



RAN-2503000504026001

S. Y. B. Sc. Microbiology Sem-IV Examination September - 2025

MB-MJ-402: Microbial Ecosystems

Time: 1 Hour]

[Total Marks: 25

સૂચના : / Instructions

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નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the details of signs on your answer book

Name of the Examination:

S. Y. B. Sc. Microbiology Sem-IV

Name of the Subject :

MB-MJ-402: Microbial Ecosystems

Subject Code No.: **2503000504026001**

Seat No.:

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Student's Signature

- (1) Figures to the right indicate full marks of the question.
- (2) Draw neat and labeled diagrams whenever necessary.

Q.1. Answer in short (any 5):

(05)

1. Enlist one example of each:
 - a. Aerobic N_2 fixers
 - b. Anaerobic N_2 fixers
2. Define: Coevolution.
3. State one example of host & microbes showing cooperation type of interactions.
4. Elaborate term “fertility of oceans”.
5. State one difference between Epiphytes and Endophytes.
6. Give two examples of organism performing Nitrification process.

Q.2. Answer the following (any 2):

(10)

1. Explain how microorganisms contribute to Sulphur cycle in ecosystem?
2. Discuss nonobligatory positive interaction between host and microbes.
3. Explain Predation with examples in detail.

Q.3. Answer the following (any 2):

(10)

1. Discuss role of aquatic microbes in ecosystem.
 2. Explain Arbuscular mycorrhizae in detail.
 3. Explain various signaling molecules and genes involved in formation of infection thread during nitrogen fixation.
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