PAPER ID-310642

Subject Code: BP501T

Roll No: | | | | | | | | | | | | | |

BPHARM

(SEM V) THEORY EXAMINATION 2023-24

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.	Define H_2 receptor antagonist with examples.
b.	Name any two natural products used as anticancer agents.
c.	Discuss the mechanism of action of osmotic diuretics.
d.	Write the mechanism of action of digoxin in the treatment of congestive heart failure.
e.	What are oral contraceptives? Give examples.
f.	Write the uses of sotalol and menadione.
g.	Write the structure and uses of any two anticoagulants.
h.	Give the structure and uses of thyroid hormones.
i.	Write the mechanism of action and uses of metformin.
j.	Outline the synthesis of procaine.

SECTION B

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

a.	Define and classify Antihistaminic agents with examples. Outline synthesis, mechanism of action, and uses of Diphenhydramine and Promethazine.
b.	Classify diuretics with examples. Explain SAR of thiazides diuretics along with synthesis, mechanism of action and uses of chlorothiazide.
c.	Define and classify local anaesthetic agent with examples. Outline the synthesis and mechanism of action of Benzocaine and Dibucaine.

SECTION C

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

a.	Discuss proton pump inhibitor in detail and give structure, mechanism of action and uses of Omeprazole.
b.	Classify Anti-hyperlipidaemic agents. Describe in detail about structures and mechanism of action of Clofibrate and Lovastatin.
c.	Outline the SAR of dihydropyridines (calcium channel blockers). Give the structure, synthesis, mechanism of action and uses of Methyldopate Hydrochloride.
d.	Briefly explain erectile dysfunction and drugs used in it with their mechanism of action.
e.	Describe the nomenclature and stereochemistry of steroids.
f.	Classify oral hypoglycaemic agents and describe in detail about SAR and mechanism of action of sulfonylureas along with synthesis of tolbutamide.
g.	Discuss SAR of Local anaesthetics. Give structure and mechanism of action of Cocaine and Meprylcaine.