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Code No. : 7836 **Sub. Code : WBOM 11/ VBOC 11**

M.Sc. (CBCS) DEGREE EXAMINATION, NOVEMBER 2024.

First Semester

Botany — Core

ALGAE, FUNGI, LICHENS AND BRYOPHYTES

(For those who joined in July 2023 onwards)

Time : Three hours Maximum : 75 marks

PART A — (15 × 1 = 15 marks)

Answer ALL questions.

Choose the correct answer :

1. The classes of algae is know for its red coloration due to the presence of phycoerythrins?

   (a) Chlorophyceae (b) Xanthophyceae

   (c) Rhodophyceae (d) Chrysophyceae

2. Algae characterized by the presence of chlorophyll a, d, phycoerthrin, and phycocyanin belong to?

   (a) Chlorophyta (b) Rhodophyta

   (c) Phaeophyta (d) Bacillariophyta

3. Which class of algae is rich in protein content?

   (a) *Ulothrix* (b) *Spirogyra*

   (c) *Chlorella* (d) *Nostoc*

4. The structure of fungi includes long thread-like structures known as

   (a) Hyphae (b) Mycelium

   (c) Spores (d) Nuclei

5. The class of fungi that includes water molds and downy molds and downy mildews

   (a) Mastigomycotina (b) Zygomycotina

   (c) Ascomycotina (d) Basidiomycotina

6. The class of fungi known for their asexual reproductive structure called conidia

   (a) Mastigomycotina (b) Zygomycotina

   (c) Ascomycotina (d) Deuteromycotina

7. The phycobiont in lichens is responsible for

(a) Providing the fungal partner with carbohydrates

(b) Providing the fungal partner protection

(c) Providing the fungal partner with minerals

(d) Providing the fungal partner with waste

8. The main function of the mycobiont in lichens is to

(a) Conduct photosynthesis

(b) Absorb water and minerals

(c) Facilitate reproduction

(d) Provide structural support

9. Ascoclichens reproduce through

(a) Ascospores (b) Basidiospores

(c) Conidia (d) Zoospores

10. Which genera exhibit unique structures and reproductive strategies?

(a) *Targionia and Lunularia*

(b) *Porella and polytrichum*

(c) All of the mentioned genera

(d) None of the mentioned genera

11. How do bryophytes ensure their life histories?

(a) Through vegetative propagation

(b) By producing abundant spores

(c) Both (a) and (b)

(d) None of the above

12. Which of the following genera is known for its specialized reproductive feature?

(a) *Targionia* (b) *Lunularia*

(c) *Porella* (d) *Polytrichum*

13. Algae species produces a neurotoxin causing the death of aquatic animals?

(a) *Chlorella* (b) *Gonyaulax*

(c) *Prototheca* (d) *Cephaleuros*

14. In which algal species is important for cervical dilation?

(a) *Laminaria japonica*

(b) *Gracilaria*

(c) *Chondrus*

(d) *Gonyaulax catenella*

15. The economic importance of lichen?

(a) Food industry (b) Horticulture

(c) Pollution indicator (d) All of the above

PART B — (5 × 4 = 20 marks)

Answer ALL questions, choosing either (a) or (b).
Each answer should not exceed 250 words.

16. (a) Describe the features of phaeophyceae.

Or

(b) Mention about reproduction in *Ulva.*

17. (a) Write on general characters of fungi.

Or

(b) Comment on heterothallism in fungi.

18. (a) Classify the Lichens.

Or

(b) Describe about mycobionts in lichens.

19. (a) List out the general characters of bryophytes.

Or

(b) Explain gemma cup in *Marchantiales.*

20. (a) Write notes on single cell protein.

Or

(b) Explain the production of biofuel from algae.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b)
Each answer should not exceed 600 words.

21. (a) Give an account on sexual reproduction in *Gracillaria.*

Or

(b) Describe thallus organization in charohyceae.

22. (a) Discuss on reproduction and life cycle of *Phytophthora.*

Or

(b) Give an account on general characters of Ascomycotina.

23. (a) Discuss on reproduction in Ascolichens.

Or

(b) Enumerate the reproduction in Basidiolichens.

24. (a) Explain the reproduction in *Lunularia.*

Or

(b) Describe the evolution of gametophyte in Hepaticopsida.

25. (a) Provide the economic importance of Bryophytes in medicine.

Or

(b) Write an essay on biofertilizer from algae.
