Daffodil International University

Department of Genetic Engineering and Biotechnology
Faculty of Health and Life Sciences
B. Sc. (Hons.) in Genetic Engineering and Biotechnology
Midterm Examination Summer 2025

Course Code: 0512-1207
Level and Term: L-1, T-2
Time: 1 hour and 30 minutes

Section: 251 A, B

Course Title: Microbial Genetics
Course Teacher Initials: DJA
Total Marks: 25

Splitting any answer is strictly prohibited

				Marks
1	(a)	Illustrate a viral chromosome highlighting its major features.	[CLO1, PLO1, C2]	3
	(b)	State the purpose of studying microbial genetics.	[CLO1, PLO1, C1]	2
2		Define bacterial replication and diagrammatically show the bacterial chromosome replication process with brief explanation.	[CLO1, PLO1, C1]	5
3	(a)	What is plasmid? Summarize different types of plasmids.	[CLO2, PLO1, C1]	3
	(b)	Draw the conjugation of F plasmid with proper labelling.	[CLO2, PLO1, C2]	2
4	(a)	Discuss the techniques commonly used for the control of plasmid replication.	[CLO3, PLO1, C6]	3
	(b)	List different mechanisms of antibiotic resistance.	[CLO3, PLO1, C4]	2
5	(a)	What is the major difference between transfection and transduction?	[CLO4, PLO1, C1]	2
	(b)	Summarize the physical method of DNA transformation via electroporation in yeast.	[CLO4, PLO1, C2]	3