

B. Pharm 3rd Year 1st Semester Examination-2025
Medicinal Chemistry-II

FM-75

Time-3hrs

Answer any five questions taking at least one from each group.

(Group A)

1. a) Define and classify antihistamines with examples.
 b) Outline the mode of action & SAR of classic antihistamines.
 c) Outline the synthesis and chemical names of the following:
 Promethazine HCl, Chlorpheniramine maleate and Diphenhydramine HCl.
2+4+9=15
2. a) Define and classify antidiabetic drugs with examples.
 b) Outline the mode of action & SAR of Sulphonyl urea.
 c) Outline the synthesis and chemical names of the following:
 Chlorpropamide, Metformin HCl, Metiglinide.
2+4+9=15
3. a) What is neoplasm? Name some neoplastic disease. Classify antineoplastic agents with examples.
 b) Outline synthesis of Thiotepa, Chlorambucil & 5-fluoro uracil.
 c) Draw the structures and uses of the following:
 Cetirizine HCl, Fexofenadine, Cisplatin.
4.5+7.5+3=15

Group B

4. (a) Discuss the role of ATP-cAMP system in regulation of blood pressure. [7]
 (b) Outline syntheses and modes of action of following antihypertensives (any **TWO**): [2x4]
 i) A tetrazole derivative ii) Phenoxybenzamine iii) A ganglionic blocker
5. (a) Give a classification of antirhythmic drugs with examples. [7]
 (b) Outline synthesis and mode of action of:
 i) Lidocaine ii) Disopyramide [8]
6. a) Discuss on different types of angina and their pathophysiology. [7]
 b) Outline synthesis of:
 i) Papaverine ii) Isosorbide dinitrate [8]

[Turn over

Group C

7. Write the common structures and nomenclature of steroid hormones. Discuss in detail different phase 1 and phase 2 metabolism of steroids. [5+10]
8. Write the structure, mechanism of action, structure-activity relationship, metabolism and therapeutic use of testosterone. [2+3+5+3+2]
9. Write short notes on [5 x 3]
 - (a) Diethyl Stilbesterol
 - (b) Progesterone
 - (c) Sildenafil
 - (d) Mifepristone
 - (e) Mineralocorticoids