LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

FIRST SEMESTER – NOVEMBER 2015

PB 1508 - ALGOLOGY AND BRYOLOGY

Date : 04/11/2015 Dept. No. Max. : 100 Marks

Time : 01:00-04:00

PART – A

Answer the following, each answer within 50 words only: (10 x 2 = 20 marks)

1. Which alga has triphasic lifecycle? What are the phases?
2. What is a heterokont?
3. What are autospores? Which alga produced them?
4. What is a heterotrichous filament?
5. Mention the common name and bionomial for any two edible algae.
6. Point out the uses of kelps.
7. Why are bryophytes called the amphibians of plant kingdom?
8. What is the function of elaters?
9. How will you differentiate the antheridiophore from the archegoniophore of Marchantia?
10. Why is anthoceros called a hornwort?

PART – B

Answer the following, each answer within 500 words:

Draw diagrams wherever necessary: (5x7 = 35 marks)

11. a) List the salient features of Bacillariophyceae.

(OR)

b) Enumerate the various pigments encountered in major algal groups.

12. a) Describe the structure of chara thallus with a labeled diagram.

(OR)

b) With a labeled diagram, describe the parts of Sargassum sporophyte.

13. a) Describe the production and harvest of single cell protein.

(OR)

b) Give a concise account of the industrially important products obtained from algae.

14. a) What is alternation of generation? Explain with an example.

(OR)

b) Write notes on fossil bryophytes.

15. a) Describe the structure of *Marchantia* thallus.

(OR)

b) With neat labeled diagram, describe the structure of *Anthoceros sporophyte*.

PART – C

Answer any **THREE** of the following, each within 1200 words;

Draw diagrams wherever necessary: (3 x 15 = 45 marks)

16. Give an illustrated account of the range of thallus organization encountered in algae.
17. Describe the life-cycle of *Polysiphonia.*
18. Highlight the role of cyanobacterial inoculants in agriculture. How are they mass produced.
19. Give comparative account of the characteristics of the three major classes of bryophytes.
20. Describe the sporophyte of funaria with a neat labeled diagram.

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