

PAPER 10-421118

Roll No: 1

BPHARM  
(SEM IV) THEORY EXAMINATION 2021-22  
MEDICINAL CHEMISTRY I - THEORY

Total Marks: 75

Time: 3 Hours

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 metabolism.  |
| b. Point out the role of partition coefficient in relation to biological action of drug? |
| c. Describe the synthesis of Tolazoline.   |
| d. Give structure and uses of Phenylephrine.   |
| e. Discuss cholinergic receptors and their distribution.                                 |
| f. Differentiate anticholinergics and anticholinesterases.                               |
| g. Compare the basic ring structures and mention uses of barbiturate and benzodiazepine. |
| h. Give the MOA and structure of chlorpromazine.   |
| i. Discuss the synthesis of drug that causes dissociative anaesthesia.                   |
| j. Name and give structures of any two narcotic antagonists.                             |

SECTION B

2. Attempt any two parts of the following:

2 x 10 = 20

- |  |
|--|
| a. Summarize about various physicochemical parameters that affect drug action.                       |
| b. Classify sedative and hypnotics. Outline the synthesis, mechanism of action and uses of diazepam. |
| c. Classify NSAIDs. Give the synthesis of Ibuprofen.   |

SECTION C

3. Attempt any five parts of the following:

7 x 5 = 35

- |   |
|---|
| a. Compare phase I and phase II metabolism and discuss various factors affecting drug metabolism. |
| b. Outline the classification and SAR of sympathomimetics.  |
| c. Illustrate the MOA, synthesis and uses of (i) Dicyclomine hydrochloride (ii) Carbachol.        |
| d. Classify anticonvulsants and give synthesis of phenytoin.                                      |
| e. Classify general anaesthetics. Give synthesis of halothane.                                    |
| f. Explain the biosynthesis and catabolism of catecholamines.                                     |
| g. Give synthesis of propranolol and discuss SAR of beta blockers.                                |