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Daffodil International University
Department of Agricultural Science
Faculty of Agriculture Sciences
Mid-term Examination, Fall – 2026

Course Code: 0815-1105
Section: 262 All
Full Marks: 25

Course Title: Biochemistry I (General Biochemistry)
Level-Term: L1-T2

Teacher's Initial: MSA
Time: 1 Hour 30 Minutes

"Split answering is strictly prohibited"

1.a)	Define a cell. Briefly explain its classification with the help of proper diagram.	PLO1 CLO1 C1	4
b)	If you see a plant cell under a microscope, what will be its picture? Draw it with a labelled diagram.	PLO1 CLO1 C3	1
2.a)	A cell is actively producing and transporting proteins. Based on this situation, describe, with proper diagrams, how the endoplasmic reticulum and Golgi body separately contribute to the cell's activities.	PLO1 CLO1 C3	4
b)	Draw and label a diagram of cell wall.	PLO1 CLO1 C3	1
3.a)	Using your knowledge, explain the physical properties of amino acids.	PLO1 CLO2 C3	3
b)	Define a peptide bond and draw its structure.	PLO1 CLO2 C1	2
4.a)	Define protein with its classification.	PLO1 CLO3 C2	4
b)	Enlist the elemental composition of proteins.	PLO1 CLO3 C2	1
5.a)	Analyze the major factors affecting enzyme activity. For each factor, explain how it affects enzyme activity and draw a suitable graph showing the expected relationship.	PLO1 CLO3 C4	3
b)	Briefly analyze how an enzyme–substrate complex is formed.	PLO1 CLO3 C4	2