

REV-01
BMB/01/06

2023/01

**B.Sc. MICROBIOLOGY
FIRST SEMESTER (REPEAT)
PHYCOLOGY & MYCOLOGY
BMB-103
[USE OMR 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

- Genus *Penicillium* belong to the class:
 - Basidiomycetes
 - Ascomycetes
 - Phycomycetes
 - Deuteromycetes
- Sporangiospores of *Mucor* is:
 - Haploid
 - Diploid
 - Triploid
 - Polyploid
- Mucor* belongs to order:
 - Oomycetes
 - Zygomycetes
 - Mucoraceae
 - Mucorales
- Central part of the lichen thallus is called.....
 - Algal layer
 - Cortex
 - Medulla
 - None of these
-used for alcohol production.
 - Saccharomyces cerevisiae*
 - Bacillus subtilis*
 - Penicillium chrysogenum*
 - None of these
- Aflatoxin is produced by:
 - Alternaria* spp.
 - Penicillium* spp.
 - Aspergillus* spp.
 - None of these
- Common bread mould is.....
 - Yeast
 - Mucor*
 - Bacteria
 - Virus
- The algal partner of the lichen thallus is known as:
 - Mycobiont
 - Basidiobiont
 - Phycobiont
 - Lichenobiont
- Mycorrhiza is an association between roots of higher plant and fungus. It is an example of.....
 - Symbiosis
 - Myremecophilly
 - Helotism
 - Parasitism

10. Lichen show.....
- | | |
|---|--|
| a. Parasitic relation of fungi on algae | b. Mycorrhizal relationship of algae & Fungi |
| c. Symbiosis of algae & Fungi | d. Commensalism |
11. Algae used as biofertiliser:
- | | |
|--------------|-----------------|
| a. Rhizobium | b. Nostoc |
| c. Anabaena | d. Both b and c |
12. Fritsch classified algae into.....classes.
- | | |
|------|-------|
| a. 7 | b. 9 |
| c. 5 | d. 11 |
13. In algae, starch are stored in.....
- | | |
|------------------|--------------|
| a. Chromatophore | b. Pyrenoids |
| c. Cell wall | d. Rhizoids |
14. In Ectocarpus zoospores are produced in :
- | | |
|--|---------------|
| a. Globule | b. Nucule |
| c. Unilocular and plurilocular sporangia | d. Perizonium |
15. Pennales show:
- | | |
|-------------------------|--------------------|
| a. Bilateral symmetry | b. Radial symmetry |
| c. Only radial symmetry | d. Both a and b |
16. Who first coined the term algae?
- | | |
|-------------|------------|
| a. Linnaeus | b. Fritsch |
| c. Chapman | d. Singh |
17. The Spermocarp formation in Coleochaete is during:
- | | |
|--------------------------------|-------------------------|
| a. Fertilisation | b. Asexual reproduction |
| c. Before asexual reproduction | d. After fertilisation |
18. Storage form of food in Red algae is:
- | | |
|---------------------|--------------|
| a. Glycogen | b. Laminarin |
| c. Floridean starch | d. Starch |
19. A characteristic feature of thallophyta is:
- | | |
|--------------------------------|--------------------------------|
| a. Presence of embryonic stage | b. Absence of embryonic stage |
| c. Both a and b | d. Presence of vascular tissue |
20. The cell wall of..... made up of silica.
- | | |
|-----------------|-----------|
| a. Polysiphonia | b. Chara |
| c. Diatoms | d. Nostoc |

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(Descriptive)

Time : 2 hr. 30 mins.

Marks : 50

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

- | | |
|---|----------|
| 1. a) What are lichens? What are the types of lichens? | 2+3+5=10 |
| b) Briefly describe the thallus structure of lichens with diagram. | |
| 2. Discuss general characteristics of an algae. Write a short note on Rhodophyceae. | 5+5=10 |
| 3. a) Briefly discuss the economic importance of fungi. | 5+2+3=10 |
| b) What are mycotoxins? How can we minimise the risk from mycotoxins? | |
| 4. Mention the taxonomic position of <i>Penicillium</i> sp. Give a diagrammatic description of the life cycle of <i>P. vermiculatum</i> . | 5+5=10 |
| 5. Explain the different modes or reproduction and life cycle pattern in <i>Vaucheria</i> sp. | 10 |
| 6. Write short notes on: | 5+5=10 |
| a) Vegetative reproduction in chara | |
| b) Structure of Volvox | |
| 7. a) What is mucor? Write the characteristics of mucor. | 2+3+5=10 |
| b) Explain the sexual reproduction of mucor with diagram. | |
| 8. Write short notes on: | 5+5=10 |
| a) General characteristics of fungi. | |
| b) Heterothallism in Fungi. | |

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