

B. PHARM.
(SEM V) THEORY EXAMINATION 2018-19
MEDICINAL CHEMISTRY-I

Time: 3 Hours

Total Marks: 70

Note: Attempt all Sections.

SECTION A

- 1. Attempt all questions in brief. 2 x 7 = 14**
- a. Define physicochemical properties.
 - b. What are Bioisosters? Give examples.
 - c. Name adrenergic receptors with their significance.
 - d. Name enzymes which metabolize Norepinephrine.
 - e. Give synthesis and uses of Atropine.
 - f. Give classification of Anticonvulsant drugs with examples.
 - g. Give synthesis of Benzocaine.

SECTION B

- 2. Attempt any three of the following: 7x 3 = 21**
- a. What are Prodrugs? Explain Carrier linked and Bio-precursor drugs with suitable examples.
 - b. Describe classification of cholinergic drugs with SAR of Cholinergic drugs.
 - c. Give classification of Cholinesterase inhibitors with suitable examples.
 - d. What are Sedatives? Give classification, mechanism of Action of Sedative drugs with SAR.
 - e. What are CNS stimulants? Give synthesis, classification and synthetic applications of Xanthine derivatives.

SECTION C

- 3. Attempt any one part of the following: 7x 1 = 7**
- (a) What is Isomerism? Explain significance of stereo and Geometrical Isomerism.
 - (b) Give significance of forces involved in drug receptor interaction.
- 4. Attempt any one part of the following: 7x 1 = 7**
- (a) What are adrenergic drugs? Give SAR, classification of Adrenergic. Give synthesis of Ephedrine and Salbutamol.
 - (b) Give synthesis, uses and adverse effects of Methacholine and Adrenaline.

5. **Attempt any *one* part of the following:** **7x 1 = 7**
- (a) Explain synthesis, mechanism of action and uses of Phenobarbitone and Pentazocine.
(b) What are Hydantoins? Explain in detail SAR of hydantoin derivatives.
6. **Attempt any *one* part of the following:** **7x 1 = 7**
- (a) What are Antidepressants? Give detailed classification and SAR.
(b) What are Antispasmodics? Give synthesis and uses of Dicyclomine.
7. **Attempt any *one* part of the following:** **7x 1 = 7**
- (a) What is Parkinson's disease? Explain synthesis, mechanism of Levodopa and Diazepam.
(b) What are Benzodiazepine drugs? Describe example and SAR of Benzodiazepines.