

Exam. Code : 210001

Subject Code : 5370

M.Sc. (Botany) I<sup>st</sup> Semester  
FUNGI & PLANT PATHOLOGY  
Paper—BOT-C-512

Time Allowed—3 Hours] [Maximum Marks—50

SECTION—A

**Note** :— Answer all parts. Your answer should not exceed  
4 lines each. 8×1=8

1. Pseudoplasmodium
2. Heterokaryosis
3. Appressorium
4. Heteroecious rusts
5. *Plasmodiophora*
6. Hymenium
7. Pathogenesis-related proteins
8. Name any two journals related to plant pathology.

SECTION—B

**Note** :— Attempt any **SEVEN** questions. Each question  
carries 3 marks. Your answer should not exceed  
2 pages. 7×3=21

1. Differentiate between cellular and plasmodial slime molds.

2. Explain the morphology and the process of reproduction in *Pilobolus*.
3. Briefly describe the structure and life history of *Protomyces macrosporus*.
4. Write a brief note on the asexual reproductive structures of Deuteromycetes.
5. What is epidemiology ? What are the various elements of a plant disease epidemic ?
6. With suitable diagrams, describe the symptoms and disease cycle of tikka disease of groundnut. Also, name the causal organism.
7. What is citrus canker ? Suggest various control measures for managing this disease.
8. Describe the major symptoms of viral diseases.
9. What is ectomycorrhizae ? Give two examples of ectomycorrhizal fungi.
10. What are Koch's postulates ?

### SECTION—C

**Note** :— Attempt any **THREE** questions. Each question carries 7 marks. Your answer should not exceed 4 pages.  $3 \times 7 = 21$

1. Enumerate the diagnostic features of the class Zygomycetes and explain the life cycle of *Pilobolus*.

2. Enumerate the characteristics features of the class Ascomycetes and explain the life cycle of *Venturia inaequalis*.
3. What are systemic infections ? Describe the symptomatology and management of bunchy top of banana disease.
4. What is disease forecasting ? Explain it with suitable examples.
5. Write briefly on the following :
  - (a) Sex hormones produced by fungi.
  - (b) Diagnostic features of Gasteromycetes.