

Reg. No.:



Name:

University of Kerala

U8830

Second Semester FYUGP Degree Examination, April 2025

Discipline Specific Core Course

BOTANY

UK2DSCBOT105 - 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	List any two amino acids.	RE	3
2	Name an acidic amino acid	RE	1
3	Identify the weak interaction in the following: Hydrogen bond, Vander waal's forces, Hydrophobic interactions	UN	2
4	Explain peptide bond.	UN	3
5	Name a saturated fatty acid.	UN	4
6	Name the storage polysaccharide in plants.	UN	2

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	Identify the quaternary structure of the protein.	UN	3
8	Discuss briefly about the glycosidic bond.	UN	3
9	Explain the role of triacylglycerols in plants and animals.	AP	4
10	Classify different types of fatty acids with their function	AP	3

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) Explain how structural polysaccharides differ from storage polysaccharides in terms of function.	AP	2, 3

Qn No.	Question	CL	CO
	OR B) All proteins are made up of amino acids. Then how one protein is different from one another? Explain with examples		
12	A) Analyze different types of lipids based on composition OR B) Analyze the properties of water	AN	4, 1
13	A) Evaluate the effectiveness of the bicarbonate buffer system in maintaining blood pH. OR B) Describe the different types of fatty acids that you have studied and mention their importance.	EV	4, 2
14	A) Formulate the structural variations between DNA and RNA in tabular form. Also, mention which one is the more stable. OR B) Explain different structural levels exhibited by proteins with examples.	CR	4, 3