25019340

**QP CODE: 25019340**

**Reg No :** .....

**Name :** .....

# B.Sc DEGREE (CBCS) ) REGULAR/ IMPROVEMENT/ REAPPEARANCE / MERCY CHANCE EXAMINATIONS, FEBRUARY 2025

## Fourth Semester

B.Sc Biotechnology Model III

## Core Course - BT4CRT10 - ENZYMOLOGY

2017 Admission Onwards

A95DA832

Time: 3 Hours Max. Marks : 60

**Part A**

*Answer any **ten** questions.*

*Each question carries **1** mark.*

1. Which category of enzyme belongs to Class II in international system of enzyme classification?
2. What happens when enzymes get too cold?
3. What is active site?
4. Define Cofactor.
5. Write briefly on Michaelis-Menten equation.
6. What is Michaelis Menten plot?
7. How can we obtain Vmax from Line weaver-Burk plot?
8. What is allosteric inhibition?
9. What happens to Km and Vmax during uncompetitive inhibition?
10. What is cooperativity?
11. What does immobilization mean?
12. Define ribozyme.

(10×1=10)

**Part B**

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. What are the types of purification?

14. Why enzyme purification is important? Explain.

15. How lock and key model explains substrate specificity?

16. Explain Inducted fit theory and Lock and Key model.

17. Explain enzyme kinetics.

18. Describe Zymogen activation.

19. Explain enzyme inhibition.

20. Explain the enzymes used in baking industry.

21. Explain potentiometric biosensors.

(6×5=30)

**Part C**

*Answer any **two** questions.*

*Each question carries **10** marks.*

22. Explain the methods involved in extraction of membrane bound and soluble enzymes.

23. Describe in detail the factors affecting enzyme activity.

24. Explain ping pong mechanism.

25. Explain in detail different aspects of enzyme engineering.

(2×10=20)