

**STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086**  
(For candidates admitted during the academic year 2011 – 12 & thereafter)

**SUBJECT CODE: 11BT/MC/AF14**

**B. Sc. DEGREE EXAMINATION, NOVEMBER 2014**  
**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** **(36 marks)**

**ANSWER ALL QUESTIONS:**

**I. CHOOSE THE CORRECT ANSWER:** **(5 x 1=5 marks)**

1. Chlorophyll and pigments occur only in  
a. Cyanochloronta    b. Charophyta    c. Phaeophycophyta    d. Rhodophycophyta
2. The female sex organ of Chara is also referred to as  
a. Eyespot    b. Floridean starch    c. Nucule    d. Hormogone
3. The achlorophyllous, heterotrophic, eukaryotic and spore bearing organisms are called as  
a. Algae    b. Mosses    c. Fungi    d. Lichens
4. Club root of cabbage is caused by  
a. Pleurotus    b. Plasmodiophora    c. Albugo    d. Puccinia
5. An outgrowth made up of fungal and algal cells in lichen thallus is called as  
a. Isidium    b. Plasmodium    c. Soredium    d. Capsid

**II. FILL IN THE BLANKS** **(5 x 1=5 marks)**

6. Cyanochloronta are commonly referred to as ----- algae.
7. Diplontic life cycle occurs in -----.
8. Basidia are characteristic structures seen in Class -----.
9. ----- is also referred to as pore fungus.
10. The algal partner in lichen thallus is called as-----.

**III. STATE WHETHER THE FOLLOWING ARE TRUE OR FALSE:** **(4 x 1=4 marks)**

11. Eye spot is considered as a photoreceptive organ.
12. Nostoc is an example for non heterocystous form.
13. Apothecium is produced in Albugo.
14. The fungal partner in lichen thallus is mycobiont.

**IV. MATCH THE FOLLOWING :** **(4 x 1 = 4 marks)**

- |                        |   |              |
|------------------------|---|--------------|
| 15. Trabeculae         | — | Usnea        |
| 16. Cystocarp          | — | Caulerpa     |
| 17. Secondary mycelium | — | Polysiphonia |
| 18. Fructicose lichen  | — | Puccinia     |

**V. ANSWER ANY SIX WITHIN 50 WORDS EACH:****(6 x 3 = 18 marks)**

19. Plasmodium
20. Heterocyst
21. Coenobium
22. Pigments in Phaeophyceae
23. Zoospores in Synchytrium
24. Ascus
25. Coenocytic mycelium
26. Soredia
27. Antibiotics

**SECTION – B**

**ANSWER ANY FOUR QUESTIONS IN NOT MORE THAN 200 WORDS EACH. DRAW DIAGRAMS WHEREVER NECESSARY:**

**( 4 x 6 = 24 marks)**

28. Write an account of Flagellation in algae.
29. Enumerate the salient features of Charophyceae.
30. Give an account on conceptacles in Sargassum.
31. Explain sexual reproduction in Albugo.
32. Describe the structure and reproduction in Cercospora.
33. Enumerate the industrial uses of Lichens.

**SECTION – C**

**ANSWER ANY TWO QUESTIONS IN NOT MORE THAN 1000 WORDS EACH. DRAW DIAGRAMS WHEREVER NECESSARY.**

**(2 x 20 = 40 marks)**

34. Write an essay on life cycle patterns of algae.
35. Describe the structure and reproduction of *Cladophora*.
36. What is heteroecism? Give the life history of any heteroecious fungi you have studied.
37. Describe the types, structure and reproduction of Lichens.

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