

(6 Pages)

Reg. No. :

Code No. : 30521 E Sub. Code : AMBO 11/
CMBO 11

B.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2021.

First Semester

Botany — Main

ALGAE AND BRYOPHYTES

(For those who joined in July 2020 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. An example of prokaryotic alga
 - (a) *Oscillatoria*
 - (b) *Calulerpa*
 - (c) *Volvox*
 - (d) *Sargassum*
2. Thallus of *Volvox* is known as
 - (a) Colony
 - (b) Filament
 - (c) Coenobium
 - (d) Ceonocyte

3. Cell wall in algal cells is made up of
(a) Starch (b) Pectin
(c) Chitin (d) Cutin
4. The male sex organ in Chara is commonly known as
(a) Antheridium (b) Oogonium
(c) Ovary (d) Zygote
5. The alga that are used for the treatment of Goiter
(a) *Laminaria* (b) *Macrocystis*
(c) *Fucus* (d) *Ulva*
6. Agar-agar is obtained from the algal species of _____
(a) *Gelidium* (b) *Oscillatoria*
(c) *Sargassum* (d) *Chlorella*
7. Single cell protein is obtained from
(a) Spirulina (b) *Oscillatoria*
(c) *Sargassum* (d) *Gelidium*

8. Heterocyst's are involved in
- (a) Storage of food
 - (b) Reproduction
 - (c) Nitrogen fixation
 - (d) Development
9. Which one of the following group are the Amphibians of plant kingdom?
- (a) Fungi (b) Algae
 - (c) Bryophytes (d) Pteridophytes
10. The dominant phase generation in of Bryophyte is
- (a) Haploid (b) Diploid
 - (c) Gametophyte (d) Triploid

PART B — ($5 \times 5 = 25$ marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) What are algae? Give short notes on the characteristic features of algae.

Or

- (b) Describe the thallus of *Caulerpa*.

12. (a) Write short notes on globule and nucleole.

Or

- (b) Write short notes on the thallus organization in *Sargassum*.

13. (a) List out the seaweed cultivation methods.

Or

- (b) How do you extract the carageenin? Add its uses.

14. (a) Give a brief account on single cell protein.

Or

- (b) Write short notes on the ultra structure of *Nostoc* cell.

15. (a) Highlight the general characteristics of Bryophytes.

Or

- (b) Briefly illustrate the external thallus structure of *Marchantia*.

PART C — ($5 \times 8 = 40$ marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Brief account on the classification of algae.

Or

- (b) Discuss about the structure and reproduction of *Volvox*.

17. (a) Give an illustrated account of the method of sexual reproduction in *Chara*.

Or

- (b) Summarize the life history of *Gracilaria*.

18. (a) Explain the economic values of algae.

Or

- (b) Describe the extraction methods of agar agar.

19. (a) Explain in detail about mass cultivation methods of *Spirulina*.

Or

- (b) Heterocyst is popularly called as “botanical enigma”. Discuss the statement in the light of its structure and function.

20. (a) Write an essay on the classification of bryophytes.

Or

- (b) Discuss about the reproduction and life cycle of *Marchantia*.
-