STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086
(For candidates admitted during the academic year 2004-05 & thereafter)

SUBJECT CODE: BT/MC/AF14

B. Sc. DEGREE EXAMINATION, NOVEMBER 2007
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 (18 marks)

I CHOOSE THE CORRECT ANSWER:

1. Which one of the following causes the club-root disease in crucifers
   a. *Albugo* b. *Aspergillus* c. *Puccinia* d. *Plasmodiophora*

2. In Puccinia meiosis occurs when
   a. Uredospores germinate b. teleutospores germinate
   c. aeciospores germinate d. Basidiospores germinate

3. A culture obtained from one strain or an algal species separated from all other strains or species is called
   a. clonal culture b. Axenic culture c. Unialgal culture d. Enrichment culture

4. Some cells of the antheridium of charales present between shield cells and primary capitulum cells
   a. conceptacles b. pedicel cell c. Manubrium d. coronary cell

II. Fill in the blanks:

5. The specialized cells of most of the cyanobacteria which are involved in nitrogen fixation are ……..
6. …….. is commonly called as the hat thrower fungus.
7. The leaf spot disease in groundnut is caused by …….
8. The antheridium in *Chara* is called as the ……..

III. State whether true or false:

9. A cavity like depression in the thalli of some brown algae opening through an ostiole is called conceptacle
10. A life cycle where there is a successful alteration between haploid and diploid generations is called diplobiontic.
11. The fungal partner of lichens is called phycobiont.
12. Puccinia is a heterocious fungi.
13. Physarum has a well developed mycelial thallus structure.

IV. Choose the right answer:

14.	*Synchytrium*	-	a) *Hormogones*
15.	*Albugo*	-	b) *Carposporophyte*
16.	*Oscillatoria*	-	c) *Hyperplasia*
17.	*Caulerpa*	-	d) *Haustroria*
18.	*Polysiphonia*	-	e) *Assimilators*

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II. Answer any six questions. Each answer not to exceed 50 words: (6x3=18)

19. Fruticose Lichen
20. Bracket Fungi
21. Mushroom Spawn
22. Single cell protein
23. Slime Mold
24. Akinete
25. VAM
26. Cryptoblast
27. Heterocyst

SECTION – B

Answer any four questions. Each answer not to exceed 200 words: (4x6=24)

28. Describe the reproductive structures of Chara.
29. Write short notes on the symbiotic association in lichens.
30. Illustrate and explain the thallus organization in Polysiphonia.
31. Draw and describe the ascocarp in Peziza
32. Schematically illustrate the life cycle of Polyporus.
33. Briefly explain the alternation of generations exhibited in Cladophora.

SECTION – C

Answer any two questions. Each answer not to exceed 1000 words: (2x20=40)

34. Write the classification of Algae according to Bold and Wynne.
35. Give a detailed account of the economical importance in algae.
36. Describe in detail the life cycle of Albugo.
37. Write notes on Mycorrhizal associations and their ecological significance.

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