

(LF 4262)

AUGUST 2014

Sub. Code: 4262

**THIRD YEAR B.PHARM. EXAM
PAPER II – MEDICINAL CHEMISTRY -I**

Q.P. Code: 564262

Time: Three hours

Maximum: 100 marks

I. Essay:

(2X20=40)

1. a) Discuss the basic concept and application of Prodrug design.
b) Write a brief note on phase –II biotransformation pathway.
2. a) What are sedative and Hypnotics? Classify with examples.
b) Explain the synthesis for the following:
i) Barbitol ii) Diazepam iii) Chlorpromazine hydrochloride
iv) Valproic acid.
c) Discuss the structure activity relationship of Barbiturates.

I. Short notes:

(8X5=40)

1. Write the structure and clinical uses of a) Indomethacin b) Ibuprofen
c) Haloperidol d) Cyclizine hydrochloride.
2. Outline the synthetic steps involved in a) Meperidine b) Methadone
3. Classify Diuretics and write the synthesis and SAR of Chlorthiazide.
4. Discuss about types of receptors.
5. Describe the synthesis and clinical use of the following:
a) Imipramine hydrochloride b) Dextroamphetamine sulphate.
6. Name the cholinergic agents and explain the synthesis of any one of them.
7. How does chelation affect biological activity? Explain with example.
8. Classify adrenergic blocking agents. Outline the synthesis of metoprolol.

III. Short Answers:

(10X2=20)

1. Hydrogen bonding with examples.
2. Define general anaesthetics and write the structure of any two drugs.
3. Mechanism of action of procaine.
4. Structure, Chemical Name and uses of Diphenhydramine.
5. Prostaglandins.
6. Give synthesis and uses of Phenyl ephrine.
7. Write the structure of any two cholinergic blocking agents.
8. Protein Binding.
9. Discuss the SAR of Tricyclic antidepressants.
10. H₂ receptor antagonists.
