



**LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034**

**B.Sc. DEGREE EXAMINATION – PLANT BIOLOGY AND PLANT BIOTECHNOLOGY**

**SECOND SEMESTER – APRIL 2023**

**UPB 2501 – ALGAE AND BRYOPHYTES**

Date: 29-04-2023

Dept. No.

Max. : 100 Marks

Time: 01:00 PM - 04:00 PM

**PART – A**

**Answer the following, each within 50 words.**

**(10 x 2 = 20 marks)**

1. Give the salient features of class chlorophyceae.
2. Mention the types of flagella in algae.
3. Comment on coenobium.
4. Draw the cell structure of a diatom.
5. Cite the importance of BGA.
6. List the significances of *Spirulina*.
7. What are liverworts?
8. Brief note on Protonema.
9. High light on the importance of elators.
10. Write note on peat.

**PART – B**

**Answer the following, each within 500 words. Draw diagrams / flow charts wherever necessary.**

**(5 x 7 = 35 marks)**

11.(a) Write about the thallus organization found in algae.

(or)

(b) Compile the asexual reproduction methods found in algae.

12. (a) Explain the structure of sex organs in *Volvox* and *Chara*.

(or)

(b) Describe the organization of male and female conceptacles in *Sargassum*.

13. (a) Discuss the details on the cultivation of sea weed biofertilizers.

(or)

(b) Explain the cultivation practices for *Spirullina*.

14. (a) Highlight the economic importance of bryophtes.

(or)

(b) Give an account on the alternation of generation in bryophtes.

15. (a) With suitable diagrams, explain the antheridiophore and archigoniophore in *Marchantia*.

(or)

(b) Describe the organization of antheridium and archegonium clusters in *Funaria*.

## PART C

Answer any three of the following, each within 1200 words. Draw diagrams / flow charts wherever necessary. (3 x 15= 45 marks)

16. Tabulate the details on the classification of algae based on pigments, reserve food and flagella.
17. Describe the asexual and sexual reproduction in *Ectocarpus*.
18. Write detailed notes on the importance of algae in agriculture, food and industries.
19. Outline the classification of bryophytes. Mention the salient features of major classes.
20. Summarize the structure of capsule of *Marchantia* and *Anthoceros*.

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