

5161

4

- (b) What is organic farming? Enlist the various methods and write their advantages. (6)

(300)

[This question paper contains 4 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 5161 L

Unique Paper Code : 2534001204

Name of the Paper : Fundamentals of Agricultural Microbiology

Name of the Course : Microbiology

Semester : VIII (Part 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 **five** questions in all.
3. **All** questions carry equal marks.
4. Attempt **all** parts of a question together.

P.T.O.

5161

2

1. (a) Write briefly about the following :

(i) Organic matter decomposition

(ii) *Azolla*- *Anabctena* association (4×2=8)

(b) Explain how soil pH and capillary action influence plant growth. (4)

2. (a) With the help of suitable diagrams describe nodule formation in a leguminous plant. (6)

(b) What are the different types of mycorrhiza? How are mycorrhizal associations beneficial to plants? (6)

3. (a) Describe the different methods of composting. (6)

(b) Explain how leaf impression method is used to isolate phylloplane micro-organisms. (6)

5161

3

4. (a) Write the applications of *Trichoderma* as a biocontrol agent. (4)

(b) Explain how quality testing for biofertilizers is done? (6)

(c) Give an example of each of the following :

(i) Algal biofertilizer

(ii) Bacterial biocontrol agent (1×2=2)

5. (a) Describe the mass production and methods of application of any one bacterial biofertilizer. (7)

(b) Describe any one method used to determine texture of soil. (5)

6. (a) Highlight the role of free living and symbiotic nitrogen fixers as biofertilizers in agriculture. (6)

P.T.O.