B. Tech. Biotechnology
(SEM. VIII) EXAMINATION, 2006-07
PROTEIN ENGINEERING

Time : 3 Hours] [Total Marks : 100

Note : Attempt all questions. All questions carry equal marks.

1 Briefly discuss the translation process of eukaryotic protein synthesis.

OR

1 Explain the role of active sites in enzyme and effect of its confirmation change on reaction.

2 Discuss the effect of amino acid mutation on the tertiary structure of protein.

OR

2 Discuss the protein structure stability in term of energy function.

3 Explain the Bragg’s law and its application for experimental structure determination of protein crystal.

OR

3 Discuss the site directed mutagenesis as a tool for development of specific novel protein function.
4 Discuss the strategy for designing a new protein and its potential therapeutic application.

OR

4 What are the properties of an enzyme that can be changed in newly designed protein?

5 Discuss the enzyme engineering of Tryesyl t RNA synthetase for its novel applications.

OR

5 Discuss the enzyme engineering of Dihydrofolate reductase for its novel applications.