

**M.Sc. BOTANY**  
**FOURTH SEMESTER**  
**MYCOLOGY & PLANT PATHOLOGY**  
**MSB-402 F**  
[USE OMR SHEET FOR OBJECTIVE PART]

**SET**  
**A**

Duration: 3 hrs.

Full Marks: 70

Time: 30 mins.

( Objective )

Marks: 20

Choose the correct answer from the following:

1 × 20 = 20

- Blight of chickpea is caused by:
  - Ascochyta rubiei*
  - Blumeria* sp.
  - Botrytis cinerea*
  - Xanthomonas uppaii*
- The fungi *Sclerotium rolfsii* causing Collar rot disease in:
  - Cajanus cajan*
  - Cicer arietinum*
  - Secale cereale*
  - Lens culinaris*
- Exclusion of plant disease by legislation is known as:
  - Disease resistance
  - Plant quarantine
  - Biological control
  - Integrated Disease Management
- Aflatoxins are more carcinogenic toxins which are produced by:
  - Thombogillus*
  - Aspergillus*
  - Penicillium*
  - Fusarium*
- The total number of spores present in Ascomycetes is:
  - Two
  - Four
  - Eight
  - Six
- One example of poisonous mushroom is:
  - Agaricus* sp.
  - Amanita* sp.
  - Boletus* sp.
  - Cantharellus* sp.
- Victorin toxic produced by:
  - Cercospora* sp.
  - Alternaria* sp.
  - Cochilobolus victoriae*
  - Aspergillus* sp.
- Gossypol is secreted by the host:
  - Pisum satioum*
  - Gossypium* sp.
  - Ceratocystis paradoxa*
  - Ustilago scitaminea*
- Which of the given disease is related to Sugarcane?
  - Ergot
  - Canker
  - Red rot
  - Late blight
- IPM stands for:
  - Integrated plant management
  - International plant management
  - Integrated pest management
  - All of these

11. Orellanin toxin is produced by:  
 a. *Conocybe filaris*  
 c. *Amanita* sp.  
 b. *Cortinarius* sp.  
 d. *Lepiota* sp.
12. Ergot of rye is caused by a species of:  
 a. *Claviceps* sp  
 c. *Puccinia* asp.  
 b. *Phytophthora* sp  
 d. None of the above.
13. 'Red rust of tea' is caused by:  
 a. Fungi  
 c. Algae  
 b. Nematode  
 d. Bryophytes
14. Smut of wheat is caused by:  
 a. *Fusarium* sp.  
 c. *Penicillium* sp  
 b. *Ustilago tritici*  
 d. *Mucor* sp.
15. Leaf spot of Turmeric is caused by:  
 a. *Colletotrichum capsici*  
 c. *Rhizopus* sp.  
 b. *Aspergillus* sp.  
 d. *Alternaria* sp.
16. The pathogen which spread internally throughout the host shows:  
 a. Resistance  
 c. Perennation  
 b. Systematic invasion  
 d. Localized invasion
17. Tentoxin is produced by:  
 a. *Phytophthora infestans*  
 c. *Trichoderma* sp.  
 b. *Alternaria alternata*  
 d. *Fusarium* sp.
18. Ectomycorrhiza is characterized by the presence of:  
 a. Vesicles  
 c. Hartig nets  
 b. Arbuscules  
 d. None of these
19. The antimicrobial substances secreted by the plants against the attack of plant pathogen is known as:  
 a. Phytoalexins  
 c. Endophytes  
 b. Mycotoxin  
 d. All of these
20. *Magnaporthe oryzae* is a causal organism of:  
 a. Citrus Canker  
 c. Leaf spot of crucifers  
 b. Rust of groundnut  
 d. Blast disease of rice

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**(Descriptive)**

Time : 2 hr. 30 mins.

Marks : 50

[ Answer question no.1 & any four (4) from the rest ]

1. Write a brief note on Koch's postulates and Germ theory of disease. 5+5=10
2. Write a brief note on Holomorph concept. Briefly discuss the Integrated Disease Management. 5+5=10
3. Briefly explain the causal organism, symptoms, management of downy mildew of grapes and anthracnose disease of Mango. 5+5=10
4. Briefly explain the causal organism, symptoms, management of various diseases of Sugarcane and Tea. 5+5=10
5. Write a brief note on edible and poisonous mushrooms. Discuss briefly the various steps of cultivation of Oyster Mushrooms. 3+7=10
6. Discuss the agricultural importance of Mycorrhiza. Write a short note on defense mechanism of plants against plant pathogen. 5+5=10
7. Write a brief note on role of fungi as pollution indicator. Write a short note on bacterial blight of Rice. 5+5=10
8. Write the factors and objectives of disease epidemiology. Write the symptoms, causal organism and management of any two diseases of wheat. 5+5=10

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