

B.PHARM
(SEM IV) THEORY EXAMINATION 2022-23
MEDICINAL CHEMISTRY-I

Time: 3 Hours

Total 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 Bioisosterism. Give examples.
- (b) Give name and structures of two narcotic antagonists.
- (c) Discuss mechanism of Methohexital sodium.
- (d) What is Cholinesterase reactivator? Write its example and use.
- (e) Write synthesis of Phenytoin.
- (f) Give uses of Tolazoline and Dicyclomine hydrochloride.
- (g) Mention the significance of Ionization and solubility in relation to biological action.
- (h) Enumerate Adrenergic receptors and their distribution.
- (i) Differentiate Phase I and Phase II reactions.reactions.
- (j) From which category chlorpromazine drug belongs? Give its structure.

SECTION B

2. Attempt any twoparts of the following: 2 x 10 = 20

- (a) What are Sedatives and Hypnotics? Classify them. Give SAR of Benzodiazepines, and synthesis of Diazepam.
- (b) Classify Narcotic analgesics. Write SAR of Morphine analogues in detail.
- (c) Explain Physicochemical properties in relation to biological action in detail.

SECTION C

3. Attempt any fiveparts of the following: 7 x 5 = 35

- (a) Give uses, mechanism and synthesis of any two: Carbachol / Neostigmine /Salbutamol.
- (b) What are Sympathomimetic agents? Classify them.
- (c) Classify anti-inflammatory agents. Discuss the mode of action and synthesis of ibuprofen.
- (d) Write short note on Adrenergic Antagonists.
- (e) Discuss SAR of Phenothiazines.
- (f) Write short note on Cholinesterase inhibitors
- (g) Elaborate Drug metabolism principles of Phase I and Phase II.