and their distribution.
f.	What is cholinesterase reactivator? Give example.
g.	Give mechanism of action and structure of Chlorpromazine.
h.	Outline the synthesis of phenytoin.
i.	What is dissociative anesthesia? Give an example.
j.	State the use of narcotic antagonist. Give name and structure of any two narcotic antagonists.

SECTION B

2. Attempt any *two* parts of the following:

$2 \times 10 = 20$

- a. Compare Benzodiazepines and Barbiturates. Discuss in detail SAR of Benzodiazepines.
- b. Discuss drug metabolism principles and factors affecting drug metabolism.
- c. Differentiate narcotic and non-narcotic analgesics with suitable examples. Outline in detail SAR of morphine analogues.

SECTION C

3. Attempt any *five* parts of the following:

 $7 \ge 5 = 35$

a.	Outline the concept of bioisosterism in detail.
b.	Discuss classification and SAR of sympathomimetic agents.
c.	Classify adrenergic antagonists. Discuss synthesis of tolazoline.
d.	Give the MOA and synthesis of (i) Carbachol (ii) Neostigmine
e.	Explain classification of Cholinolytic agents. Give synthesis of Ipratropium bromide.
f.	What are antipsychotics? Outline classification of antipsychotics and discuss SAR of phenothiazines.
g.	Classify anti-inflammatory agents. Give synthesis of Mefenamic acid.