

Exam. Code : 210001

Subject Code : 4844

M.Sc. (Botany) Semester—I

ALGAE

Paper—BOT-C-511

Time Allowed—3 Hours]

[Maximum Marks—50

Note :— Attempt 11 questions in all from Sections A, B and C as per instructions given in each section. Draw diagrams/illustrations wherever necessary.

SECTION—A

Note :— Attempt **ONE** question from this section containing **8** short type items. Each part carries **1** mark and answer to each part should not exceed **4** lines.

1. (a) What are unilocular sporangia ? Where are these present ?
- (b) What are epipsammic and epipellic algae ?
- (c) What is evection ? Give example.
- (d) What are cap cells ? Give example.
- (e) What is red rust of Tea ? Name the causal organism.
- (f) Differentiate a trichome and a filament.
- (g) What is chantransia stage ?
- (h) Write two distinct features of *Euglena*. $1 \times 8 = 8$

SECTION—B

Note :— Attempt **SEVEN** questions from this section. Each question carries **3** marks and answer to each part should not exceed **TWO** pages.

2. Give an account of thallus structure of *Dictyota*.
3. Write a note on algal flagella.
4. Compare the thallus structure and reproduction in *Scytonema* and *Stigonema*.
5. What are the main features taken for the recent classification of algae ?
6. Describe the process of sexual reproduction in *Vaucheria*.
7. Describe the thallus structure of *Cutleria*.
8. Draw outlines to show the stages of life cycle of *Laminaria*.
9. Describe thallus structure and reproduction in *Zygnema*.
10. Can algae be used as indicators of water pollution ? Discuss.
11. Write a note on *Cryptomonas*. 3×7=21

SECTION—C

Note :— Attempt **THREE** questions from this section. Each question carries **7** marks and answer to each part should not exceed **FOUR** pages.

12. Give an account of range of photosynthetic apparatus and pigments among algae.

13. Describe the sex organs and sexual reproduction in *Fucus*.
14. Describe the post fertilization stages in a poysiphonus red algae.
15. Give an account of fungal and bacterial pathogens of algae.
16. Describe the formation of daughter colonies in a coenobial algae through asexual reproduction. $7 \times 3 = 21$