(LG 4262) FEBRUARY 2015 Sub. Code: 4262

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

Q.P. Code: 564262

Time: Three hours **Maximum: 100 marks**

I. Essay: **(2 x 20 = 40)**

1. a) Define and classify CNS stimulants with suitable examples.
   b) Explain the mechanism, structure activity relationship and synthesis of
   i) Imipramine ii) Amitriptyline
   c) Write the synthesis of metoprolol and chlorcyclicine
2. a) Define and classify analgesics and anti-inflammatory agents. Write the synthesis and Mechanism of action of Ibuprofen.
   b) Outline the structure, physiochemical properties and biosynthesis of adrenergic Neurotransmitters.

II. Short notes: **(8 x 5 = 40)**

1. Classify antipsychotics and write a note on SAR of chlorpromazine.
2. Describe about surface activity in relation to biological action.
3. Outline the stereochemistry of cholinergics with examples
4. Write the synthesis of i) Furosemide i) Naloxone
5. Explain about optical isomerism influencing biological action.
6. Distinguish between the structure and structure activity relationship of omeprazole and lansoprazole.
7. Explain the mechanism of action and use of i) Ketamine ii) Dextroamphetamine iii) Amiloride iv) Loratidine v) Acetaminophen
8. Define and classify anxiolytics. Write the synthesis of barbital.

III. Short answers: **(10X2=20)**

1. Define the following terms with examples: i) Transquillizer ii) Parasympatholytics
2. Write the structure and use of i) Cimetidine ii) Isoproterenol
3. Explain the structure activity relationship of Noscapine
4. Types of receptor
5. Significance of drug metabolism
6. Structure and uses of Salbutamol
7. Adrenergic receptor hypothesis
8. Write the structure and mode of action of i) Piperocaine ii) Tetracaine
9. Redox potential
10. Write the structure of i) Salsalate ii) Oxymorphine

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