

B.Sc. Semester - 3 (NEP-2020) Examination**OCT/NOV-2024****MIC: Microbiological Analysis of Air, Water & Soil to Pollution Control
(Skill Enhancement Course)****Time: 1:00 Hours****Marks: 25****Instructions:**

1. All questions are compulsory.
 2. Figures to the right indicate marks.
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Que-1 Answer the following questions. (10)

- 1) How can bioaerosols impact environmental ecosystems?
- 2) Name two common types of airborne bacteria and describe one way they can impact human health.

OR

- 1) Describe the presumptive Most Probable Number (MPN) test for detecting coliforms in water and explain what a positive result indicates.
- 2) Explain how the membrane filter technique is used to detect microbial contamination in water and mention one advantage of this method.

Que-2 Answer the following questions. (10)

- 1) Describe how UV light inactivates bioaerosols and mention one advantage and one limitation of this method.
- 2) How does chemical disinfection work to inactivate bioaerosols? Provide an example of a commonly used disinfectant.

OR

- 1) Describe the role of identification techniques in studying soil pathogens and mention one method used to identify soil microorganisms.
- 2) Describe a common method for collecting soil samples for microbial analysis and discuss why sample depth is important.

Que- 3 Explain: Presence/absence tests (05)

OR

Write five names of Soil borne pathogens.
