

Printed Pages : 2



EBT-021

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 154653

Roll No.

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B. Tech.

(SEM. VI) THEORY EXAMINATION, 2014-15
ENZYME & PROTEIN ENGINEERING

Time : 2 Hours]

[Total Marks : 50

Note: Attempt all questions.

- 1 Attempt any three parts of the following : (4×3=12)
- (a) Write a note on stability of enzymes.
 - (b) What is positive and negative cooperativity? Explain with examples.
 - (c) Explain the phenomena of allosterism. Explain the sigmoidal kinetics.
 - (d) What do you mean by active site and differentiate between active site & regulatory site?
 - (e) Discuss various advantages & Disadvantages of immobilized enzymes.
- 2 Attempt any two parts of the following : (6×2=12)
- (a) Give an account of industrial application of immobilized enzymes.
 - (b) Explain the internal and external diffusion in the immobilized enzyme.

- (c) What is immobilization of enzyme? Explain any one entrapment method with suitable diagram.
- 3 Attempt any two parts of the following : (6×2=12)
- (a) Enlist the effect of various amino acids on the structure of protein.
- (b) Discuss biosynthesis of protein in detail.
- (c) What are the essential components of enzyme reactor? Explain any batch reactor with its applications.
- 4 Attempt any two parts of the following : (7×2=14)
- (a) Discuss the role of bioinformatics in enzyme engineering.
- (b) Enlist the various physical methods for the determination of protein structure.
- (c) Discuss the enzyme engineering of Tryesyl t-RNA synthetase for its novel application.
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