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

(LP 2040) SEPTEMBER 2019 **Sub. Code: 2040**

B.PHARM. DEGREE EXAMINATION
PCI Regulation – SEMESTER IV
PAPER II – MEDICINAL CHEMISTRY – I

Q.P. Code: 562040

Time: Three hours **Maximum: 75 Marks**

I. Elaborate on: Answer any TWO questions. (2 x 10 = 20)

1. a) Explain how the following physicochemical properties affect drug action.
   i) Hydrogen bonding ii) Geometrical isomerism iii) Protein binding
   b) Define the process of metabolism? Illustrate the factors affecting metabolism of dugs.
2. a) What are drug receptors? Write a note on the different types of receptors available for drug action.
   b) Define and classify adrenergic antagonists with suitable examples. Write the synthesis and uses of i) Tolazoline ii) Propranolol.
3. a) What are general anaesthetics? Classify them with suitable examples.
   b) Explain the mechanism of action of general anaesthetic agents. Write the synthesis of halothane.

II. Write notes on: Answer any SEVEN questions. (7 x 5 = 35)

1. Describe the SAR of sympathomimetic agents.
2. Write a note on synthetic cholinergic blocking agents.
3. Give synthesis and uses of Salbutamol and Ibuprofen.
4. Present the SAR of phenothiazines.
5. Describe about anticonvulsants with appropriate chemical structures.
6. Write a note on narcotic analgesics.
7. Enumerate the facts about anti-inflammatory agents. Write the structure and uses of : i) Mefenamic acid ii) Diclofenac.
8. Write a short note on anti-psychotic drugs.
9. Arrive biosynthesis and catabolism of acetyl choline.

III. Short answers on: Answer ALL questions. (10 x 2 = 20)

1. Chelation.
2. Prodrug.
3. Mechanism of action of barbiturates.
4. Cholinesterase reactivator.
5. Catecholamines.
6. Mechanism of action of sedatives and hypnotics.
7. Cholinergic receptors.
8. Clinical uses of diazepam.
9. Write the structure of methyldopa.
10. Catabolism.

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