

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

(LP 4262)

AUGUST 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. How do the following physiochemical properties influences the drug's biological action?
 - a) Surface activity
 - b) Hydrogen bonding
 - c) Geometrical Isomerism
 - d) Chelation
2. a) Classify NSAIDs with examples. Write the synthesis for Ibuprofen and Indomethacin.
b) Explain the structure activity relationship of Morphine.

II. Write notes on:

(8 x 5 = 40)

1. Write a note on Proton pump inhibitors.
2. Outline the stereochemistry of cholinergics with examples.
3. Summarize Phase II metabolic reactions with examples.
4. Describe briefly about thiazide diuretics and give the synthesis of hydrochlorthiazide.
5. Explain the mechanism of action, use of Ketamine.HCL and Piperocaine.
6. Discuss the SAR of Tricyclic antidepressants.
7. Write the synthesis and use of Propranolol and carbachol.
8. Classify anticonvulsants with at least one structure for each class.

III. Short answers on:

(10 x 2 = 20)

1. Sketch the structure and use of Haloperidol.
2. Types of receptors.
3. List any two anti-tussive agents.
4. Draw the structure of Atropine sulfate and Mecamylamine.
5. Mode of action of Amphetamine.
6. Anticholinesterases.
7. Give any two structures of H₂ blockers.
8. Write about the chemistry of Prostaglandins.
9. Give the reaction product of Malonic ester and urea.
10. SAR of Chlorpromazine.
