

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

Course Code:
GEB 0512-1101

Course Title: Introduction to Genetic Engineering and Biotechnology

Level and Term: L-1, T-1
Time: 02 Hours

Section: 251 A, B

Course Teacher Initials: KMH & DFB
Total Marks: 40

Splitting any answer is strictly prohibited

		Marks
1	(a) List the names of alcoholic and non-alcoholic beverages. [CLO3, PLO2, C4]	2
	(b) Explain the various applications of both alcoholic and non-alcoholic beverages. [CLO3, PLO2, C6]	3
	(c) Explain the types of biological sweeteners and state their applications. [CLO1, PLO2, C5]	3
2	(a) Identify the key biotechnological products derived from plants and crops and mention their uses. [CLO3, PLO2, C3]	5
	(b) Appraise and state the techniques of genetic manipulation of plants. [CLO3, PLO2, C4]	3
3	(a) Discuss the significance of animal production through biotechnology and genetic engineering and list the names of food and non-food products. [CLO3, PLO2, C2]	3
	(b) Briefly discuss the biotechnological methods in animal production. [CLO3, PLO2, C6]	5
4	(a) Define enzyme and enzyme technology providing suitable examples. [CLO3, PLO2, C2]	2
	(b) Mention the applications of enzymes in various industries. [CLO3, PLO2, C2]	2
	(c) Analyze biosensor technology and probiotics and state their applications. [CLO1, PLO2, C4]	4
5	(a) Demonstrate the concepts and principles of biosafety. [CLO4, PLO1, C2]	2
	(b) Classify sources of environmental pollution. [CLO4, PLO1, C4]	2
	(c) Elaborate biotechnological approaches in waste treatment. [CLO4, PLO2, C6]	4