



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

Course Code: 0512-2205
Level and Term: L2, T2
Time: 02 Hours

Section: 251A+B

Course Title: Animal Cell Technology
Course Teacher Initials: SBN
Total Marks: 40

Answer the following questions.

Marks

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|---|--|------------------|---|
| 1 | (a) Differentiate between adherent and suspension culture. | [CLO1, PLO1, C4] | 3 |
| | (b) Describe the key components of animal cell culture environment. | [CLO1, PLO1, C2] | 5 |
| 2 | (a) How animal Tissue can be disaggregated? Illustrate the Warm Trypsinization method. | [CLO1, PLO2, C4] | 5 |
| | (b) Give an overview on types of primary culture diagrammatically. | [CLO2, PLO2, C2] | 3 |
| 3 | (a) Define cell line. Discuss the types of cell lines. | [CLO2, PLO2, C6] | 4 |
| | (b) Briefly describe how can you culture chicken embryo fibroblast. | [CLO2, PLO1, C2] | 4 |
| 4 | (a) List the applications of animal cell lines. | [CLO3, PLO2, C4] | 3 |
| | (b) Explain the technique of tumor tissue culture. | [CLO2, PLO2, C5] | 5 |
| 5 | (a) Define 3D cell culture. What are the types of 3D cell culture? | [CLO2, PLO1, C1] | 3 |
| | (b) Analyze when the culture medium should be replaced during animal cell culture. What are the reasons of freezing the animal cell? | [CLO1, PLO1, C4] | 5 |