**Dr. V. S. KRISHNA GOVT. DEGREE COLLEGE (AUTONOMOUS)**

**MADDILAPALEM, VISAKHAPATNAM**

**B.Sc. MICROBIOLOBY (CBCS) FINAL YEAR; SEMESTER – V/VI (W.E.F. 2022-23)**

 **COURSE- 6A AGRICULTURAL AND ENVIRONMENTAL MICROBIOLOGY**

**Model Paper**

**Max Marks: 75 Time: 3 hours**

**SECTION –A**

Answer ALL questions (Draw the diagrams wherever necessary) (5 x 10 = 50 M)

1. a) Write about the biological nitrogen fixation.

 (Or)

1. b) Write about the applications of Ectomycorrhiza and VAM.

2. a) Explain the plant – microbialinteractions with examples.

(Or)

2. b) Write about the beneficial microorganisms in Agriculture.

3. a) Write about the various microbial diseases ofPlants.

(Or)

3. b) Explain the symptoms of plant diseases caused by fungi and bacteria.

4. a) Write about the microflora of Aquatic Environment.

(Or)

4. b) Explain the Nitrogen cycling in atmosphere.

5. a) Write about the various steps in sewage treatment method in detail.

(Or)

5. b) Write about the treatment of drinking water.

**SECTION –B**

**Answer any FIVE questions (Draw the diagrams wherever necessary)** **5 x 5 = 25 M**

6. Microbial groups in soil

7. Microbes in composting

8. Microbial insecticides

9. Tomato leaf curl – symptoms and pathogen control

10. Soil profile

11. Phosphorus cycle

12. Landfill

13. BOD

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**COURSE - 6AAGRICULTURAL AND ENVIRONMENTAL MICROBIOLOGY**

**BLUE PRINT FOR QUESTION PAPER SETTER**

|  |  |  |  |
| --- | --- | --- | --- |
| **Units** | **10 M Questions** | **5 M Questions** | **Marks allotted to the Unit** |
| Unit 1 | 2 | 2 | 30 |
| Unit 2 | 2 | 1 | 25 |
| Unit 3 | 2 | 1 | 25 |
| Unit 4 | 2 | 2 | 30 |
| Unit 5 | 2 | 2 | 30 |
| Total No. of Questions | 10 | 08 | 140 |

**Note:**

1. The question paper setter are requested to kindly adhere to the format given in the above table.

2. The question paper setter are also requested to set the questions in the following way:

a. 70 % of questions – Remembering and Understanding type questions

b. 30 % of questions – Applying, Evaluating, Analyzing and Creating type questions