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Daffodil International University

Department of Agricultural Science
Faculty of Agricultural Sciences
BSc. in Agricultural Science
Midterm Examination-Fall 2026

Course Code: 0818 2201 **Course Title: Genetics and Plant Breeding-1 (Principles of Genetics and Cytogenetics)**

Level and Term: L-2, T-2 **Section: (A, B, & C)** **Course Teacher Initials: MTI**

Time: 1 hour 30 Mins **Total Marks: 25**

Splitting any answer is strictly prohibited

				Marks
1	(a)	Define chromosome? List the structural components of a nucleotide.	CLO1, PLO1, C1	2
	(b)	Illustrate the typical structure of a chromosome.	CLO1, PLO1, C1	3
2	(a)	Explain the basic chromosome number and the ploidy level.	CLO1, PLO2, C2	2
	(b)	Explain the characteristics of mutation.	CLO2, PLO2, C2	3
3	(a)	Identify the causative reason behind the maternal effect.	CLO1, PLO2, C3	2
	(b)	Compare and contrast between different models of DNA replication.	CLO1, PLO2, C3	3
4	(a)	Draw a representative model/structure of a gene.	CLO1, PLO1, C3	3
	(b)	"Wheat is an allohexaploid species" analyze with the scientific rationality.	CLO1, PLO2, C4	2
5	(a)	Dissect "duplication is generally less deleterious than deletion".	CLO2, PLO2, C4	3
	(b)	Identify the core difference between terminal deletion and intercalary deletion in chromosome.	CLO2, PLO1, C3	2