TKN/KS/16 – 5867

Fourth Semester B. Sc. Examination

BIOCHEMISTRY

Paper - I

(Enzymology)

Time : Three Hours] [Max. Marks : 50

N. B. : (1) All questions are compulsory and carry equal marks.
(2) Draw diagrams wherever necessay.

1. Describe in detail the Nomenclature and classification of enzymes. 10

OR

Write notes on following :—

(a) Acid Base catalysis. 5

(b) Proximity and orientation effect. 5

2. Give the mechanism of action of chymotrypsin. 10

OR

(a) Describe the effect of temperature on enzyme activity. 5

(b) Describe the role of pyridoxine as a coenzyme precursor. 5

3. What is MM equation ? Give the assumptions and derivation of MM equation. Also mention its limitations. 10

OR

(a) What is double reciprocal plot ? Give the significance of it. 5

(b) Write a note on bisubstrate reaction. 5

4. Write an account of enzyme assay with respect to the use of NAD coenzymes and coupled enzymes.

OR

Describe enzyme isolation based on Molecular size. 10

5. Answer any **ten** of the following :—

(i) Define active site. 1

(ii) Name the scientist who proposed induced fit model of enzyme action. 1

(iii) Name one co–enzyme of Riboflavin. 1

(iv) Name the amino acids present at the active site of Ribonuclease. 1

(v) Define Km. 1

(vi) Define coenzymes. 1

(vii) What is competitive inhibition. 1

(viii) TPP is the coenzyme of which vitamin ? 1

(ix) Give the general graphical representation for LB plot. 1

(x) Define 'Katal'. 1

(xi) Name one method of enzyme isolation based on electric charge. 1

(xii) A typical pH profile of an enzyme is —— shaped. 1