

M.Sc. BOTANY  
FOURTH SEMESTER  
MYCOLOGY & PLANT PATHOLOGY  
MSB-402 F

**SET  
A**

[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 1hr. 30 mins.

Full Marks: 35

( Objective )

Time: 15 mins.

Marks: 10

Choose the correct answer from the following:

1 × 10 = 10

- The first event of plant disease cycle is:
  - Penetration
  - Inoculation
  - Dissemination
  - Invasion
- Blast of rice caused by the physiological effect of:
  - Vascular system
  - Respiration
  - Hormone
  - Translocation
- The antimicrobial substances secreted by the plants against the attack of plant pathogen is known as:
  - Phytoalexins
  - Mycotoxin
  - Endophytes
  - All of these
- Requiring many years to complete of life or disease cycle is referred to as:
  - Microcyclic
  - Macrocyclic
  - Polycyclic
  - Polyetic
- Bordeaux mixture was discovered by Millardet in year:
  - 1882
  - 1847
  - 1897
  - 1857
- Aeromycology is the study of:
  - Soil-borne fungi
  - Air-borne fungi
  - Seed-borne fungi
  - All of the above
- The disease caused by destruction of xylem vessels in plant is:
  - Aspergillus niger*
  - Trichoderma* sp
  - Sclerotium rolfsii*
  - None of these
- Which of the following factors are responsible for the spreading of plant diseases?
  - Air
  - Humidity
  - Rainfall
  - All of these
- The phytoalexin gossypol is secreted against the pathogen:
  - Verticillium alboratum*
  - Ascochyta blight*
  - Phytophthora infestans*
  - Monilinia fructicola*

10. What is the main function of mycorrhizal fungi in plant growth?
- a. Nitrogen fixation
  - b. Phosphorus uptake
  - c. Water absorption
  - d. Pollination

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**( Descriptive )**

Time : 1 hr. 15 mins.

Marks : 25

[ Answer question no.1 & any two (2) from the rest ]

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| 1. Write a short note on genetics of virulence in plant pathology.                               | 5  |
| 2. Write briefly some important plant diseases of NE India.                                      | 10 |
| 3. Discuss briefly the any four changes in host physiology in plants due to attack of pathogens. | 10 |
| 4. Write short notes on mycorrhiza and its importance in crop improvement.                       | 10 |
| 5. Discuss the role of enzymes and toxins in plant pathogenesis.                                 | 10 |

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