

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

PHARMACEUTICAL BIOCHEMISTRY

Paper—4

Time : Three Hours]

[Maximum Marks : 80

Note :— (1) Q. No. 1 is compulsory. Attempt any **FOUR** questions from remaining.

(2) Draw neat labelled diagram wherever necessary.

(3) Discuss the reaction, mechanism wherever necessary.

1. Justify the following statements (any **FIVE**) : 4×5=20
 - (a) Phosphorylation of glucose is called the priming reaction of glycolysis.
 - (b) Enzymes are considered as biocatalyst.
 - (c) mRNA plays role in protein synthesis.
 - (d) Fats act as fuel reserve of body.
 - (e) Concentration of substrate affects enzyme activity.
 - (f) Hexokinase and glucokinase are the isozymes.
 - (g) Pyruvate dehydrogenase complex is link between glycolysis and TCA cycle.
2. Give detailed account on protein structure and various bonds responsible for protein structure. 15
3. What are essential fatty acids ? Write the biochemical basis, functions and deficiency symptoms of essential fatty acids. 15
4. Describe the salient features of 'Watson-Crick' model of DNA. 15
5. Explain the different categories of enzyme inhibition. 15
6. Discuss the different steps and regulation of glycogenolysis. 15
7. Explain the glycolysis by Hexose monophosphate shunt pathway. 15