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- (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 : 5428 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.

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1. (a) Write brief notes on the following :

(i) *Azolla-Anabaena* association

(ii) Organic matter decomposition (4×2=8)

(b) Explain how soil texture influences water holding capacity and percolation of soil. (4)

2. (a) Explain how phylloplane microbes are isolated by leaf impression method. (6)

(b) What are mycorrhiza? How they are beneficial to plants? (6)

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

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

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

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

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

(i) Fungal biocontrol agent

(ii) Algal biofertilizer (1×2=2)

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

(b) Describe the mass production and methods of application of any bacterial biofertilizer. (7)

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

P.T.O.