



Daffodil International University

Department of Agricultural Science

Faculty of Agricultural Sciences

Final Examination, Semester: Spring 2026

Course Code: 0815-1105 Course Title: Biochemistry-I (General Biochemistry)

Level & Term: L-1, T-2

Section: A, B, C Course Teacher: DFB, DRH

Time: 2 Hrs

Full Marks: 40

"Split answering is strictly prohibited"

1.	a). Define metabolites and explain their importance in living organisms	PLO1 CLO2 C1	2+3
	b). Classify metabolites and describe primary and secondary metabolites with examples	PLO1 CLO2 C2	
2.	a). Explain characteristics and importance of secondary metabolites	PLO1 CLO3 C1	3+2+4
	b) Describe alkaloids, their Sources, and their pharmaceutical applications	PLO5 CLO4 C2	
	c) Define enzyme? Describe the different factors affect enzyme activity	PLO1 CLO2 C1, C2	
3.	a) Explain importance of enzymes in industrial and agricultural applications	PLO2 CLO4 C1	2+2
	b) Describe the classification of enzyme with example	PLO1 CLO2 C2	
4.	a) Explain the lock-and-key model with figure	PLO1 CLO1 C5	2+4
	b) Define protein? Explain the process of protein Synthesis step by step	PLO1 CLO2 C1	
5.	a) Describe the central dogma in protein synthesis	PLO1 CLO1 C2	2+2+3
	b) Explain the structure and function of the ribosome in protein synthesis	PLO1 CLO1 C5	
	c) Define gene? Discuss the characteristics of the genetic code	PLO1 CLO1 C1 C3	
6.	a) Describe the classification proteins based on functional, chemical nature and solubility	PLO1 CLO2 C3	4+3+2
	b) Define peptide bond and explain the structure of proteins	PLO1 CLO1 C3	
	c) Describe the physical properties of amino acid	PLO1 CLO1 C1	