

B.Sc. Semester - 1 (NEP-2020) Examination

OCT/NOV-2025

MIC: Microbiology in Everyday Life (Multidisciplinary Course)

Time: 2:00 Hours

Marks:50

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate marks.

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- Que.1 1) Define microbiology and discuss its scope in modern science. (05)
2) Outline the brief history of microbiology highlighting key discoveries. (05)

OR

- Que.1 1) Explain the importance of microorganisms in different fields of life. (05)
2) Explain the nutritional requirements of microorganisms. (05)

- Que.2 1) Explain the processes of biodegradation and bioremediation. (05)
2) Describe the role and mechanisms of plant growth-promoting rhizobacteria (PGPR). (05)

OR

- Que.2 1) Define biofertilizers and explain their types and advantages. (05)
2) What are biopesticides? Describe their types and mode of action. (05)

- Que.3 1) Discuss the role of microorganisms in the food industry. (05)
2) Explain the causes and types of microbial spoilage of food. (05)

OR

- Que.3 1) Define probiotics and describe their importance in functional foods. (05)
2) Discuss the microbial production and significance of antibiotics. (05)

- Que.4 1) Define normal flora and explain its role in maintaining human health. (05)
2) Differentiate between normal flora and pathogens with suitable examples. (05)

OR

- Que.4 1) Explain the characteristics and transmission of water-borne infections. (05)
2) Discuss common airborne infections and their modes of spread. (05)

- Que.5 Write the short note on: (10)

- 1) Discuss various methods used for cultivation of microorganisms.
- 2) Explain the concept of plant-microbe interactions with suitable examples.

OR

- 1) Explain the production and applications of vaccines and interferons.
- 2) Discuss the importance of personal hygiene in preventing infectious diseases.
