

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

(LO 4262)

FEBRUARY 2019

Sub. Code: 4262

**B.PHARM. DEGREE EXAMINATION
THIRD YEAR
PAPER II – MEDICINAL CHEMISTRY – I**

Q.P. Code: 564262

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. a) Explain the physicochemical parameters related to biological activity with examples for the following: a) Bio-isosterism b) Ionization
b) Summarize stereochemistry of acetyl choline and its analogue.
2. a) Classify Antihistaminic agents. Describe the SAR of Ethylene diamine derivatives.
b) Discuss the SAR of Benzodiazepines and Barbiturates derivatives as sedatives and hypnotics agents.

II. Write notes on:

(8 x 5 = 40)

1. Illustrate the structure, synthesis and uses of Nikethamide.
2. Write the structure, synthesis and uses of Procaine.
3. Outline the Prostaglandin Biosynthesis pathway.
4. Discuss the applications of Prodrug.
5. Illustrate the synthesis of Phenylbutazone and SAR of Pyrazolone derivatives.
6. Discuss the factors that influence the metabolic rate of drug.
7. Write the structure, synthesis and uses of Meperidine hydrochloride.
8. Illustrate the structure, synthesis and uses of Diphenhydramine hydrochloride.

III. Short answers on:

(10 x 2 = 20)

1. Give the structure and uses of Valproic Acid.
2. Define seizures and its types.
3. Phase-I biotransformation.
4. Write structure, and uses of Salbutamol.
5. Ganglionic Blockers.
6. Imipramine hydrochloride.
7. General Anaesthetics.
8. Thiazide derivatives.
9. Sedatives and hypnotics agents.
10. Anti-tussive.
