



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

FIRST SEMESTER – NOVEMBER 2014

PB 1508 - ALGOLOGY AND BRYOLOGY

Date : 07/11/2014

Dept. No.

Max. : 100 Marks

Time : 01:00-04:00

PART- A

Answer the following, each within 50 words only:

(10 x 2 = 20)

1. What are phycobilins?
2. Which two groups of algae have no flagellated cells?
3. Point out the significance of *Anabaena* in agriculture.
4. Which alga has receptacles and what do they contain?
5. What is mariculture?
6. Which alga is a source of carageenin?
7. Give examples for fossil bryophytes of the cretaceous period.
8. Mention the three classes of bryophytes you have studied.
9. What is the function of peristome in moss capsule?
10. What is alternation of generations?

PART- B

Answer the following, each within 500 words; draw diagrams wherever necessary:

(5x7=35)

11. (a) Comment on the pigment composition of different groups of algae.
(OR)
(b) Write notes on fossil algae.
12. (a) Describe asexual reproduction in *Ectocarpus*.
(OR)
(b) Explain the thallus structure of *Polysiphonia*.
13. (a) Highlight the role of *Spirulina* as single cell protein.
(OR)
(b) How is mass cultivation of cyanobacterial biofertilizers achieved?
14. (a) Describe different methods of vegetative reproduction in bryophytes.
(OR)
(b) Give an account of distribution and habit of bryophytes.
15. (a) With a neat labeled diagram, explain the anatomy of *Marchantia* thallus.
(OR)
(b) Describe the mechanism of spore dispersal in *Funaria*.

PART - C

Answer any **THREE** of the following, each within 1200 words; draw diagrams wherever necessary.

(3x15=45)

16. Give an account of the lifecycle patterns encountered in algae.
17. Describe the structure and reproduction of *Chara*.
18. Write an essay on the economic importance of algae.
19. List out the characteristic features of the three groups of bryophytes you have studied.
20. Compare the sporophytes of *Marchantia* and *Anthoceros*.

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