

Reg. No. :

**B.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2022.**

Botany — Core

(For those who joined in July 2021 onwards)

Maximum : 75 marks

Answer ALL questions.

1. How many classes are there in Fritsch's classification of algae?

- (a) 10 (b) 11
(c) 12 (d) 14

(a) Colonial algae
(b) Filamentous algae
(c) Pseudoparenchymatous algae
(d) Siphonous algae

(a) Bacillariophyceae
(b) Pheophyceae
(c) Rhodophyceae
(d) Xanthophyceae

(a) *Caulerpa* (b) *Sargassum*
(c) *Gracilaria* (d) *Nostoc*

(a) *Fucus*
(b) *Sargassum*
(c) *Enteromorpha*
(d) *Kappaphycus*

(a) *Oscillatoria* (b) *Nostoc*
(c) *Spirulina* (d) *Gelidium*

(a) *Oscillatoria* (b) *Vaucheria*
(c) *Spirulina* (d) *Chlorella*



8. Which among the following is a good nitrogen fixer?

- (a) *Nostoc* (b) *Gracilaria*
(c) *Oedogonium* (d) *Sargassum*

9. Which among the following is a common feature of Bryophytes?

- (a) Well developed root system
(b) Well developed sex organs
(c) Well developed shoot system
(d) Well developed vegetative organs for reproduction

10. The thalloid plant body is found in

- (a) *Marchantia* (b) *Sphagnum*
(c) *Funaria* (d) *Salvinia*

PART B — (5 × 5 = 25 marks)

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

Each answer should not exceed 250 words.

11. (a) List down the classes of algae as proposed by F.E. Fritsch (1945).

Or

(b) Describe the internal structure of the assimilators of *Caulerpa*.

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12. (a) Analyse the economic importance of *Gracilaria* and *Sargassum*.

Or

(b) Explain the organization of spermatangia in *Gracilaria*.

13. (a) List down the requirements of seaweed cultivation.

Or

(b) Why *Gracilaria* is commercially cultivated in large scale?

14. (a) Explain the morphology of *Nostoc*.

Or

(b) Bring out the economic potential of *Spirulina*.

15. (a) Draw the male gametophyte of *Marchantia*.

Or

(b) Give the outline classification of Bryophytes as proposed by Rothmaler (1951).

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[P.T.O.]



PART C — (5 × 8 = 40 marks)

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

Each answer should not exceed 600 words.

16. (a) Write an essay on the general characters of algae.

Or

- (b) Critically examine any four life cycle patterns observed in algae.

17. (a) Describe the vegetative reproduction found in *Chara*.

Or

- (b) Explain the structure of the female conceptacle of *Sargassum*.

18. (a) How will you extract agar-agar from a seaweed?

Or

- (b) "Algae possess potential economic utility" – Justify the statement with suitable examples.

19. (a) Highlight the commercial cultivation of *Spirulina*.

Or

- (b) Are *Nostoc* suitable for commercial cultivation? Explain.

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20. (a) Critically examine the general characters of Bryophytes.

Or

- (b) Describe the organization of sporophytes of *Marchantia*.
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