Subject Code: BP501T

PAPER ID-311405

Roll No:

BPHARM
(SEM V) THEORY EXAMINATION 2025-26
MEDICINAL CHEMISTRY II – THEORY

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.	Illustrate the therapeutic role of antihistamines with examples.
b.	Draw the chemical structure of lansoprazole.
c.	Classify alkylating agents.
d.	Write the mechanism of carbonic anhydrase inhibitors as diuretics.
e.	Recall the mechanism of action and synthesis of Busulphan as antineoplastic agents.
f.	Write the chemical structure and mechanism of action of amlodipine.
g.	Classify Class 1 antiarrhythmic agents.
h.	Differentiate between Betamethasone and Dexamethasone.
i.	Mention the chemical structure and mechanism of action of Pioglitazone.
j.	Explore the synthesis and mode of action of benzocaine.

SECTION B

2. Attempt any *two* parts of the following: **2 x 10 = 20**

a.	Classify antihistaminic agents and discuss SAR with suitable examples. Discuss the synthesis of Promethazine and Diphenhydramine.
b.	Define hypertension. Classify antihypertensive agents. Discuss the structure, mechanism of action SAR of angiotensin converting enzyme inhibitors.
c.	Classify Anti-hyperlipidemic agents. Discuss in detail about mechanism of action, SAR of Fibric acid derivatives.

SECTION C

3. Attempt any *five* parts of the following: **7 x 5 = 35**

a.	Discuss the SAR of androgens and their application in medicinal chemistry.
b.	Explain in detail about Benzoic acid derivatives as local anaesthetics with suitable examples.
c.	Describe in detail the plant product used as anticancer agents with examples.
d.	Discuss SAR and mechanism of Thiazide diuretics.
e.	Write the mechanism of action and uses of acetomenadione and anisindione. Explain the synthesis and uses of warfarin.
f.	Briefly describe the stereochemistry of steroids. Explain about Oral contraceptives.
g.	Discuss in detail about insulin and its preparation. Describe the mechanism of action, uses and synthesis of Tolbutamide.

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