

B.Pharm. Third Semester (C.B.S.) Examination

PHARMACOLOGY—I

Paper—4 (3T4)

Time : Three Hours]

[Full Marks : 80

N.B. :— (1) Question No. 1 is compulsory.

(2) Solve any **FOUR** questions from the remaining.

(3) Draw neat labeled diagram wherever necessary.

1. Solve any **five** :

(a) Explain significance of blood brain barrier.

(b) Write principle and methodology of digitalis bioassay.

(c) Write significance of subcutaneous route of drug administration with suitable examples.

(d) Differentiate competitive and non competitive antagonism with suitable examples.

(e) Describe various factors modifying drug action.

(f) Explain biotransformation of drugs with suitable examples.

(g) Describe partial agonist and inverse agonist with suitable examples. 5×4=20

2. Explain signal transduction mechanism. Add a note on secondary messenger system of G-protein coupled receptors. 15

3. Discuss in detail various factors affecting absorption of drug across gastro-intestinal tract. Add a note on first pass metabolism. 15

4. Differentiate oral and parenteral route of drug administration. Describe various parenteral routes with their merits and demerits. 15

5. Describe different types of adrenergic receptor along with its location and physiological significance. Add a note on various adrenergic agonists used clinically. 15

6. Describe in detail pharmacological profile of different Anti-muscarinic agents with specific clinical indications. Add a note on treatment of organophosphate poisoning. 15

7. Write short notes on any **three** of the following :

(a) Mechanism of action and clinical indications of ganglionic blocks.

(b) β -adrenergic antagonists

(c) Neuromuscular blocking agents

(d) Bio-assay of insulin. 3×5=15