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**School of Biological and Life sciences**

Master of Science in Biochemistry

Mid Term Examination - Nov 2023

Duration : 90 Minutes

Max Marks : 50

**Sem I - P1PP104B - Enzymology**General Instructions*Answer to the specific question asked**Draw neat, labelled diagrams wherever necessary**Approved data hand books are allowed subject to verification by the Invigilator*

- 1) Explain the active site of an enzyme. K2 (2)
- 2) What is catalytic efficiency, and why is it important in enzyme catalysis? K1 (3)
- 3) Outline the Line weaver Burk plot for an enzyme catalyzed reaction. K2 (4)
- 4) Describe the factors which can affect the overall catalytic efficiency of an enzyme? K2 (6)
- 5) Apply the significance of enzyme inhibitors with suitable examples. K3 (6)
- 6) Explain the importance of the Michaelis-Menten equation in understanding catalytic efficiency. K3 (9)
- 7) Analyze the mechanism of the enzyme activation using proteolytic cleavage method. K4 (8)
- 8) Compare and contrast reversible and irreversible enzyme inhibition, giving examples for each. K4 (12)

**OR**

Discuss the Lineweaver-Burk plot and how it is used to analyze enzyme kinetics. K4 (12)