

2055

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. 1 which is compulsory and selecting two questions from each Unit.

x-x-x

Q. 1) Write briefly:

- a) What is stereoselective biocatalyst?
- b) What are the ACE inhibitors?
- c) Define extracellular enzyme? Give four examples.
- d) Define enzyme activity and specific enzyme activity?
- e) Explain substrate inhibition?

(5x2)

UNIT - I

Q. 2) Write a critical review on biotechnological processes versus chemical synthesis processes. (10)

Q. 3. a) Briefly write notes on Industrial applications of enzyme.

b) What is the degree of enzyme inhibition? Explain substrate inhibition?

c) Discuss the different type of enzyme inhibition.

(4,3,3)

Q. 4. a) pH play important role in enzyme activity, explain?.

b) List taking advantages and disadvantages of biocatalyst with suitable example. (4,6)

UNIT - II

Q. 5) "Chirality and Biological Activity"- with examples explain statement. (10)

Q. 6) Define the term of enzyme immobilization? What are advantages and disadvantages?

Discuss the various methods for immobilizing enzymes.

(10)

Q. 7) Explain any **two**:

- a) Antiviral compounds.
- b) Anticancer drug.
- c) Calcium-Channel Blockers.

(5,5)

x-x-x