

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

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

FIRST SEMESTER – NOVEMBER 2007

**PB 1502/PB 1500 - ALGOL., MYCOL. & BRYOLOGY**

AE 1

Date : 01/11/2007

Dept. No.

Max. : 100 Marks

Time : 1:00 - 4:00

**PART A**

**Answer all the questions**

**(20 marks)**

I. Choose the correct answer

(5 x 1 = 5)

1. Match A) Fucoxanthin B) Myxoxanthin C) Zeaxanthin d) Taraxanthin with  
i) Red Algae ii) Bluegreen algae iii) Brown Algae iv) Green Algae  
  
a) A-iii, B-ii, C-iv, D-i                      b) A-iii, B-ii, C-i, D-iv  
c) A-iii, B-i, C-ii, D-iv                      d) A-iii, B-iv, C-i, D-ii
2. Statement A: In Anabaena, hormogonia are produced during sexual reproduction  
Statement B: Hormogonia are capable of developing into new filaments  
a) Statement A is correct, but statement B is incorrect  
b) Statement A is incorrect, but statement B is correct  
c) Both statements A and B are correct  
d) Both statements A and B are incorrect
3. Pick out the odd one  
a) *Penicillium*    b) *Aspergillus*                      c) *Colletotrichum*    d) *Neurospora*
4. Which of the following is a crustose lichen  
a) *Graphis*                      b) *Usnea*                      c) *Funaria*                      d) *Physcia*
5. The sporophytes of bryopsida are characterized by the presence of  
a) scales                      b) rhizoids                      c) pseudoelaters                      d) operculum

II. State whether the following are True or False

(5 x 1 = 5)

6. In oogamy, one of the gametes is non-motile
7. Tetraspores of *Polysiphonia* are produced after meiosis.
8. The lifecycle of *Albugo* involves two hosts.
9. Zygospores are produced in *Colletotrichum*.
10. Mucilaginous cavities are seen in *Anthoceros*.

III. Complete the following

(5 x 1 = 5)

11. \_\_\_\_ and \_\_\_\_ flagella are seen in the members of dinoflagellates.
12. The haploid spores of *Ectocarpus* are called \_\_\_\_\_.
13. Aplanospores are \_\_\_\_\_ walled and \_\_\_\_\_.
14. The sexual reproduction in *Rhizopus* involves the formation of \_\_\_\_\_ spores
15. The female and male sex organs of bryophytes are called as \_\_\_\_\_ and \_\_\_\_\_ respectively.

IV. Answer the following in about 50 words

(5 x 1 = 5)

16. Distinguish between cryophytes and thermophytic algae.
17. Write down the systematic position of *Cyclotella*.
18. Distinguish between obligate parasite and facultative parasite
19. What are homoiomerous and heteromerous lichens?
20. What are the parts seen in *Marchantia* sporophyte?

### PART B

Answer **any five** of the following , each in about 350 words. Draw necessary diagrams.

(5 x 8 = 40)

21. Describe the life cycle patterns in algae.
22. Discuss sexual reproduction in *Volvox*.
23. Write about the economic importance of algae (any 8 aspects)
24. Bring out the salient features of Fungi.
25. Explain briefly about the life cycle of Yeast.
26. Write notes on the structure and reproduction of *Rhizopus*.
27. Enumerate the salient features of Anthocerotopsida.
28. Give an account on the structure of *Funaria* sporophyte..

### PART C

Answer the following questions in about 1500 words. Draw necessary diagrams

(2 x 20 = 40)

29. a) Describe the lifecycle of *Vaucheria*. Add a note on its systematic position.

(or)

b. Write short notes on :

i. normal habits of algae

ii. Salient features of Cyanophycophyta

iii. Cystocarp of *Polysiphonia*

iv. Adaptation so Bryophytes.

30. a) Explain:
- a) structure and reproduction in *Albugo*
  - b) structure and reproduction in *Neurospora*.

(or)

b. Describe the gametophyte and sporophyte of *Anthoceros*.

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