

Reg. No.:



Name:

University of Kerala

U9020

Second Semester FYUGP Degree Examination, April 2025

Discipline Specific Core Course

BIOCHEMISTRY

UK2DSCBCH101 - Structure of biomolecules

Academic Level: 100-199

Time: 1 Hour 30 Minutes(90 Mins.)

Max. Marks: 42

Part A. 6 Marks.Time:6 Minutes.(Cognitive Level:Remember(RE)/Understand(UN)) Objective Type. 1 Mark Each.Answer all questions

Qn No.	Question	CL	CO
1	Name a sulphur containing amino acid.	RE	1
2	What is the number of amino acids present in insulin?	RE	3
3	How many polypeptide chains are present in hemoglobin?	UN	3
4	How does sucrose differ from lactose in terms of function?	UN	1
5	State the constituents of nucleoside.	UN	1
6	Define amino acid.	UN	1

Part B.8 Marks.Time:24 Minutes.(Cognitive Level:Understand(UN)/Apply(AP))Short Answer. 2 marks each.Answer all questions

Qn No.	Question	CL	CO
7	Draw the structure of Tryptophan.	UN	2
8	Draw the structure of AMP?	UN	1
9	Demonstrate the unique properties of proline.	AP	1
10	Illustrate the Chargaff's rule?	AP	1

Part C. 28 Marks.Time:60 Minutes (Cognitive Level:Apply(AP)/Analyse(AN)/Evaluate(EV)/Create(CR)) Long Answer.7 marks each.Answer all 4 Questions choosing among options * within each question

Qn No.	Question	CL	CO
11	A) Demonstrate how sucrose is structurally different from lactose? OR B) Illustrate the structure of tRNA.	AP	1, 5
12	A)	AN	3, 1

Qn No.	Question	CL	CO
	Interpret a chart of aminoacids and categorize them based on R group characteristics. OR B) Differentiate between amylose and amylopectin.		
13	A) Describe the structural and functional importance of haemoglobin. OR B) Evaluate the significance of double helix structure of DNA in relation to genetic stability and replication.	EV	5, 3
14	A) Design a chart comparing monosaccharides with examples, highlighting their structures, functions, and biological importance. OR B) Make a chart for one letter and three letter representation of ten standard amino acids with structure.	CR	1, 1