

Reg. No. :

Code No.: 10921 E

Sub. Code : AMBO11

B.Sc. (CBCS) DEGREE EXAMINATION NOVEMBER 2020

First Semester

BOTANY - Main

ALGAE AND BRYOPHYTES

(For those who joined in July 2020 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 X 1 = 10 marks)

Answer ALL questions, Choose the correct answer

1. Which one of the following is a reserve food material of Algae?
(a) Starch (b) Protein (c) Fat (d) Glucose
2. An example for Coenobium
(a) *Volvox* (b) *Diatom* (c) *Vaucheria* (d) *Caulerpa*
3. Sargassum is a
(a) Red alga (b) Green alga (c) Brown alga (d) Blue green alga
4. The female sex organ in Chara is commonly known as
(a) Antheridium (b) Oogonium (c) Ovary (d) Zygote
5. Sea weeds are rich in
(a) Sulphur (b) Iodine (c) Calcium (d) Phosphorus
6. Red colour of the red algae is due to the presence of
(a) Phycocyanin (b) Phycoerthrin
(c) Fucoxanthin (d) Carotene
7. Spirulina is a
(a) Edible fungus (b) Biofertilizer
(c) Biopesticide (d) Single cell protein
8. Nostoc belongs to the class
(a) Cyanophyceae (b) Chlorophyceae
(c) Rhodophyceae (d) Phaeophyceae

9. Bryophyta acts as a connecting link between
(a) Thallophyta and pteridophyta
(b) Algae and Fungi
(c) Pteridophyta and Gymnosperms
(d) Angiosperms and Gymnosperms
10. The lower epidermis of *Marchantia* thallus has
(a) Rhizoids (b) Air pores (c) Mucilage cell (d) Oil cell

PART B — (5 × 5 = 25 marks)

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

11. (a) Illustrate the structure of *Volvox* with its systematic Position.
OR
(b) Give short notes on the characteristic features of algae.
12. (a) Explain the salient features of *Chara*.
OR
(b) Describe the systematic position and distribution of *Gracillaria*.
13. (a) Explain the methods of seaweed cultivation.
OR
(b) Discuss the role of algae in industry.
14. (a) Explain the morphology of *Spirulina*.
OR
(b) Bring the economic importance of *Nostoc*.
15. (a) Write short note on structure and function of Gemmae.
OR
(b) List out the general characteristic of Bryophytes.

PART C — (5 × 8 = 40 marks)

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

16. (a) Describe the structure and life history of *Caulerpa* with reference from the Indian species.
OR
(b) Give the classification of Algae as given by F.E Fritsch.

17. (a) State the salient features of the life cycle of *Sargassum*.

OR

(b) Describe the life cycle of *Chara*.

18. (a) What is Agar agar? Explain its extraction methods.

OR

(b) What are the algal species acts as an indicator of industrial wastes?

19. (a) How will you cultivate large scale production of *Spirulina*.

OR

(b) Describe the mass culture methods of *Nostoc*.

20. (a) Give an illustrate account of sex organs of *Marchantia*.

OR

(b) Write a brief outline of classification of Bryophytes with examples and their characteristics.
