

24U218

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Name :

Reg. No :

SECOND SEMESTER UG DEGREE EXAMINATION, APRIL 2025

(FYUGP)

CC24UBOT2MN100 - MICROBIAL DIVERSITY AND PHYTOPATHOLOGY

(Botany - Minor Course)

(2024 Admission - Regular)

Time: 2.0 Hours

Maximum: 70 Marks

Credit: 4

Part A (Short answer questions)

Answer *all* questions. Each question carries 3 marks.

1. Describe the key features of the COVID-19 pathogen. [Level:2] [CO1]
2. Explain capsomeres. [Level:2] [CO1]
3. Explain thermophiles. [Level:2] [CO2]
4. Describe the structure of mesosomes in bacterial cells. [Level:2] [CO2]
5. Explain the significance of pili in bacterial conjugation. [Level:2] [CO2]
6. Summarise the effect of any three types antibiotics. [Level:2] [CO2]
7. Explain probiotics and its types. [Level:2] [CO3]
8. Describe gene therapy. [Level:2] [CO3]
9. Describe the role of phytoalexins in plant immunity. [Level:2] [CO4]
10. Describe any three cultural practices used in disease management. [Level:2] [CO4]

(Ceiling: 24 Marks)

Part B (Paragraph questions/Problem)

Answer *all* questions. Each question carries 6 marks.

11. Explain the evolutionary significance of Whittaker's classification. [Level:2] [CO1]
12. Discuss the key structural differences between T4 bacteriophages, prions, and Mycoplasma. [Level:2] [CO1]
13. Explain serial dilution and the process of serial dilution. [Level:2] [CO2]
14. Explain the ultrastructure of bacteria. [Level:2] [CO2]
15. Explain the phases of the bacterial growth curve. [Level:2] [CO2]
16. Describe bioaugmentation and its key aspect in environmental remediation. [Level:2] [CO3]

17. Explain the importance of micro organisms in agriculture. [Level:2] [CO3]

18. Describe the causative organism, symptoms and management of Quick wilt of pepper. [Level:2] [CO4]

(Ceiling: 36 Marks)

Part C (Essay questions)

Answer any **one** question. The question carries 10 marks.

19. Explain the structure of gram positive and gram negative bacteria. Give the difference in their cell wall. [Level:2] [CO2]

20. Explain the symptoms of fungal and viral plant diseases on plant health. [Level:2] [CO4]

(1 × 10 = 10 Marks)
