



Department of Genetic Engineering and Biotechnology
Faculty of Health and Life Sciences
B. Sc. (Hons.) in Genetic Engineering and Biotechnology
Final Examination Spring 2026

Course Code: 0512-1204

Course Title: Introduction to Genetic Engineering
and Biotechnology

Level and Term: L1, T1

Section: 261A

Course Teacher Initials: M.A.R

Time: 2 Hours

Total Marks: 40

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|---|-----|--|-------------------|---|
| 1 | (a) | Define Food Biotechnology and its benefits. | [CLO1, PLO2, C1] | 3 |
| | (b) | Write the applications of biotechnology and genetic engineering to improve food quality. | [CLO1, PLO2, C4] | 5 |
| 2 | (a) | Mention the name of some biotechnological products manufactured from plants and crops. | [CLO2, PLO3, C1] | 4 |
| | (b) | List some plant-produced antibodies and pharmaceutical production in plants. | [CLO2, PLO4, C5] | 4 |
| 3 | (a) | Explain ATRYN goat and aqua-advantage salmon fish. | [CLO2, PLO4, C5] | 4 |
| | (b) | Outline some biotechnological methods for transgenic animal production. | [CLO2, PLO4, C2] | 4 |
| 4 | (a) | What is meant by enzyme technology? | [CLO3, PLO1, C2] | 4 |
| | (b) | Identify the applications of biosensors. | [CLO3, PLO1, C3] | 4 |
| 5 | (a) | Compare conventional plant breeding and mutation breeding. | [CLO3, PLO10, C4] | 3 |
| | (b) | Discuss major types of biofertilizers and their roles in crop improvement. | [CLO3, PLO10, C6] | 5 |