

SECTION C			
Q. No.	Answer any SIX of the following. (6 x 5 = 30 marks)	CO	KL
31.	Discuss any two inborn errors of amino acid metabolism.	3	3
32.	a) Categorise lipids as saponifiable and non-saponifiable. b) Differentiate between m RNA, r RNA and t RNA.	3	3
33.	Discuss the source, functions and structure of Insulin.	3	3
34.	Differentiate between Fischer's lock and key model and Koshland's induced fit model for enzyme catalysis.	3	3
35.	Demonstrate the significance of a) Acid value and b) saponification value.	3	3
36.	Differentiate and explain competitive and non-competitive inhibition.	3	3
37.	Describe the preparation of amino acids by Gabriel's Phthalimide synthesis and Strecker's synthesis.	3	3
SECTION D			
Q. No.	Answer any FOUR of the following. (4 x 5 = 20 marks)	CO	KL
38.	Discuss the factors affecting enzyme action.	4	4
39.	Describe the electron transport chain with a suitable diagram.	4	4
40.	Draw a neat labelled structure of the Watson and Crick model of the DNA.	4	4
41.	Discuss the action of heat on alpha, beta and gamma amino acids.	4	4
42.	Summarize the various steps involved in the β -oxidation of fatty acids.	4	4
SECTION E			
Q. No.	Answer the following (2 x 10 = 20 marks)	CO	KL
43.	Discuss with relevant biochemical equations the glycolysis pathway. Calculate the net gain of ATP molecules produced by this process. (OR) Construct a flow chart to explain the sequential steps involved in the TCA cycle.	5	5
44.	With a neat illustrative representation explain the mechanism of coagulation of blood. (OR) Elucidate the secondary and tertiary structure of proteins and highlight the bonds involved.	5	5
