



End Semester/Reappear (Semester II) Examination May, 2025

Programme: BMLT
Course: Clinical Chemistry-1
Course Code: 42ABMT206
Enrolment no. _____

Full Marks: 70
Time: 3 Hrs.

Q.No.	Questions	CO	Bloom Taxonomy Category	Marks
Section I				
1	Short Answer type questions.			4 x 5 = 20
a	Describe the Lock-Key model of enzymes action.	CO2	Understand	
	or			
b	Describe the Michelis Menten equation using suitable graphs.	CO2	Apply	
	or			
c	Explain how Insulin is regulated inside the body?	CO3	Understand	
	or			
d	Explain about the all-glucose transporter and their sources.	CO3	Apply	
	or			
e	Describe in brief about Enantiomers and Diastereomers with example	CO1	Remember	
	or			
f	Describe the structure and function of fluid mosaic model	CO1	Understand	
	or			
g	How proteins are important for our body? Explain.	CO5	Apply	
	or			
	Describe the Structure of Protein in details	CO5	Understand	
Section II				
	Long Answer type questions.			3 x 10 = 30
1	An enzyme hydrolyzed a substrate concentration of 0.03mmol/L, the initial velocity was 1.5mmol/Lmin and the maximum velocity was 4.5 mmol/Lmin. Calculate the Km value	CO2	Evalaute	
	or			
2	Explain the Competitive inhibition and Uncompetitive inhibition with using suitable graph.	CO2	Analyze	
	or			
3	Explain the digestion and absorption of Carbohydrates.	CO3	Analyze	
	or			
4	Explain the TCA Cycle and their pathway.	CO3	Analyze	
	or			
5	Explain in brief about Alpha helical structure of protein.	CO1	Analyze	
	or			
	Explain the Glycolysis and their pathway.	CO1	Analyze	
Section III				
	Application based questions			1 x 20 = 20
1	Explain the Beta - oxidation pathway of lipid metabolism.	CO4	Analyze	
	or			
	Describe the significance and disorder of lipid metabolism.	CO4	Analyze	

COURSE OUTCOME:

CO1 To provide knowledge about identifying the structural elements of different biomolecules

CO2 To demonstrate the role of enzymes in the bio-reactions of a living cell and provide knowledge on the estimation of different enzymes in diagnosing diseases

CO3 To study the structural, nutritional and diagnostic roles of carbohydrates and their metabolites in physiological and pathological processes.

CO4 To study the structural, nutritional and diagnostic roles of lipids and their metabolites in physiological and pathological processes.

CO5 To demonstrate the applicability of the metabolic role of proteins, amino acids and nucleic acids in various biological processes