

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 2013
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:

(6 x 1=6 marks)

1. Hormospores are produced by _____
a) Chlorophyta b) Cyanophyta c) Rhodophycophyta d) Chlorophycophyta
2. Which of the following alga have Plakea stage
a) *Nostoc* b) *Chara* c) *Volvox* d) *Polysiphonia*
3. The male sex organ is called globule in _____
a) *Caulerpa* b) *Sargassum* c) *Volvox* d) *Chara*
4. The fungus which causes white rust disease belongs to _____
a) Chytridiomycetes b) Oomycetes c) Basidiomycetes d) Deuteromycetes
5. Which of the following fungus belongs to the group fungi imperfecti
a) *Albugo* b) *Cercospora* c) *Puccinia* d) *Plasmodiophora*
6. Vegetative reproduction in Lichen takes place by _____
a) *Isidia* b) *Conidia* c) *Pycniospore* d) *Ascospore*

II. STATE WHETHER THE FOLLOWING ARE TRUE OR FALSE: (6 x 1=6 marks)

7. Stipulode is a small appendage present at the base of secondary laterals of *Chara*
8. Heterocyst is a special type of cell which occurs in *Volvox*
9. The brown alga *Sargassum* produces air bladder to maintain buoyancy
10. The fungus *Aspergillus* consists of a bottle shaped structure which produces conidia called Phialid.
11. The fruiting body of *Peziza* is called cleistothecium
12. *Cetraria islandica* is commonly known as island moss

III. MATCH THE FOLLOWING :

(6 x 1 = 6 marks)

- | | |
|-----------------------|----------------------------|
| 13. Cyanochloronta | - a) <i>Usnea</i> |
| 14. Basidiomycetes | - b) Fucoxanthin |
| 15. Charophyta | - c) Conidia |
| 16. <i>Cercospora</i> | - d) Prokaryotic organisms |
| 17. Lichens | - e) Basidium |
| 18. Phaeophycophyta | - f) Amylum stars |

V. ANSWER ANY SIX WITHIN 50 WORDS:

(6 x 3 = 18 marks)

19. Fragmentation
20. Pigmentation of Red algae
21. Cystocarp
22. Budding
23. Pileus
24. Tikka disease
25. Syngamy
26. Foliose lichen
27. Evection in Cladophora

SECTION B

ANSWER ANY FOUR QUESTIONS IN NOT MORE THAN 200 WORDS EACH.

DRAW DIAGRAMS WHEREVER NECESSARY:

(4 x 6 = 24 marks)

28. List out the features of Charophyta
29. Describe the structure of *Volvox* colony
30. Describe the morphology of *Caulerpa*
31. Enumerate the salient features of Plasmodiophoromycetes
32. Write about asexual reproduction in *Aspergillus*
33. Give the economic importance 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. Describe Bold and Wynne's classification of algae.
35. Explain the reproduction and life cycle of *Polysiphonia*.
36. Describe the life cycle of *Puccinia*.
37. Describe the structure and reproduction of *Usnea*.
