Odd Semester, 2020

(Held in March, 2021)

BIOCHEMISTRY

(Honours)

(BCHEM–301)

(Proteins and Enzymes)

Marks : 56

Time : 3 hours

The figures in the margin indicate full marks for the questions

Answer *any* **four** questions

1. *(a)* Briefly discuss Edman's method for protein sequencing. 9

(b) Differentiate between salting-in and salting-out. 5

2. *(a)* Explain the various factors affecting enzyme activity. 10

(b) How does an enzyme affect the activation energy of a reaction? 4

3. *(a)* Derive Michaelis-Menten equation using steady-state assumption. 8

(b) Explain K_m as an index of affinity of enzyme for its substrate. 3

(c) Define specificity constant. 3

4. What is enzyme inhibition? Differentiate between competetive, non-competetive and uncompetetive inhibitions. 2+12=14

5. *(a)* Describe the mechanism of action of lysozyme. 9

(b) Discuss the structure and function of NAD. 5

6. Write notes on any *two* of the following : 7×2=14

(a) Pyridoxal phosphate

(b) Lineweaver-Burk plot

(c) Zymogenicity

7. Explain the following : 7+7=14

(a) Allosteric regulation

(b) Covalent modification

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