

M.Sc. (Part-I) Semester-I (C.B.C.S. Scheme) Examination

BIOCHEMISTRY

(Advanced Enzymology)

Paper—III

Time : Three Hours]

[Maximum Marks : 80

Note :—(1) All questions are compulsory and carry equal marks.

(2) Draw diagrams wherever necessary.

1. Describe effect of temperature, pH, enzyme and substrate concentration on reaction rate. 16

OR

Explain the concept of Steady State and Rapid State Equilibrium Kinetics. 16

2. Describe in detail kinetics of enzymes inhibition. 16

OR

Describe role of various coenzymes in metabolism. 16

3. (a) Describe the structure and function of Ribonuclease. 6

(b) Describe Proximity effect. 5

(c) Explain Covalent catalysis. 5

OR

(d) Describe Orientation effect. 5

(e) Describe the chemistry of active center. 5

(f) Explain any one physical method for determination of active site conformation. 6

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| 4. | (a) | Explain Isoenzymes with example. | 6 |
| | (b) | Explain clinical significance of LDH. | 5 |
| | (c) | Describe membrane bound enzymes in metabolic control. | 5 |

OR

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| | (d) | Describe compartmentalization of substrates. | 6 |
| | (e) | Explain shuttle system. | 5 |
| | (f) | Describe structure of PDH. | 5 |
| 5. | (a) | Describe Allosteric regulation. | 6 |
| | (b) | Describe enzyme induction and repression. | 5 |
| | (c) | Describe product inhibition. | 5 |

OR

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| | (d) | Describe mode of hormonal actions on enzymes. | 6 |
| | (e) | Explain the concept of receptors. | 5 |
| | (f) | Explain feedback control. | 5 |