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Daffodil International University

Department of Nutrition and Food Engineering
Faculty of Health and Life Sciences
B.Sc. in Nutrition and Food Engineering
Midterm Examination - Fall 2026

Course Code: 0521-3205 **Course Title:** Environmental Food Technology
Level and Term: L-3, T-3 **Section:** 241 All **Course Teacher Initials:** MSI, MSZ & SKP
Time: 1 hour 30 minutes **Total Marks:** 25

"Maintaining the order of the questions is highly encouraged."

				Marks
1	(a)	What are the major sources of dissolved oxygen in natural water bodies?	[CLO1, PLO7, C2]	1
	(b)	Does a rice mill primarily cause local or global air pollution? Justify your answer with examples.	[CLO1, PLO7, C3]	2
	(c)	Why is "re-use" preferred over "recycling" in the Pollution Prevention Hierarchy? Explain its environmental and economic benefits.	[CLO1, PLO7, C4]	2
2	(a)	Identify one classical air pollutant and state one of its major sources.	[CLO1, PLO7, C3]	1
	(b)	A water body becomes covered with dense aquatic plants and algae due to increased nutrient inflow. Relate this process and summarize how it can affect the aquatic ecosystem.	[CLO1, PLO7, C2]	2
	(c)	Apply two strategies from an Air Quality Management Plan to reduce air pollution in an urban area.	[CLO1, PLO7, C3]	2
3	(a)	A glass greenhouse allows solar radiation to enter but restricts the escape of heat. Outline the mechanism of greenhouse effect on earth.	[CLO1, PLO7, C2]	2
	(b)	Analyze how the elevated greenhouse effect may affect food security in Bangladesh.	[CLO1, PLO7, C4]	3
4	(a)	Explain the soda-lime treatment method for removing both temporary and permanent hardness of water, with appropriate chemical reactions.	[CLO2, PLO7, C5]	2
	(b)	Discuss the working principle of electrodialysis in water treatment and its practical applications.	[CLO2, PLO7, C6]	3
5	(a)	Design a flow diagram of a biological Effluent Treatment Plant (ETP), showing the major treatment stages in sequence.	[CLO2, PLO7, C6]	2
	(b)	Compare the limitations of biological and physicochemical effluent treatment of wastewater.	[CLO2, PLO7, C5]	3