

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086
(For candidates admitted during the academic year 2015– 2016)

SUBJECT CODE: 15BT/MC/AF14

B. Sc. DEGREE EXAMINATION, NOVEMBER 2015
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. The common name for Bacillariophyceae is
a) Stone worts b) Star worts c) Horn worts d) Diatoms
2. The plastids which have chlorophyll b is called as
a) Chloroplast b) Chromoplast c) Phaeoplast d) Rhodoplast
3. Cellulose is present in the cell wall of
a) Oomycetes b) Ascomycetes c) Basidiomycetes d) Deuteromycetes
4. _____ is called as Heteroecious fungi
a) *Peziza* b) *Puccinia* c) *Aspergillus* d) Yeast
5. Lichen with apothecium are found in
a) Crustose b) Foliose c) fruitose d) Moss

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

6. _____ is the major pigment in Phaeophyceae.
7. An example of prokaryotic algae is _____.
8. Sexual reproduction is absent in _____ Fungi.
9. _____ is called as coprophilus fungi.
10. _____ partner is called as phycobiont in a Lichen.

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

11. Motile structures are totally absent in Rhodophyceae.
12. The female sex organ in chara is called as Nucule.
13. Number of spores in ascus is four.
14. Soredia is the asexual reproductive body in lichen.

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

- | | | |
|---------------------|---|-----------------------|
| 15. Phycoerythrin | - | lichen. |
| 16. Fucosan vesicle | - | asexual reproduction. |
| 17. Conidia | - | Rhodophyceae |
| 18. Symbiosis | - | Phaeophyceae |

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

19. Eye spot of algae.
20. Whiplash flagella.
21. Heterothallism.
22. Coenocytic mycelium.
23. Akinetes.
24. Isomorphic alternation of generation.
25. Basidiocarp.
26. Fruticose lichen.
27. Evection.

SECTION – B**ANSWER ANY FOUR QUESTIONS IN NOT MORE THAN 200 WORDS EACH. DRAW DIAGRAMS WHEREVER NECESSARY:****(4 x 6 = 24 marks)**

28. Explain oogamous type of sexual reproduction in any one algae.
29. Explain the asexual reproduction in *Nostoc*.
30. Explain briefly the important characters of any four major classes of fungi.
31. Explain briefly asexual reproduction in *Albugo*.
32. Write briefly on economic importance of Lichens.
33. Explain briefly the life cycle of synchytrium.

SECTION – C**ANSWER ANY TWO QUESTIONS IN NOT MORE THAN 1000 WORDS EACH. DRAW DIAGRAMS WHEREVER NECESSARY.****(2 x 20 = 40 marks)**

34. Explain the classification of algae.
35. Describe the life cycle of *Cladophora*.
36. Explain the life cycle of *Puccinia*.
37. Draw and describe the structure of lichen thallus and reproduction.
