V

(20516) Roll No. .....

B.Sc.(Biotech.)-II Year

NS-3472

B. Sc. (Biotechnology) Examination, May 2016

ENZYMES AND ENZYME TECHNOLOGY

(B-209)

(New)

Time : Three Hours] *[Maximum Marks : 50*

Note : Attempt any *Five* questions. All questions carry equal marks.

1. Define enzyme. Discuss various uses of enzymes in pharmaceutical and food industry. 10

2. What is an immobilized enzyme ? Discuss the adsorption methods of immobilization: Also describe the advantages of using an immobilized enzyme. 10

3. Describe in detail the chromatographic procedures to purify enzymes. 10

4. Differentiate between the following: 3+3+4

(a) Competitive and non-competitive inhibitors

(b) Endoenzyme and exoenzyme

(c) Coenzymes and cofactors.

5. Discuss the enzyme on the following headings: 3+3+4

(a) Classification

(b) General properties

(c) Mode of action.

6. Write short notes on the following: 2½ each

(a) Isozyme

(b) Apoenzyme

(c) Extraction of enzymes from plant and animal tissues.

(d) Multienzyme complexes.

7. How the enzyme activity is regulated ? Discuss feedback inhibition in detail. 10

8. Write detailed notes on the following: 5 each

(a) Gel entrapment

(b) Covalent binding.

9. Describe in detail the various approaches of enzyme engineering. 10

10. Write detailed notes on the following: 5 each

(a) Genetic engineering approaches for large scale production of enzyme

(b) Michaelis-Menten law and its significance.