



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

Course Code: 0512-1203

Level and Term: L1, T2

Time: 1 Hour 30 minutes

Section: 253 (A+B)

Course Title: Basic Microbiology

Course Teacher Initials: DNH

Total Marks: 25

- | | | | Marks |
|---|--|------------------|-------|
| 1 | (a) Define a microorganism. Explain the Germ Theory of Disease. | [CLO1, PLO2, C1] | 3.5 |
| | (b) Describe the innovative applications of microbiology in various fields. | [CLO1, PLO2, C3] | 1.5 |
| 2 | (a) What are archaeobacteria? Explain the key characteristics of Archaeobacteria. | [CLO1, PLO1, C5] | 3 |
| | (b) Differentiate between viroids and prions in respect of their structure and composition. | [CLO2, PLO1, C4] | 2 |
| 3 | (a) Classify microorganisms based on their nutrient sources. Provide appropriate example for each category. | [CLO2, PLO1, C2] | 4 |
| | (b) Define halotolerant microorganisms and cite a suitable example. | [CLO1, PLO2, C1] | 1 |
| 4 | (a) What are pleomorphic bacteria? | [CLO1, PLO1, C1] | 1 |
| | (b) Describe the structure of a bacterial cell with a labeled diagram and explain the functions of its major components. | [CLO1, PLO2, C6] | 4 |
| 5 | (a) Classify bacteria based on their shape. Explain different types rod-shaped bacteria. | [CLO2, PLO2, C2] | 3 |
| | (b) Discuss the scope of medical and industrial microbiology in modern science and technology. | [CLO2, PLO2, C6] | 2 |