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252-55-005
Adnan

Daffodil International University

Department of Agricultural Science
Faculty of Agricultural Sciences
Final Examination, Spring 2026

Course Code: 0814-1205
Course Title: Agricultural Chemistry I (Fertilizers, Agro Chemicals and Environmental Chemistry)
Section: 252 All
Level-Term: L1-T2
Teacher's Initial: MSA
Full Marks: 40
Time: 2 Hours

"Split answering is strictly prohibited"

1.	(a) Define waste. Analyze the different types of waste based on their classification and explain how proper waste management practices can be applied in your environment.	PLO1 CLO6 C1 C4	6
	(b) List and briefly explain the main sources of hazardous waste.	PLO2 CLO6 C2	2
2.	(a) Analyze the full process of biogas production. Highlight its composition, the role of microorganisms, and the steps involved in processing biogas.	PLO1 CLO6 C4	5
	(b) Define bioenergy. Explain the biomass-to-bioenergy conversion process.	PLO3 CLO6 C1 C5	3
3.	(a) Define environment and environmental chemistry. Explain the four segments of the environment.	PLO2 CLO5 C1 C5	5
	(b) What are pollutants? Explain their types in simple words.	PLO4 CLO5 C2	3
4.	(a) Define air pollution. Discuss the greenhouse effect.	PLO4 CLO5 C1 C6	5
	(b) Imagine the water you use at home is dirty and full of waste. You need to clean it so your family can use it safely. Describe step by step how you would treat this domestic water to remove solids, organic matter, phosphates, and harmful germs.	PLO4 CLO5 C3	3
5.	(a) Draw and label the schematic diagrams of a spectrophotometer, flame emission spectrometer, and atomic absorption spectrophotometer.	PLO4 CLO4 C3	6
	(b) Imagine you have a biogas plant at home. How would you safely and usefully use the leftover effluent?	PLO5 CLO6 C6	2