

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

B.Sc. DEGREE EXAMINATION – PLANT BIOLOGY & PLANT BIO-TECH.

FIRST SEMESTER – November 2009

**PB 1502 – PLANT DIVERSITY- I (ALGOL., MYCOL. & BRYOLOGY)**

Date & Time: 10/11/2009 / 1:00 - 4:00 Dept. No.

Max. : 100 Marks

**PART – A (20 marks)**

**Answer ALL the Questions**

**I. Choose the correct answer**

**(5x1=5)**

1. *Cyclotella* belongs to the order  
a) Pennales b) Fucales c) Ceramiales d) Centrales .
2. This fungus completes its life cycle in two hosts.  
a) *Rhizopus* b) *Albugo* c) *Polyporus* d) *Puccinia* .
3. Elaters are found in :  
a) *Marchantia* b) *Funaria* c) *Volvox* d) *Ectocarpus* .
4. The Completely closed ascocarp is known as:  
a) Cleistothecium b) Apothecium c) Perithecium d) Parathecium .
5. Which of the following group is a prokaryote?  
a) Red algae b) Bluegreen algae c) Brown algae d) Green algae .

**II. State whether the following are True or False.**

**(5x1=5)**

6. The Tallus of *Vaucheria* is Septate.
7. Algae that grow attached to the bottom of lakes form the *benthon*.
8. Fungi are autotrophic in their mode of nutrition.
9. Red rot of sugarcane is caused by *Colletotrichum*.
10. *Marchantia* is also known as Liverwort.

**III. Complete the following**

**(5x1=5)**

11. The fungal cell wall is made up of \_\_\_\_\_.
12. *Funaria* belongs to the class \_\_\_\_\_.
13. Floridean starch is the food reserve of \_\_\_\_\_.
14. The curved eight celled plate formed during the asexual reproduction of *volvox* is known as \_\_\_\_\_
15. \_\_\_\_\_ are formed due to the symbiotic association of algae and fungi.

**IV. Answer the following each in 50 words.**

**(5x1=5)**

16. Mention the characterestic pigments of Rhodophycophyta.
17. Distinguish between whiplash and tinsel flagella.
18. Write about the types of rhizoids of *Marchantia*
19. What is a basidiocarp?
20. Name the disease caused by *Albugo*. Mention one symptom.

**PART – B**

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

**Answer the following each within 350 words only. Draw diagrams and flow chart wherever necessary.**

21. a) Explain the structure of archegoniophore in *Marchantia*.  
(or)  
b) Write about the adaptation of Bryophytes. Add a note on the economic importance of bryophytes.
22. a) Outline the classification of fungi as given by Alexopolus.  
(or)  
b) Enumerate the general characters of fungi with reference to their habit & nutrition.
23. a) Explain the salient aspects of Yeast Cloning.  
(or)  
b) Write about economic importance of fungi.
24. a) Explain the cell structure of *Anabaena*.  
(or)  
b) Explain how cell division occurs in Diatoms.
25. a) Write about the different types of asexual spores produced by *algae*.  
(or)  
b) Give a schematic representation only of the life cycle pattern in algae.

**PART – C**

**(3 x 15 = 45 marks)**

**Answer any three questions. Each answer within 1200 words only. Draw diagrams and flow chart wherever necessary.**

26. Describe the alternation of generations in the life cycle of *Anthoceros*.
27. Bring out the salient features of any Five algal divisions.
28. Explain the structure and Reproduction of *Saccharomyces*.
29. Describe the post fertilization changes that occurs in *Polysiphonia*.
30. Discuss the life cycle patterns in Fungi.

