Reg. No ..... Name **25P118**

M. Sc. DEGREE END SEMESTER EXAMINATION - NOVEMBER 2025

SEMESTER 1 : BOTANY

COURSE : **24P1BOTT02 : MYCOLOGY AND PLANT PATHOGEN INTERACTIONS**

(For Regular - 2025 Admission and Improvement /Supplementary 2024 Admission)

Time : Three Hours Max. Weights: 30

PART A

Answer any 8 questions **Weight: 1**

1.	Phylogenetic affinity of Class Hydromyxomycetes are uncertain, explain.	(An, CO 1, CO 2, CO 3)
2.	Explain the sexual reproduction in yeast.	(U, CO 1, CO 2, CO 3)
3.	Expand AFTOL? Also mention the conventional fungal groups that excluded in AFTOL classification? Give the number of Phyla, subphyla and classes, outlined in the classification.	(A, CO 1, CO 2, CO 3)
4.	Describe the significance of VAM fungi. Give examples.	(U, CO 4)
5.	Differentiate horizontal and vertical resistance.	(U, CO 5)
6.	Briefly explain the significance of active and passive disease dissemination.	(An, CO 5, CO 6)
7.	Differentiate appressorium from haustorium.	(An, CO 5)
8.	Give the binomial of the pathogen. [a] Leaf spot of Chilly [b] Coffee rust [c] Wilt of Ginger [d] Grey leaf spot of Coconut	(R, CO 6)
9.	How do light and temperature affects the development of plant diseases?	(U)
10.	What are isidia? How is it differ from soredium?	(R, CO 4)

(1 x 8 = 8)

PART B

Answer any 6 questions **Weights: 2**

11.	Explain the fungal classification proposed by Ainsworth (1973).	(U, CO 1, CO 2, CO 3)
12.	Give an account of major parasitic oomycetes.	(A, CO 1, CO 2, CO 3)
13.	Briefly explain the different types of Mycorrhiza.	(U, CO 4)
14.	Explain the somatic structure and mode of reproduction in Myxomycetes.	(U, CO 1, CO 2, CO 3)
15.	Write an account on symptoms, causative organisms and control measures of diseases seen in vegetables.	(A, CO 6)
16.	What is heterothallism? State different types of heterothallism in fungi.	(A, CO 1, CO 2, CO 3)
17.	Give a detailed explanation on plant -pathogen interaction.	(U, CO 5)
18.	With suitable examples discuss the various means of dissemination of fungal pathogen and their mode of penetration into the host plants.	(U, CO 5)

(2 x 6 = 12)

PART C

Answer any 2 questions **Weights: 5**

19.	Describe the various modifications of hyphal types in fungi with proper diagrams and give its significances.	(A, CO 1, CO 2)
20.	Write an essay on chemical and biological means of disease control.	(A, CO 5)

21.	Explain the types of sexual and asexual fruiting structures in Ascomycetes.	(U, CO 1, CO 2, CO 3)
22.	Write a detailed note on the fungal parasites and fungal symbionts.	(An, CO 4)

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

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