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

SUBJECT CODE: 15BT/MC/AF14

B. Sc. DEGREE EXAMINATION, NOVEMBER 2016
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 reserve food material in Chlorophyceae is ----
   a) Chitin b) True Starch c) pectin d) Laminarin
2. Sexual reproduction is absent in ----------
   a) Cyanophyta b) Chlorophyta c) Phaeophyta d) Rhodophyta
3. Cell wall in fungi is made up of ----------
   a) Pectin b) Chitin c) Protein d) Glycine
4. Vegetative stage in Myxomycetes is called as----------
   a) Hypha b) Mycelium c) Plasmodium d) Pseudopodium
5. ---------- are the lichens in which the algal cells are scattered uniformly among the enveloping hyphae.
   a) crustose b) heteromerous c) Foliose d) Homoiomerous

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

6. In *Polysiphonia* short branches of limited growth are also called _____.
7. Xanthophyll is the principal pigment in the member of the _____.
8. _____is a heteroecious fungus.
9. In *Albugo* the structure which absorbs food material from host is called _____.
10. The ascus fruit of Pyrenocarpae is _____ type.

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

11. Gametes in *Cladophora* are pear shaped and quadriflagellate.
12. Sexual reproduction in *Caulerpa* is isogamous.
13. Pycnidiospores in lichens are asexual spores.
14. Monokaryotic phase of *Puccinia* occurs in wheat.

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

15. Globule	a. *Puccinia*
16. Conceptacles	b. Lichens
17. Isidia	c. *Chara*
18. Teleutospores	d. *Sargassum*

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

19. Coenobium in *Volvox*
20. Amorphous bulbils in *Chara*
21. Kinds of flagella in algae
22. Akinetes
23. Sclerotia
24. Uredospores
25. White rust
26. Soredia
27. Crustose type

SECTION – B

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

28. Describe the structure of *Nostoc* trichome with suitable diagram.
29. Write notes on vegetative reproduction in *Chara*.
30. Briefly describe the asexual reproduction of *Albugo.*
31. Describe the apothecium of *Peziza* with a suitable diagram.
32. Write about the economic importance of Lichens.
33. Describe the methods of reproduction in Lichens.

SECTION – C

ANSWER ANY TWO QUESTIONS IN NOT MORE THAN 1000 W0RDS EACH. DRAW DIAGRAMS WHEREVER NECESSARY. (2 x 20 = 40 marks)

34. Write an account of the life history of *Sargassum* with suitable diagram.
35. Describe the reproduction of *Polysiphonia.*
36. Write an essay on classification of fungi by Alexopoulos and Mims, 1979.
37. Give a detailed account of life cycle of *Puccinia*.

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