

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086  
(For candidates admitted during the academic year 2008-09 & thereafter)

SUBJECT CODE: BT/MC/AF14

B. Sc. DEGREE EXAMINATION, NOVEMBER 2010  
BRANCH V (a) – PLANT BIOLOGY AND PLANT BIOTECHNOLOGY  
FIRST SEMESTER

COURSE : MAJOR – CORE

PAPER : ALGAE, FUNGI AND LICHENS

TIME : 3 HOURS

MAX.MARKS:100

SECTION – A

ANSWER ALL QUESTIONS

(18x1=18)

A. Fill in the blanks

1. Algae belonging to the division \_\_\_\_\_ lack sexual reproduction.
2. Female sex organ of *Chara* is known as \_\_\_\_\_.
3. Heterocysts are present in the filaments of \_\_\_\_\_.
4. The fruit body of *Peziza* is called \_\_\_\_\_.
5. White rust disease is caused by the fungi \_\_\_\_\_.
6. *Usnea* is an example of \_\_\_\_\_ lichen.

B. Choose the correct answer.

7. Phaeophycophyta is commonly known as the \_\_\_\_\_ algae.  
a. brown    b. red    c. green
8. Sexual reproduction in *Chara* is \_\_\_\_\_.  
a. isogamous    b. anisogamous    c. oogamous.
9. Dolipore septum is common in \_\_\_\_\_.  
a. Ascomycetes    b. Basidiomycetes    c. Deuteromycetes.
10. *Synchytrium* causes disease in \_\_\_\_\_.  
a. Potato    b. Cabbage    c. Groundnut.
11. Teleutospores are produced in \_\_\_\_\_.  
a. *Polyporus*    b. *Puccinia*    c. *Cercospora*.
12. The reproductive structures called isidia are produced in \_\_\_\_\_.  
a. *Puccinia*    b. *Albugo*    c. Lichen.

C. State True or False.

13. Plakea stage is seen in *Nostoc*.
14. The skeletal strands called trabeculae are present in *Caulerpa*.
15. In *Sargassum* the sex organs are produced in conceptacles.
16. Club root disease is caused by *Puccinia*.
17. Development of conidia in *Albugo* is basipetal.
18. Cephalodia are present in lichen thallus.

**D. Answer any six questions in 50 words.**

**(6X3=18)**

19. Flagella
20. Globule.
21. Gonimoblast filaments
22. Mycelium.
23. Crozier.
24. Imperfect Fungi.
25. Coprophilous Fungi.
26. Phycobiont.
27. Foliose Lichen

**SECTION – B**

**ANSWER ANY FOUR QUESTIONS. EACH ANSWER NOT TO EXCEED 200 WORDS:**

**(4X6=24)**

28. Enumerate the characteristics of Chlorophycophyta.
29. Explain the thallus organization of *Sargassum*.
30. Describe asexual reproduction in *Chara*.
31. Bring out the characteristic feature of the class Oomycetes.
32. Briefly outline the lifecycle of *Plasmodiophora*.
33. Give a brief account of the various types of Lichens.

**SECTION – C**

**ANSWER ANY TWO QUESTIONS. EACH ANSWER NOT TO EXCEED 1000 WORDS:**

**(2X20=40)**

34. Outline the classification of Algae as proposed by Bold and Wynne (1978).
35. Define triphasic life cycle. Explain with a suitable alga as an example.
36. Explain briefly the life cycle of *Puccinia*.
37. Give a brief account of the structure and reproduction of Lichen. Add a note on its economic importance.

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