**B. Pharm 4th Semester Examination**

**Subject- Medicinal Chemistry (BP402T)**

**Full Marks- 75 Time – 3 hours**

**Answer all the questions.**

**1. Answer all (10x2=20)**

(a) What are bioisosters, give two examples of non-classical bioisosters.

(b) Mention the name of enzymes that cause catabolism of catecholamines.

(c) Define cholinergic system and its functions.

(d) Write two examples of amino-alcohol esters drugs.

(e) Write few examples of short acting barbiturates.

(f) What are antipsychotics? Classify them.

(g) Give few examples of narcotic antagonists.

(h) Write the structure and uses of halothane.

(i) Mention the structure and uses of diazepam.

(j) Mention the chemical uses of thiansylal sodium.

**2. Answer any two questions. (2x10=20)**

(a) Describe the various physiochemical properties involved in drug action. Give the importance of solubility in drug action.

(b) Define Adrenergic blockers. Discuss the chemistry and SAR of B-adrenergic blocking agents with examples.

(c) Classify parasympathomimetic agents, Explain the SAR of parasympathomimetic agents.

**3. Answer any seven questions. (7x5=35)**

(a) Explain phase-II and Phase-I reaction in drug metabolism.

(b) Write the synthesis and uses of salbutamol.

(c) What are sedative and hypnotic drugs? Classify them with examples.

(d) Write the synthesis of the following drugs.

(i) Mefenamic acid

(ii) Methadone hydrochloride.

(e) Write the synthesis and uses of tolazoline and propranolol.

(f) Explain G-Protein couple receptors and their mechanism.

(g) Write the synthesis of neostigmine.

(h) Give a comprehensive account on SAR of cholinolytic agents.

(i) Explain SAR of anticonvulsants with examples.