

**M.Sc. MICROBIOLOGY  
SECOND SEMESTER  
PHYCOLOGY AND MYCOLOGY  
MMB-202  
[USE OMR SHEET FOR OBJECTIVE PART]**

**SET  
A**

Duration: 3 hrs.

Full Marks: 70

Time: 30 mins.

Marks: 20

**( Objective )**

**Choose the correct answer from the following:**

**1 × 20 = 20**

1. Leaf like lichens are called:  
a. Crustose  
b. Foliose  
c. Fruticose  
d. None of the above
2. The female sex organ of ascolichen is known as:  
a. Ascogonium  
b. Asci  
c. Carpogonium  
d. Oogonium
3. The algal partner in Lichen is termed as:  
a. Phycobiont  
b. Mycobiont  
c. Mycelium  
d. Mycorrhiza
4. Early blight of potato is caused by:  
a. Clostridium  
b. Phytophthora  
c. Alternaria  
d. Aspergillus
5. Cell wall of fungi is made up of:  
a. Starch  
b. Polysaccharide  
c. Chitin  
d. Glucose
6. Sac like structures of ascomycetes is known as:  
a. Ascus  
b. Ascospores  
c. Ascogonium  
d. Carpogonium
7. Toadstools are included under:  
a. Ascomycetes  
b. Basidiomycetes  
c. Deuteromycetes  
d. Slime moulds
8. Posterior flagellum of oomycetes is \_\_\_\_\_ type.  
a. Tinsel  
b. Whiplash  
c. Needle  
d. None of the above
9. "Mykes" means:  
a. Mycology  
b. Fungus  
c. Mushroom  
d. Both b and c
10. \_\_\_\_\_ blocks xylem vessels in plants and causes wilting symptoms.  
a. Gum deposition  
b. Abscission layers  
c. Tyloses  
d. All of the above

11. Arrange Disease cycle in correct format.
- |   |   |
|---|---|
| a. Inoculation-penetration-infection-incubation-invasion-reproduction-dissemination-overwintering   | b. Penetration-inoculation-incubation-invasion-reproduction-dissemination-overwintering             |
| c. Invasion- Inoculation-penetration-infection-incubation- reproduction-dissemination-overwintering | d. Overwintering- invasion- Inoculation-penetration-infection-incubation-reproduction-dissemination |
12. "Target board effect" is related to:
- |             |                 |
|-------------|-----------------|
| a. Mucor    | b. Alternaria   |
| c. Puccinia | d. Phytophthora |
13. The symptom of red rot of sugarcane mostly found on:
- |          |                 |
|----------|-----------------|
| a. Leaf  | b. Stem         |
| c. Roots | d. Both a and b |
14. Agar-Agar is obtained from:
- |             |                 |
|-------------|-----------------|
| a. Gelidium | b. Polysiphonia |
| c. Fucus    | d. Laminaria    |
15. Irish Famine was associated with:
- |                          |                           |
|--------------------------|---------------------------|
| a. Wilt of arahar        | b. Early blight of potato |
| c. Late blight of potato | d. Red rot of sugarcane   |
16. Which one of the following is present in blue green algae?
- |                     |                          |
|---------------------|--------------------------|
| a. Starch           | b. Cyanophycean granules |
| c. Floridian starch | d. Any polysaccharide    |
17. Storage form of food in Red algae is:
- |                     |              |
|---------------------|--------------|
| a. Glycogen         | b. Laminarin |
| c. Floridean starch | d. Starch    |
18. Sexual reproduction in volvox is:
- |                |                     |
|----------------|---------------------|
| a. Oogamous    | b. Isogamous        |
| c. Anisogamous | d. All of the above |
19. There exists a close association between the algae and the fungus within a lichen. The fungus:
- |  |                                  |
|--|----------------------------------|
| a. Fixes the atmospheric nitrogen for the algae                | b. Releases oxygen for the algae |
| c. Provides protection, anchorage and absorption for the algae | d. Provides food for the algae   |
20. Common bread mould is:
- |             |                |
|-------------|----------------|
| a. Yeast    | b. Mucor       |
| c. Rhizopus | d. Aspergillus |

**( Descriptive )**

Time : 2 hr. 30 mins.

Marks : 50

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

1. Describe the life cycle of Zygomycetes with neat labelled diagram. 10
2. Draw a neat labelled diagram of a diatom cell. Discuss the vegetative reproduction in diatoms with neat diagram. 3+7=10
3. Describe briefly the Red rot of sugarcane with suitable diagrams. 10
4. Discuss the defence structures developed by tissues in plants after the attack of the pathogen with suitable diagrams. 10
5. Define Lichen. Write a note on specialized structures of lichen thallus with suitable diagrams. 2+8=10
6. Write short notes on: 5+5=10
  - a) General characteristic of Fungi
  - b) Clamp connections in basidiomycota
7. Write short notes on: 5+5=10
  - a) Fritsch classification of algae
  - b) General characteristics of algae
8. Define mycorrhiza. Describe the types with neat labelled diagrams. 1+7+2=10  
Draw the flow chart for mass production of mycorrhizal biofertiliser.

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