



23106067

QP CODE: 23106067

Reg No :

Name :

**B.Sc DEGREE (CBCS) IMPROVEMENT / REAPPEARANCE EXAMINATIONS,
MARCH 2023**

Fourth Semester

B.Sc Biotechnology Model III

CORE COURSE - BT4CRT10 - ENZYMOLOGY

2017 Admission Onwards

DD5F7DF9

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 are membrane bound enzymes?
3. What is activation energy?
4. Name the factors that affect the enzyme activity.
5. What is the V_{max} when substrate concentration equals K_m ?
6. How can we obtain V_{max} from Line weaver-Burk plot?
7. What are homotropic and heterotropic modulators?
8. How the effect of a reversible inhibitor can be nullified?
9. What is competitive inhibition?
10. During competitive inhibition what happens to K_m and V_{max} ?
11. Name the enzymes used in textile industry.
12. Examples of biological components used in biosensors.

(10×1=10)





Part B

*Answer any **six** questions.*

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

13. What are the isolation methods of enzymes?
14. Explain the principle of precipitation of enzyme.
15. Describe activation energy.
16. Define and explain specificity of enzymes.
17. Explain the relationship between K_m and V_{max} .
18. Graphically represent Michaelis Menten constant for an enzyme catalysed reaction.
19. Describe ping pong mechanism.
20. Explain briefly on restriction endonucleases.
21. Describe the examples of engineered enzymes.

(6×5=30)

Part C

*Answer any **two** questions.*

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

22. Describe the different chromatographic procedures used in the purification of crude enzymes.
23. Write an essay on Coenzymes.
24. Explain cooperativity of enzymes.
25. Write an essay on the applications of immobilized enzymes.

(2×10=20)

