

Total Pages-04

RNLKWC/M.Sc.-CBCS/IS/BOT/PG/103/22

2022

BOTANY

[P.G.]

(CBCS)

(M.Sc. First Semester End Examinations-2022)

PAPER-103

[Mycology and Plant Pathology]

Full Marks: 40

Time: 02 Hrs

The figures in the right hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

Illustrate the answers wherever necessary

[USE SEPERATE ANSWER SCRIPT FOR EACH GROUP]

Unit – I

[Mycology]

F.M. - 20

Group - A

- 1. Answer any four questions of the following: 4x1= 4**
- Whst is spitzencorper?
 - Name two genera that produce most of the mycotoxins.
 - Mention the group of fungi where cell wall material is not chitin.

(2)

- d) Name two members of ascomycetes that can cause human infection.
- e) What is dimorphic fungi?
- f) Name a fungi that can produce citric acid and alpha-amylase enzyme.

Group - B

2. Answer any two questions: 4x2= 8
- a) Distinguish between aflatoxin & phytoalexin.
 - b) Write a short note on heterothallism.
 - c) With the help of proper diagram, describe development and types of ascocarps.
 - d) Explain the process of cell division in growing mycelium in Basidiomycota.

Group - C

- e) Answer any one question 1x8= 8
- a) Give a detailed account of ochratoxin A and patulin.
4+4
 - b) With the help of proper diagram, explain the mechanism of basidiospore discharge.

(3)

Unit - II
[Plant Pathology]

F.M. - 20

Group - A

1. Answer any four questions of the following: 4x1= 4
- a) What is hypersensitive response?
 - b) What do you understand by PTI and ETI?
 - c) What is nurotroph?
 - d) Mention the name of two models to demonstrate the nature of recognition reaction and the expression of the defence reaction of plant pathogen?
 - e) What is Prophylaxis?
 - f) Mention the name of causal organism of the disease powdery mildew of peas?

Group - B

2. Answer any two questions: 4x2= 8
- a) Classify controlling measures of plant diseases and explain any one of this? 4
 - b) What is fungicide? Mention the composition of Bordeaux mixture. 1+3
 - c) Define disease triangle? Discuss its significance? 1+3

(4)

- d) Discuss the role of Ethylene as a growth regulator in host pathogen relationship? 4

Group – C

- 3. Answer any one question 1x8= 8**
- a) Write short note on (4+4)
- i) Disease forecasting and epidemiology
 - ii) Zigzag model of plant defense mechanism.
- b) What is SAR? Discuss the mechanism of SAR development in plant with suitable diagram. What is PR-protein? 1+6+1