

B PHARM
(SEM V) THEORY EXAMINATION 2022-23
MEDICINAL CHEMISTRY-II

*Time: 3 Hours**Total Marks: 75*

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

SECTION A

- 1. Attempt *all* questions in brief. 10 x 2 = 20**
- (a) Give the synthesis of Cimetidine.
 - (b) State the mechanism of action and uses of Methotrexate.
 - (c) What are anti-anginal drugs? Outline the structure of Nitroglycerin.
 - (d) Give the synthesis and uses of Furosemide.
 - (e) Name and give structures of any two drugs used in Congestive Heart Failure.
 - (f) State the importance of anticoagulants.
 - (g) Write the structure and uses of Testosterone.
 - (h) Discuss mechanism of action and uses of Sildenafil.
 - (i) Outline the synthesis of benzocaine.
 - (j) State the mechanism of action and uses of metformin.

SECTION B

- 2. Attempt any *two* parts of the following: 2 x 10 = 20**
- (a) Classify anti-neoplastic agents in detail. Give the synthesis of Mechlorethamine.
 - (b) Discuss SAR of local anaesthetics.
 - (c) What are antihypertensive agents? Classify them and give mode of action and uses of methyl dopate hydrochloride.

SECTION C

- 3. Attempt any *five* parts of the following: 5 x 7 = 35**
- (a) Discuss SAR of Thiazide Diuretics. Outline the synthesis of Chlorthiazide.
 - (b) Detail about histamine receptors and their distribution in human body. Detail about H₂-antagonists.
 - (c) Illustrate the classification of antihyperlipidemic agents and discuss mechanism of action of HMG-CoA reductase inhibitors.
 - (d) Discuss nomenclature and stereochemistry of steroids.
 - (e) Classify antidiabetic agents. Discuss SAR of Sulfonylureas and give synthesis of Tolbutamide.
 - (f) Discuss mode of action and synthesis of any two: (i) Disopyramide phosphate (ii) Warfarin (iii) Dibucaine
 - (g) Discuss in detail classification of antithyroid drugs.