**B.Pharm 4th Semester Examination**

**Subject- Medicinal Chemistry (BP402T)**

**Full mark- 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) Write few examples of mixed action sympathetic mixed action sympathetic drugs.**

**(c) Define hydrogen bonding.**

**(d) Define cholinergic system and functions.**

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

**(f) Give few examples of narcotic antagonists.**

**(g) Write the structure and uses of halothane.**

**(h) Write few examples of short acting barbiturates.**

**(i) What are antipsychotics? Classify them.**

**(j) Write two examples of synthetic amino-alcohol esters drugs.**

**Q. 2. Answer any two. (2 x 10=20)**

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

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

**(iii) Write the synthesis of the following drugs.**

1. **Diazepam**
2. **Chlorpromazine hydrochloride**
3. **Barbital.**

**Q. 3. Answer any Seven out of nine Questions. (7x5=35)**

**(a) Explain G-protein couple of receptors.**

**(b) Write the synthesis of neostigmine.**

**(c) Give a detailed account on the synthesis and uses of tolazoline.**

**(d) Write the uses and structure of the following drugs.**

**(i) Ethosuximide**

**(ii) Diazepam**

**(e) Explain SAR of anticonvulsants with examples.**

**(f) Write the synthesis of methohexital sodium**

**(g) Explain the difference between narcotic and non-narcotic analgesics with examples.**

**(h) Give the synthesis of propranolol.**

**(i) Write the synthesis of drug fentanyl citrate.**