



NKT/KS/17/6565

B.Pharm. Semester—V (C.B.S.) Examination
PHARMACEUTICAL MEDICINAL CHEMISTRY-I
Paper—2

Time : Three Hours]

[Maximum Marks : 80

Note :—(1) Question No. 1 is compulsory.

- (2) Attempt any **four** questions from remaining.
- (3) Draw neat labelled diagrams wherever necessary.
- (4) Discuss the reaction, mechanism wherever necessary.

1. Solve any **five** of the following :

- (A) Draw diagram of blood brain barrier and discuss its role.
 - (B) Draw structure and write chemical name, uses and synthesis of phenobarbitone.
 - (C) Explain with structures metabolism of paracetamol and write about its actions and toxicity.
 - (D) What is prodrug ? Discuss principles of prodrug designing with examples.
 - (E) Discuss oxytocics with examples.
 - (F) Draw structure and write IUPAC name, uses and synthesis of Xylocaine.
 - (G) Write note on expectorants and antitussives. 5×4=20
2. Explain metabolism of histamine. Write in detail about chemical classification, mode of action and side effects of H₁ and H₂ antihistaminic agents. 15
3. Define convulsions. Classify chemically anti-convulsant agents. Write mode of action and synthesis of one drug from hydantoin class. 15
4. (A) Define and classify anti-depressants. 8
- (B) Write note on thyroid hormones and antithyroid drugs. 7
5. What are NSAIDs ? Discuss salol principle and write in detail about chemical classification, mode of action and side effects of NSAIDs. 15



6. (A) Describe phase II metabolism reactions with examples. 7
(B) Write note on anti-asthmatic agents. 8
7. Write notes on any **three** of the following :
- (A) Physicochemical parameters affecting drug action.
(B) Prostaglandins and eicosanoids.
(C) CNS stimulant agents.
(D) Drugs used in Parkinsonism.
(E) Sedatives and hypnotics. $5 \times 3 = 15$

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