

LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034



B.Sc. DEGREE EXAMINATION – PLANT BIOLOGY AND PLANT BIOTECHNOLOGY

FIRST SEMESTER – NOVEMBER 2016

16UPB1MC01 – ALGAE AND BRYOPHYTES

Date: 05-11-2016

Dept. No.

Max. : 100 Marks

Time: 01:00-04:00

PART-A

Answer the following each within 50 words

(10 x 2 =20 marks)

1. What are planktons?
2. Mention the period in which fossil algae thrived and name any two .
3. What are receptacles ?
4. What is a frustule ?
5. Give the nutritive value of SCP.
6. Mention the uses of algae as biofuel .
7. Why bryophytes are called as amphibians of plant kingdom?
8. Mention two economic aspects of bryophytes.
9. Write short notes on archegoniophore.
10. Give the characteristic features of protonema.

PART-B

(5 x 7 = 35 marks)

Answer the following, each within 500 words. Draw diagrams and flowcharts wherever necessary.

11a. Tabulate the pigments, flagellation and storage products in the various classes of algae.

Or

b. Describe the range of thallus structure in algae.

12a. Describe the habit of *Chara*.

Or

b. Explain asexual reproduction in *Ectocarpus*.

13a. Discuss briefly the role of algae in industry and in medicine.

Or

b. Describe the production and harvesting of algal biomass.

14a. Give an outline on the classification of bryophytes of Rothmaler.

Or

b. List out the various methods of vegetative reproduction in bryophytes.

15a. Describe the internal structure of the thallus of *Marchantia*.

Or

b. Describe the L.S of the antheridial branch in *Funaria*.

PART – C(3 x 15= 45 marks)

Answer any three of the following, each within 1200 words.

Draw diagrams and flowcharts wherever necessary.

16. Explain lifecycle patterns in algae.
17. Describe sexual reproduction and post-fertilization changes in *Gracilaria*.
18. Describe the cultivation and application of BGA in crops.
19. Mention the characteristic features of the three classes of bryophytes.
20. Describe the sporophyte of *Anthoceros*.
