

M. Sc. (Previous) Examination, 2001
BOTANY
Second Paper
(Mycology, Plant Pathology and Microbiology)

Time—Three Hours
Maximum Marks—100

Attempt **FIVE** questions in all,
selecting at least **TWO** questions from each section,
All questions carry equal marks.

SECTION A

1. Write a brief description of classification of Fungi. **20**

2. Give characteristics and classification of following fungal genera (Attempt any **Four**):—
 - (A) Sclerospora
 - (B) Erysiphe
 - (C) Phytophthora
 - (D) Alternaria
 - (E) Pilobolus**5+5+5+5=20**

3. Write short notes on any **FOUR** of the following:
 - (A) Lichens
 - (B) Parasexuality
 - (C) Economic importance of Fungi
 - (D) Heterothallism
 - (F) Myxomycetes.**5+5+5+5=20**

4. Describe the life cycle of a heteroecious rust fungus along with suitable diagrams. **20**

5. Differentiate between the following along with suitable diagrams:—
 - (A) Colletotrichum and Fusarium
 - (B) Melampsora and Phragmedium
 - (C) Uncinula and Phyllactinia
 - (D) Peronospora and Plasmopara.**5+5+5+5=20**

SECTION B

6. What do you understand by plant disease management?
Give a brief description of general methods of plant disease management. **5+15=20**
7. Write causal organism, disease symptoms and suitable control measures of following diseases (Attempt any **4**):—
(A) Blast of rice
(B) Smut of sugarcane
(C) Wilt of cotton
(D) Apple scab
(E) Downy mildew of grapes. **5+5+5+5=20**
8. Write disease symptoms, cause and management of following diseases:-
(A) Rice Tungro
(B) Little leaf of brinjal
(C) Sandle spike
(D) Bacterial blight of paddy. **5+5+5+5=20**
9. Write short notes on any **FOUR** of the following:
(A) Mycorrhizae
(B) Biological control of pathogens
(C) Use of microbes in medicine
(D) Immunity
(E) Reproduction in Bacteria. **5+5+5+5=20**
10. Write a brief account of different methods of transmission of plant viruses along with suitable examples. **20**