2303080603030003
Examination March 2024
MASTER OF SCIENCE (MICROBIOLOGY) (THIRD SEMESTER)
AGRICULTURAL MICROBIOLOGY

[Time: Three Hours] **[Max. Marks: 70]**

Instructions:
1. Fill up strictly the following details on your answer book
   a. Name of the Examination : **MASTER OF SCIENCE (MICROBIOLOGY) (THIRD SEMESTER)**
   b. Name of the Subject : **AGRICULTURAL MICROBIOLOGY**
   c. Subject Code No : **2303080603030003**
2. Sketch neat and labelled diagram wherever necessary.
3. Figures to the right indicate full marks of the question.
4. All questions are compulsory.

Seat No:

Student's Signature

Q.1 **Answer any 2 of the following** **18**

1. Define biogeochemical cycling. Explain any 2 cycle in detail

2. Elaborate on factor influencing soil microbial population and properties of soil.

3. Short note on A) Role of microorganism in soil aggregation B) Microbial biodiversity

Q.2 **Answer any 2 of the following** **18**

1. Write a note on A) Spermosphere B) Rhizoplane.

2. Explain any 2 microbial interactions among microbes in detail and also state its importance.

3. Explain Mycorhizzae in detail

Q.3 **Answer any 2 of the following** **18**

1. Explain prediction of microbial species and emphasise on microbiome disease.

2. Short note on: Factors affecting disease incidence and its control measures

3. What are biocontrol agents? Explain physiology of parasitism.

Q.4 Answer any 2 of the following **16**

1. State the fullform of MLVA. Explain G+C content of molecular approach for identification of soil microorganisms.

2. Explain the Study of unculturable communities and its importance.

3. Write a note on FISH.

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