



RAN-2303080603030003

M.Sc (Sem. - III) Examination October - 2025

Microbiology (Papper - MB 3003) Agricultural Microbiology

Time: 3 Hours]

[Total Marks: 70

સૂચના : / Instructions

- (1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

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Student's Signature

- Q.1. Answer any 2 of the following 18**
1. Explain factors influencing microbial population in soil. Discuss carbon cycle in detail.
 2. Elaborate on microbial diversity with respect to soil ecology.
 3. Explain properties of soil and decomposition of organic matter in soil.
- Q.2. Answer any 2 of the following 18**
1. What is neutralism. Explain symbiosis Vs synergism.
 2. Write a note on Mycorrhizae.
 3. Describe mass scale production and quality control of bio inoculants.
- Q.3. Answer any 2 of the following 18**
1. What is infectious cycle with respect to plant pathogenicity? Explain physiology of parasitism.
 2. Describe Bacterial Vs Fungal diseases.
 3. Elaborate on factors affecting disease incidence in plants and their control measures.
- Q.4. Answer any 2 of the following 16**
1. Explain phenotypic identification of soil microbial communities in detail.
 2. Compare and contrast among AFLP, RAPD and RFLP.
 3. Explain phylogenetic marker and enrichment methods used in identification of microbial communities.