

## MSc Sem.-1 Examination

402

## Bio-Medical Technology

February-2025

[Max. Marks : 70]

Time : 2-30 Hours]

Q-I	1	Explain the advantages and any 3 methods of Enzyme Immobilization.	(07)
	2	Discuss the characteristics and clinical significance of Isoenzymes.	(07)
	OR		OR
	1	Write a note on the Reversible inhibition of enzyme activity.	(07)
	2	Explain Covalent bond, Acid-Base and Proximation mechanisms of enzyme catalysis.	(07)
Q-II	1	Explain the detailed mechanism of reaction for enzyme Aldolase.	(07)
	2	Write a note on the structure of glycogen.	(07)
	OR		OR
	1	Explain the detailed mechanism of reaction for enzyme pyruvate dehydrogenase.	(07)
	2	Write a note on anaplerotic reactions associated with TCA cycle.	(07)
Q-III	1	Explain in detail: Diagnosis and treatment of Chronic kidney disease and Glomerulonephritis.	(07)
	2	Explain the process of systemic and pulmonary circulation of blood in human circulatory system.	(07)
	OR		OR
	1	Explain the symptom, diagnosis and treatment of Chronic obstructive pulmonary disease, Emphysema and Tuberculosis.	(07)
	2	What is Homeostasis? Write down the feedback mechanism, control of homeostasis and homeostatic imbalances in detail.	(07)
Q-IV	1	Describe "Muscle Contraction" in detail.	(07)
	2	Explain briefly: Neuromuscular Junction.	(07)
	OR		OR
	1	Give a note on phases of gastric juice secretion.	(07)
	2	Discuss skeletal muscle proteins in brief.	(07)
Q-V	<b>Answer any SEVEN out of TWELVE.</b>		<b>(14)</b>
	1	State the various classes of Enzymes.	02
	2	Mention 2 diagnostic and 2 therapeutic uses of enzymes.	02
	3	What are metalloenzymes? Give an example.	02
	4	Why phosphofruktokinase is considered a very important enzyme of glycolysis.	02
	5	Briefly describe Glutathione.	02
	6	What is the Cori cycle? Give its functions.	02
	7	Give the full name: ASD & VSD	02
	8	What are the main symptoms of Acute Kidney Injury (AKI)?	02
	9	What is Embolism? What are the causes of it?	02
	10	Decreased gastric HCl secretion is found in which conditions?	02
	11	Explain the pentagastrin stimulation test.	02
	12	Which protein connects the Z disc to the M line?	02