

R09

Code No: C0310

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
M.TECH I - SEMESTER EXAMINATIONS APRIL/MAY-2012
ENZYME ENGINEERING AND TECHNOLOGY
(BIOTECHNOLOGY)**

Time: 3hours

Max.Marks:60

**Answer any five questions
All questions carry equal marks**

1. Discuss the application of enzymes in food and pharmaceutical industry.
2. Explain the following
 - a) Action of Chymotrypsin.
 - b) Two Substrate reactions.
- 3.a) What are the various steps that the substrate undergoes in a biochemical reaction being catalysed by an immobilized enzyme system?
 - b) Write about the Biot number.
4. Differentiate between the reversible competitive inhibition and reversible non competitive inhibition.
5. Discuss the effect of P^H and Temperature on enzyme catalysed reactions.
6. Explain enzyme inhibition. How would you know whether an inhibitor is competitive or non competitive?
- 7.a) Give one example of the reaction catalysed by each of the following classes of enzymes.
 - i) Oxido - reductases.
 - ii) Transferases.
 - iii) Hydrolases.
 - iv) Isomerases.
 - b) Why a product inhibit the enzyme catalysed reaction.
- 8.a) How do you determine the number of active sites of enzymes.
 - b) Explain the Structure of protein.

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