



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

Course Code: 0512-1203  
Level and Term: L1, T2  
Time: 1 Hour 30 Minutes

Section: 252 (A+B)

Course Title: Basic Microbiology  
Course Teacher Initials: DSR & DNH  
Total Marks: 25

**Splitting any answer is strictly prohibited**

- |   |  | Marks |
|---|--|-------|
| 1 | (a) Define Microorganism and Microbiology. [CLO1, PLO2, C1]  | 2     |
|   | (b) Write the contributions of Antonie van Leeuwenhoek, Luis Pasteur, Edward Jenner, and Alexander Fleming in microbiology. [CLO1, PLO2, C1] | 3     |
| 2 | (a) Explain the main principles of the Germ Theory of Disease. [CLO1, PLO1, C2]  | 3     |
|   | (b) Write a short note on the scope of environmental microbiology. [CLO2, PLO1, C3]  | 2     |
| 3 | (a) Name the major types of microorganisms. [CLO2, PLO1, C2]   | 1     |
|   | (b) State the key features of bacteria with structure. [CLO1, PLO2, C2]  | 4     |
| 4 | (a) What are viroids and prions? [CLO1, PLO1, C2]  | 2     |
|   | (b) Illustrate the structure of a virus and describe the key characteristics of viruses. [CLO1, PLO2, C2]                                    | 3     |
| 5 | (a) Discuss the classification of microorganisms based on temperature. [CLO2, PLO2, C2]  | 3     |
|   | (b) Write the application of microorganisms in the field of Biotechnology. [CLO2, PLO2, C2]  | 2     |