

Exam.Code:0912
Sub. Code: 33389

2056

**B.E. (Biotechnology) Eighth Semester
BIO-812: Enzyme Catalyzed Organic Synthesis**

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt five questions in all, including Question No. I which is compulsory and selecting two questions from each Section.

x-x-x

Q. 1) Write briefly:

(2×5 =10)

- a) What is the degree of enzyme inhibition? Define turn over number (TON).
- b) What is the effect of the competitive inhibitor on V_{max} and K_m ?
- c) Define extracellular enzyme? Give four examples.
- d) What are ACE inhibitors? List four names of the ACE inhibitors.
- e) What are advantages and disadvantages of enzyme immobilization?

SECTION-A

Q. 2. a) Discuss the competitive and noncompetitive of enzyme inhibition.

b) Explain substrate inhibition?

c) Briefly write notes on Industrial applications of enzyme

(3, 3, 4)

Q. 3. a) Temperature is important factor in enzyme activity, explain?

b) List taking advantages and disadvantages of biocatalyst with suitable example.

(4, 6)

Q. 4) Discuss biotechnological processes for organic solvent synthesis.

(10)

SECTION-B

Q. 5) Explain immobilizing and discuss the various methods for immobilizing enzymes.

(10)

Q. 6) Explain Calcium-Channel Blockers and Potassium channel openers.

(10)

Q. 7) "Chirality and Biological Activity"- with examples explain statement.

(10)

x-x-x