

B.Sc. Semester - 4 (NEP-2020) Examination

March/April-2026

Microbial Products: Bio-Fertilizer & Bio-Pesticides (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 1) Explain the symbiotic relationship between Rhizobium and leguminous plants. (05)
- 2) Define non-symbiotic nitrogen fixers and mention their importance in (05)
 agriculture

OR

- Que. 1 1) Describe the isolation and characteristics of Frankia. (05)
- 2) Describe the isolation and characterization of cyanobacteria used as (05)
 biofertilizers.
- Que. 2 1) Define phosphate solubilizing microorganisms (PSMs) and mention their (05)
 agricultural importance.
- 2) Define bioinsecticides and explain their advantages over synthetic pesticides. (05)

OR

- Que. 2 1) Explain the importance of mycorrhizal inoculum in sustainable agriculture. (05)
- 2) Give a general account of microbes used as bioinsecticides. (05)
- Que. 3 1) Define biofertilizers and mention their advantages over chemical fertilizers. (05)

OR

- 1) Explain the production methods of *Bacillus thuringiensis* bioinsecticide.
