KNT/KW/16/6543

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

PHARMACEUTICAL BIOCHEMISTRY

Paper—4

Time : Three Hours] [Full Marks : 80

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

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

(3) Assume suitable data wherever necessary.

1. Solve any **FIVE** of the following of the following :— 4×5=20

(a) Define and classify carbohydrate with suitable examples.

(b) Write reactions for osazone formation.

(c) What is the mechanism of transamination by aspartate transaminase ?

(d) Define and classify enzymes with suitable examples.

(e) Classify proteins with suitable examples.

(f) Define and give signification of the following :

(i) Iodine number

(ii) Saponification number.

(g) Give principle for the following reactions :

(i) Molisch test

(ii) Ninhydrin test.

2. (a) Explain Kreb's cycle in detail. 10

(b) Write Metabolism of galactose and explain Galactosemia. 5

3. (a) Discuss biochemical reactions, energetics and give significance of glycolysis. 10

(b) How gluconeogenesis differ from glycolysis ? 5

4. (a) Discuss various stages of β-oxidation of fatty acids. 10

(b) Write biosynthesis of Eicosanoids. 5

5. (a) Write a detail about enzyme inhibition. 10

(b) Enlist factors affecting enzyme activity. Explain effect of pH, enzyme concentration and substrate concentration. 5

6. (a) Describe transcription in detail. 10

(b) Write about types of RNA. 5

7. (a) Explain Urea cycle in detail. Give its significance. 10

(b) Write about formation of Ketone bodies. 5