

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

OCT/NOV-2024

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 historical development and key milestones. (05)
 - 2) Describe the main groups of microorganisms, providing examples of each. (05)
- OR
- 1) Discuss the nutritional requirements of microorganisms. (05)
 - 2) Explain the different cultivation techniques for microorganisms. (05)
- Que-2**
- 1) What are Plant Growth-Promoting Rhizobacteria (PGPR), and how do they benefit plants? (05)
 - 2) Briefly describe the process of biodegradation and its importance in environmental management. (05)
- OR
- 1) Define biofertilizers and discuss one advantage they have over chemical fertilizers. (05)
 - 2) What is bioremediation, and how is it used to address environmental pollution? (05)
- Que-3**
- 1) How do microbes contribute to food spoilage, and what are some common signs of microbial spoilage? (05)
 - 2) Explain the role of microorganisms in the production of alcoholic beverages. (05)
- OR
- 1) What is an antibiotic, and how do microbes play a role in its production? (05)
 - 2) Define antibodies and discuss their importance in fighting infections. (05)
- Que-4**
- 1) What is the normal flora, and how does it contribute to human health? (05)
 - 2) Provide examples of infections caused by direct contact and discuss how they can be prevented. (05)
- OR
- 1) What are foodborne infections, and what measures can be taken to prevent them? (05)
 - 2) Explain the importance of personal hygiene in preventing infections and promoting overall health. (05)
- Que-5 Write the short note on:** (10)
- 1) Explain the scope of microbiology.
 - 2) What are biopesticides, and how do they help in sustainable agriculture?
- OR
- 1) Define probiotics and discuss one health benefit they provide as functional foods.
 - 2) List two common waterborne infections and describe their modes of transmission.
