

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

[BPHARM 1022]

OCTOBER 2022

Sub. Code: 4262

(AUGUST 2022 EXAM SESSION)

B.PHARMACY DEGREE COURSE (NON-SEMESTER EXAMINATIONS)

THIRD YEAR (Regulation 2009-2010)

PAPER II – MEDICINAL CHEMISTRY - I

Q.P. Code: 564262

Time: Three hours

Answer ALL questions

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Explain in detail about various physicochemical parameters which are important for biological activity with emphasis to
 - a) Protein binding
 - b) Isosterism
 - c) Chelation
 - d) Hydrogen Bonding.
2. Describe the types of histamine receptors. Classify antihistaminics and emphasize on the structure activity relationship with examples of any one class.

II. Write notes on:

(8 x 5 = 40)

1. Write a note on signal transduction mechanism.
2. Define and classify non steroidal anti inflammatory drugs. Give the synthesis of any two drugs.
3. Give an account on the SAR of phenothiazines.
4. Differentiate with examples about adrenergic and cholinergic antagonists.
5. Brief out on injectable general anaesthetics.
6. Explain briefly on opioid receptors.
7. Depict the mechanism of action of carbonic anhydrase inhibitors.
8. Brief out on curare neuromuscular agents.

III. Short answers on:

(10 x 2 = 20)

1. Differentiate between sedative and hypnotics.
2. Write a short note on drug distribution and pKa values.
3. Give a short account on drug latentiation.
4. Write the structure and use of methohexital.
5. Write a short note on morphinans.
6. Write the structure and use of one clinically important prostaglandins.
7. Define anti-tussives with examples.
8. Write briefly on MAO Inhibitors.
9. Sketch the general structure of barbiturates and write the name of one drug containing phenyl substituent at 5' position.
10. Write a brief note on stereo chemical aspects of drug metabolism.
