

QP Code : P24A035

Reg. No : .....

Name : .....

**ST MARY'S COLLEGE (AUTONOMOUS), THRISSUR-20**

**I SEMESTER M.Sc. (CBCSS-PG) DEGREE EXAMINATION, November 2024**

**M.Sc Microbiology**

**MBG1C04 : Agricultural Microbiology and Plant Pathology**

**2024 Admission Onwards**

**Time : 3 Hours**

**Maximum Weightage : 30**

**Part A**

*Short answer type questions: Answer **any four** questions. Weightage 2 for each question*

1. What are biofertilizers? [BTL1]
2. Define SAR and ISR. [BTL2]
3. What is disease pyramid? [BTL2]
4. What is the impact of Potato cyst nematode on the growth and productivity of the plant? [BTL4]
5. What is the etiology of BLB of rice? [BTL2]
6. Analyze the role of gut microbiota in termite nutrition and digestion. [BTL4]
7. Comment on the importance of *Plasmopara viticola*. [BTL1]

**(4x2 = 8 Weightage)**

**Part B**

*Short essay-type questions: Answer **any four** questions. Weightage 3 for each question*

8. In what ways might you utilize GM crops to develop a sustainable agricultural system with reduced chemical inputs? [BTL4]
9. Identify the role of Azotobacter as a biofertilizer. [BTL3]
10. How would you apply your understanding of endomycorrhizae as a biofertilizer to enhance soil health and crop productivity in sustainable farming practices? [BTL3]
11. Explain about the symptoms, epidemiology and control of Early blight of potato. [BTL4]
12. What is phylloplane microflora? illustrate it's significance on plant growth. [BTL5]
13. Identify the mycoplasmal infections of plants with suitable examples. [BTL3]
14. Assess the importance and applications of Ti plasmid. [BTL5]

**(4x3 = 12 Weightage)**

**Turn Over**

**Part C**

*Essay-type questions: Answer **any two** questions. Weightage 5 for each question*

- 15. Elaborate the symptoms, causative organism, etiology and control of Banana bunchy top disease. [BTL2]
- 16. Discuss various beneficial plant microbe interactions. [BTL1]
- 17. Identify various biopesticides and examine the use of bacteria and fungi as biopesticides. [BTL3]
- 18. Examine in detail the etiology, symptoms, epidemiology and control of Citrus canker [BTL4]

**(2x5 = 10 Weightage)**

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