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BPHARM
(SEM IV) THEORY EXAMINATION 2024-25
MEDICINAL CHEMISTRY I – THEORY

TIME: 3 HRS**M.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. Define chelation.
- b. Differentiate between classical and non-classical bioisosterism.
- c. Write the mode of action of terbutaline.
- d. Write the biosynthetic pathway of catecholamine.
- e. Briefly describe the mode of action of prazosin.
- f. Classify synthetic cholinergic blocking agents.
- g. Differentiate between sedatives and hypnotics.
- h. Draw the chemical structure of chlorpromazine and write mode of action
- i. Write the synthetic route of mefenamic acid
- j. Briefly describe dissociative anesthetics.

SECTION B**2. Attempt any two parts of the following:****2 x 10 = 20**

- a. Define the physicochemical properties of molecules. Discuss about partition coefficient in relation to biological action.
- b. Discuss the SAR of sympathomimetic agents and write the mode of action synthesis of salbutamol
- c. Describe the SAR of benzodiazepines. Discuss the mechanism of action and synthesis of diazepam.

SECTION C**3. Attempt any five parts of the following:****7 x 5 = 35**

- a. Discuss the SAR of parasympathomimetic agents with suitable examples.
- b. Classify NSAIDs. Discuss the chemical structure mode of action and synthesis of mefenamic acid.
- c. Describe geometrical isomerism in relation to affect biological activity.
- d. Define epilepsy. Classify antiepileptic agents and the chemical structure of each class.
- e. Describe in detail about general anesthetic agents with examples.
- f. Discuss the SAR of opioid analgesics.
- g. Write a short note biosynthesis and catabolism of acetylcholine.