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Reg. No. :

Code No. : 30526 E Sub. Code : CMBO 11

B.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2023.

First Semester

Botany — Core

ALGAE AND BRYOPHYTES

(For those who joined in July 2021–2022)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer.

1. Fritsch divided algae into _____ classes
(a) 6 (b) 9
(c) 12 (d) 11
2. Coenobium type of colony is seen in this alga
(a) Caulerpa (b) Nostoc
(c) Volvox (d) Sargassum

8. Spirulina belongs to _____ class
(a) Cyanophyceae (b) Chlorophyceae
(c) Xanthophyceae (d) Rhodophyceae
9. An example for liverwort is
(a) Marchantia (b) Anthoceros
(c) Porolla (d) Funaria
10. In marchantia vegetative reproduction takes place by means of
(a) Scales (b) Rhizoids
(c) Roots (d) Gemmae

PART B — (5 × 5 = 25 marks)

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

Each answer should not exceed 250 words.

11. (a) Criticize the general characters of Algae.
Or
(b) Explain the external structure of Caulerpa thallus.

3. Life cycle of Sargassum is
(a) Haplontic (b) Diplontic
(c) Diplohaplontic (d) Haplodiplontic
4. In which algae carpospores are seen?
(a) Sargassum (b) Volvox
(c) Caulerpa (d) Gracilaria
5. The algae used in space travel is
(a) Chara (b) Sargassum
(c) Nostoc (d) Chlorella
6. Carrageenin is obtained from
(a) Volvox (b) Chlorella
(c) Nostoc (d) Chondrus
7. The alga which is used as Biofertilizer is
(a) Nostoc (b) Spirulina
(c) Chara (d) Sargassum

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12. (a) Describe the external structure of Sargassum thallus with suitable diagram.

Or

- (b) Describe the structure of cystocarp of Gracilaria with suitable diagram.

13. (a) Explain the methods of extraction of Agar agar.

Or

- (b) List out the uses of Carrageenin.

14. (a) Describe the structure of Spirulina.

Or

- (b) Write the economic importance of Nostoc.

15. (a) Describe how vegetative reproduction takes place in Marchantia.

Or

- (b) Classify the Bryophytes according to Rothmaler.



PART C — (5 × 8 = 40 marks)

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

Each answer should not exceed 600 words.

16. (a) Classify the algae according to Fritsch.

Or

- (b) Describe the life cycle patterns of Algae.

17. (a) Describe how sexual reproduction takes place in Chara.

Or

- (b) Criticize about reproduction in Sargassum.

18. (a) Write an essay on the cultivation of Gracilaria.

Or

- (b) Give an account on the economic importance of Algae.

19. (a) Explain the mass culture of Nostoc.

Or

- (b) Describe the cultivation of Spirulina in large scale.

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20. (a) With a neat diagram explain the structure of marchantia antheridiophore and archegoniophore.

Or

- (b) Describe the structure of Marchantia sporophyte.

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