

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. 5×3=15