

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

First Semester

Botany — Core

PLANT DIVERSITY – I ALGAE

(For those who joined in July 2023 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

- The study of Algae is called as
(a) Ecology (b) Mycology
(c) Phycology (d) Cytology
- Fritsch divided algae in to _____ classes.
(a) 10 (b) 11
(c) 12 (d) 13

- The factor that affects algae cultivation is
(a) Temperature (b) pH
(c) Salinity (d) All the above
- Carrageenin is obtained from
(a) Gracilaria (b) Chondrus
(c) Sargassum (d) Chlorella
- Which algae is used as biofertilizer?
(a) Spirulina (b) Sargassum
(c) Nostoc (d) Chara

PART B — (5 × 5 = 25 marks)

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

Each answer should not exceed 250 words.

- (a) Write short notes on distribution of algae.

Or

- (b) List out the criteria for classification of algae.

- One of the following is an example for unicellular algae
(a) Chlorella (b) Sargassum
(c) Ulva (d) Volvox
- Cryptoblasts are seen in
(a) Caulerpa (b) Chara
(c) Volvox (d) Sargassum
- Haplontic life cycle is found in
(a) Sargassum (b) Diatoms
(c) Chara (d) Ulva
- The fusion of morphologically similar male and female gametes is called
(a) Isogamy (b) Anisogamy
(c) Oogamy (d) None of the above
- Which of the following is used to harvest microalgae?
(a) Filtration (b) Sedimentation
(c) Centrifugation (d) All the above

- (a) Describe the external structure of gracilaria thallus with suitable diagram.
Or
(b) Describe the thallus structure of caulerpa.
- (a) Write notes on vegetative reproduction in algae.
Or
(b) Explain diplontic life cycle with suitable example.
- (a) Describe the harvesting methods of algae.
Or
(b) Write notes on indoor cultivation of algae.
- (a) Write short notes on Agar-agar.
Or
(b) Explain the role of algae in pharmaceutical industry.



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

Each answer should not exceed 600 words.

16. (a) How algae are classified according to Fritsch?

Or

- (b) List out the general characters of algae.

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

Or

- (b) Explain the structure of Volvox and Chlorella.

18. (a) Describe the sexual reproduction method in algae.

Or

- (b) Explain Haplontic life cycle with suitable example.

19. (a) Discuss about the large scale cultivation of algae.

Or

- (b) Explain the cultivation methods of algae.

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20. (a) Write notes on algae which are used as food and feed.

Or

- (b) Explain the role of algae in agriculture.
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