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Daffodil International University

Department of Agricultural Science

Faculty of Agriculture Sciences

Final Examination, Semester: Summer 2026

Course Code: 0813-2103 **Course Title:** Soil Science-I (Introductory Soil Science)

Level & Term: Level-2 Term-I **Section:** 252 (A,B,C) **Course Teacher:** HIJ & DMI

Time: 2 Hrs **Total Marks:** 40

"Split answering is strictly prohibited"

1.	a) Enlist different soil forming processes.	PLO1 CLO1 C1	2
	b) Compare the laterization and podzolization soil forming processes.	PLO1 CLO1 C4	2
	c) Design a typical soil profile diagram and lebel all master horizons with their key characteristics.	PLO4 CLO1 C6	3
2.	a) Classify essential plant nutrient with their specific functions.	PLO1 CLO5 C4	5
	b) "A fertile soil may not be productive, but a productive soil is always fertile"- explain.	PLO2 CLO5 C5	2
3.	a) Define soil pH. Classify soils based on pH values.	PLO4 CLO3 C1 & C2	4
	(b) Analyze the effect of soil pH on nutrient availability in soil.	PLO5 CLO3 C4	3
4.	a) Identify major deficiency symptoms of K, Ca, Zn, and B.	PLO2 CLO5 C3	4
	b) Enlist the available forms of essential plant nutrients and identify the criteria for the essentiality of plant nutrients.	PLO2 CLO5 C1 & C3	6
	c) Differentiate between soil fertility and soil productivity.	PLO4 CLO5 C2	2
5.	a) Design a physiological classification chart of bacteria based on their mode of nutrition with suitable examples.	PLO4 CLO4 C6	2
	b) Utilize the applications of microbiology in sustainable agriculture.	PLO6 CLO4 C3	2
	c) Evaluate the beneficial and harmful effects of fungi in agriculture with examples.	PLO7 CLO4 C5	3