

4631

4

5. How does Cyanobacteria play a role in the fixation of nitrogen? Describe in brief the role of Cyanobacteria in rice cultivation. (15)

(100)

[This question paper contains 4 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 4631

J

Unique Paper Code : 2164001002

Name of the Paper : Biofertilizers

Name of the Course : Botany-GE

Semester : IV

Duration : 2 Hours

Maximum Marks : 60

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt any **four** questions in all.
3. Question no. 1 is compulsory.
4. Attempt all parts of a question together

1. A) Match the following: (5x1=5)

- | | | |
|----|---------------------|----------------------------|
| a) | Microbial inoculant | (1) Sun hemp |
| b) | Rhizobium | (2) <i>Azospirillum</i> |
| c) | Green manure | (3) Gram negative bacteria |

P.T.O.

4631

2

d) Actinorhiza (4) *Trichoderma harzianum*

e) Bio-fungicide (5) *Frankia*

B) Write the full form of the following: (5x1=5)

- a) ISI
- b) VAM
- c) CFU
- d) PSB
- e) PGPR

C) Define the following: (5x1=5)

- a) Broth culture
- b) Biocontrol
- c) Organic farming
- d) Pot culture
- e) Mutualism

2. Differentiate between: (Any three) (3x5=15)

4631

3

a) Chemical fertilizers and Biofertilizers.

b) Vermicomposting and Bio-composting.

c) Ectomycorrhiza and Endomycorrhiza

d) Macro and Micronutrient of plants

3. Answer any two: (7.5x2=15)

- a) Explain the method of isolation of arbuscular mycorrhiza fungi (AMF).using wet-sieving method.
- b) Give a brief account of the scope of Biofertilizers.
- c) What are the conditions required for getting biofertilizers certified with ISI mark?

4. Answer any two: (7.5x2=15)

- a) How can the biodegradable domestic wastes be managed into a usable form? Discuss in brief.
- b) Write down the uses and application of *Anabaena* in agriculture.
- c) Give a detailed account of one of the methods used in root culture for inoculum production.

P.T.O.