

M. Sc. DEGREE END SEMESTER EXAMINATION - NOVEMBER 2024**SEMESTER 1 : BOTANY****COURSE : 24P1BOTT02 : MYCOLOGY AND PLANT PATHOGEN INTERACTIONS***(For Regular - 2024 Admission)*

Duration : Three Hours

Max. Weights: 30

PART A**Answer any 8 questions****Weight: 1**

1. Write a note on anthracnose of mango. (U, CO 6)
2. Citing two specific examples describe how genetic engineering can be used to control plant diseases. (U, CO 5)
3. Differentiate Woronin bodies and Spitzenkorper. (U, CO 1, CO 2, CO 3)
4. Give an account on animate and inanimate agents on dissemination of plant diseases. (U, CO 4)
5. How plant viruses are disseminated and enters the host plants? (U, CO 5)
6. What is meant by hypersensitive defense resistance? Give its significance. (U, CO 5)
7. Explain the vegetative structure of basidiomycotina. (U, CO 1, CO 2, CO 3)
8. Hibbett et al., 2007 proposed a fungal classification, briefly explain its significances. (U, CO 1, CO 2)
9. Explain mutualism with an example in detail. (An, CO 4)
10. What are ectomycorrhiza? Give its significance. (A, CO 4)
(1 x 8 = 8)

PART B**Answer any 6 questions****Weights: 2**

11. Give an account of hyphal tip with a labelled diagram and add its significance? (U, CO 1, CO 2, CO 3)
12. Give an account of fungal parasites on plants. (U, CO 4)
13. Describes the modes of penetration by different groups of pathogens into plants. (U, CO 5)
14. Give a comparative note on asexual spores in mycelial fungi. (An, CO 1, CO 2, CO 3)
15. Describe the various stages in a parasexual cycle. (U, CO 1, CO 2, CO 3)
16. Write a short note on significance of ITS in fungi identification. (An, CO 1, CO 2, CO 3)
17. Explain the process of development of disease in plants. (U, CO 5)
18. Give a detailed account on causative organism, symptoms and control measures of diseases seen in spice crops. (A, CO 6)
(2 x 6 = 12)

PART C**Answer any 2 questions****Weights: 5**

19. Write an essay on disease management on crop plants. (An, CO 5)

20. Give an account of the spore bearing organs and their arrangements in major groups of true fungi with suitable examples. (A, CO 1, CO 2, CO 3, CO 4)
21. Write an essay on various associations formed by fungi, and their significance. (A, CO 4)
22. Explain various types of sexual reproduction in Ascomycotina with examples. Give appropriate diagrams. (U, CO 1, CO 2, CO 3)
(5 x 2 = 10)

OBE: Questions to Course Outcome Mapping

CO	Course Outcome Description	CL	Questions	Total Wt.
CO 1	Analyze the morphological diversity among different micro and macro fungi.	An	3, 7, 8, 11, 14, 15, 16, 20, 22	21
CO 2	Describe the principles behind the morphological and molecular classification systems and their applications.	A	3, 7, 8, 11, 14, 15, 16, 20, 22	21
CO 3	Examine the mycelial structure and reproductive system in fungi	An	3, 7, 11, 14, 15, 16, 20, 22	20
CO 4	Evaluate fungal associations, their usefulness and harmfulness	E	4, 9, 10, 12, 20, 21	15
CO 5	Explain the nuances of plant-pathogen interactions	An	2, 5, 6, 13, 17, 19	12
CO 6	Distinguish the Phytopathogens responsible for diseases and recommend the control measures.	E	1, 18	3

Cognitive Level (CL): Cr - CREATE; E - EVALUATE; An - ANALYZE; A - APPLY; U - UNDERSTAND; R - REMEMBER;